erwin Data Modeler

Feature Tour

Release 15.x

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Contents

15.0

The Feature Tour guide walks Data Architects, Data Administrators, Application Administrators, Database Administrators, and Partners through the features introduced in erwin Data Modeler (erwin DM) 15.0 release.

New Features

The features introduced in this release are:

- Orchestration Integration with Jira
- OpenAPI Specification Models
- erwin DM-erwin DI Logical Names Mapping
- DBT Integration

Enhancements

The enhancements implemented in this release are:

- Snowflake Enhancements
- JSON Enhancements
- Google BigQuery Enhancements
- PostgreSQL Enhancements
- Productivity and UI Enhancements
- erwin Mart PortalEnhancements
- erwin ER360 Enhancements

Orchestration Integration with Jira

erwin DM introduces Jira integration to streamline collaboration between business users and data modelers. You can now link Jira tickets ID to models, harvest them to erwin ER360, and automatically sync ticket details, comments, and status updates without switching between applications.

> This feature is available only for Jira Cloud.

This feature provides the following benefits:

- Enhances cross-team collaboration between data architects and development teams
- Provides visibility of modeling changes within existing Jira workflows
- Reduces context switching between applications
- Enables trackable approval process
- Improves overall development process efficiency

Prerequisites

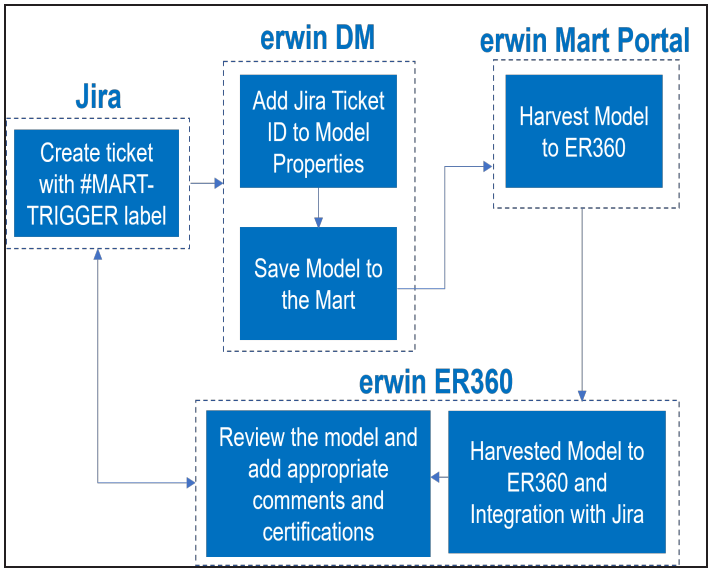
Ensure that the following prerequisites are in place:

- A Jira account with the Jira connector enabled. If it is not enabled, contact your sales team.
- Access to erwin Mart Portal
- Access to erwin ER360 with harvesting permissions

Workflow

erwin DM integrates with Jira to track model related tasks by associating Jira tickets ID to models. When you save models to Mart and harvest them to ER360, the integration automatically updates the associated Jira tickets with comments and model links. This two-way synchronization reflects changes made in ER360 within Jira and vice versa, improves collaboration, traceability.

To summarize, Jira, erwin DM, erwin Mart Portal, and erwin ER360 work together as follows.



This process involves the following steps:

- Creating a Jira Ticket
- Associating Jira Tickets to Models
- Harvesting a Model to erwin ER360

Creating a Jira Ticket

To create a Jira ticket, follow these steps:

1. Login to your Jira account.
2. Click **Create**.

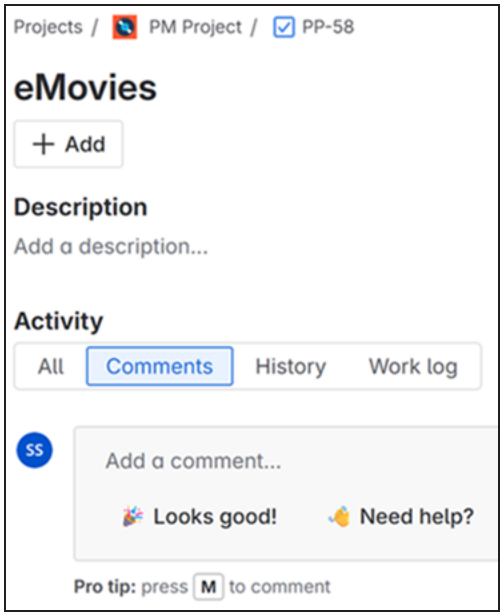
A **Create** page appears.

3. Enter appropriate values in the required fields.
4. Configure the Labels field value to #MART-TRIGGER.

   The #MART-TRIGGER label creates an association between models in erwin ER360 and Jira.

5. Click **Create**.

   A ticket is created with an ID. For example, the screenshot below displays an eMovies ticket with ID PP-58.



You can now associate this ticket ID to the model in erwin DM.

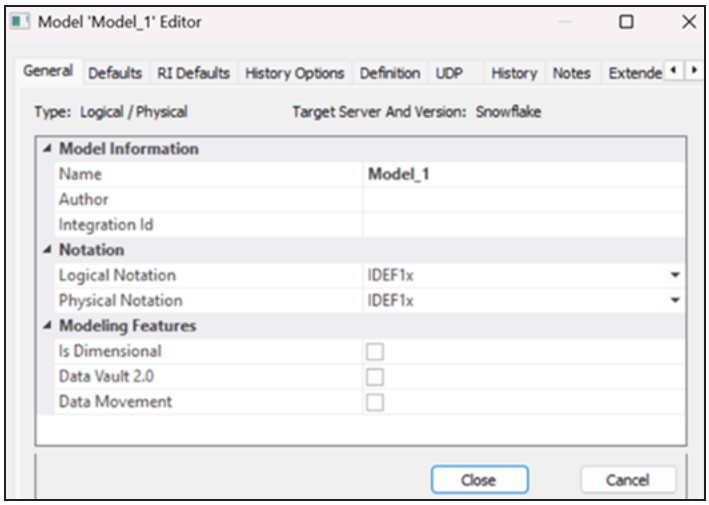
Associating Jira Tickets to Models

To enable Jira integration and modeling task tracking, you need to associate your models with the corresponding Jira ticket.

To associate Jira tickets to models, follow these steps:

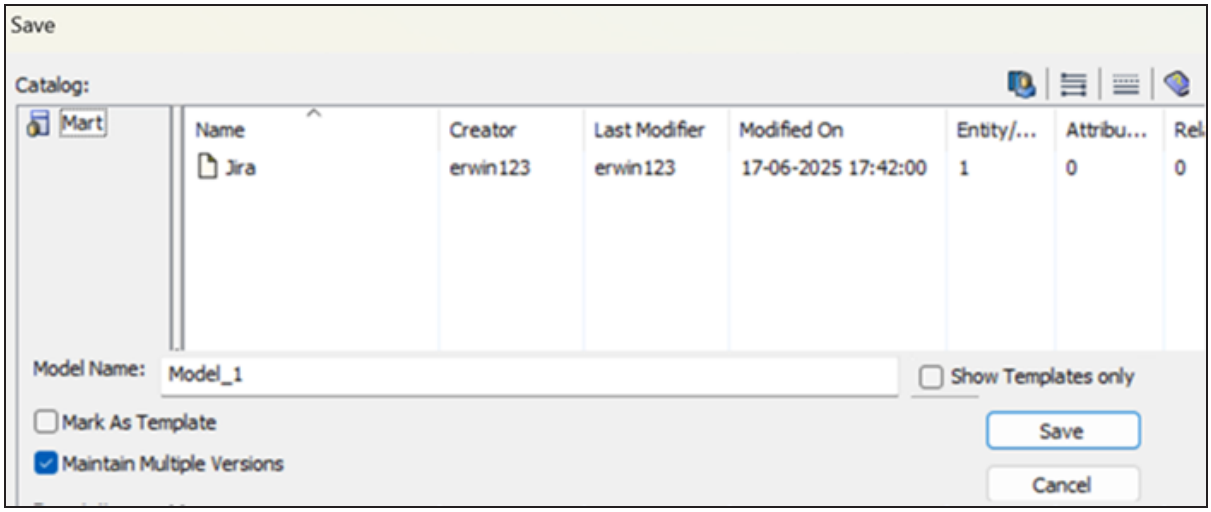
1. In the Model Explorer, right-click the model and click **Properties**.

   The Model Editor opens and by default, the General tab appears.



2. In the **Integration Id** box, enter the ticket ID. For example, PP-58.
3. Click **Close**.
4. Ensure that you are connected to erwin Mart Portal.
5. On the ribbon, click **Mart** > **Save**.

   The Save dialog box opens.



6. Select the library where you want to save your model.
7. In the Model Name box, enter a name of model and then, click **Save**.

   The model is saved to mart.

Harvesting a Model to erwin ER360

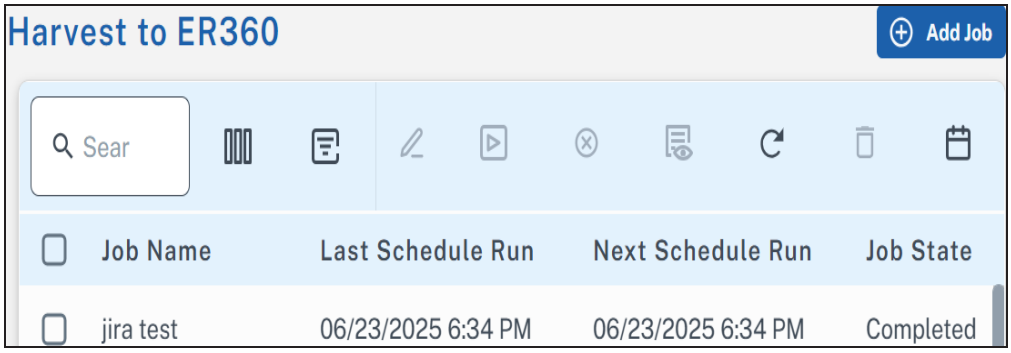
To harvest a model to erwin ER360, you must schedule a harvesting job. Ensure that you have data harvesting permissions to perform this job.

To schedule a job, follow these steps:

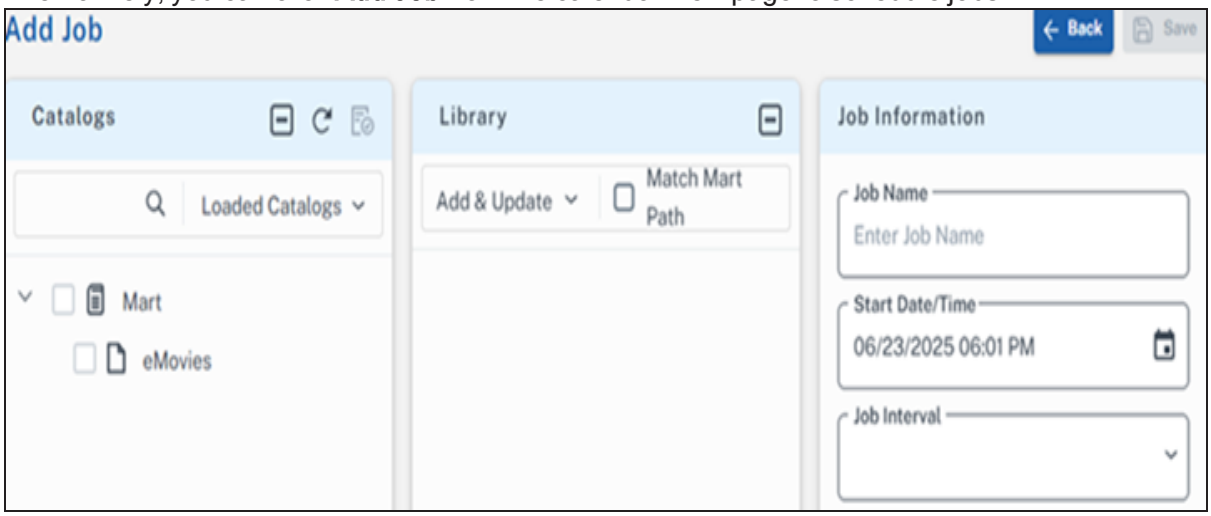
1. In the header pane, click . Then, click **Harvest to ER360**.

   > This option is available only if you have a license for erwin ER360 and have initialized it.

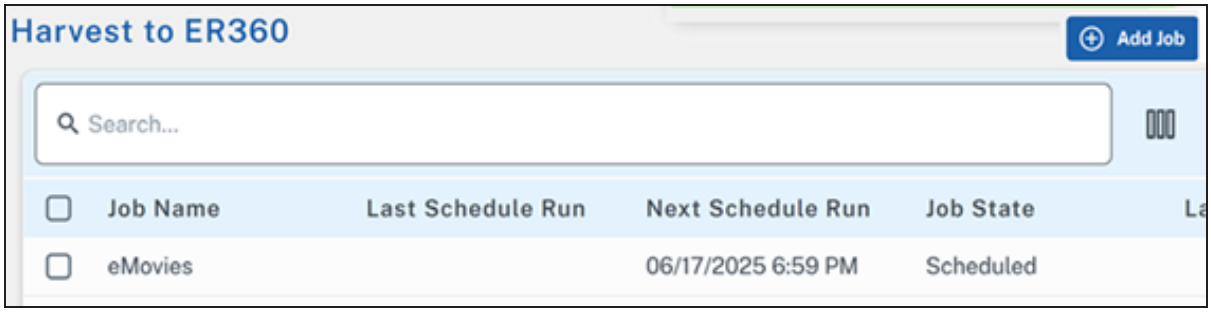
   The Harvest to ER360 page appears.



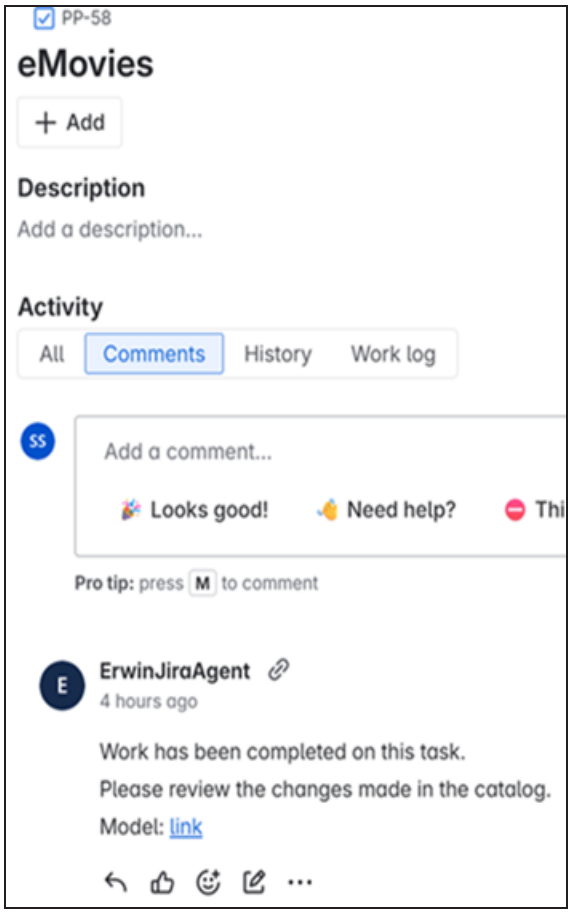
2. Click **Add Job**.
   The Add Job page appears.
   Alternatively, you can click **Add Job** from the calendar view page to schedule jobs.



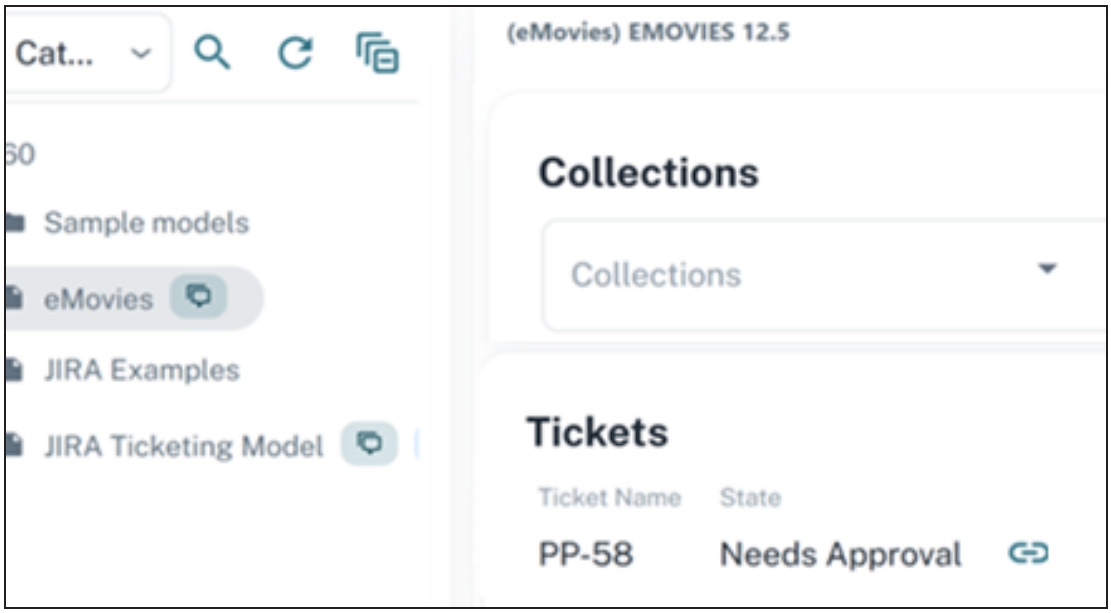
3. In the Catalogs pane, select your model to export to erwin ER360.
4. In the Library pane, select a library in erwin ER360 to save the exported models.
5. In the Job Information pane, enter appropriate values in the required fields.
6. Select the Run Now checkbox to run the job immediately.
7. Click **Save**.
   The job is added to the list with its **Job State** set to Scheduled.



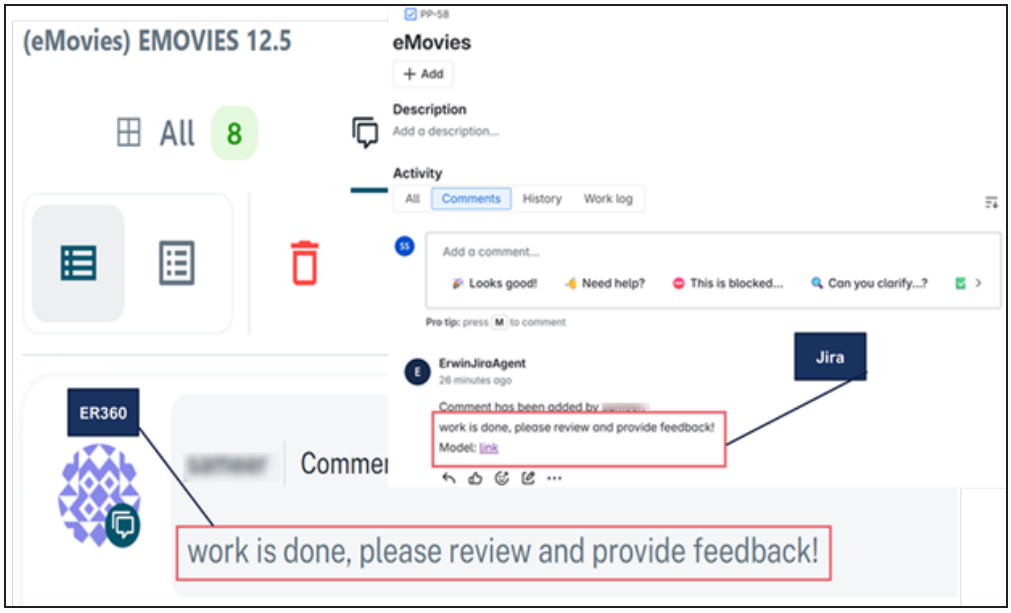
Once the job is successful, the model is harvested to erwin ER360 and an automated comment is added to the linked Jira ticket with the model link and review request.



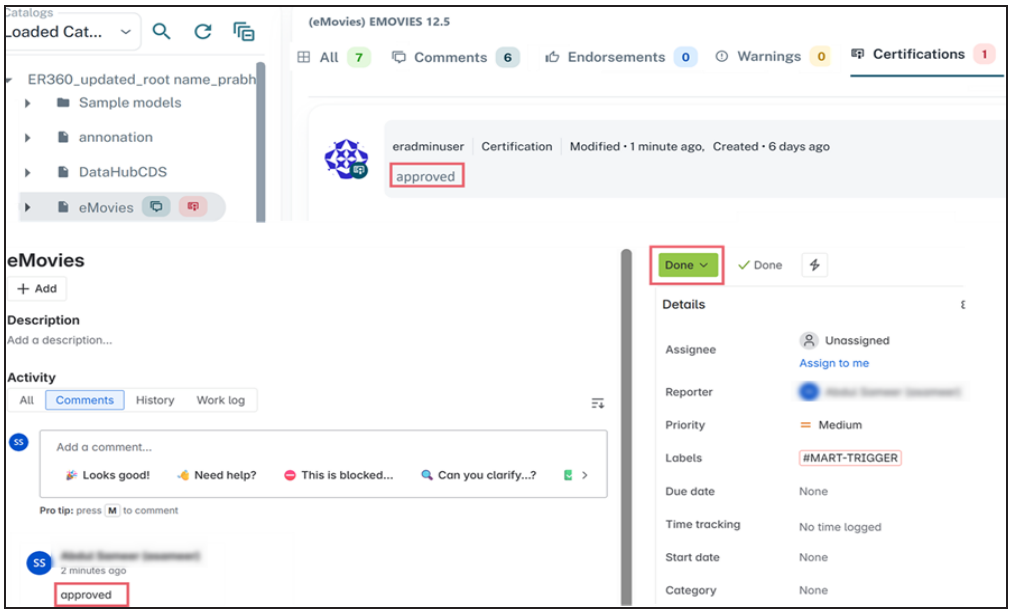
Clicking this link opens the model in erwin ER360, where you can view the ticket ID and status. For example, the screenshot below displays ticket ID and status. Also, you can click the link next to the State field to go back to the Jira ticket.



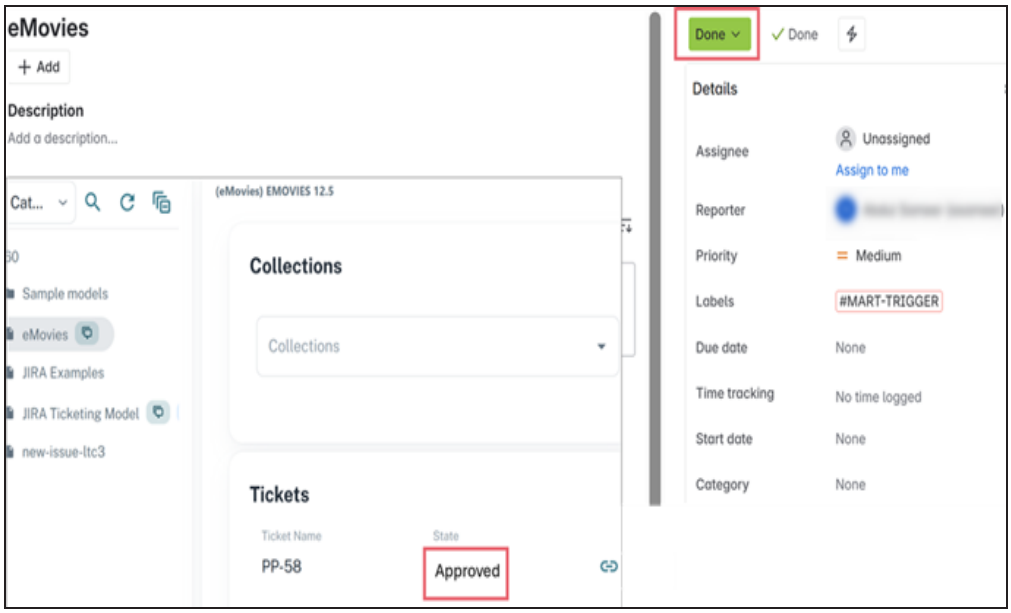
You can also review the model and add comments, which automatically sync between erwin ER360 and the linked Jira ticket. For example, the screenshot below shows how comments are synchronized between erwin ER360 and Jira.



After reviewing the model, cetify it to mark it as approved. This action updates the linked Jira ticket status to Done. For example, the screenshot below shows a certification added in ER360 and the corresponding status update in Jira.



Likewise, when the Jira status changes to Done, ER360 updates the model status to Approved. For example, the screenshot below shows the status change between erwin ER360 and Jira.



OpenAPI Specification (OAS) Models

You can now create and manage OpenAPI specifications using a model-driven, diagram-based approach in erwin DM. This enables API developers to design OpenAPI specifications like data models with a familiar modeling environment and ensures:

- Consistency between data structures and API definitions
- Reduced duplication by reusing existing data models
- Improved collaboration and communication via visual API representation

You can create physical OpenAPI models using predefined OpenAPI components and then build on top of them. These models support reverse engineering and forward engineering via specifications in JSON and YAML formats.

Creating OAS Models

erwin DM supports OpenAPI modeling using predefined specification components that follow structure and terminology according to the OpenAPI Specification (OAS). These components, when used for modeling are designed to include metadata for APIs, requests, and responses. The OAS implementation in erwin DM supports JSON and YAML file formats for reverse engineering and forward engineering.

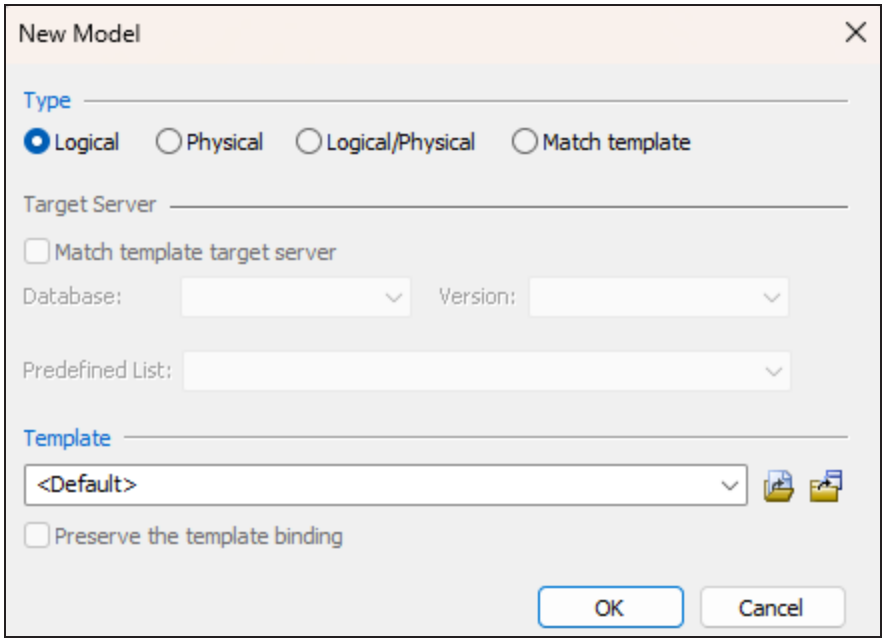
> OAS implementation supports only Physical modeling.

Creating OAS Models

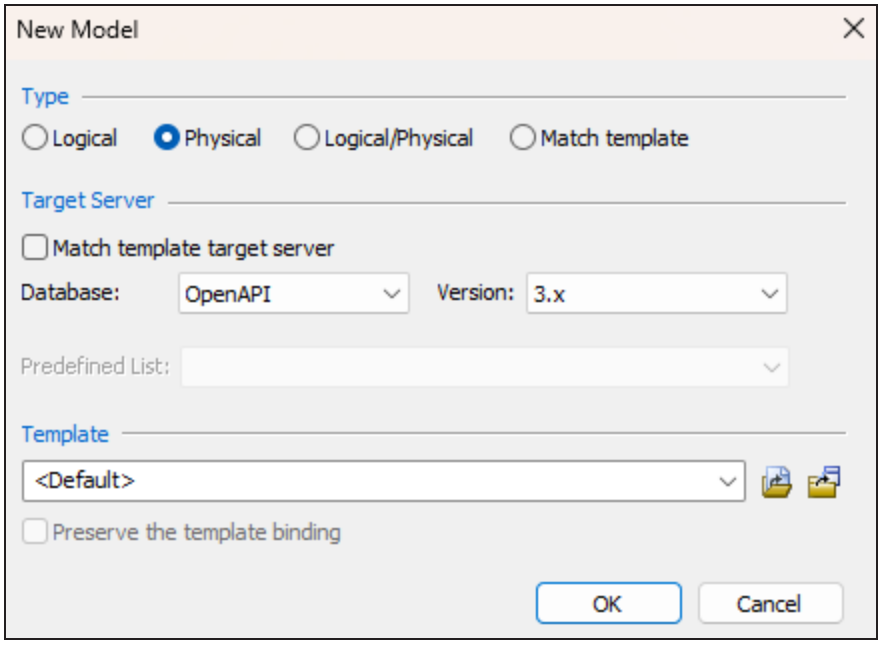
To create OAS models and objects, and define their properties, follow these steps:

1. In erwin DM, click **File** > **New**.

   The New Model screen appears.



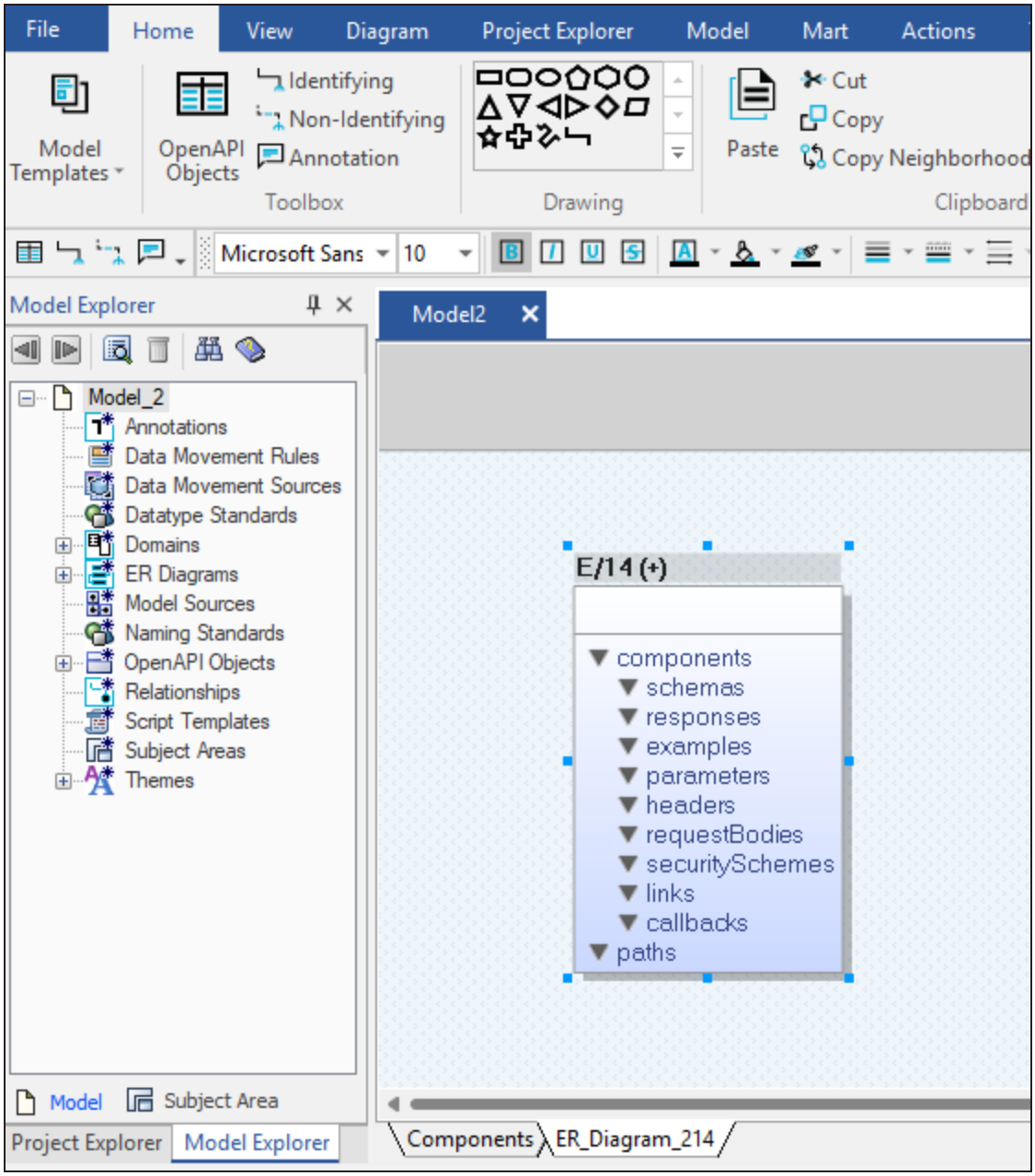
2. Configure the following options:
    1. Click **Physical**.
    2. In the Database list, select **OpenAPI**.



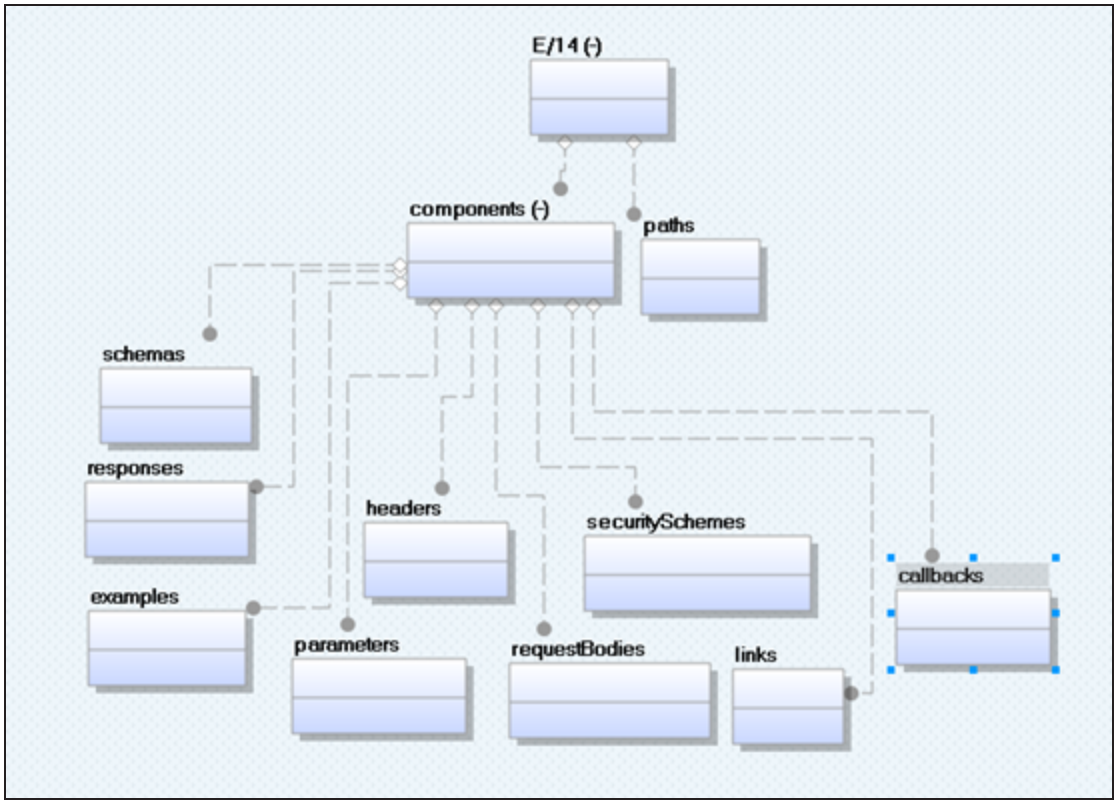
3. Click **OK**.

   A blank physical model is created.

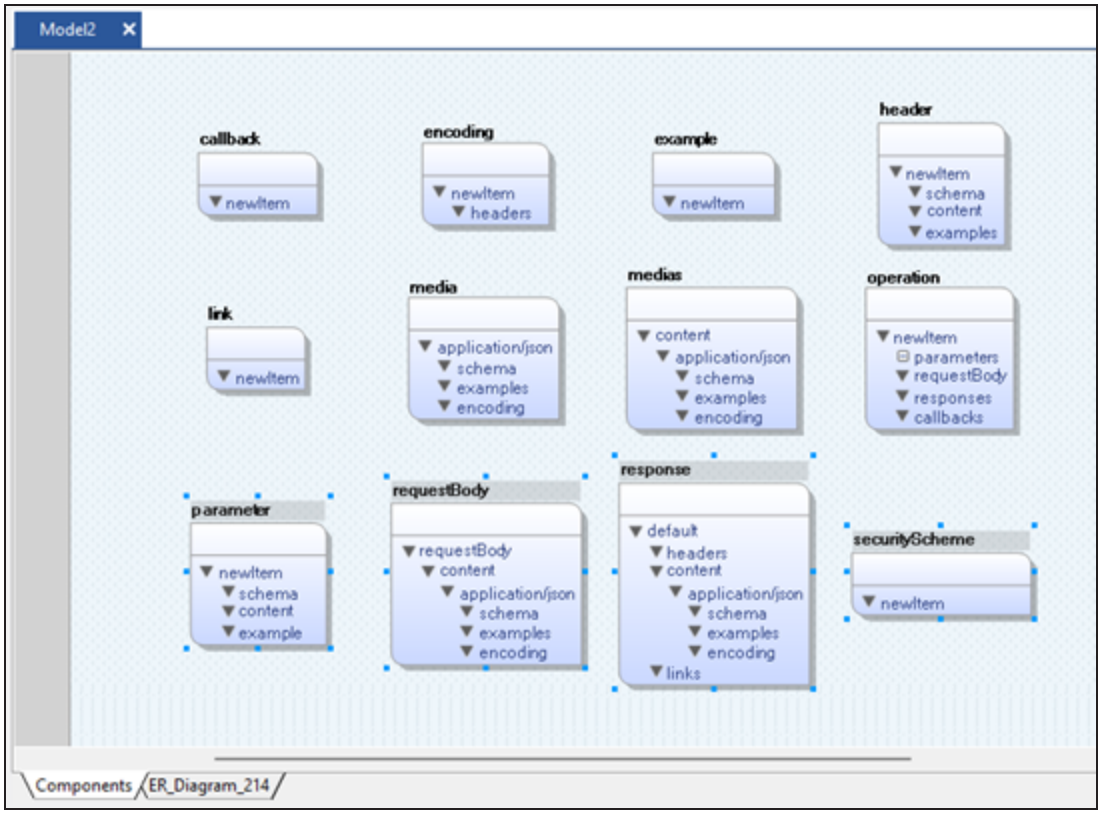
4. On the ribbon, click **Home** > **OpenAPI Objects** and add it to the diagram.



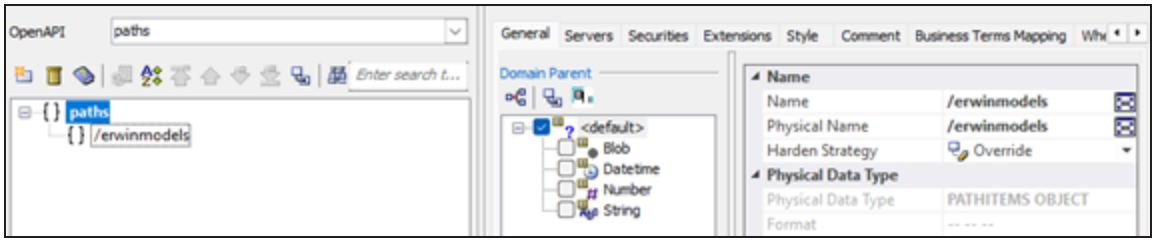
An object with empty predefined OAS object types is added to the model diagram. The + sign on the object indicates that you can expand it. To expand the object, you can double-click the object name, or on the ribbon, click **Actions** > **Hierarchical View**.



To view all available predefined OAS objects, click the **Components** tab. These components are reusable objects.

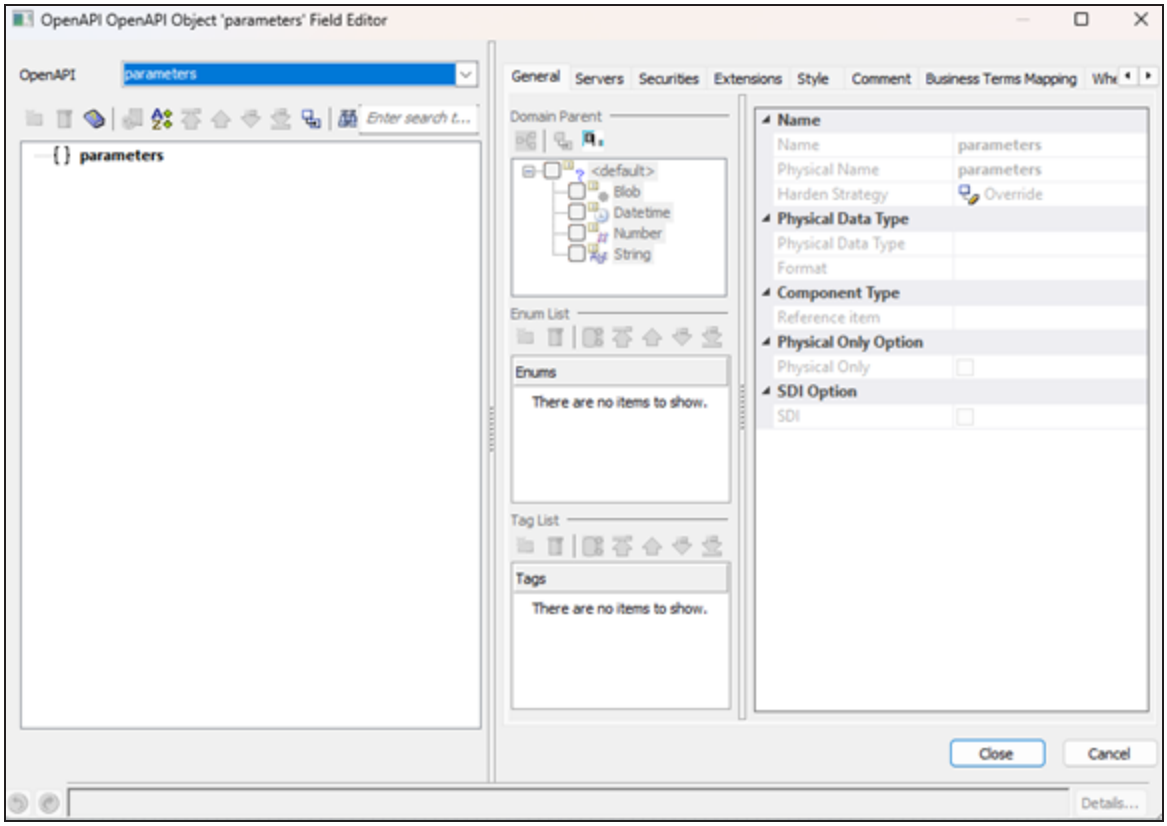


Use the path object available in the model diagram to specify the relative path to an individual API endpoint. Path names must start with a / (front-slash). For example, /erwinmodels as shown in the following image:



5. On the object type where you want to add objects, right-click and click **Field Properties**.

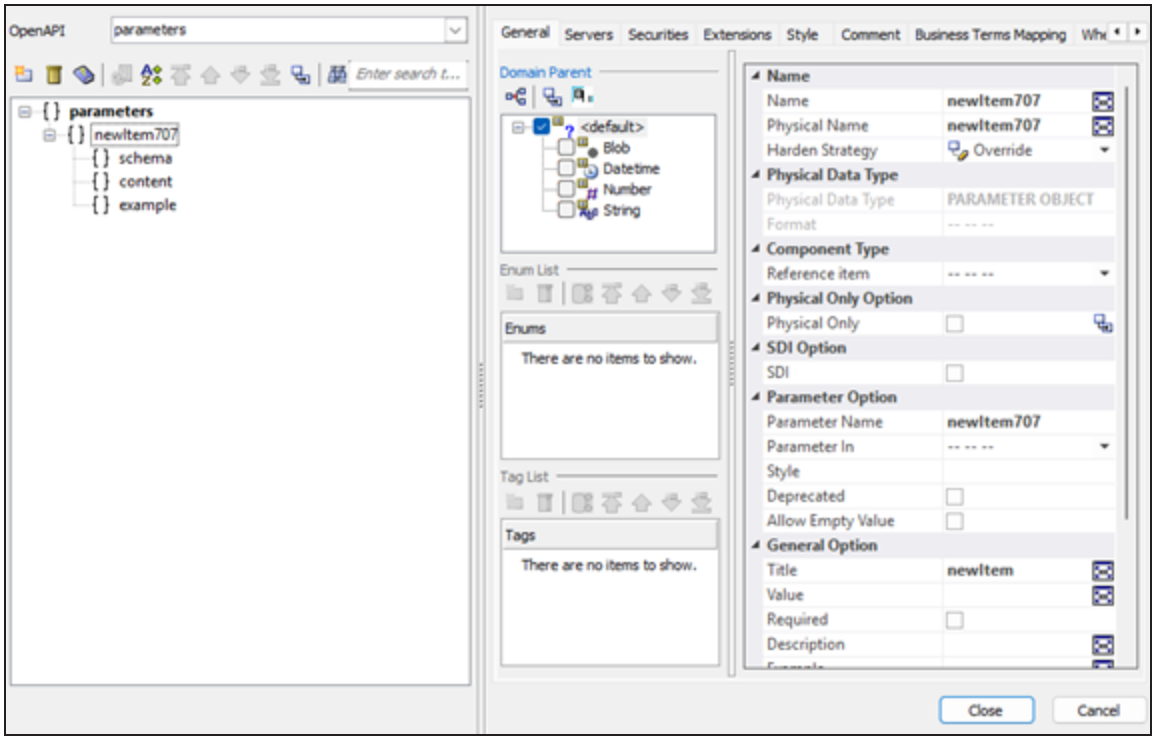
   For example, right-click the parameters object type and click **Field Properties**. These properties form the API metadata.



6. On the Field Editor, right-click the component name and click **Add Component**.

   This adds the corresponding predefined component with all the necessary properties.

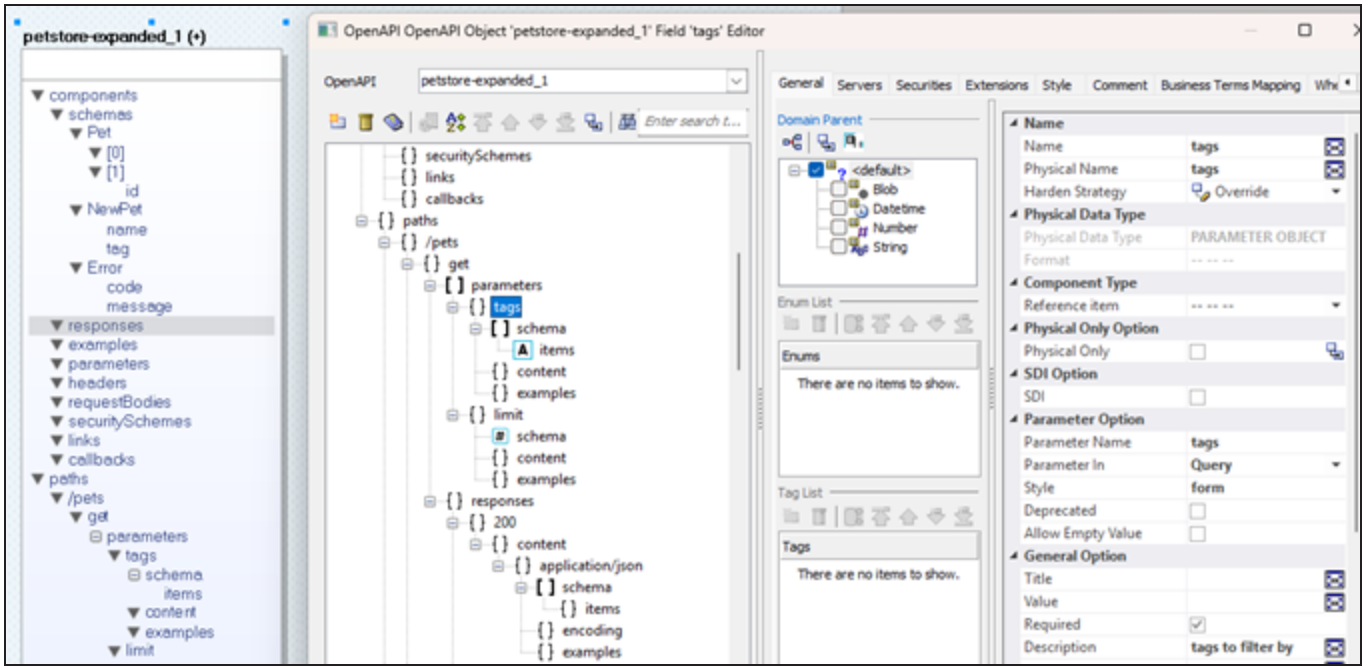
   For example, right-click **{ } parameters** and click **Add Component**.



7. Set up the required property values and click **Close**.

   Similarly, set up all the required object properties to complete the OAS model.

For a better idea about OAS models, the following image shows a sample petstore model and properties.



Refer to the OAS documentation for detailed information on OAS description structure.

Reverse Engineering OAS Models

Following sections explain the reverse engineering options for OpenAPI.

Overview

Parameter	Description	Additional Information
Script File	Specifies the reverse engineering source	**Script File**: Indicates that the model is reverse engineered from a script
File	Specifies the path of the script file that should be used for reverse engineering	Supported file formats are JSON and YAML. This option is available when Script File is selected. Click **Browse** and select a script file from your directory. You can use Generative AI to generate a new script from a natural language prompt. For more information, refer to the Using AI Features in Reverse and Forward Engineering topic.

Detailed Options

Parameter	Description	Additional Information
Glossary CSV File	Specifies the naming standard glossary file in the .CSV format	
Case Conversion of Physical Names	Specifies how the case conversion of physical names is handled	Not applicable
Case Conversion of Logical Names	Specifies how the case conversion of logical names is handled	Not applicable
Save Field Value	Specifies whether values of attributes or fields are saved to the model	

Scheduler

The options on this tab are available only while reverse engineering via erwin DM Scheduler.

Parameter	Description	Additional Information
Model	Specifies the location and name of the reverse-engineered model	For example: C:\Scheduler\<Model Name>.erwin When you schedule a job on a remote server, ensure the model path is same for remote and local server.
Mart Folder	Specifies the location or library in your mart where the reverse-engineered model is saved	To use this option, ensure that you are connected to mart. For more information, refer to the Connecting to Mart topic.
Complete Compare	Specifies whether the Complete Compare (CC) process should run while reverse engineering	
Output File	Specifies the location of the CC output file generated	

Parameter	Description	Additional Information
File	Specifies that the target model location is on the local system	
Mart	Specifies that the target model location is in the mart	
Using Latest Version	Specifies whether the target model is the latest version of the model in the mart	This option is available only when Mart is selected.
Save To Mart	Specifies whether the reverse-engineered model is saved to the mart	This option is available only when Using Latest Version is selected.
Target Model	Specifies the location of the target model for CC	
Option Set	Specifies the option set that is used for CC	**Advanced Default Option Set**: Indicates that all erwin DM metadata is included. CC works the slowest with this option. **Speed Option Set**: Indicates that only the essential metadata is included. CC works the fastest with this option set. **Standard Default Option Set**: Indicates that standard metadata is included. CC works fast with this option set compared to the Advanced option set. In addition to the above options, click **Browse** to select a custom option set for complete compare.
Compare Level	Specifies the selection type for the compare	**Logical / Physical**: Compares all objects on the logical or physical level of a model **Logical**: Compares all objects on the logical level of a model **Physical**: Compares all objects on the physical level of a model

Parameter	Description	Additional Information
		Database: Compares all objects on the database level of a model

erwin Project

Parameter	Description	Additional Information
erwin Project	Specifies whether to configure the model for an existing erwin project	
Model Name	Specifies the name of the erwin project	
Location	Specifies the location of the project	

Forward Engineering OAS Models

Following sections explain the forward engineering options for OpenAPI.

Option Selection

Parameter	Description	Additional Information
Option Set	Specifies the option set template for forward engineering	**Open**: Use this option to open a saved XML option set file. **Save**: Use this option to save a configured option set. **Save As**: Use this option to save an option set in the XML format. **Delete**: Use this option to delete an option set.
Database Template	Specifies the database template for controlling schema generation	
Script Option	Specifies the script option for the schema generation	**Pre-Script**: Indicates whether pre-scripts attached to the schema are executed

Parameter	Description	Additional Information
		Post-Script: Indicates whether the post-scripts attached to the schema are executed
General Syntax Option	Specifies the general options for schema generation	**Data**: Indicates whether to include model data in the schema **Schema**: Indicates whether to include model design details in the schema **Comments**: Indicates whether comments are included in the schema
Collection Syntax Option	Specifies the collection options for schema generation	**Blank Value**: Indicates whether to include a blank value instead of other characters in the schema

Object Filter

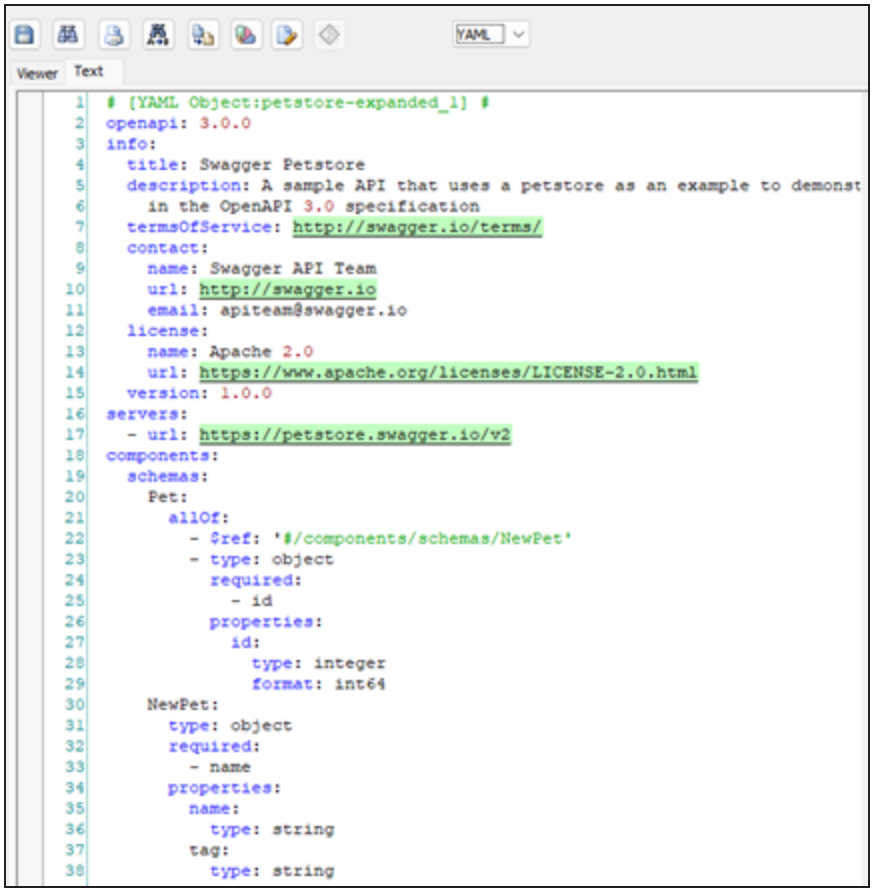
Parameter	Description	Additional Information
Object	Specifies the selected OpenAPI object	

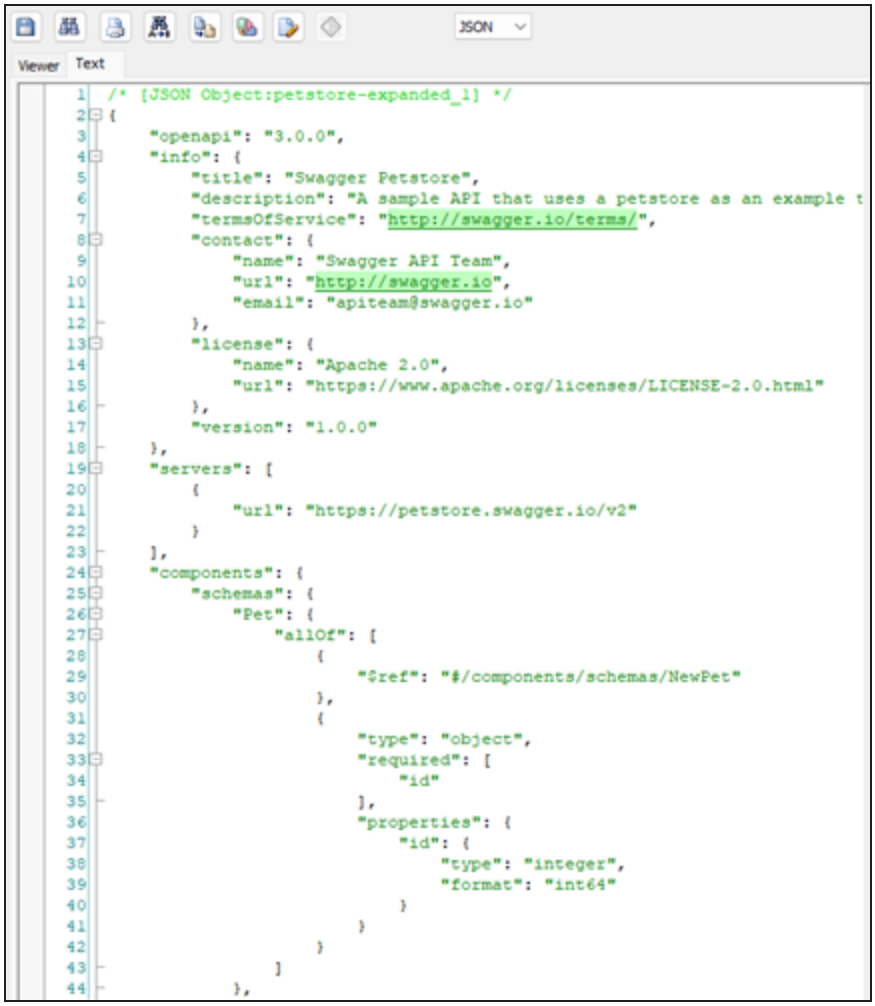
Preview

Parameter	Description	Additional Information
Viewer	Displays the OpenAPI schema in the viewer editor	**Collapse All**: Use this option to collapse all the nodes. **Search**: Use this option to search a text entered in the search box. **Find Previous**: Use this option to navigate to previous search string in the search results **Find Next**: Use this option to navigate to next search string in the search result.
Text	Displays the OpenAPI schema in the text editor	Select the file format in which you want to generate the OpenAPI Specification. Supported formats are JSON and YAML.

Parameter	Description	Additional Information
		Save: Use this option to save the generated schema. **Search**: Use this option to search through the generated schema. **Print**: Use this option to print the generated schema. **Replace**: Use this option to find and replace text in the generated schema. **Copy**: Use this option to copy the selected text in the schema. **Text Options**: Use this option to edit window settings, fonts, and syntax color. **Error Check**:Use this option to run an error check. Based on the results, you can correct the generated script.

The following images show the forward engineering script for an OAS model in YAML and JSON formats respectively.


YAML
Viewer
Text
[YAML Object:petstore-expanded_1]
openapi: 3.0.0
info:
title: Swagger Petstore
description: A sample API that uses a petstore as an example to demonst
in the OpenAPI 3.0 specification
termsOfService: http://swagger.io/terms/
contact:
name: Swagger API Team
url: http://swagger.io
email: apiteam@swagger.io
license:
name: Apache 2.0
url: https://www.apache.org/licenses/LICENSE-2.0.html
version: 1.0.0
servers:
- url: https://petstore.swagger.io/v2
components:
schemas:
Pet:
allOf:
- $ref: '#/components/schemas/NewPet'
- type: object
required:
- id
properties:
id:
type: integer
format: int64
NewPet:
type: object
required:
- name
properties:
name:
type: string
tag:
type: string


JSON
Viewer
Text
/* [JSON Object:petstore-expanded_1] */
{
"openapi": "3.0.0",
"info": {
"title": "Swagger Petstore",
"description": "A sample API that uses a petstore as an example t
"termsOfService": "http://swagger.io/terms/",
"contact": {
"name": "Swagger API Team",
"url": "http://swagger.io",
"email": "apiteam@swagger.io"
},
"license": {
"name": "Apache 2.0",
"url": "https://www.apache.org/licenses/LICENSE-2.0.html"
},
"version": "1.0.0"
},
"servers": [
{
"url": "https://petstore.swagger.io/v2"
}
],
"components": {
"schemas": {
"Pet": {
"allOf": [
{
"$ref": "#/components/schemas/NewPet"
},
{
"type": "object",
"required": [
"id"
],
"properties": {
"id": {
"type": "integer",
"format": "int64"
}
}
}
]
},

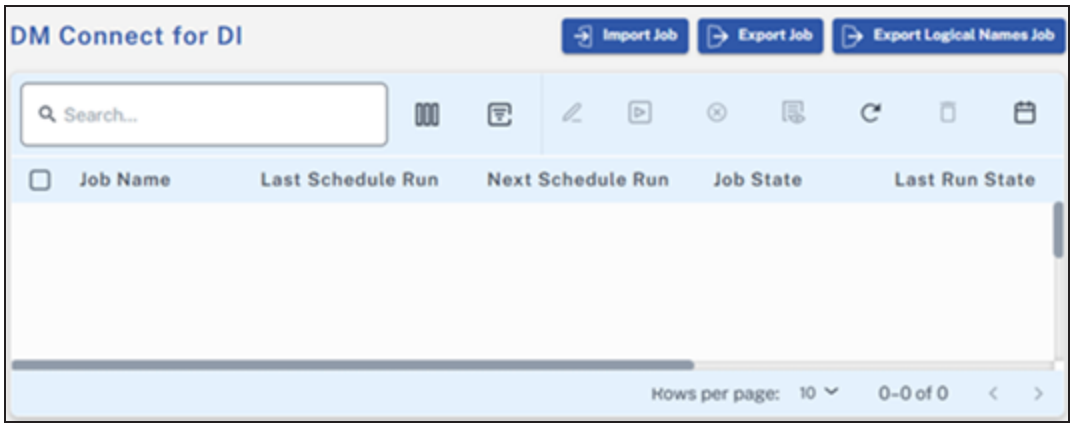
erwin DM-erwin DI Logical Names Mapping

An Export BGM job converts logical names to an erwin DI-compatible format and exports them to the Business Glossary Manager as Business Terms.

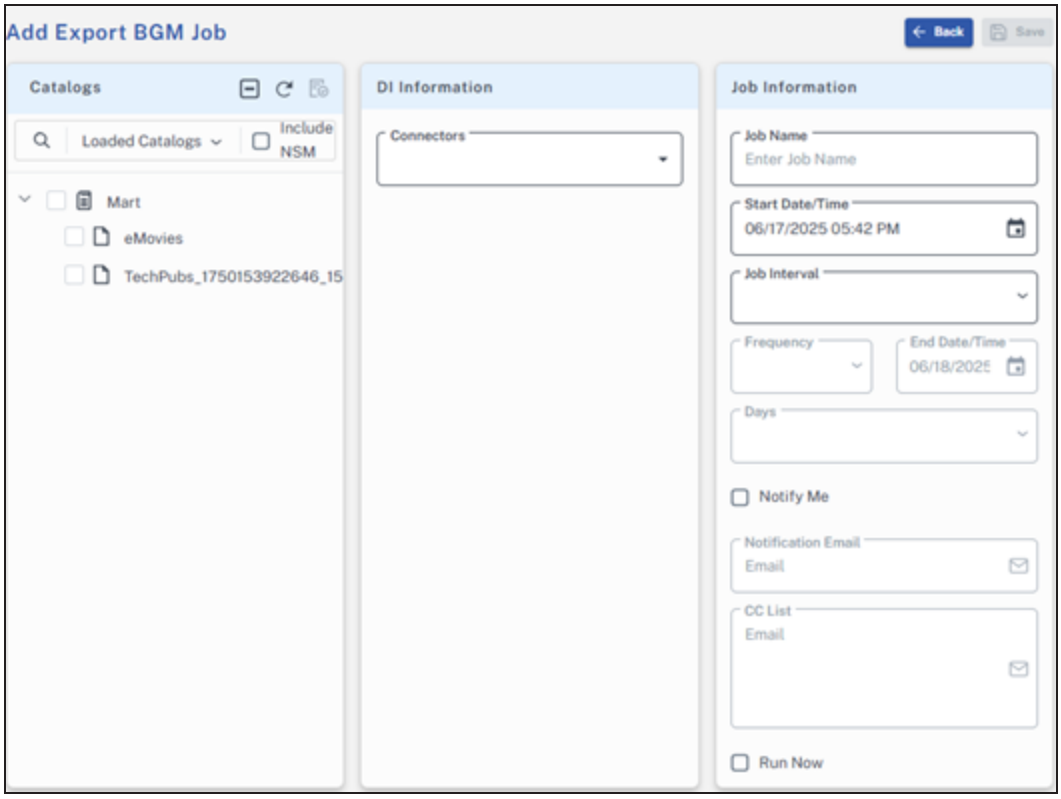
For more information about data sharing between erwin Data Modeler (erwin DM) and erwin Data Intelligence(erwin DI), refer to the Data Sharing topic.

To schedule logical name export jobs, follow these steps:

1. In the header pane, click and then click **DM Connect for DI**.
   The DM Connect for DI page opens.



2. Click **Export Logical Names Job**.
   The Add Export BGM Job page appears.



3. Set up job parameters as follows:

Tab	Field	Description
Catalogs	Catalog Tree	Select models from catalog to export. Before you select models, you can use the All Catalogs or Loaded Catalogs to display all available catalogs or only the expanded catalogs respectively. Apart from that, after you select catalogs, you can click to view only the selected catalogs in the Catalogs section.
	Include NSM	Select whether naming standards must be exported. A catalog named by NSM file is created under **Business Glossary Manager** > **DM NSM Files** custom

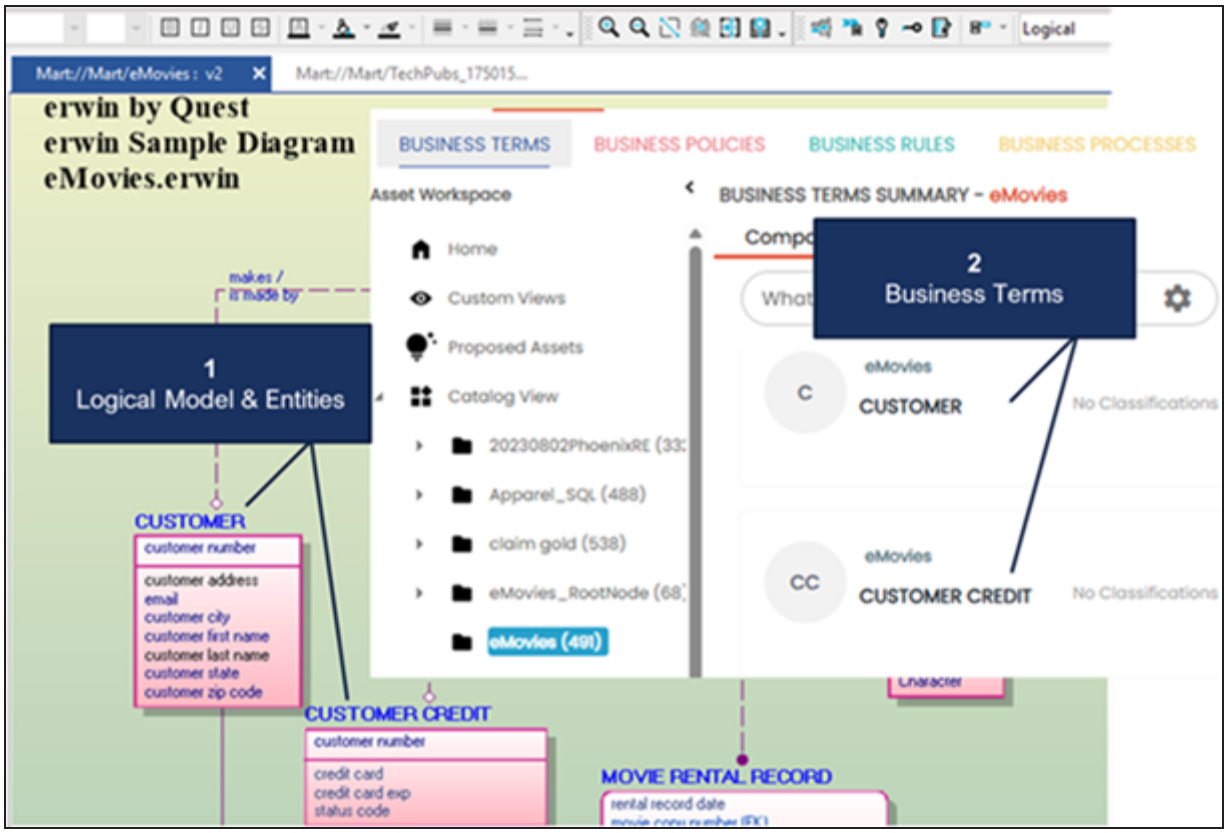
Tab	Field	Description
		asset. Ensure that the DM NSM Files asset is available in the Business Glossary Manager.
DI Information	Connectors	Select a configuration to use for the export job.

Tab	Field	Description
Job Information	Job Name	Specify a job name.
	Start Date/Time	Select the date and time at which the job must start.
	Job Interval	Select a suitable frequency at which the job must run. You can set the job to run once or recur daily, weekly, monthly, or yearly. You can also set up custom recurrence for jobs.
	Frequency	Select the hourly frequency at which the job should run. This property is available only when you set the Job Interval to Recurring.
	End Date/Time	If you set up recurring jobs, select the date and time at which the recurrence must end.
	Days	Select the days of the week on which the job should run. The days available here depend on the End Date/Time. This property is available only when you set the Job Interval to Recurring.
	Notify Me	Select the check box to receive a notification when the job status changes. This enables the Notification Email and CC List fields.
	Notification Email	Specify the email address at which you want to receive the notification.
	CC List	Specify a semi-colon-separated list of email addresses that must receive the job notification.
	Run Now	Select the check box to run the job immediately.

4. Click **Save**.
   The job is added to the calendar with its **Job State** set to Scheduled.

DM-DI-LogicalNamesMapping

The job runs according to the schedule and exports logical names to Business Glossary Manager. For example, the logical names, Customer and Customer Credit, from the eMovies model are saved as business terms in the Business Glossary Manager.



DBT Integration

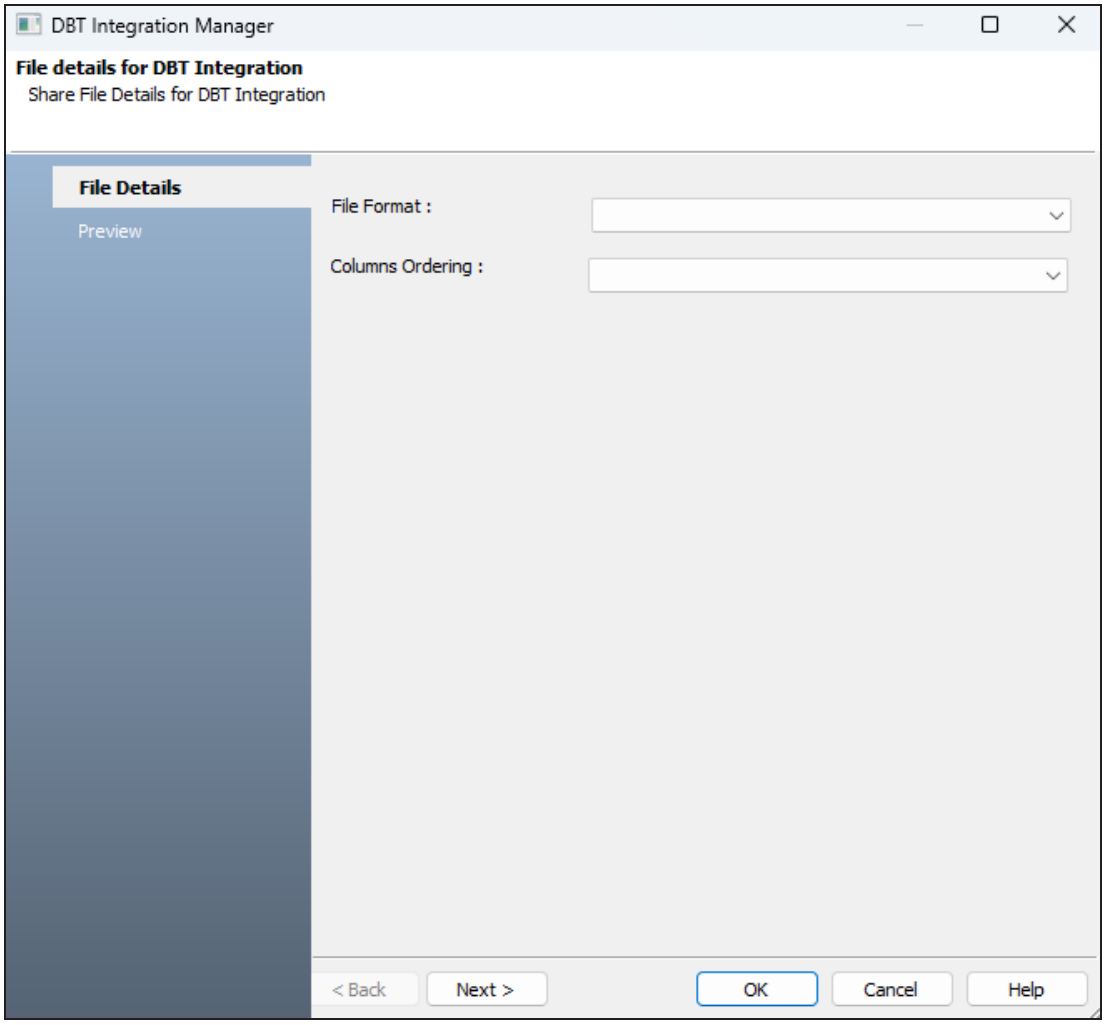
erwin DM now integrates with DBT (Data Build Tool). This feature automatically generates DBT-compatible YAML files from models saved in Mart and opened in erwin DM. You can use these files to create data tables and transformations, improving efficiency and consistency.

Depending on your requirements, use the options in the DBT Integration Manager to define the file format and columns ordering for generating YAML files.

Generating YAML Files

To generate YAML files, follow these steps :

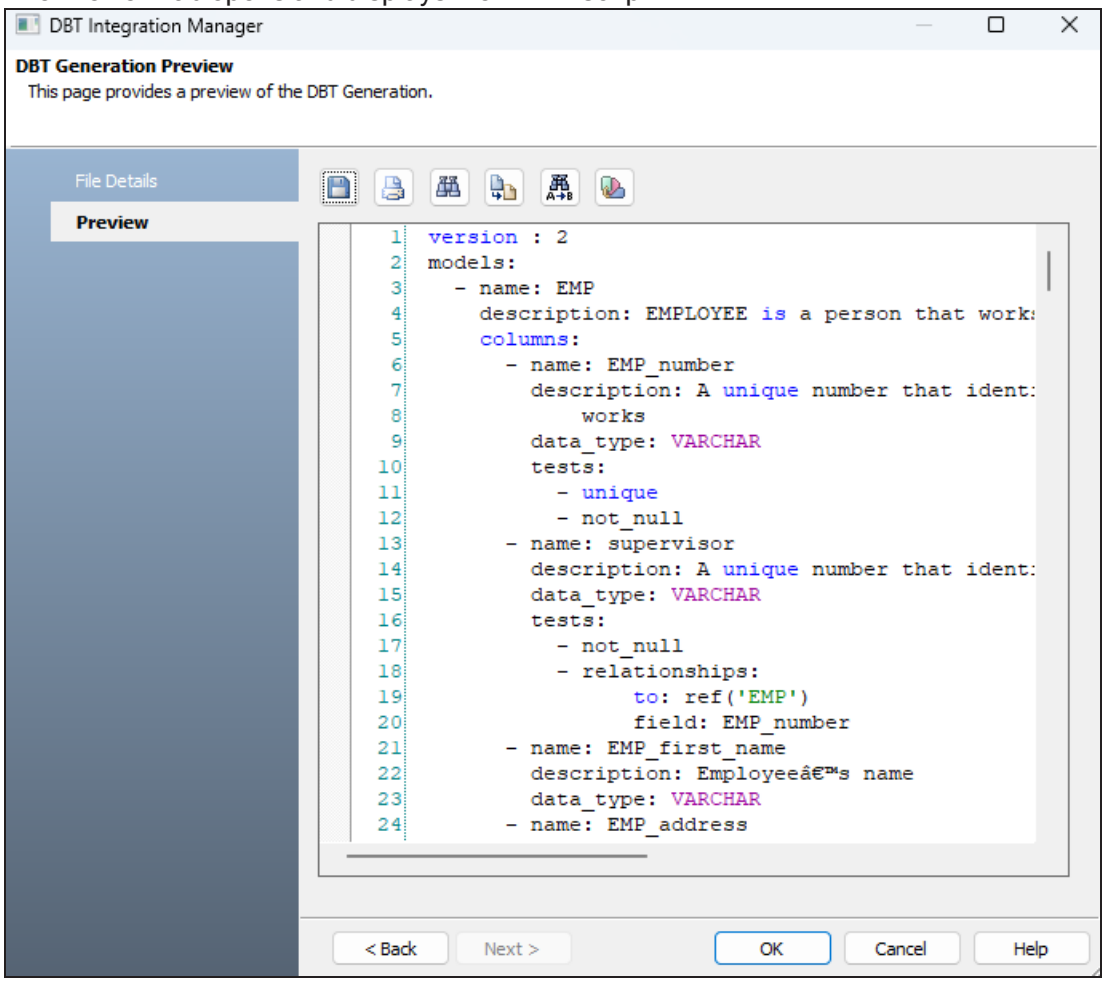
1. On the ribbon, click **Mart** > **DBT Integration**.
2. The DBT Integration Manager opens.



By default, the File Details tab opens.

3. Click the File Format drop-down list, and select one of the following options:
    - **Model**: Specifies that the generated YAML file defines the model as a transformational file for DBT, including column metadata, tests, and inter-model relationships.
    - **Source**: Specifies that the generated YAML file defines the model as raw tables, including location, columns, tests, and relationships.

4. Select the preferred order from the Columns Ordering drop-down list:
    - **Attributes_Order_Ref**: Specifies that the column ordering aligns with the logical order of attributes defined in the data model.
    - **Columns_Order_Ref**: Specifies that the column ordering aligns with the physical order in which columns are defined in the table.
    - **Physical_Columns_Order_Ref**: Specifies that the column ordering aligns with the physical layout of columns as stored in the database.
5. Click **Next**.
6. The Preview tab opens and displays the YAML script.



Use the following options:

- **Save** ( ): Use this option to save the generated script in the YAML format. Save this file as DDL.
- **Print** ( ): Use this option to print the generated script.
- **Search** ( ): Use this option to search for a word or characters in the schema.
- **Copy** ( ): Use this option to copy the script.
- **Replace** ( ): Use this option to find and replace characters in the script.
- **Text Options** ( ): Use this option to configure the preview text editor's look and feel, such as window, font, and syntax color settings.

7. Click **Ok**.
   The YAML file is generated and saved locally.

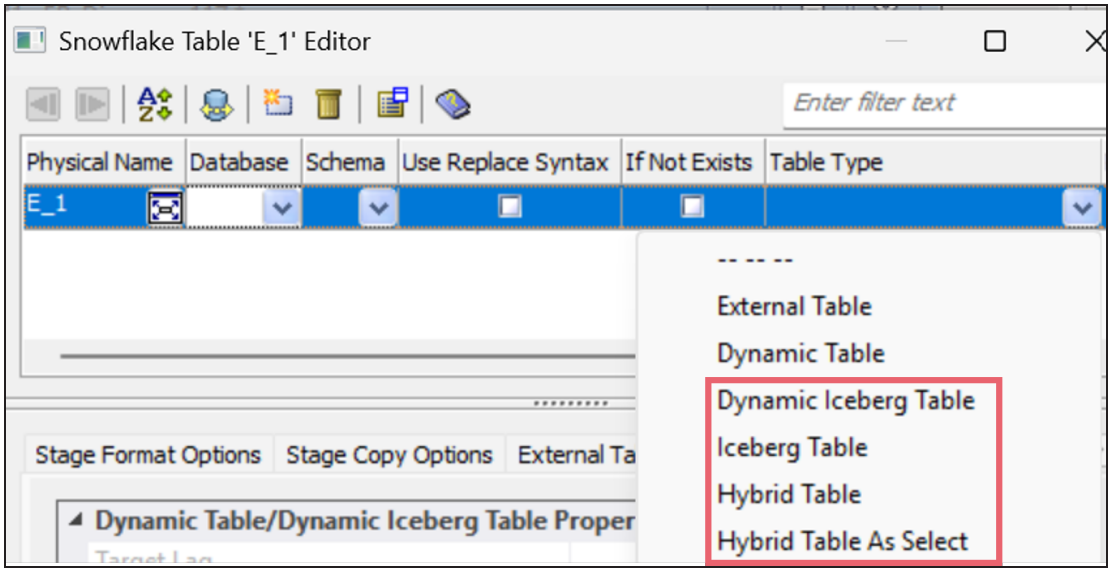
Snowflake Enhancements

The following snowflake objects are now supported:

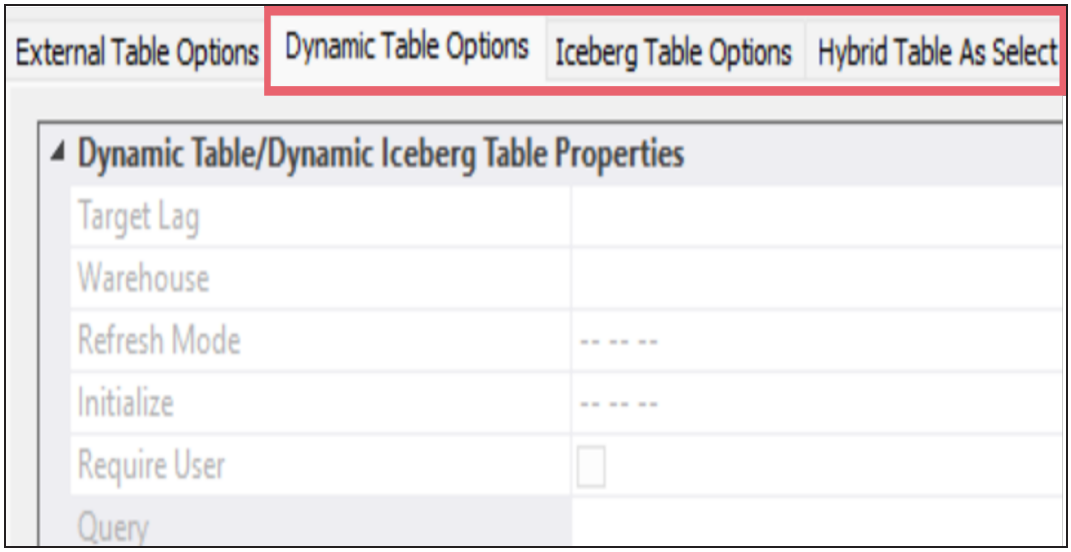
- Masking Policy
- Row Access Policy
- Iceberg Table
- Dynamic Iceberg Table
- Hybrid Table
- Hybrid Table As Select
- Table Index

Snowflake Table Editor

erwin DM 15.0 introduces additional Snowflake table types in the Table Type drop-down list within the Table Editor. The screenshot below displays the newly added table types.



Additionally, the Snowflake Table Editor displays property tabs for each table type. You can configure and manage attributes specific to each table type directly within the editor. These properties appear only when you select a corresponding table type. The screenshot below displays the property tabs for the newly added table types.



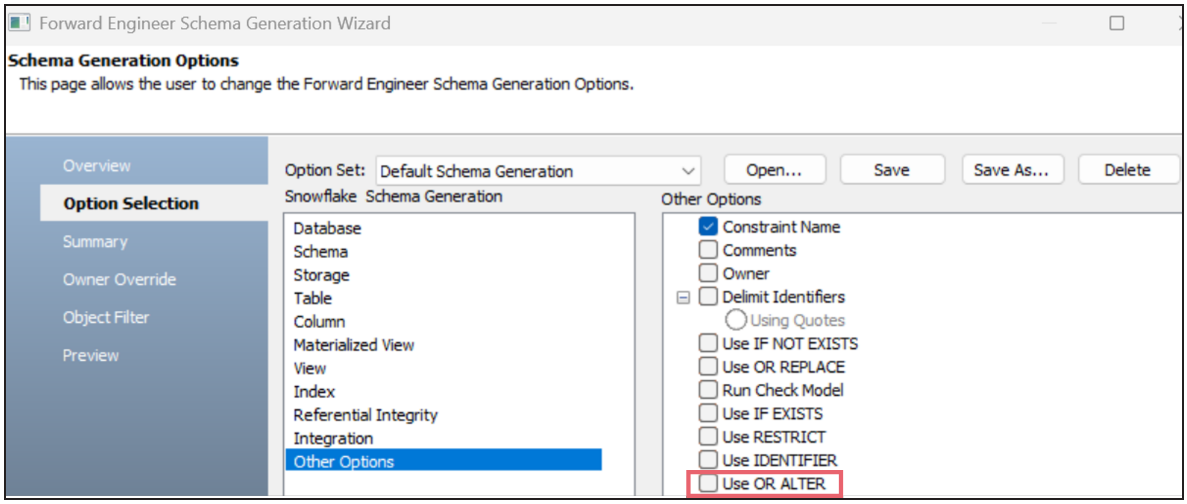
Index Support for Snowflake Hybrid Tables

Hybrid Tables support Unique and Non-Unique Indexes.

Use OR ALTER Option in Forward Engineering

The Forward Engineer Schema Generation Wizard now includes a "Use OR ALTER" checkbox for Snowflake.

Under the Other Options pane, select the **Use OR ALTER** checkbox to generate conditional DDL for Snowflake objects. This option enables you to create or modify objects using a single statement.



Column and Constraint Support for Iceberg Table

- Retrieves available column metadata during reverse engineering and excludes column definitions during forward engineering for catalog types. For example, AWS Glue.
- Constraints are now generated within the CREATE TABLE statement, as Iceberg Tables do not support ALTER TABLE for constraint additions.

JSON Enhancements

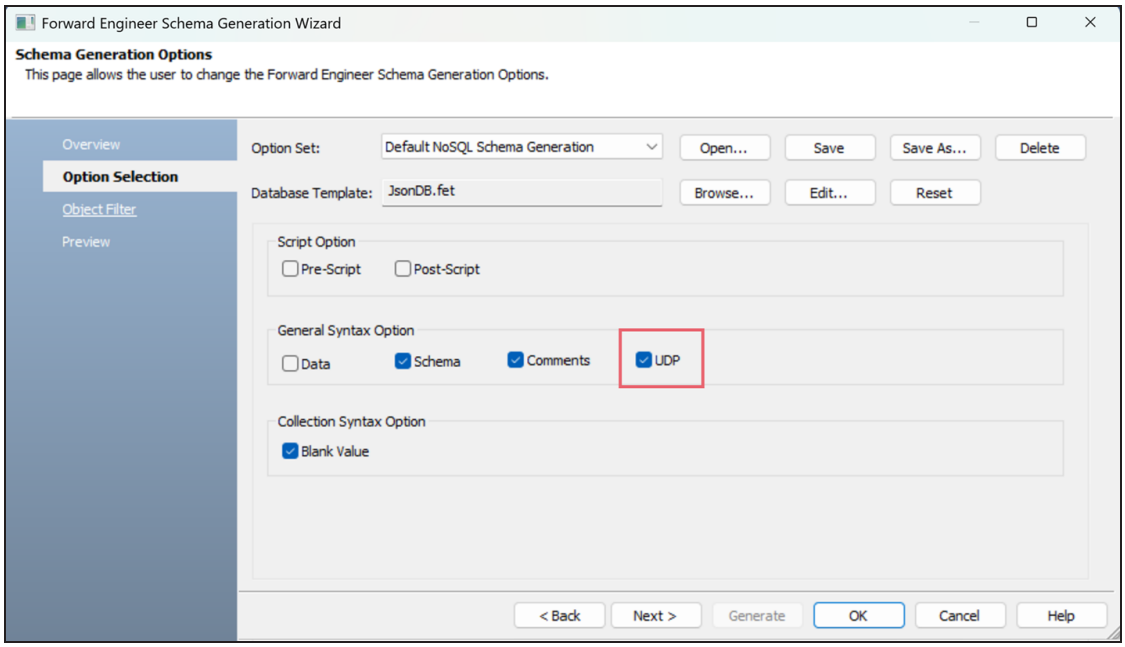
Several enhancements have been implemented for JSON:

- User-Defined Properties in JSON Forward Engineering
- Definition for JSON Fields
- Array Object Type

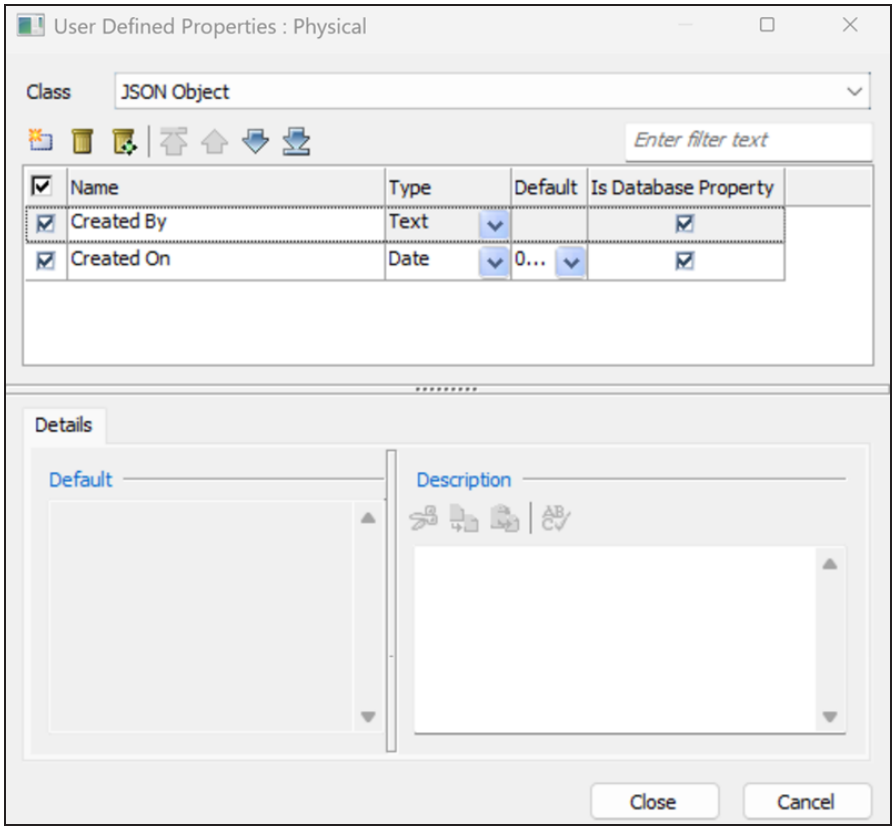
User-Defined Properties in JSON Forward Engineering

To include user-defined properties in forward engineering, you need to select the following options:

- **UDP**: In the Option Selection section of the Forward Engineer Schema Generation Wizard, select the **UDP** checkbox.



- **Is Database Property**: In the User Defined Properties editor, select the **Is Database Property** checkbox .



When you select these options and generate a script for a JSON model, user-defined properties are also generated as displayed in the following image.

```
/* [JSON Object:Customer_Details] */
{
    "type" :   "object",
    "title" :  "Customer_Details",
    "required" :  [
         "Name",
        "Address",
        "Order No.",
        "Payment Type",
        "Date",
        "Store no.",
        "Status"
    ],
    "Created By": "George",
    "Created On": "6/4/2025",
    "properties" :  {
        "Name":  {
            "type" :  "string",
            "title" :  "Name",
            "description" :  "Customer Name",
            "minItems" :  1,
            "maxItems" :  25,
            "uniqueItems" :  true,
            "additionalItems" :  false,
```

Definitions for JSON Fields

You can now create a list of reusable definitions using the predefined keyword, $Defs. These definitions can then be assigned to fields within the object in which they are created, or to fields in other objects, depending on the definition type.

To create JSON definition libraries with a predefined field, follow these steps:

1. In the Model Explorer, double-click the object where you want to create a definition library.
2. Right-click the Fields node and click **New**.
   An instance of the field is created.
3. Name the field as $Defs.
4. Right-click the $Defs field and click **Properties**.
   The field's property editor opens.
5. On the General tab, set the values of all the required properties.

   Physical Data Type

   Specifies the data type for fields. This must be Object for the $Defs field.

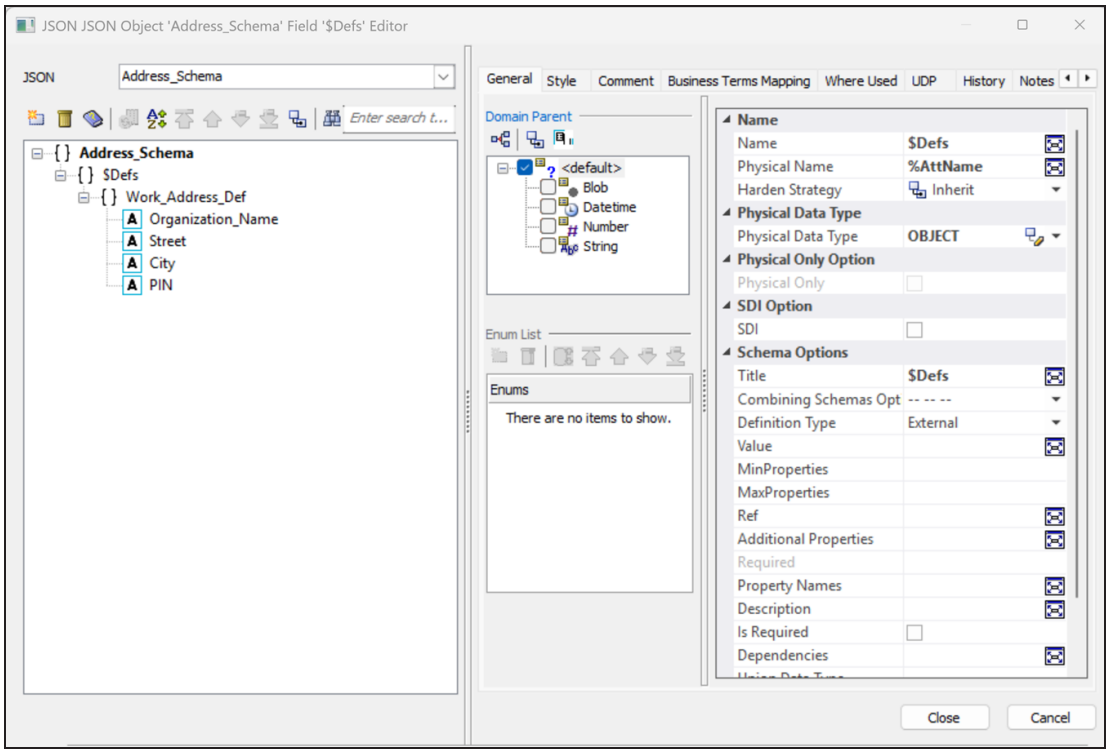
   Definition Type

   Specifies the definition of the field. This option is available only for the $Defs fields and includes following options:

   - **External**: Select this option to apply the definition to fields across all objects in the model.
   - **Internal**: Select this option to apply the definition only to fields within the object they were created in.
6. Right-click the $Defs field and click **New**.

   An instance of the definition is created.
7. Name the definition as required.

Similarly, you can create a list of definitions.



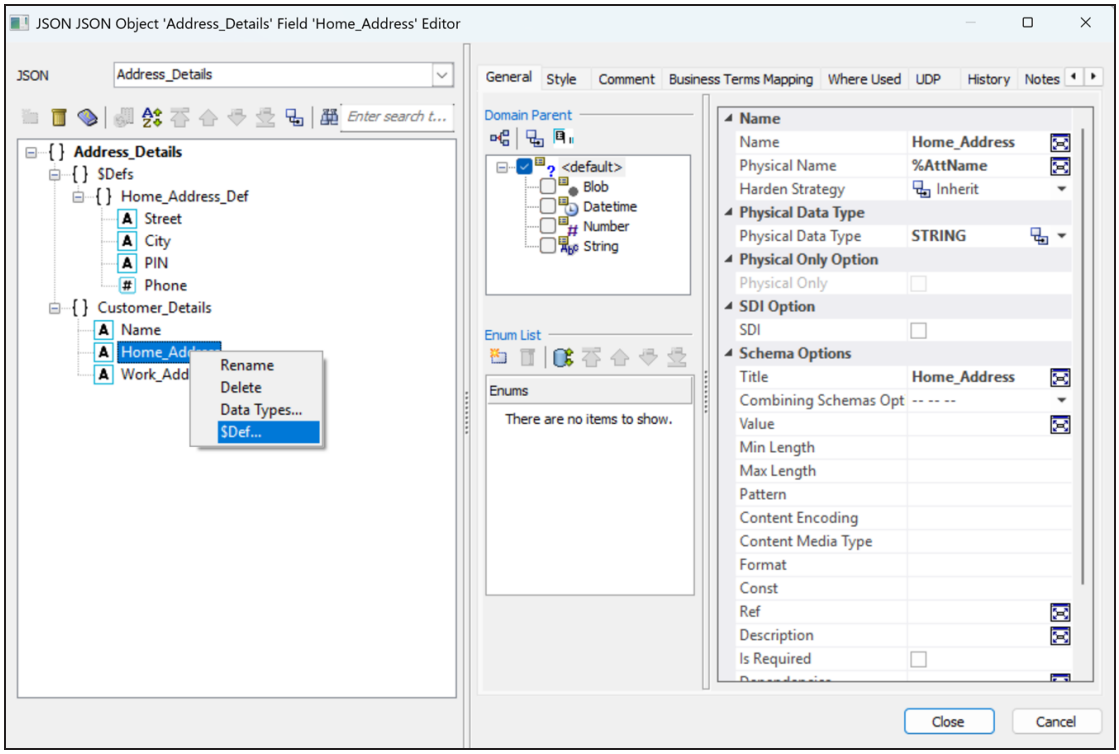
For information on properties, refer to the Defining JSON Fields topic.

> The Physical Data Type for the $Defs fields must be Object. And a JSON object cannot contain both internal and external definitions.

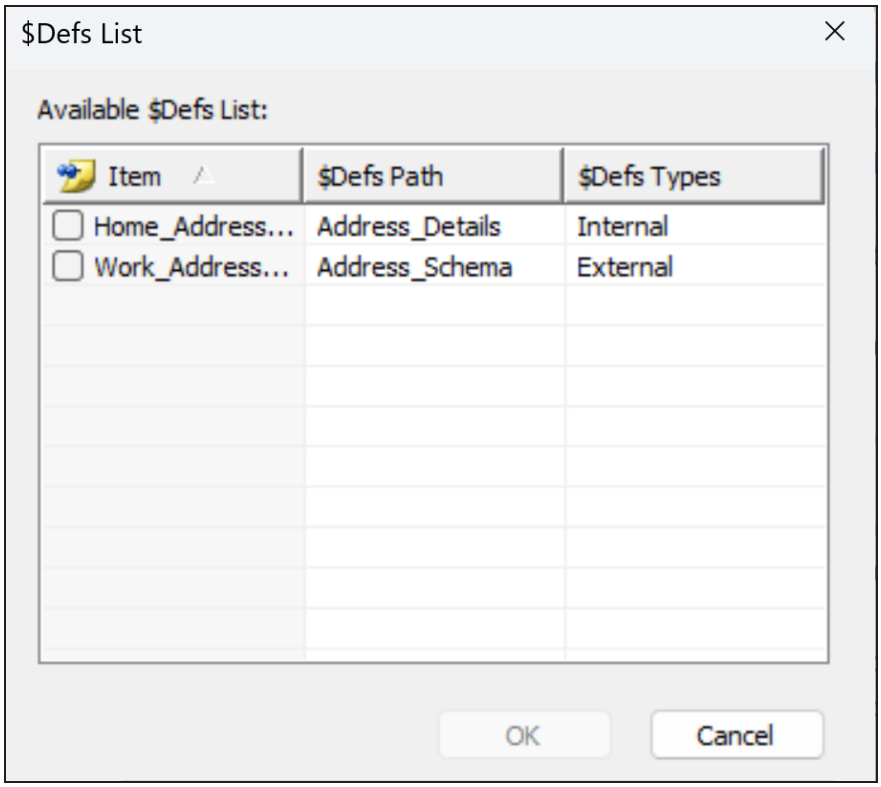
Assigning JSON Definitions to Fields

Follow these steps to assign a JSON definition to fields:

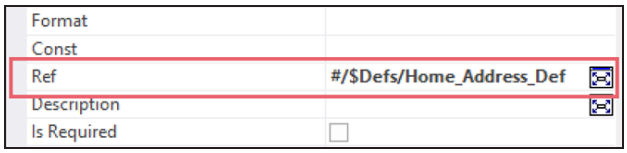
1. In the JSON Field Editor, right-click the required field node and click **$Defs**.



2. On the $Defs List window, select the definition you want to use and then click **OK**.

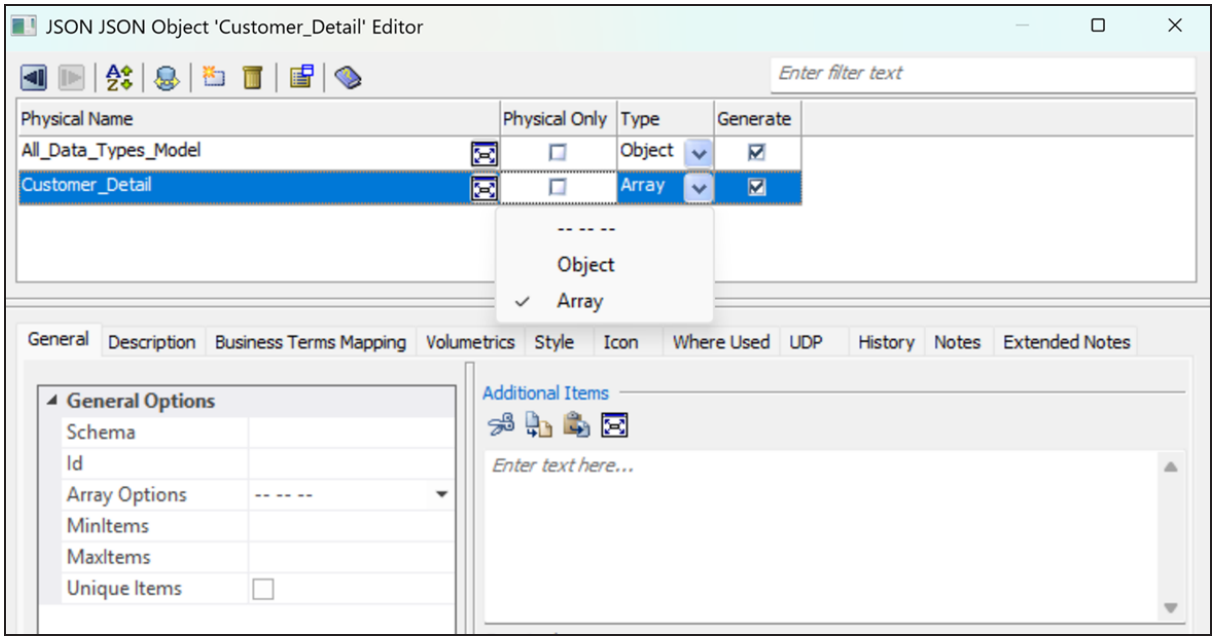


The selected definition is assigned to the field. When you select the field, the Ref property displays the assigned definition.



Array Object Type

JSON models now support Array type for objects



Google BigQuery Enhancements

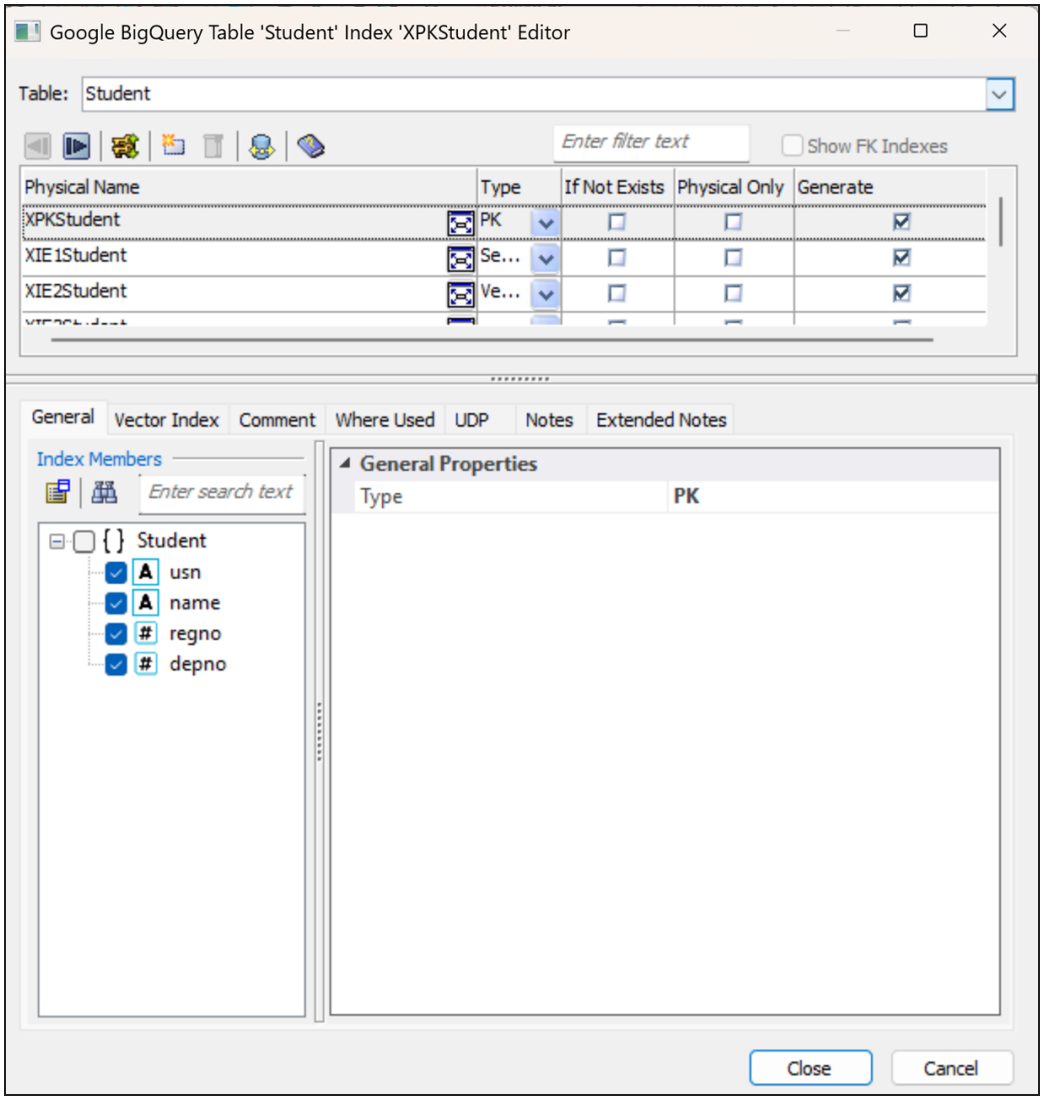
Several enhancements have been implemented for Google BigQuery:

- Primary Key Type
- Comprehensive Column Sorting

Primary Key Type

Google BigQuery models now support the PK (primary key) type and display it in the Index Editor. Earlier, primary key was available only in the Column Editor. The information is synchronized between both editors.

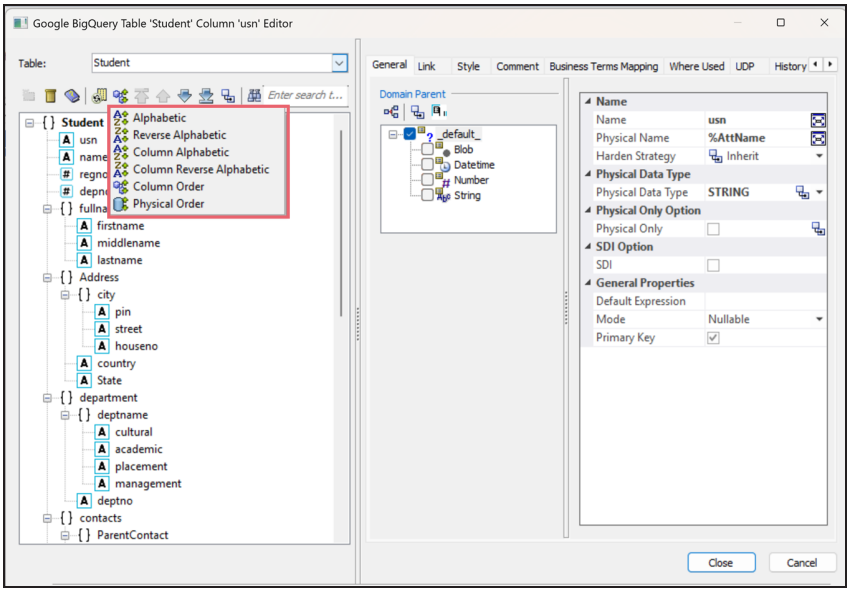
Apart from Primary Key, Search, and Vector are other supported types. You can create multiple search and vector indexes in a table, but each table can generate only one search index and one vector index at a time.



Comprehensive Column Sorting

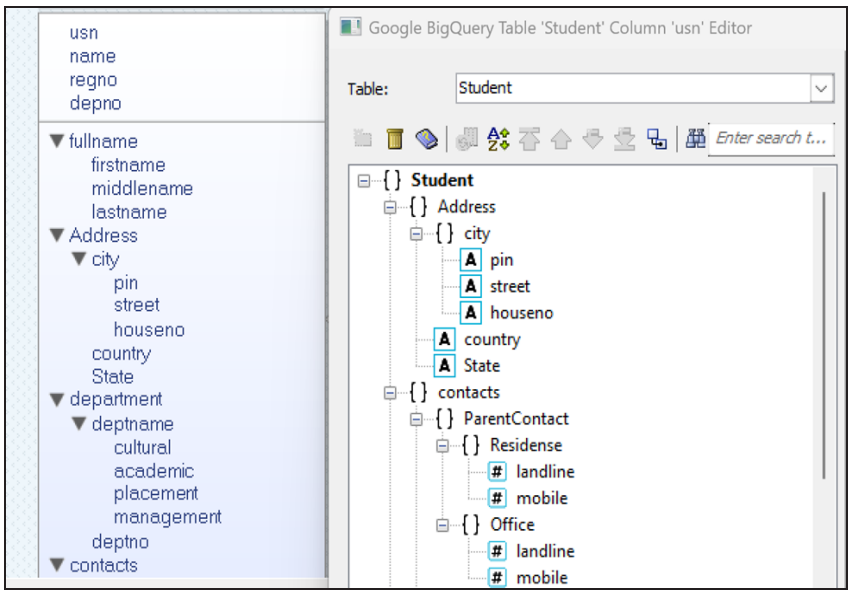
The Sort feature in the Google BigQuery Column Editor now lets you sort columns in the different ways to help you organize and analyze your data.

You can select the method you want using the drop-down menu that opens after you click the Sort button.



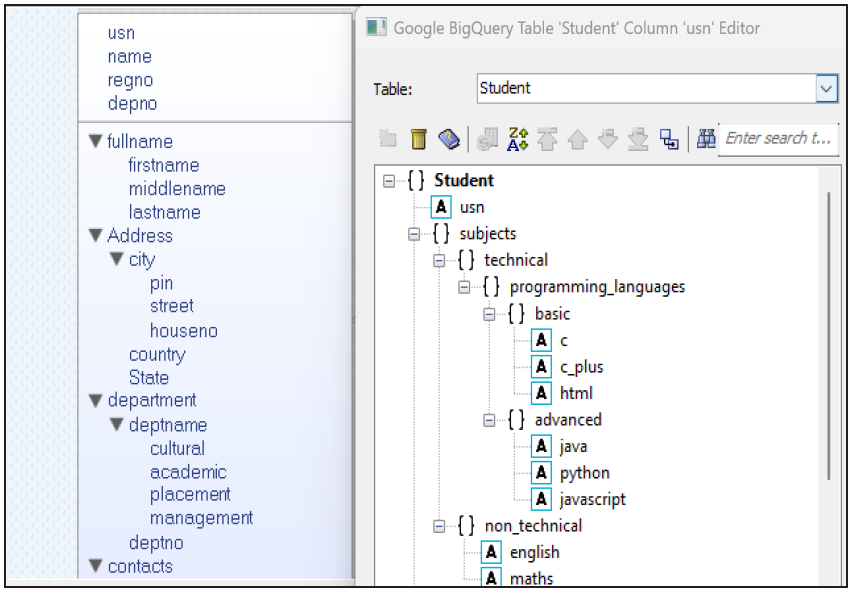
Alphabetic

Specifies that the column list is sorted in alphabetic order. This is applicable only in the Column Editor and is not reflected in the ER diagram.



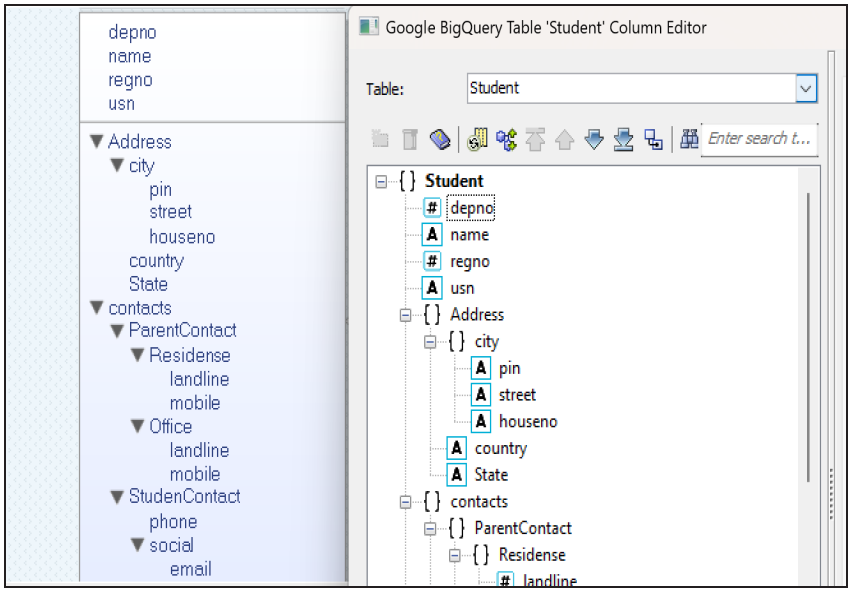
Reverse Alphabetic

Specifies that the column list is sorted in reverse alphabetic order. This is applicable only in the Column Editor and is not reflected in the ER diagram.



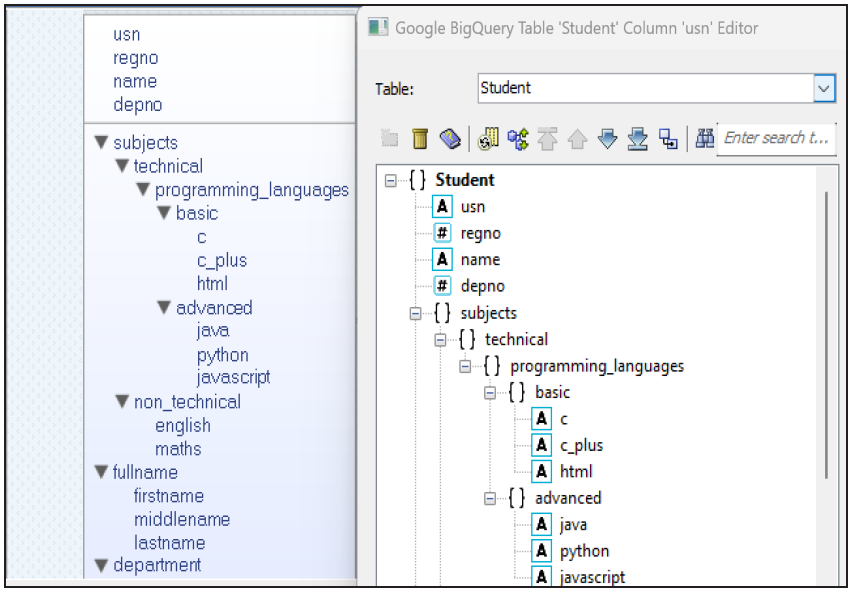
Column Alphabetic

Specifies that the column list is sorted in alphabetic order. This is applicable in the Column Editor and the ER Diagram.



Column Reverse Alphabetic

Specifies that the column list is sorted in reverse alphabetic order. This is applicable in the Column Editor and the ER Diagram.



Column Order

Specifies that the column list is sorted by the current column order. This updates the order for any movements in the sequence of columns.

Physical Order

Specifies that the column list is sorted in physical order. This applies the original column order defined when the table was created.

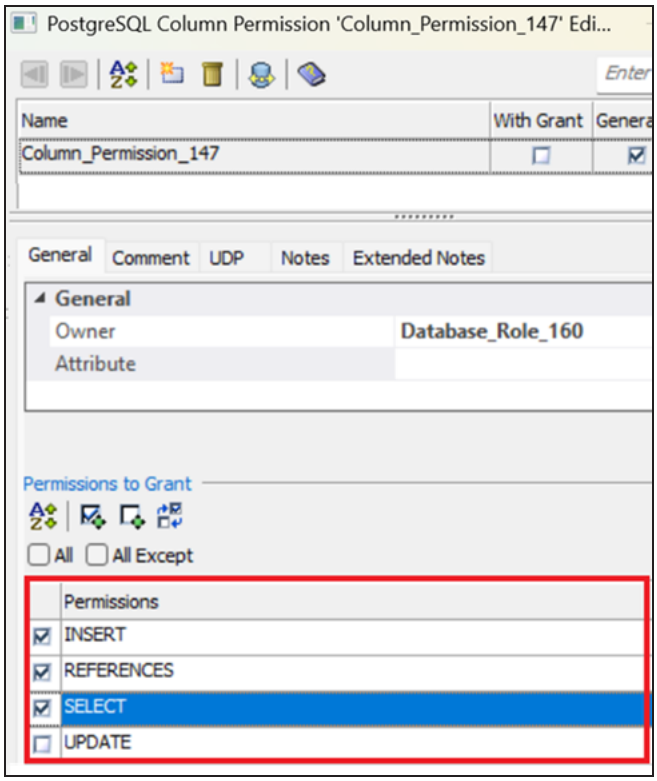
Primary key columns and non-key columns are sorted separately when you apply column sorting. You can also sort nested columns under each node independently. To sort nested columns under a node, select the node, click **Sort**, and select the sort order from the drop-down menu.

For all NoSQL tables except Google BigQuery only four types of column sorting options are available: Alphabetic, Reverse Alphabetic, Column Alphabetic, and Column Reverse Alphabetic. For Google BigQuery tables, all six sorting options listed above are available.

PostgreSQL Enhancements

Several enhancements have been implemented to PostgreSQL models as follows:

- The Stored Procedure object now supports Permissions. For more information, refer to the Defining PostgreSQL Stored Procedure Permissions topic.
- You can now assign multiple permissions to PostgreSQL objects using new checkboxes. For example, in the PostgreSQL Column Permission Editor, under the Permissions section, select the required permission checkboxes. You can also select either the All or All Except checkbox to grant all permissions or all except the ones you choose to exclude.



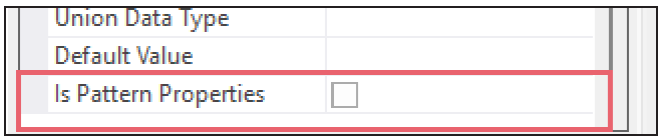
Productivity and UI Enhancements

Several additions and enhancements have been implemented to improve erwin Data Modeler's productivity and usage experience. These enhancements are:

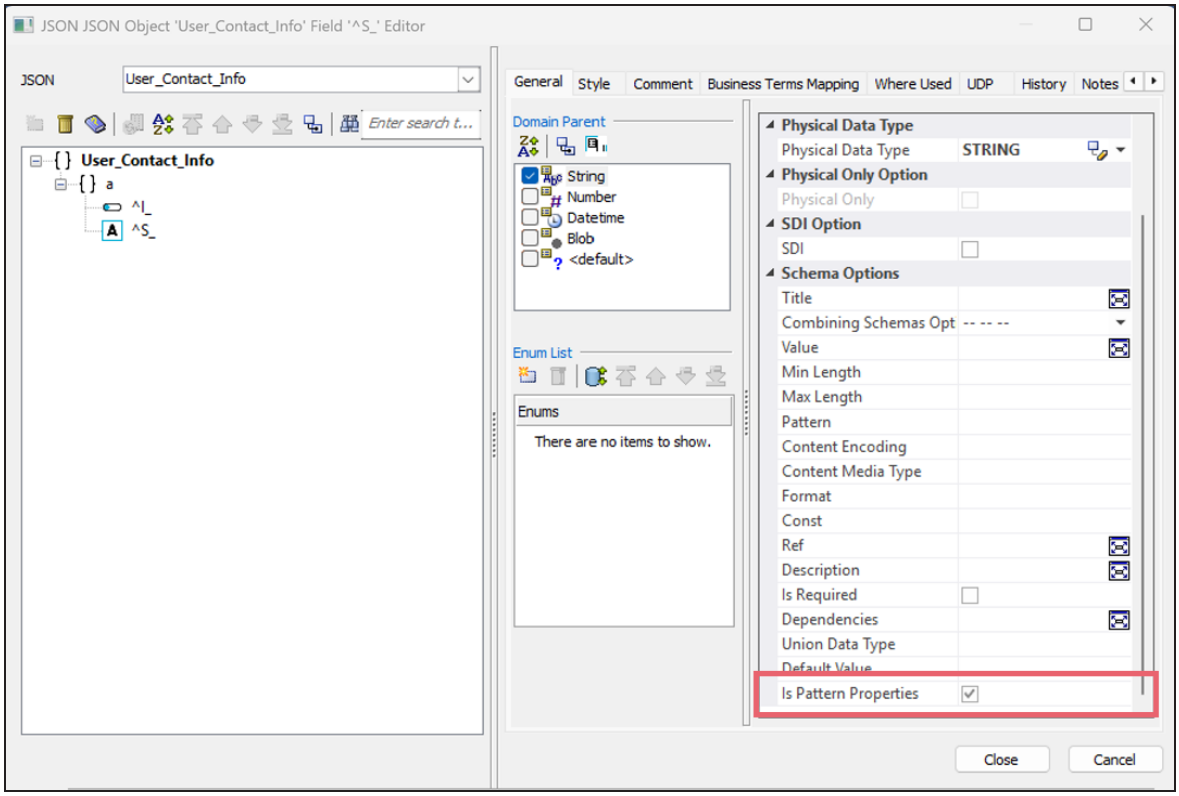
- JSON Field Editor Property
- ER Diagram Property
- PostgreSQL Permission Editor
- Upgraded CDM Models

JSON Field Editor Property

The Pattern Properties option has been removed from the JSON Object Editor and added to the Field Editor as the Is Pattern Properties checkbox. When selected, this specifies that the field contains pattern properties that define a regular expression and schema for validating additional properties.

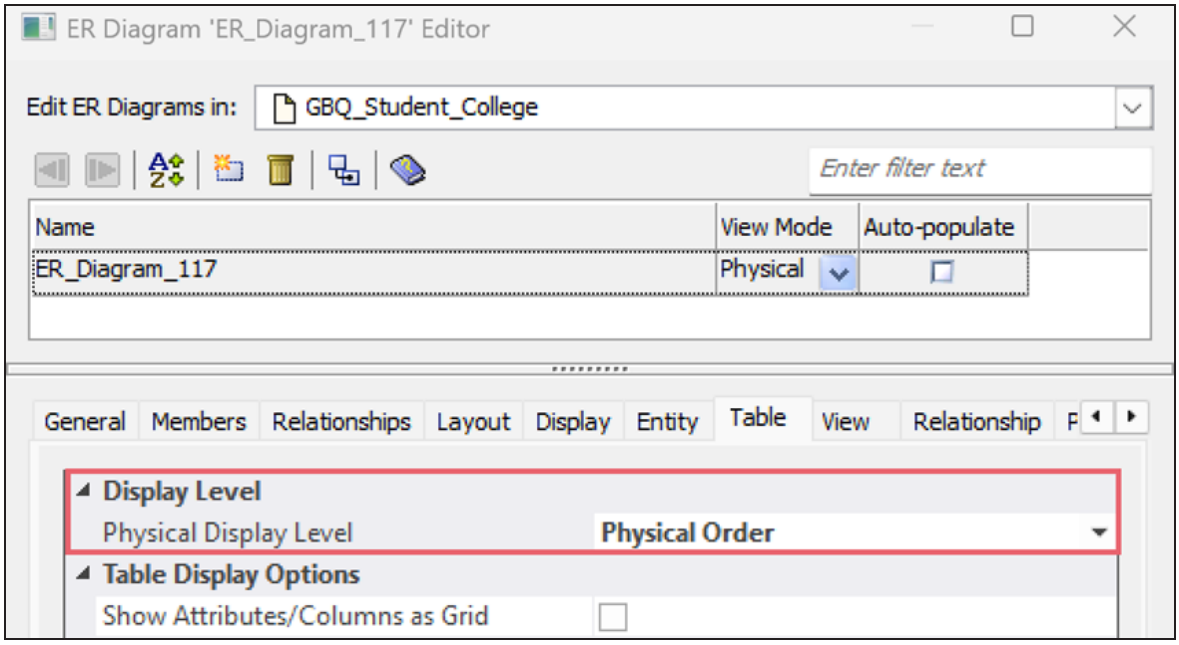


You can use this option to define regular expression rules that validate data before processing.



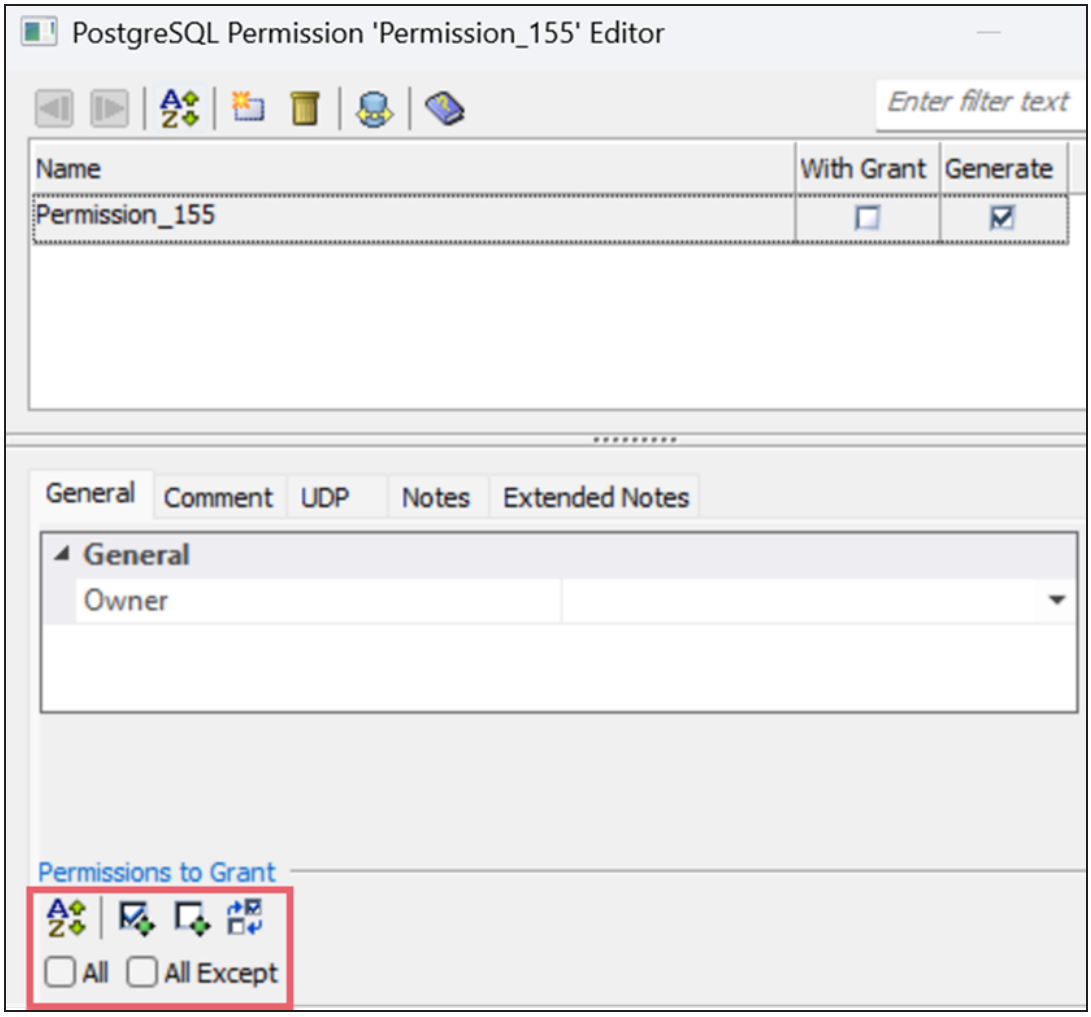
ER Diagram Property

In the ER Diagram Editor, the Physical Order option under Physical Display Level is now available only for SQL databases and Google BigQuery. It is no longer available for other NoSQL databases.



PostgreSQL Permission Editor

The PostgreSQL Permission Editor now includes new options such as Sort Items, Select All, Select None, and Toggle Selection, along with the All and All Except checkboxes.



Using these options, you can perform the following actions:

- **Sort Items** ( ): Sort the permission list in alphabetical or reverse alphabetical order.
- **Select All** ( ): Select all available permissions together.
- **Select None** ( ): Deselect all selected permissions.
- **Toggle Selection** ( ): Reverse the current selection state of each permission.
- **All**: Select this checkbox to grant all available permissions.
- **All Except**: Select this checkbox to grant all permissions except those currently selected.

Upgraded CDM Models

CDM models have been upgraded to ensure compatibility with new features and improved performance.

erwin Mart Portal Enhancements

erwin Mart Portal has undergone the following enhancements:

- DM Connect for DI-Logical Names Export Jobs
- Productivity Enhancements

DM Connect for DI

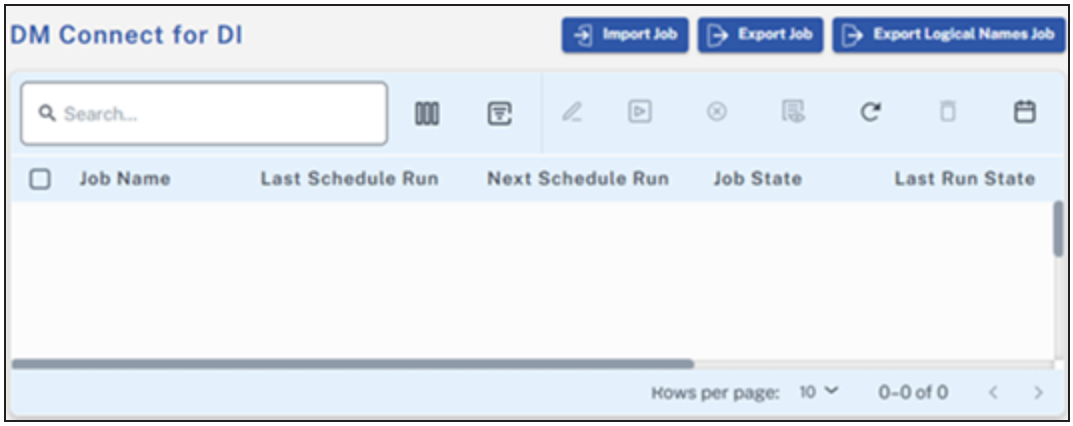
The DM Connect for DI feature has been upgraded to support erwin DI 15.0. Also, you can now map logical names to business terms in the Business Glossary Manager via DM Connect for DI module.

An Export BGM job converts logical names to an erwin DI-compatible format and exports them to the Business Glossary Manager as Business Terms.

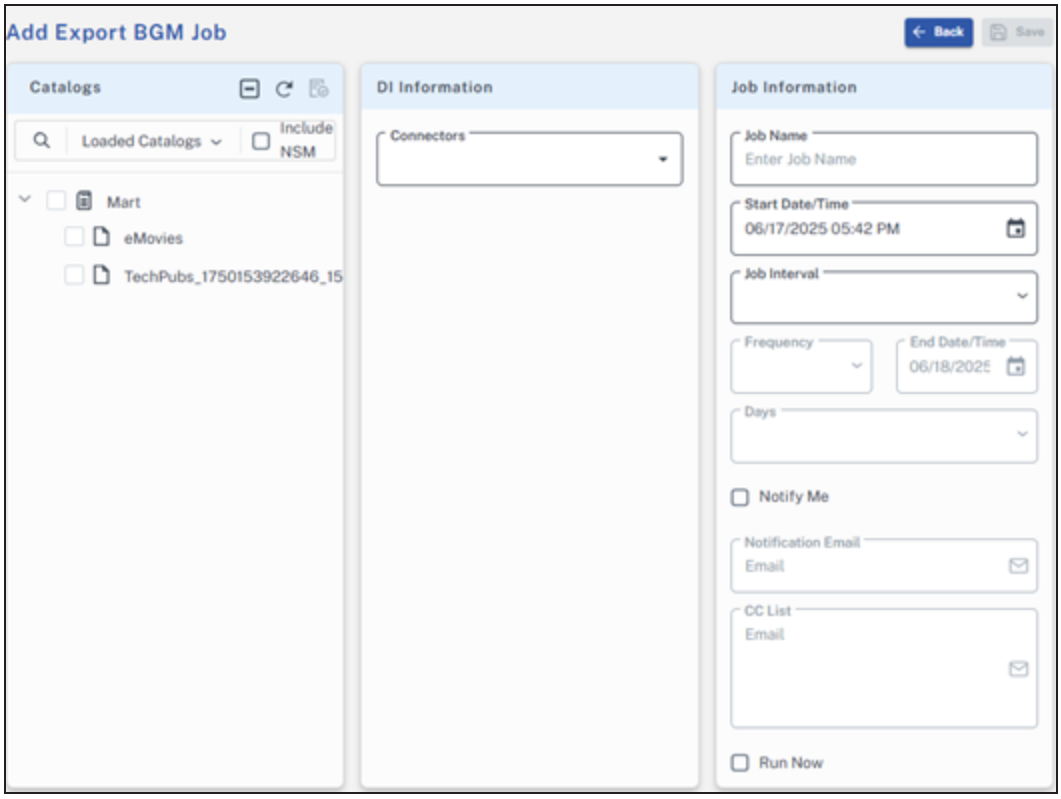
For more information about data sharing between erwin Data Modeler (erwin DM) and erwin Data Intelligence(erwin DI), refer to the Data Sharing topic.

To schedule logical name export jobs, follow these steps:

1. In the header pane, click and then click **DM Connect for DI**.
   The DM Connect for DI page opens.



2. Click **Export Logical Names Job**.
   The Add Export BGM Job page appears.



3. Set up job parameters as follows:

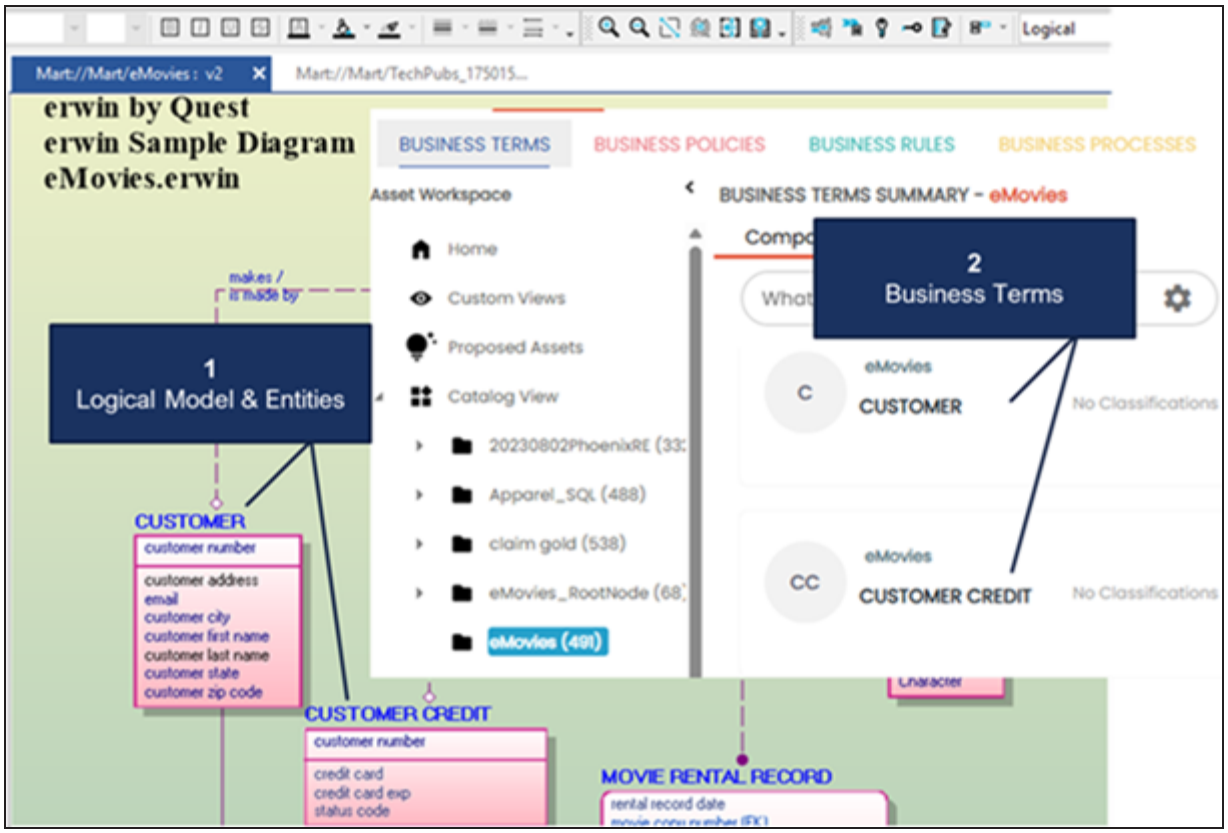
Tab	Field	Description
Catalogs	Catalog Tree	Select models from catalog to export. Before you select models, you can use the All Catalogs or Loaded Catalogs to display all available catalogs or only the expanded catalogs respectively. Apart from that, after you select catalogs, you can click to view only the selected catalogs in the Catalogs section.
	Include NSM	Select whether naming standards must be exported. A catalog named by NSM file is created under **Business Glossary Manager** > **DM NSM Files** custom

Tab	Field	Description
		asset. Ensure that the DM NSM Files asset is available in the Business Glossary Manager.
DI Inform-ation	Connectors	Select a configuration to use for the export job.

Tab	Field	Description
Job Information	Job Name	Specify a job name.
	Start Date/Time	Select the date and time at which the job must start.
	Job Interval	Select a suitable frequency at which the job must run. You can set the job to run once or recur daily, weekly, monthly, or yearly. You can also set up custom recurrence for jobs.
	Frequency	Select the hourly frequency at which the job should run. This property is available only when you set the Job Interval to Recurring.
	End Date/Time	If you set up recurring jobs, select the date and time at which the recurrence must end.
	Days	Select the days of the week on which the job should run. The days available here depend on the End Date/Time. This property is available only when you set the Job Interval to Recurring.
	Notify Me	Select the check box to receive a notification when the job status changes. This enables the Notification Email and CC List fields.
	Notification Email	Specify the email address at which you want to receive the notification.
	CC List	Specify a semi-colon-separated list of email addresses that must receive the job notification.
	Run Now	Select the check box to run the job immediately.

4. Click **Save**.
   The job is added to the calendar with its **Job State** set to Scheduled.

The job runs according to the schedule and exports logical names to Business Glossary Manager. For example, the logical names, Customer and Customer Credit, from the eMovies model are saved as business terms in the Business Glossary Manager.



Productivity Enhancements

Following productivity enhancements are available in erwin Mart Portal15.0:

- **erwin Mart Portal database configuration**:You can now connect to SQL Server and Azure SQL database via Microsoft Entra authentication. Thus, using identities managed within Microsoft Entra ID, instead of traditional SQL Server login and passwords.
- **erwin Mart Portal Advanced configuration**: Following options have been added to the Advanced settings of erwin Mart Portal configuration:
  - Update Mart Portal Path
  - Update ER360 Path

For more information, refer to the Configuring erwin Mart Portal topic.

The Is GitHub Enterprise option has been removed from the UI, its behavior is now determined by the system based on the domain type selected during source control repository configuration.

erwin ER360 Features and Enhancements

erwin ER360 includes the following enhancements in this release.

- Metadata Indexing is now automated via the new Index Metadata page.
- Global Search Enhancements
- Worksheet Enhancements include the following features:
    - MetaQL Support
    - User-defined Properties
    - Advanced Filters
- Diagram Enhancements

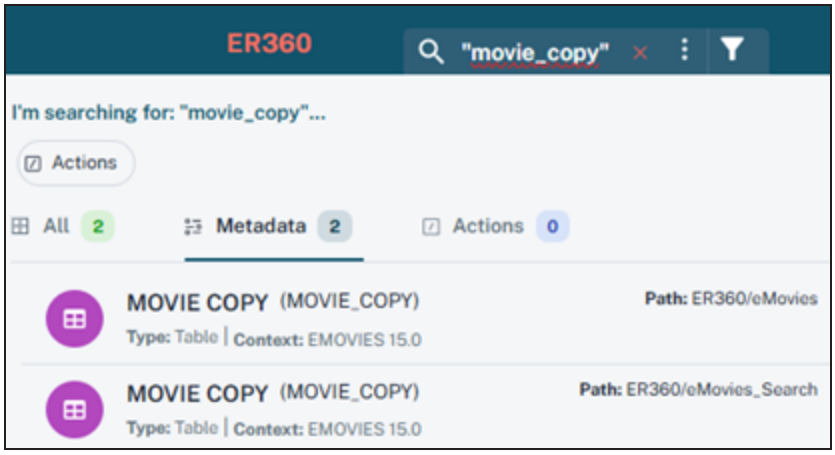
Global Search Enhancements

Global search now supports advanced query syntax that enables granular and targeted search.

Apart from the usual search string, you can use the following advanced search queries to search metadata with precision:

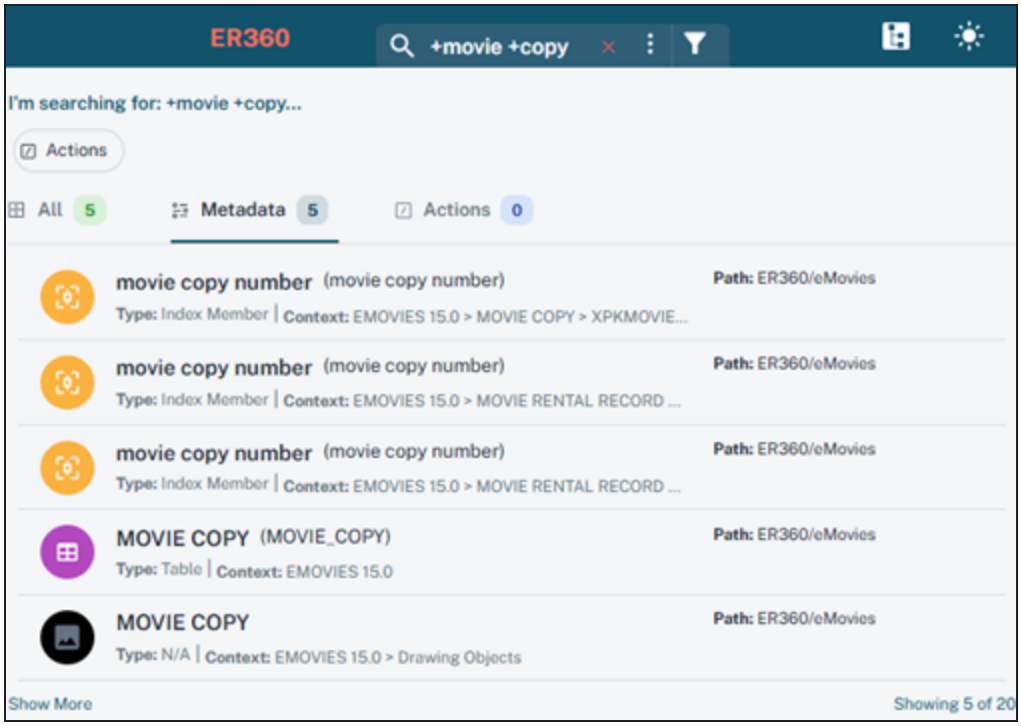
- **Exact words**: Use this format to search metadata objects that match the exact words in the search phrase without any special characters and words. The syntax for this search format is "*<word1>_<word2>*".

  For example, "movie_copy" returns all metadata that exactly match the search phrase.



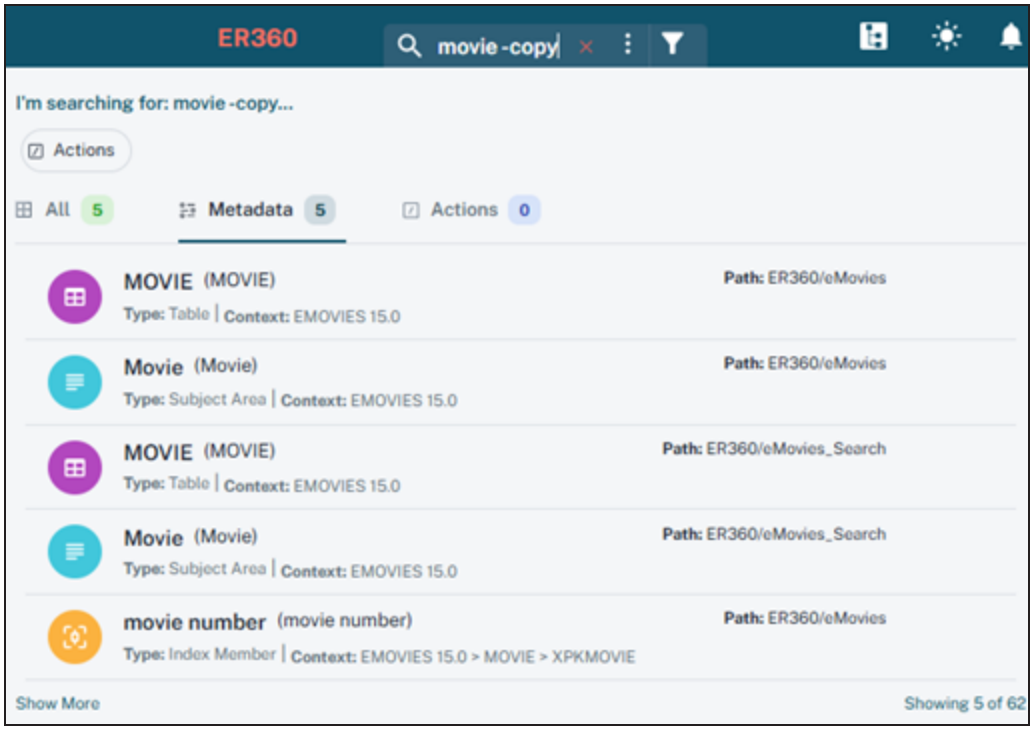
- **All words**: Use this format to search metadata objects that match all words preceded by the + (plus) sign in the search phrase. The syntax for this search format is +*<word1>* +*<word2>*.

  For example, the search phrase +movie +copy returns metadata that contains the words movie and copy in addition to any other words in the name of the metadata object.



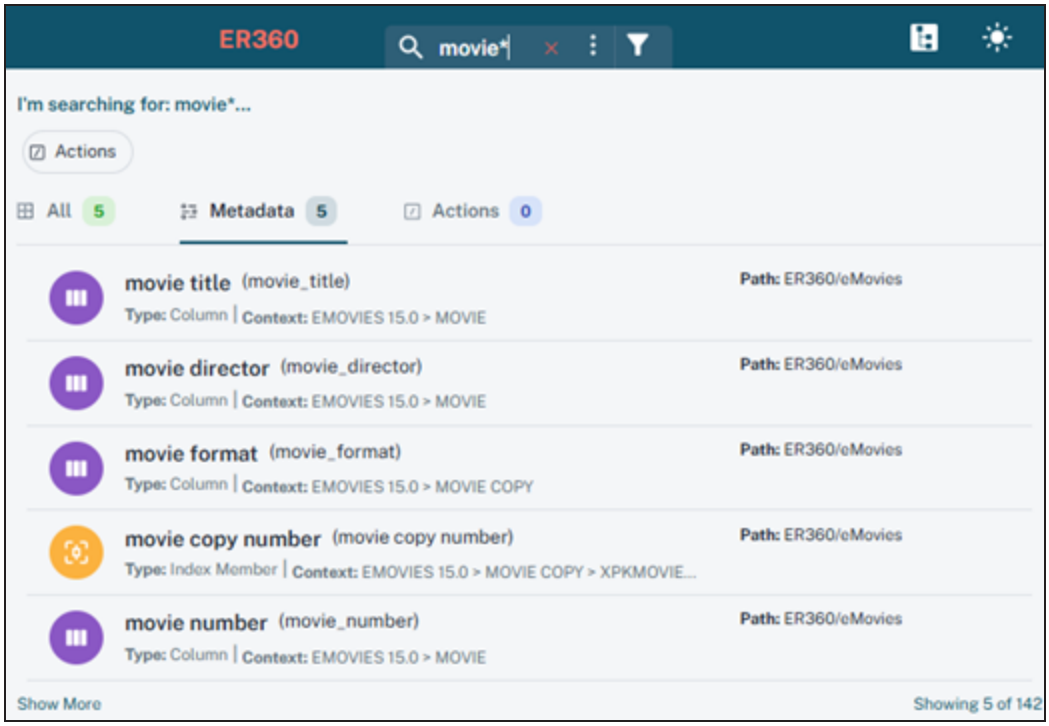
- **Exclude words**: Use this format to search metadata objects that do not contain all the words except the word preceded by the - (minus) sign. The syntax for this search format is *<word1> -<word2>*.

  For example, the search phrase movie -copy returns metadata that contains the words movie but not copy.



- **Wild cards**: Use this format to search metadata objects that contain the search string words preceded or succeeded by any other words or characters. The syntax for the this search format is *<word>** OR ***<word>*.

  For example, the search phrases movie* returns all metadata that start with the word movie.



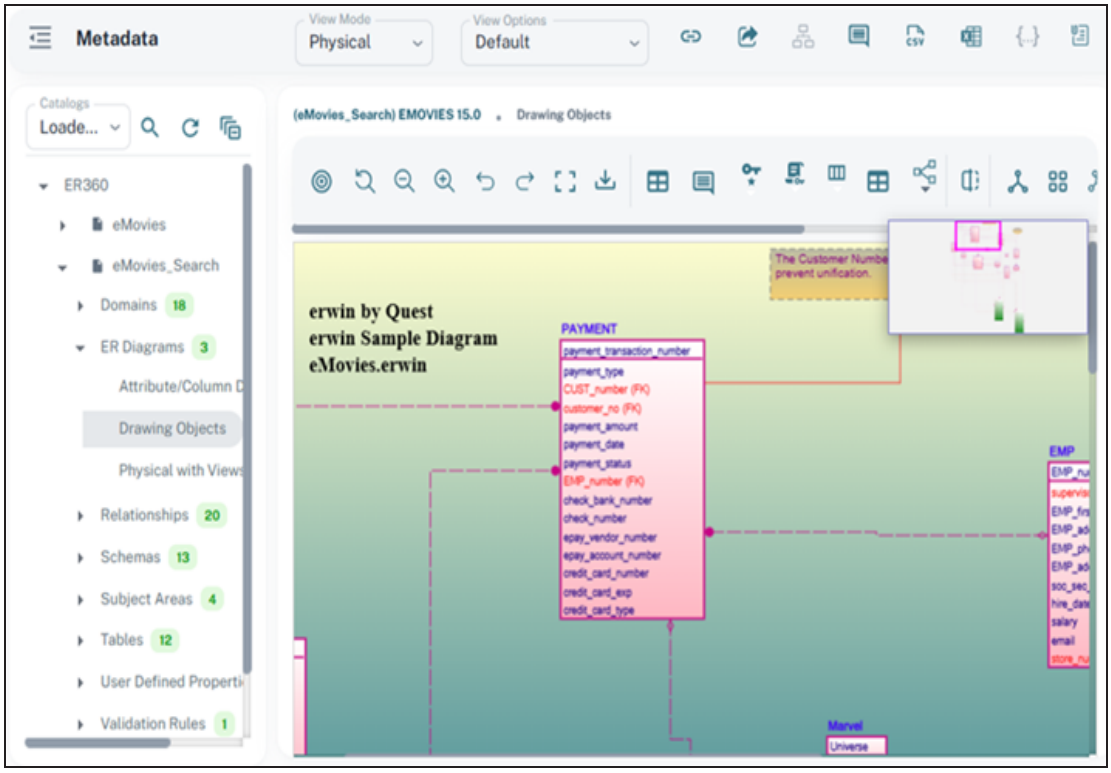
- **Parent-child metadata**: Use this format to search parent-child metadata objects. The syntax for the this search format is *<parentname>.<childname>*.

  For example, the search phrase movie.genre returns all metadata where the parent entity is movie and the attribute is genre.

Diagram Enhancements

Several enhancements have been made to the diagram view:

- The appearance and structure of models harvested from erwin Data Modeler (erwin DM) is remain visually consistent in ER360, ensuring seamless continuity between Logical and Physical Views.



- Super Type-Sub Type relationship are now available, allowing users to clearly model generalization/specialization hierarchies in logical models.
- All object properties, including User-defined properties (UDPs), are now available under Object Properties.

Metadata Indexing

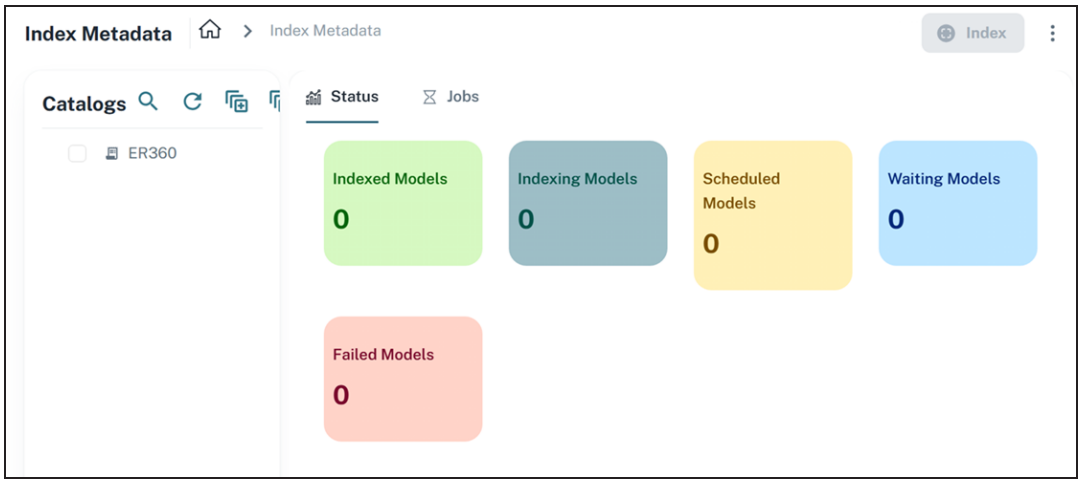
An index job is now automatically created when you harvest a model from erwin Mart Portal to erwin ER360. To support this, a new Index Metadata page has been added. You can also manually initiate an index job from this page.

View Index Jobs

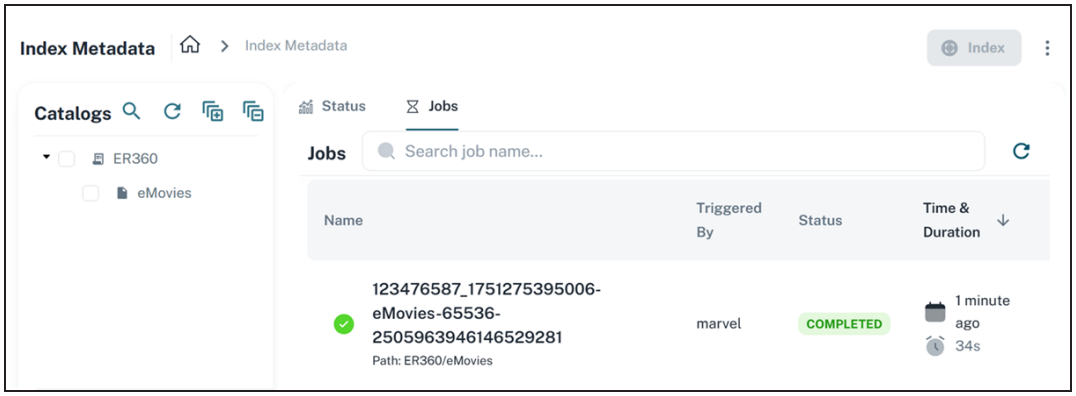
To view index jobs, follow these steps:

1. Under **Application Menu**, click IM.

   The Index Metadata page opens.



2. Click the **Jobs** tab. When you harvest a model, you can see the index job for the harvested model.

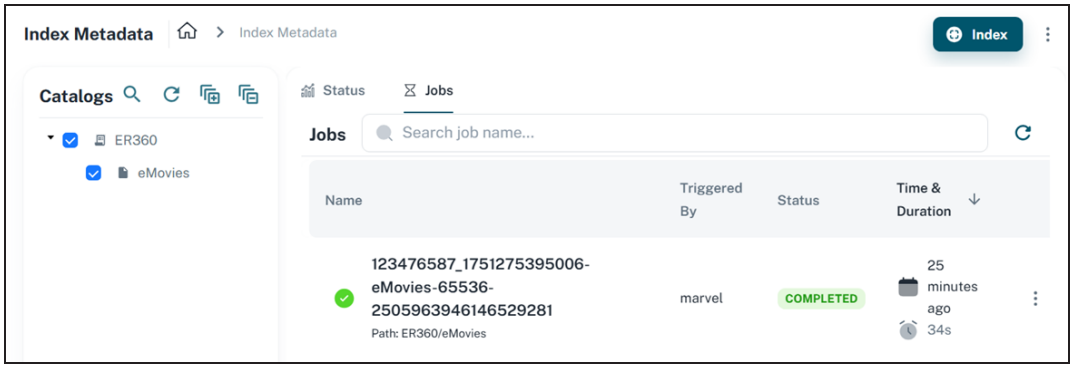


For information about harvesting, refer to the Harvesting Catalogs to erwin ER360 topic.

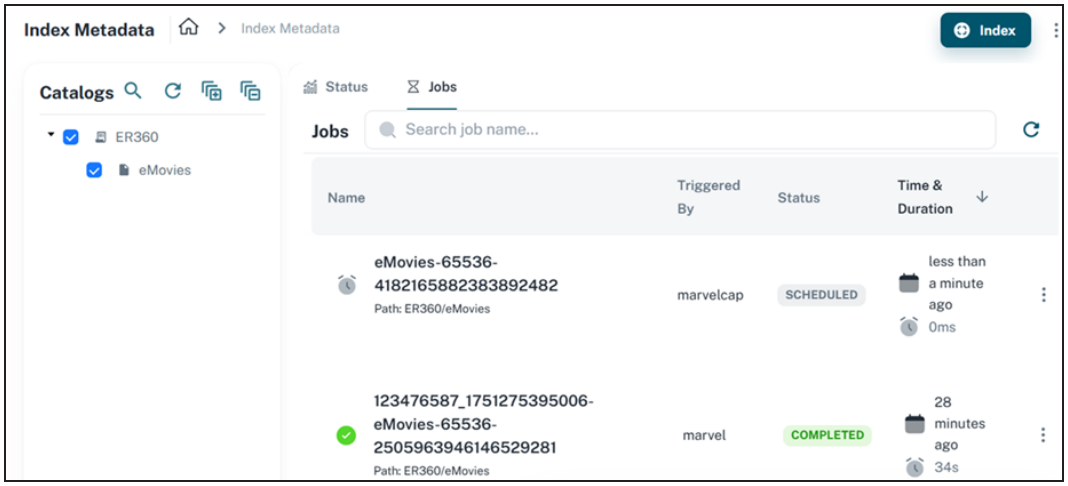
Index Metadata

To index metadata, follow these steps:

1. On the Jobs tab, select a model under Catalogs.



2. Click **Index**. An index job is scheduled.



Once the indexing job is completed, you can search for the updated metadata or objects.

Worksheet Enhancements

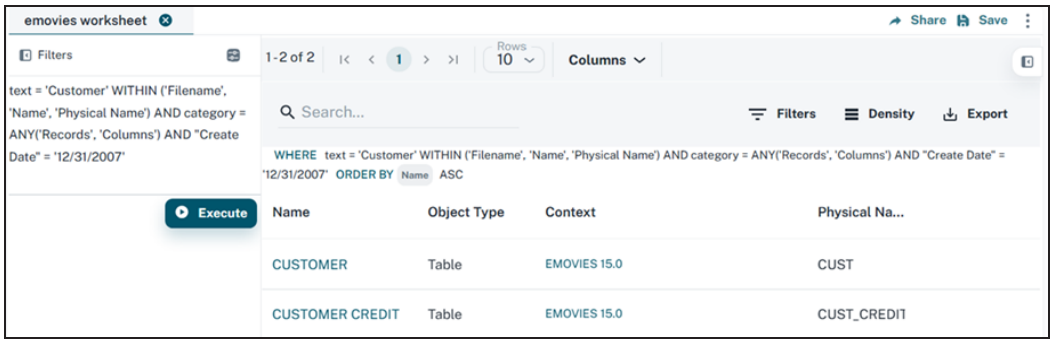
erwin ER360 introduces the following Worksheet features:

- **MetaQL Support**: You can now use MetaQL, a lightweight, SQL-like query language, to make your filter logic in data models easier to understand, share, and audit.

  To view and edit a MetaQL query, follow these steps:

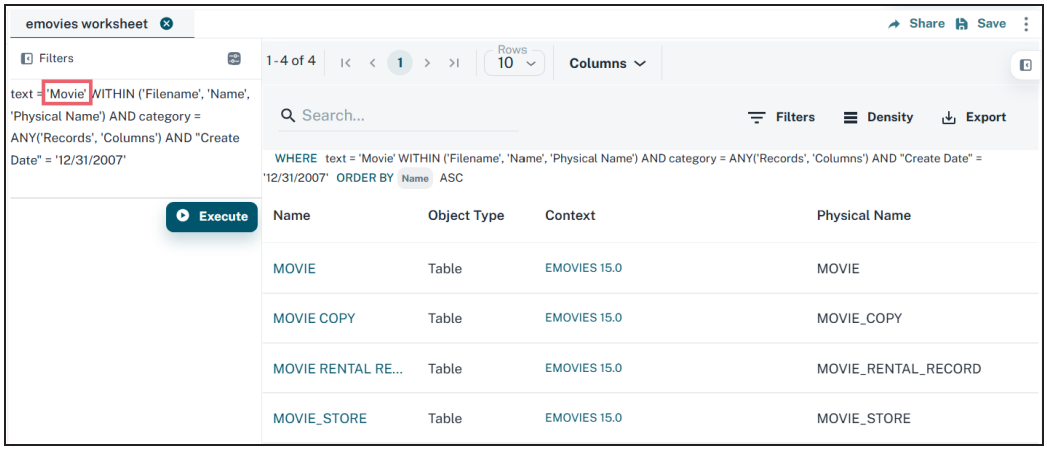
  1. In the Filters pane, click  .

     The MetaQL query for the applied filters is displayed.

  2. Update the filters in the query as required, and then Click **Execute**.

     For example, change the text value from 'Customer' to 'Movie'.

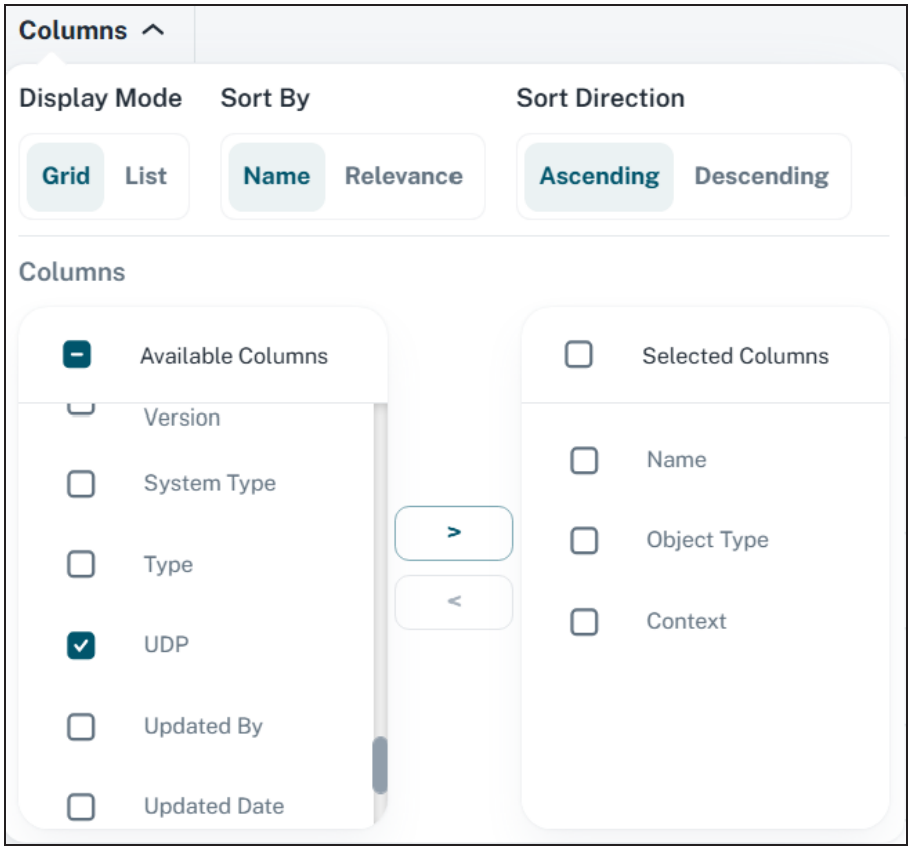
     You can view the filtered data.

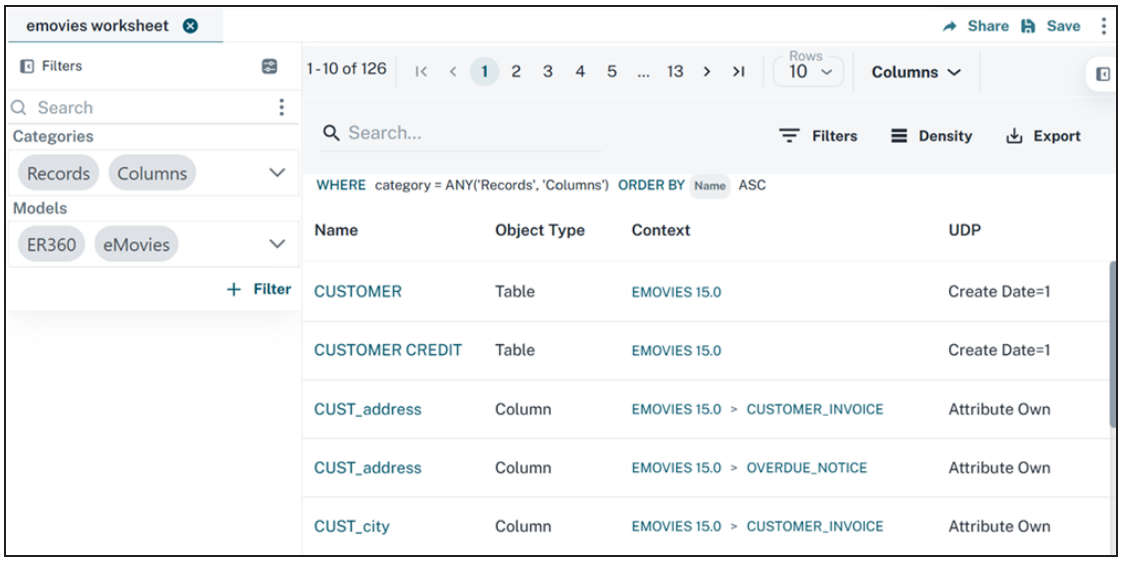
- **Advanced Filters**: Additional filters are improved to enable you to refine searches for metadata objects with enhanced control. You can filter records using an extensive range of common attributes, object attributes, and user-defined properties (UDPs) to generate more accurate and relevant results.

  The following table lists a few examples:

Common Attributes	Object Attributes	UDP
Certification Count	Comment	Create Date
Certified By	Data Type	Color
Comment Count	Definition	Data Steward
Commented By	Name	Attribute Owner
Created By	Default Value	Date Created
Created Date	Nullable	
Endorsed By		
Endorsement Count		
Parent Name		
Updated By		
Updated Date		
Warned By		
Warning Count		

- **User-defined Properties**: You can now view and add user-defined properties to filter results using the Column option. These user-defined properties are also visible in the Properties pane.


Columns
Display Mode
Grid
List
Sort By
Name
Relevance
Sort Direction
Ascending
Descending
Columns
Available Columns
Version
System Type
Type
UDP
Updated By
Updated Date
>
<
Selected Columns
Name
Object Type
Context


emovies worksheet
Share
Save
Filters
Search
Categories
Records
Columns
Models
ER360
eMovies
Filter
1-10 of 126
1 2 3 4 5 ... 13
Rows
10
Columns
Search...
Filters
Density
Export
WHERE category = ANY('Records', 'Columns') ORDER BY Name ASC
Name
Object Type
Context
UDP
CUSTOMER
Table
EMOVIES 15.0
Create Date=1
CUSTOMER CREDIT
Table
EMOVIES 15.0
Create Date=1
CUST_address
Column
EMOVIES 15.0 > CUSTOMER_INVOICE
Attribute Own
CUST_address
Column
EMOVIES 15.0 > OVERDUE_NOTICE
Attribute Own
CUST_city
Column
EMOVIES 15.0 > CUSTOMER_INVOICE
Attribute Own

15.1

The Feature Tour guide walks Data Architects, Data Administrators, Application Administrators, Database Administrators, and Partners through the new features and enhancements in erwin Data Modeler (erwin DM) 15.1 release.

New Features

The new features introduced in this release are:

- AI-Powered Data Modeling
- MS Fabric Lakehouse
- Reusing Entities as Shortcut

Enhancements

The enhancements implemented in this release are:

- Data Sources for NoSQL Database Models
- Tree View in Bulk Editor
- Link Tab for NoSQL Database Models
- erwin Mart PortalEnhancements
- erwin ER360 Enhancements

AI-Powered Data Modeling

erwin DM offers AI-powered data modeling feature that enable you to streamline reverse engineering tasks. With AI assistance, you can generate data models automatically, reducing the need for manual setup. This capability help you save time, minimize errors, and improve overall efficiency.

> The AI is available only for RES.

Prerequisites

Ensure that the following prerequisites are in place:

- Purchase of the erwin Data Modeler AI Add-On and receipt of a welcome email with the licensing portal URL and license number. If you haven't received the email, contact your support team.
- Access to the Quest Licensing portal at https://licensing.ism.quest.com
- Internet connectivity for key generation and validation
- Access to erwin Mart Portal
- AI Credentials: AI License Key, Client Id, and Client Secret

Workflow

The AI workflow for Reverse Engineering includes the following steps:

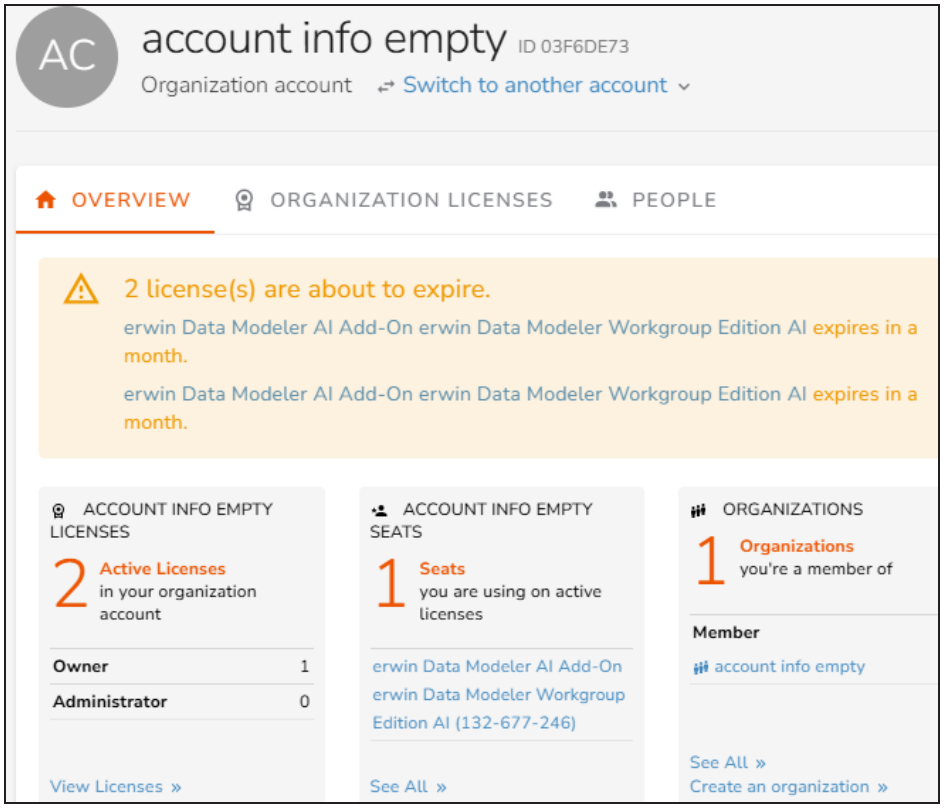
1. Assign Users
2. Enable the Feature
3. Create Access Keys
4. Enable AI Licenses
5. Use AI for Reverse Engineering

Assigning Users to Licenses

To assign users to an activated license in the Quest Licensing Portal, follow these steps:

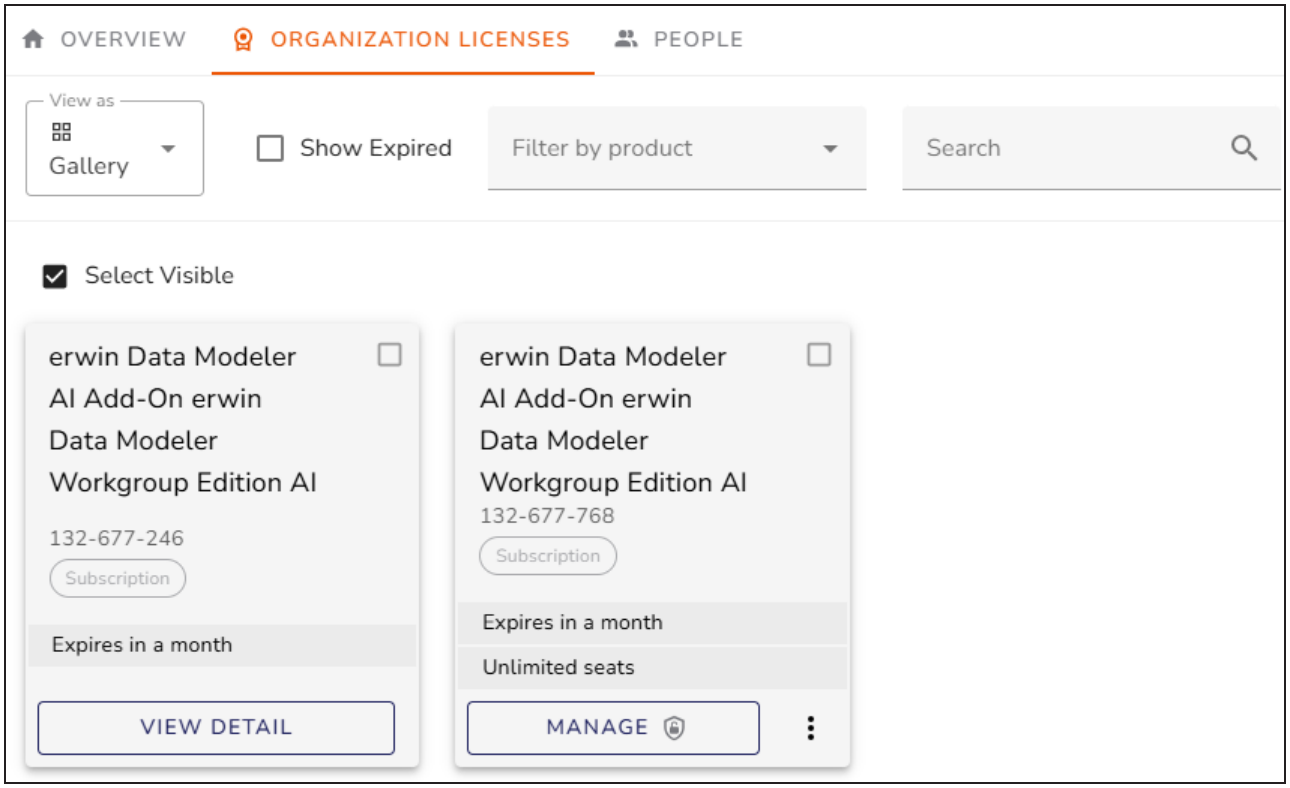
1. Log in to the Quest Licensing portal using the same email address that received the welcome email.

   The account info empty page appears. By default, the Overview tab opens and displays the activate licenses.



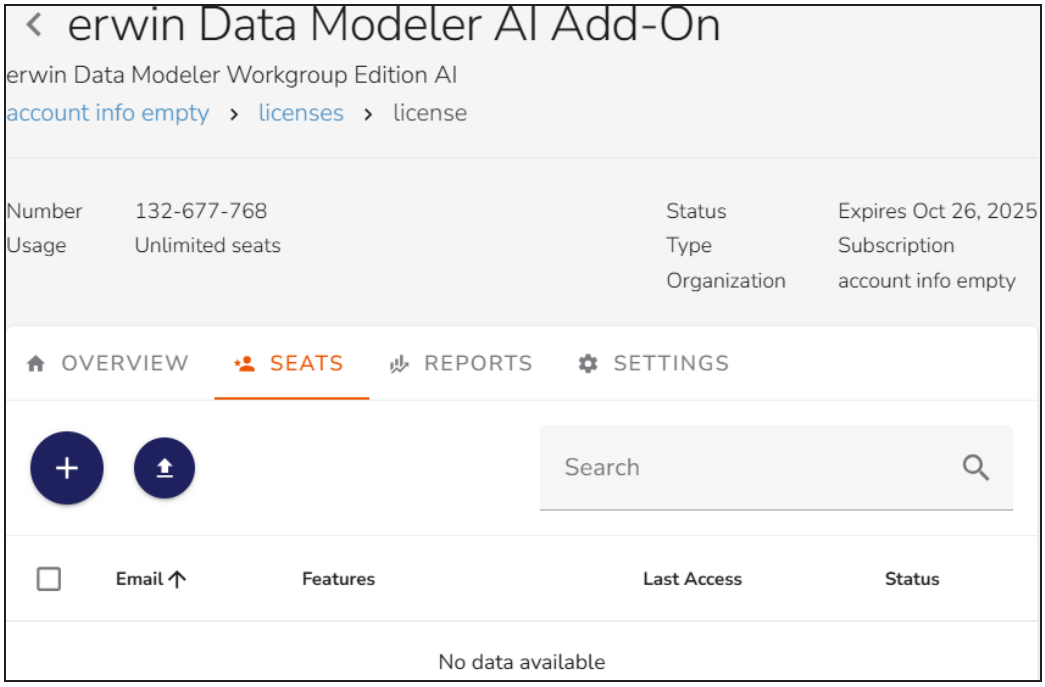
2. Under Overview, on the Account Info Empty Licenses card, click **View Licenses**.

   The Organization Licenses tab opens and you can view your active license here.



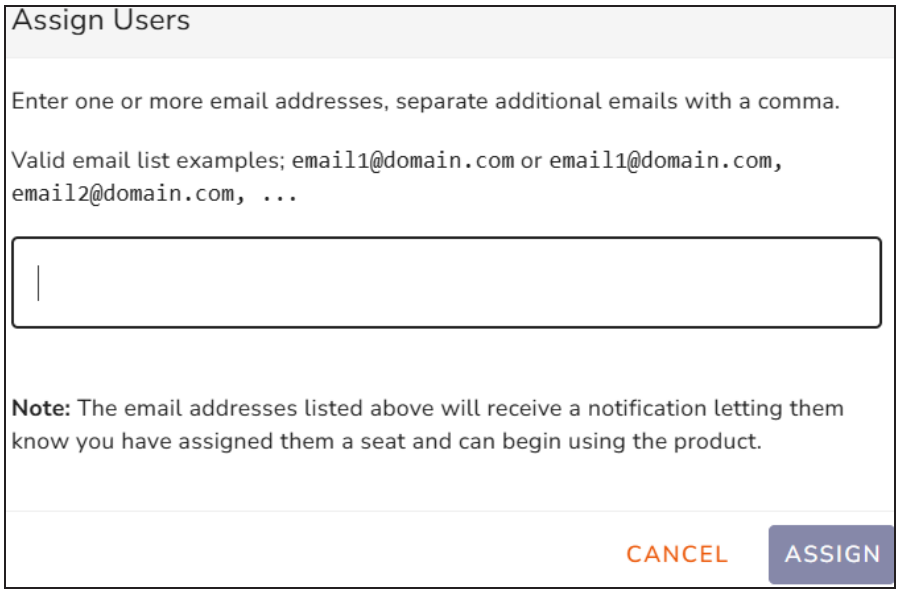
3. On the active license, click **Manage**.

   The license page opens.



4. Click the **Seats** tab, and click  to assign users.

   The Assign Users page dialog box appears.



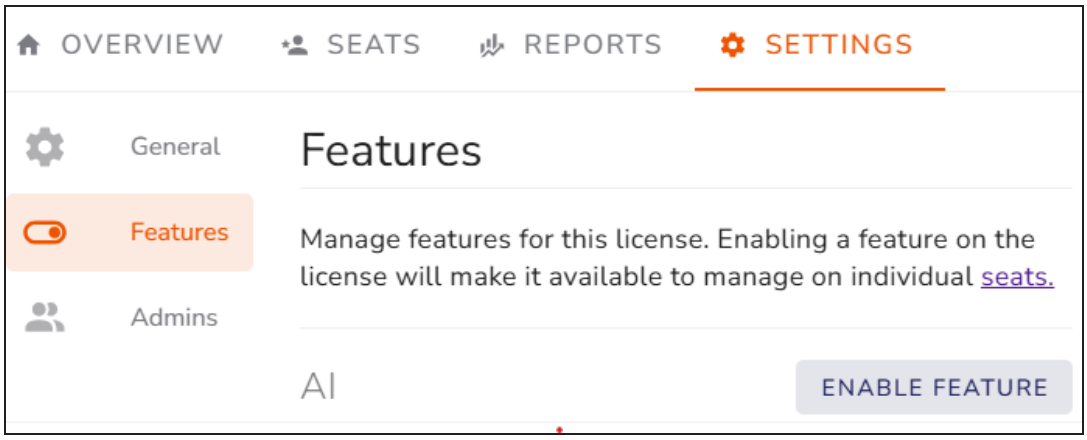
5. Enter the same email address that you used to log in to the Quest Licensing portal, and then click **Assign**.

Enabling the Feature

Once the users are assigned, you need to enable the AI feature.

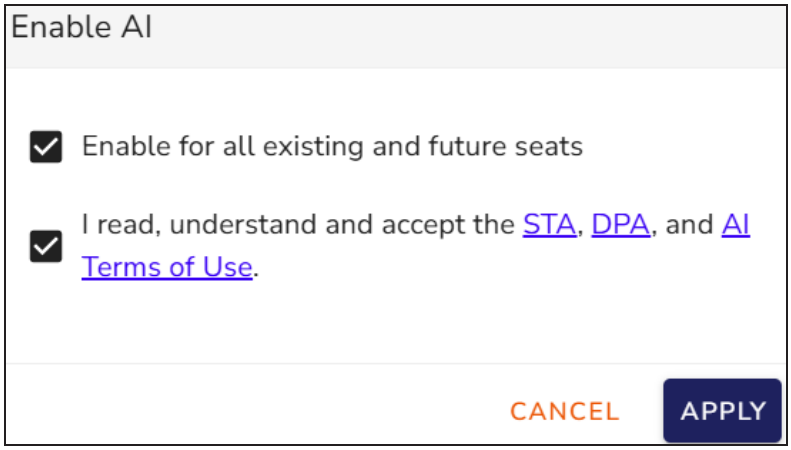
To enable AI feature, follow these steps:

1. On the Settings tabs, click **Features**.



2. In the Features section, next to AI, click **Enable Feature**.

   The Enable AI dialog box appears.



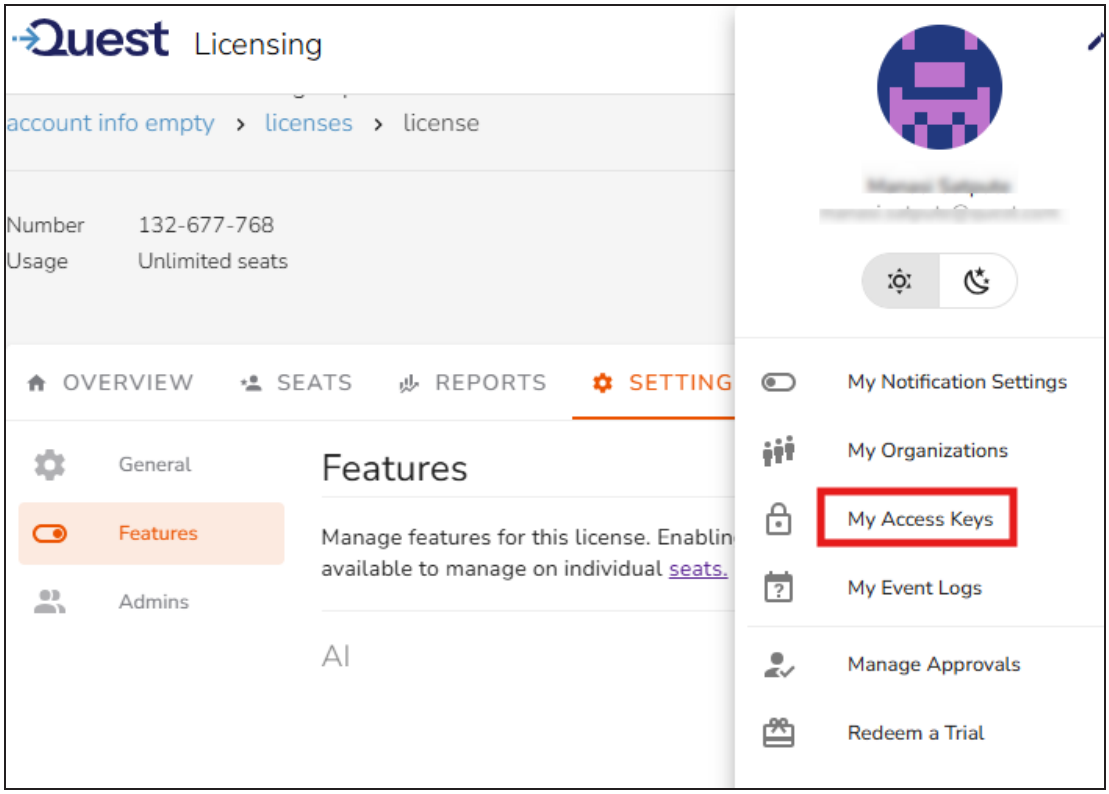
3. Review the terms of usage and select both the conditions, and then click **Apply**.

Creating Access Keys

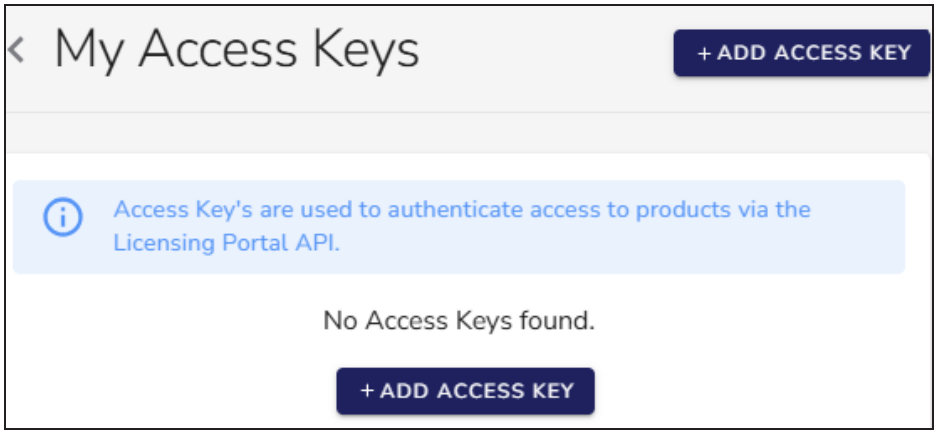
You can now create the access key required to initiate erwinAI.

To create access keys, follow these steps:

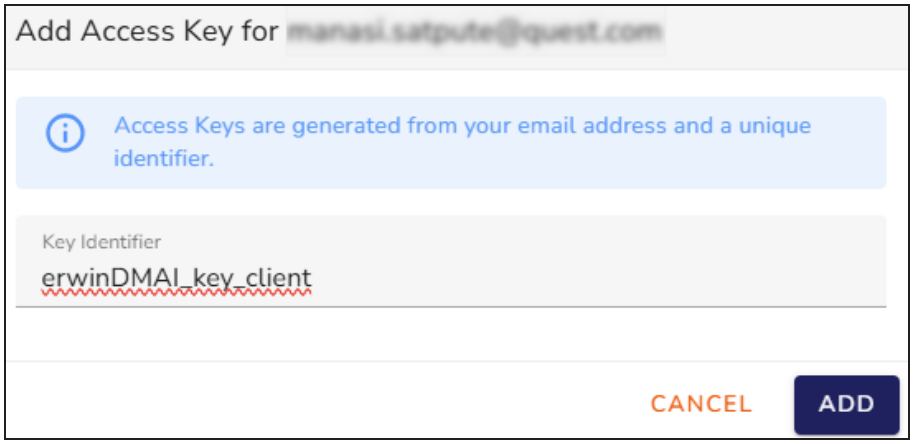
1. On the Profile menu, select **My Access Keys** or go to https://li-censing.ism.quest.com/user/access-keys.



The My Access Keys page opens.

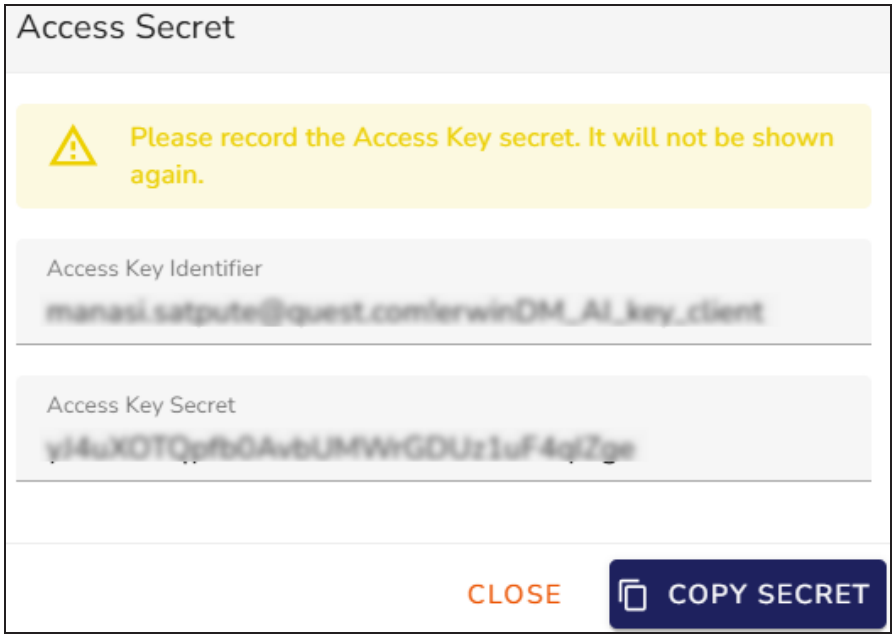


2. Click **Add Access Key**.



3. Enter a key identifier in the corresponding field, and then click **Add**. For example, erwinDMAI_key_client. Access key is generated from your email address and this unique identifier.

   In the Access Secret dialog box, Access Key Identifier and Access Key Secret are displayed.



4. Click **Copy Secret** to copy. Save the Access Key Secret. It will not be displayed again.

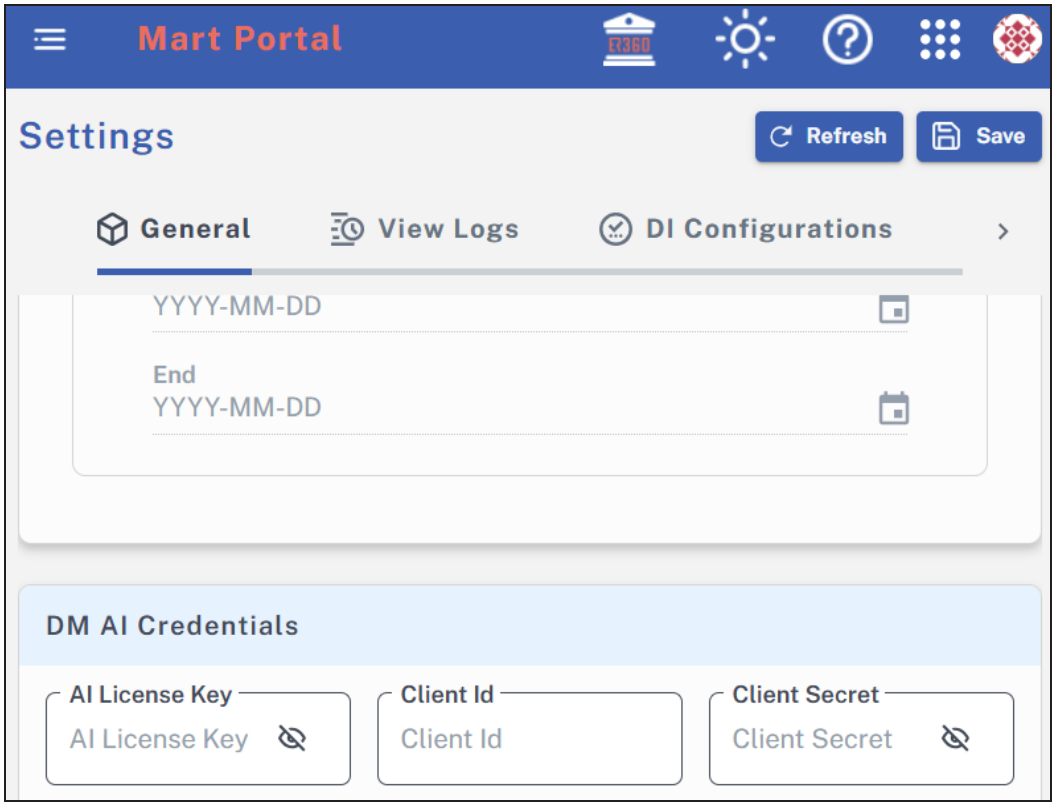
Enabling AI Licenses

By default, AI features are disabled. To enable them, you need to configure your license using AI credentials through erwin Mart Portal and ensure that erwin DM is connected to the erwin Mart Portal.

To enable AI features, follow these steps:

1. Log in to the erwin Mart Portal.
2. Go to **Application Menu** > **Settings** > **General**.

   The General page appears.
3. Scroll to the **DM AI Credentials** section.



4. Enter your AI License Key, Client Id, and Client Secret in the appropriate fields.
5. Click **Save**.

   Your AI credentials are saved, and AI features are enabled in erwin DM.

Using AI for Reverse Engineering

You can use Generative AI to generate scripts during the Reverse Engineering process. This section walks you through the process of reverse engineering a MongoDB model from scripts using AI as an example. Similarly, you can reverse engineer data models for other target databases. You can use GenAI in the following scenario:

- Generating DDL scripts using natural language prompts

Generating DDL Scripts using Generative AI

You can describe the models that you want to generate to the AI assistant. Based on the description, AI generates a script and the corresponding model. For example, to generate a healthcare

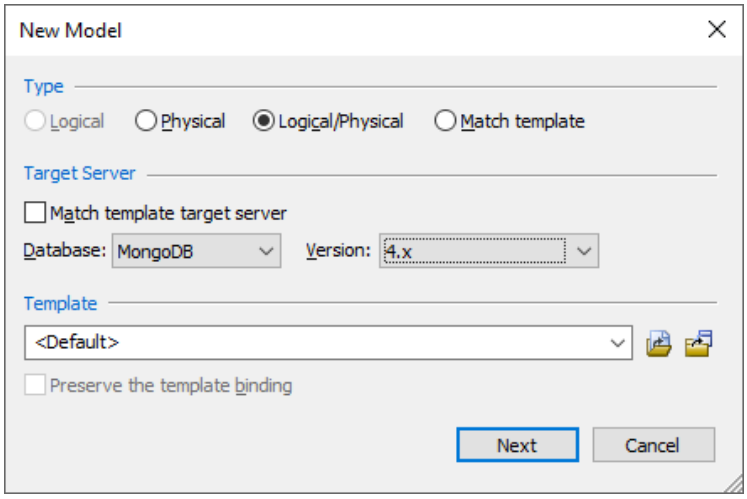
industry based model, you can describe the model as follows:

"Create a MongoDB schema for a hospital system with patients, doctors, appointments, and prescriptions."

To generate DDL scripts and model using AI, follow these steps:

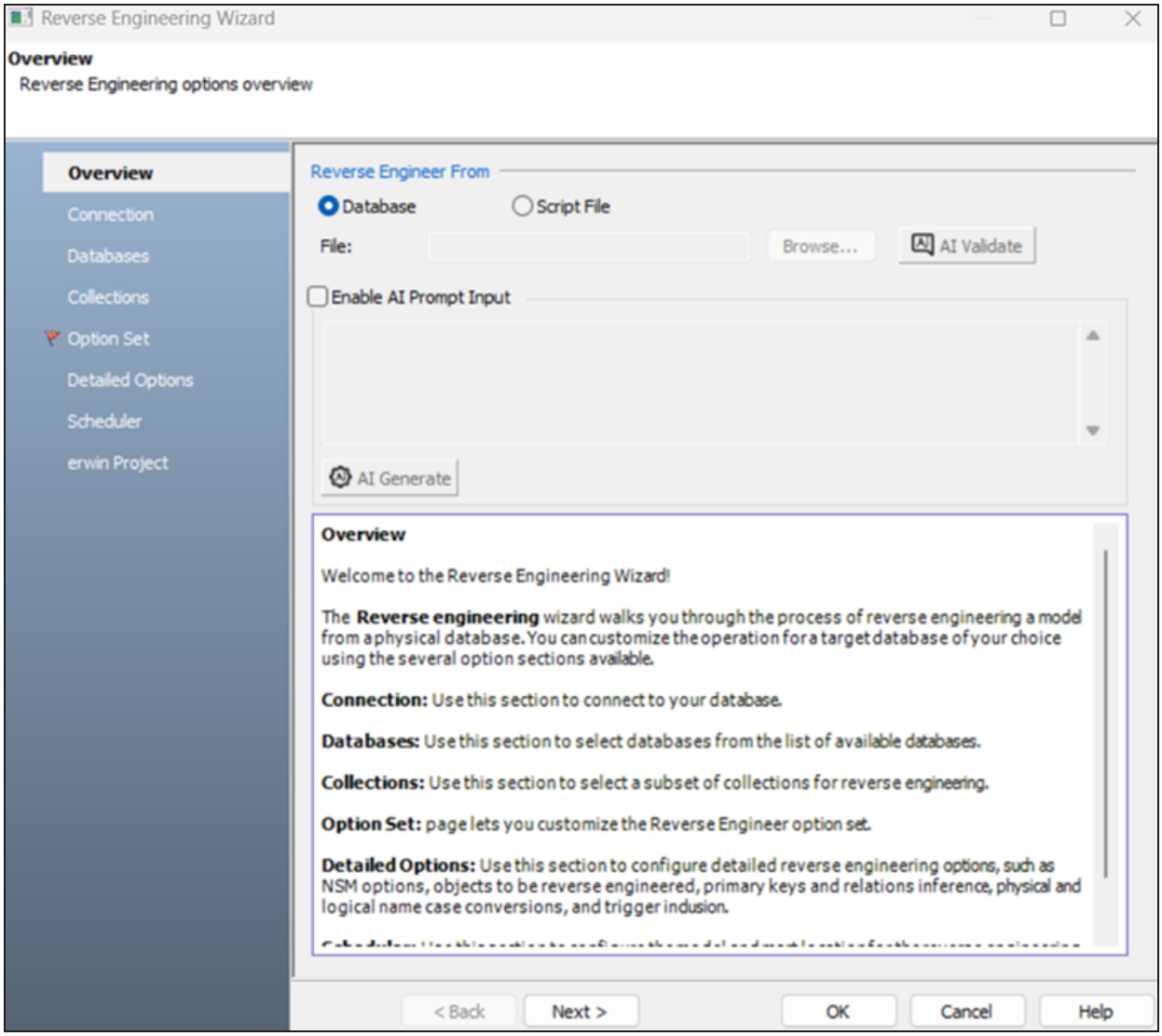
1. In erwin Data Modeler (erwin DM), click **Actions** > **Reverse Engineer**.

   The New Model screen appears.

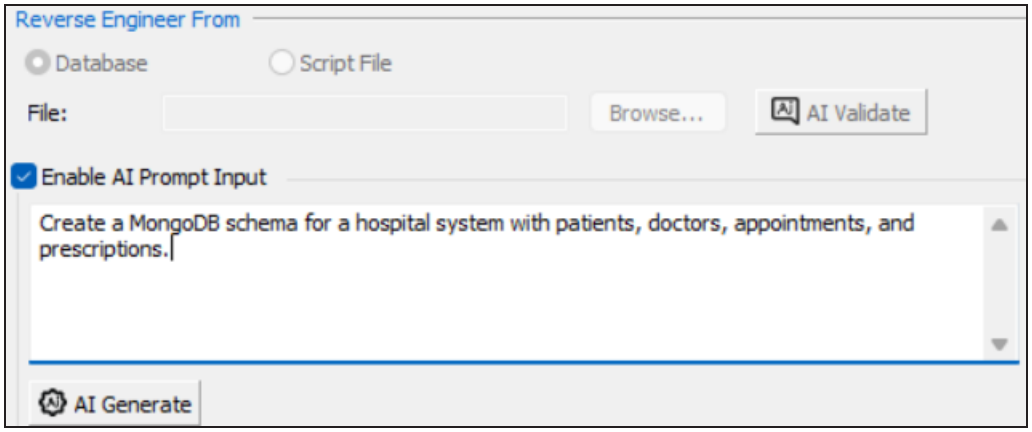


2. Click **Logical/Physical** and select a **Database**.
3. Click **Next**.

   The Reverse Engineering Wizard appears.

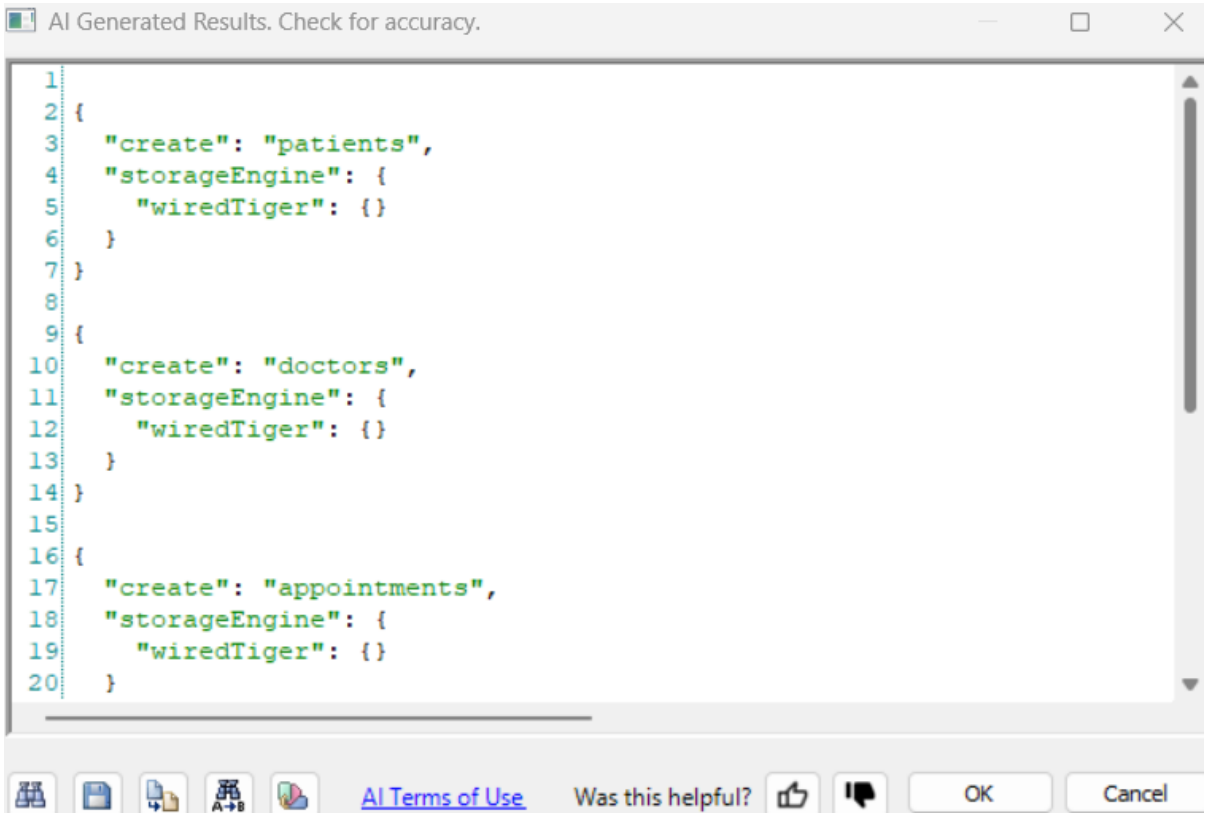


4. Select the **Enable AI Prompt Input** checkbox. Clicking this option enables the prompt box.
5. Enter you model description in the AI prompt box. For example, Create a MongoDB schema for a hospital system with patients, doctors, appointments, and prescriptions.



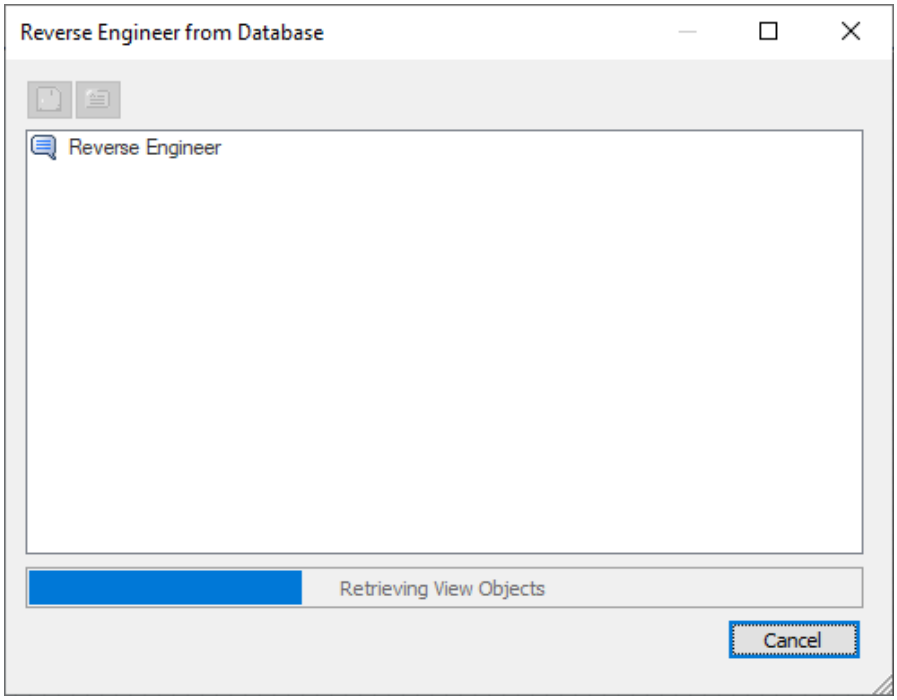
6. Click **AI Generate**.

   The AI-generated script based on your description is displayed. You can review, edit, save, and reuse this script.

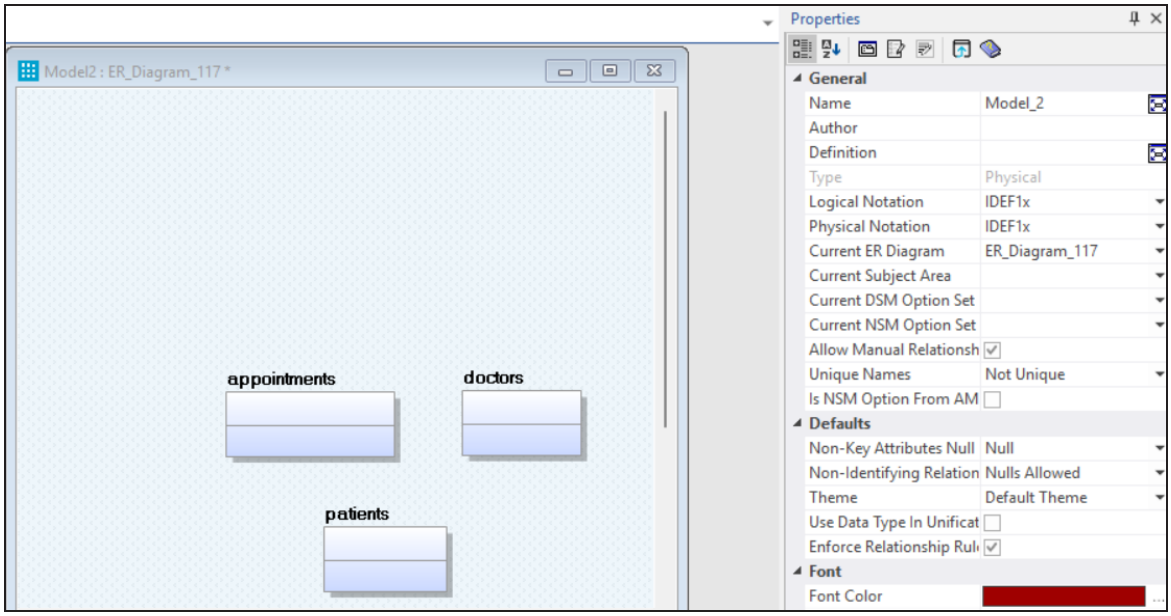


7. Click **Ok**.
8. Enter appropriate values in the fields for the other tabs.
9. Click **Ok**.

   The reverse engineering process starts.



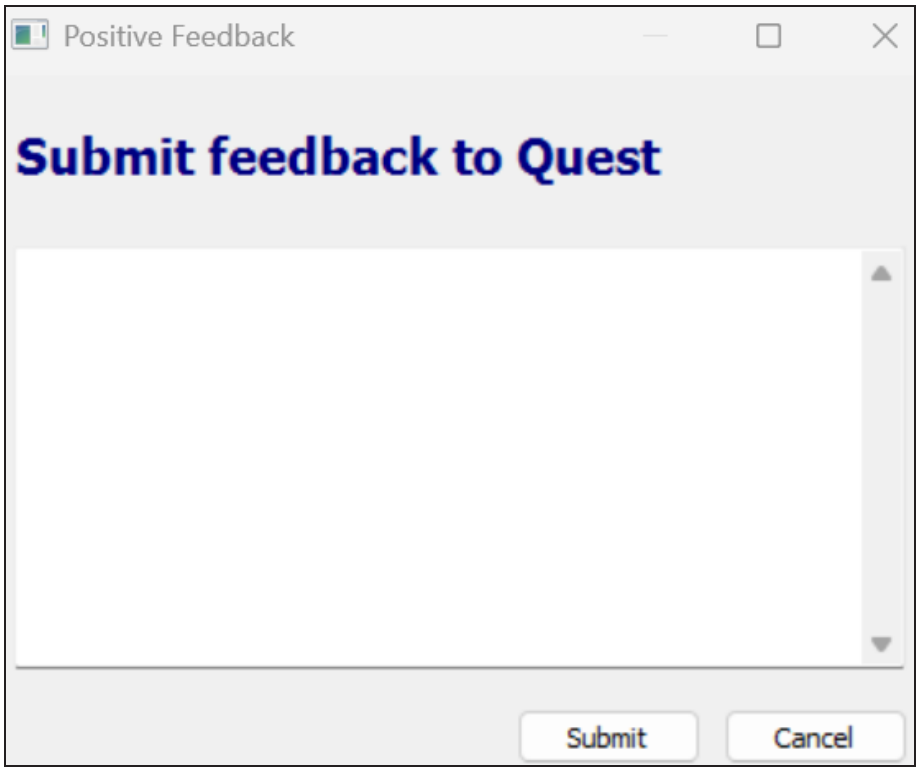
Once the process is complete, based on your selections, a schema is generated and a model is created.



You can also use the followin options on the AI-generated script:

- **Search** ( ): Use this option to search for a word or characters in the schema.
- **Save** ( ): Use this option to save the generated script.
- **Copy** ( ): Use this option to copy the script.
- **Replace** ( ): Use this option to find and replace characters in the script.
- **Text Options** ( ): Use this option to configure the preview text editor's look and feel, such as window, font, and syntax color settings.
- **AI Terms of Use**: Use this option to open the terms and conditions for AI-powered features in erwin DM.
- **Was this helpful?**: Use this option to provide feedback on AI-generated script. Click or to submit positive or negative feedback. A feedback popup opens where

you can enter your comments and click **Submit**.



MS Fabric Lakehouse Support

Along with SQL Pool, erwin Data Modeler (erwin DM) supports Microsoft Fabric Lakehouse as a target database via Azure Synapse. To view the list of supported objects and data types, refer Azure Synapse Fabric Lakehouse Object Support.

Azure Synapse Fabric Lakehouse supports all the erwin DM features and functions. The following sections takes you through these features:

- Reverse Engineering Parameters
- Forward Engineering Parameters

> Microsoft Fabric Lakehouse supports only ODBC data source.

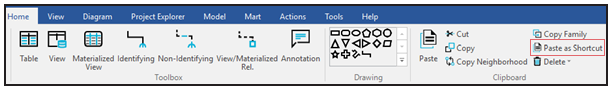
Reusing Entities as Shortcuts

You can now reference entities across models by copying them and pasting them as shortcuts into other models. A Shortcut is a read-only link that remains synchronized with its source until it is desynchronized.

Reuse any entity using the Paste as Shortcut option from the Home menu. You can update the source entity and its attributes in the source model, and then use the Sync Shortcut option to automatically refresh all linked shortcuts.

When local changes are required, desynchronize at the entity or attribute level to make the Shortcut editable, allowing scoped edits while the rest remains in sync.

This approach ensures data integrity, improves data governance, and reduces duplication.



> The source model must be saved either locally or in the Mart for the Paste as Shortcut option to work. If the source model is not saved, the system cannot create a valid reference for the Shortcut.

This feature is supported for the following database models:

- Azure Synapse
- DB2
- Informix
- MySQL
- ODBC
- Oracle
- PostgreSQL
- SAP
- Snowflake
- SQL Server
- Teradata

Creating Shortcuts

You can copy entities and paste them as shortcuts into different models. However, you can not copy attributes or columns between models. Also, the Paste as Shortcut feature isn't supported for non-relational databases.

> The source model must be saved either locally or in the Mart for the Paste as Shortcut option to work. If the source model is not saved, the system cannot create a valid reference for the Shortcut.

To create a shortcut:

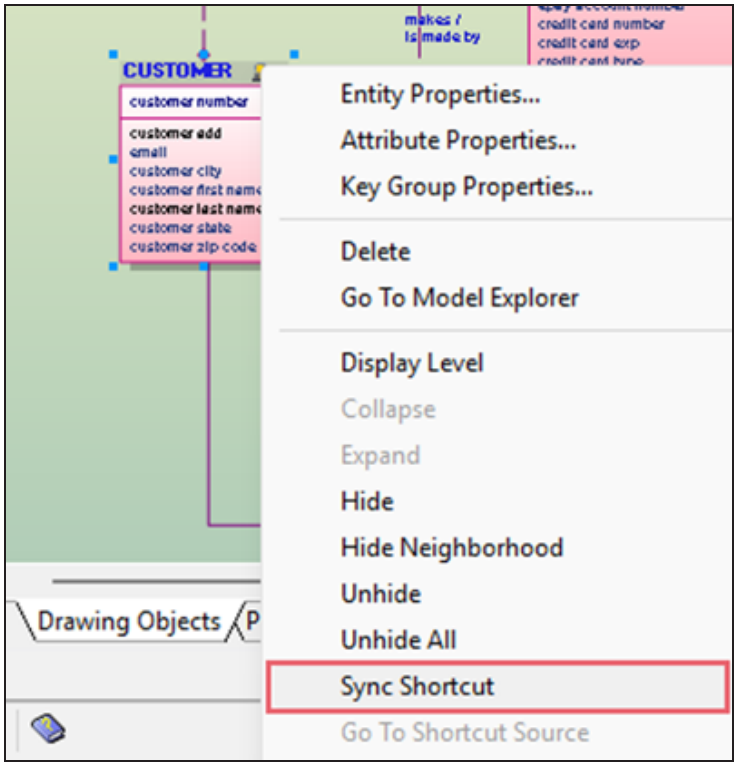
1. Open a model and select one or more entities that you want to copy.
2. On the Home tab, click **Copy**.
3. Go to the target model, and then click **Paste as Shortcut**.

   The object is pasted as a shortcut in the target model. The new objects are displayed in the Model Explorer.

Syncing Shortcuts

To synchronize shortcuts with the source entity:

1. Open the source model that contains the entity from which the shortcuts were created.
2. Right-click the source entity in the diagram.



3. Click **Sync Shortcut**.

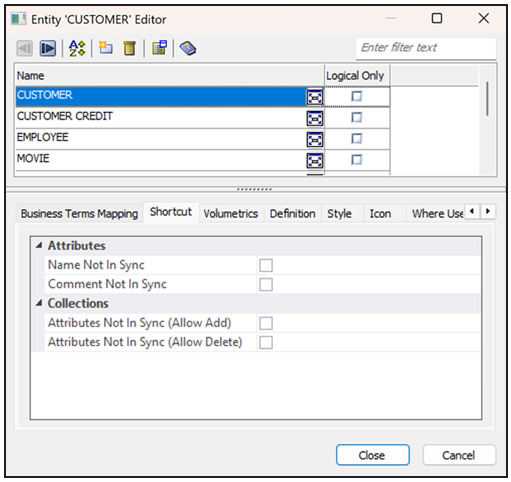
Similarly, you can synchronize at the attribute level. Synchronizing updates all related shortcuts in other models.

> To synchronize shortcuts, all related models must be open–both the source and the target.

Desynchronizing Shortcuts

To desynchronize shortcuts at the entity level:

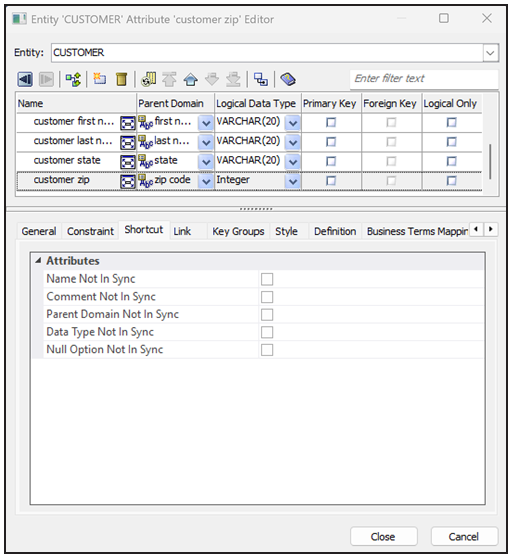
1. Open the source model that contains the source entity.
2. Right-click the entity in the diagram or in the Model Explorer.
3. Click **Properties**. The Properties editor opens.



4. On the Shortcut tab, select the properties you want to allow not to be in sync.
5. Click **Close**.
6. Right-click the entity in the diagram, click **Sync Shortcut**.

To desynchronize shortcuts at the attribute level:

1. Open the source model that contains the entity.
2. Right-click the attribute in the diagram or in the Model Explorer.
3. Click **Properties**. The Properties editor opens.



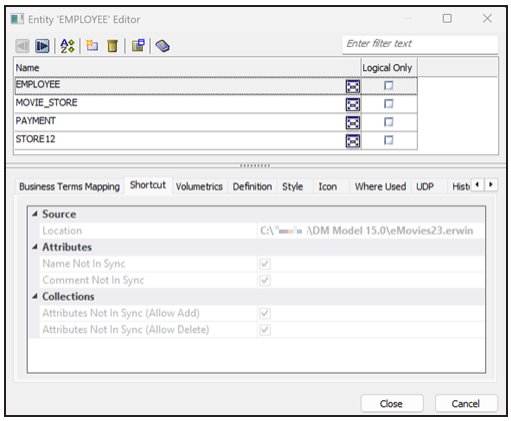
4. On the Shortcut tab, select the properties you want to allow not to be in sync.
5. Click **Close**.
6. Right-click the attribute, click **Sync Shortcut**.

Desynchronizing an attribute or entity removes its synchronization with the original object.

After desynchronization:

- Changes to the original object no longer affect the shortcut.
- An entity is desynchronized, its attributes can still be in sync–and vice versa.
- Attributes remain in the shortcut but become independent. You can modify or delete them without affecting the original object.

To check the location or the properties allowed not to be in sync, go to the target model, right-click the entity shortcut, and open the Properties editor. On the Shortcut tab, you can view the location and the properties.



Similarly, you can check which attribute properties are allowed not to be in sync.

Enhancements

This Feature Tour guide walks Data Architects, Data Administrators, Application Administrators, Database Administrators, and Partners through the enhancements in erwin Data Modeler(erwin DM) 15.1 release.

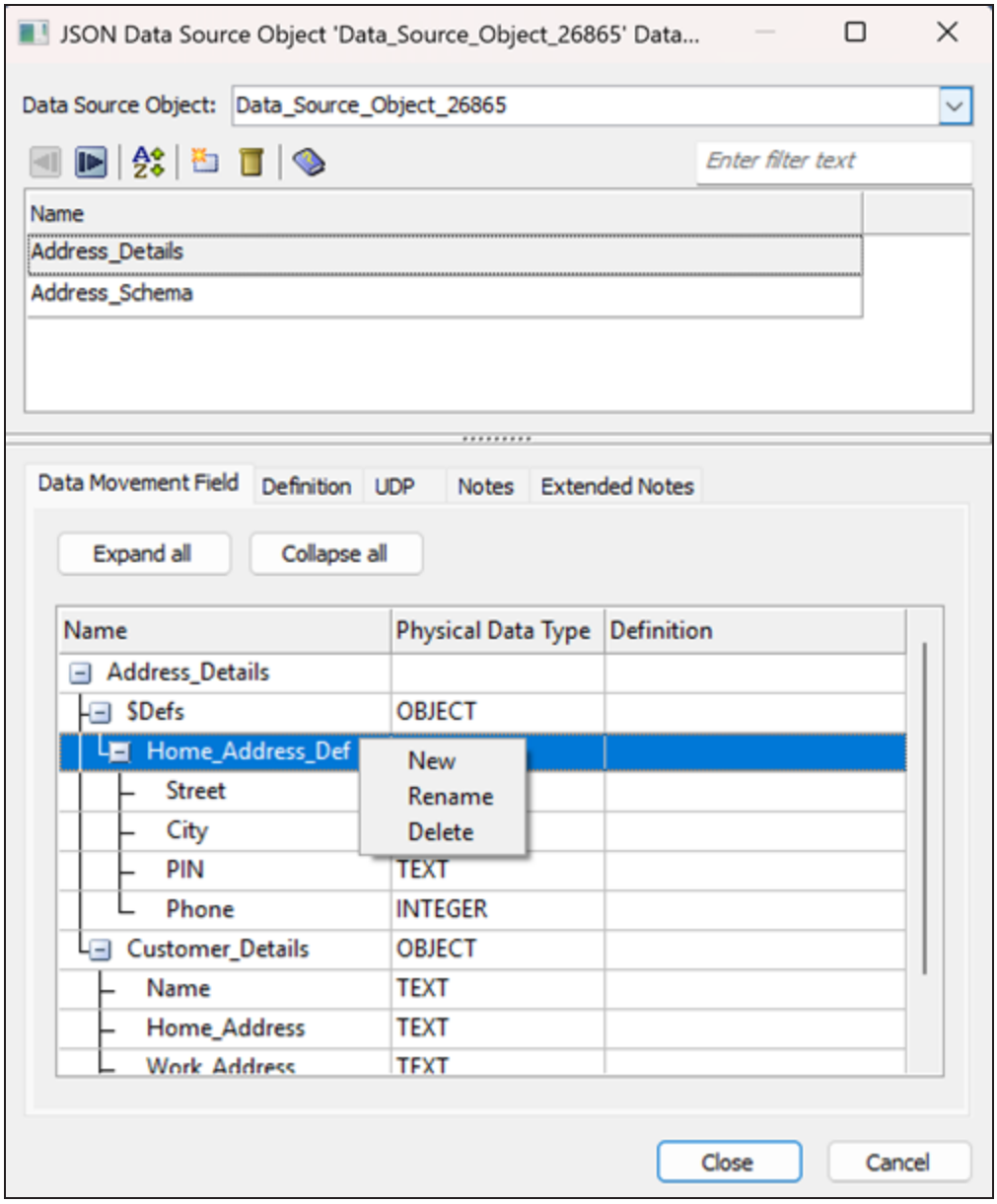
The enhancements in this release are:

Data Sources for NoSQL Database Models

The data source functionality is now available for all supported NoSQL databases. You can use the Data Source Editor to track and update the source of each data warehouse object.

The Data Movement Field UI has been updated to include the following options when NoSQL databases are used in the base model, target data source, or both.

- **Expand all**: Displays all child items for every object.
- **Collapse all**: Hides all child items for every object.



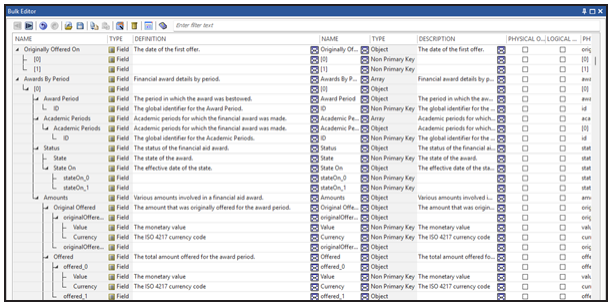
You can access the New, Rename, and Delete options by right-clicking the respective object.

For more information, refer to the Data Sources section.

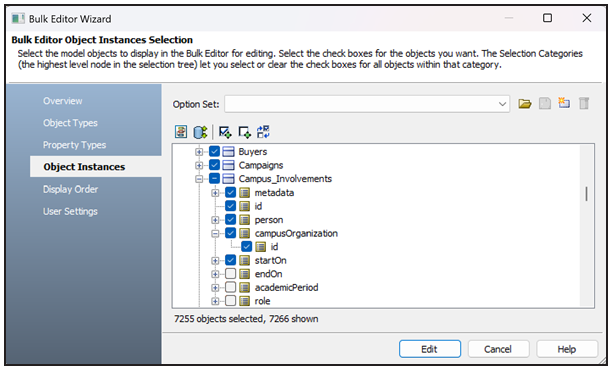
Tree View in Bulk Editor

Following enhancements have been implemented in the Bulk Editor for all supported NoSQL database models:

- **Tree view in the Bulk Editor:** You can now expand or collapse the tree to review and edit objects.



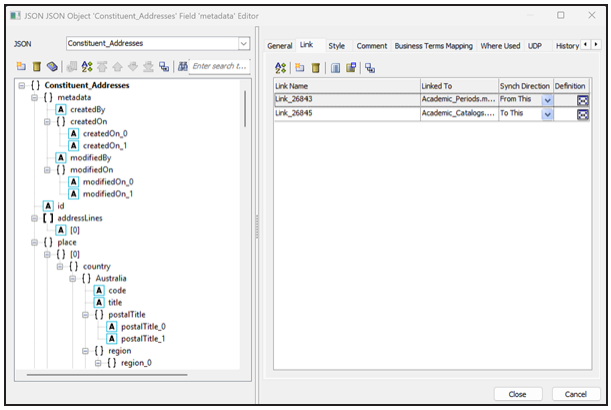
- **Tree view in the Object Instance tab of the Bulk Editor Wizard:** You can now expand or collapse the tree to review and select objects for editing.



For more information, refer to the Bulk Editor section.

Link Tab for NoSQL Database Models

The Link tab has been added to the Attribute Editor and the Column Editor for all NoSQL databases. You can use it to access the Link Wizard.



For more information, refer to the Link Wizard section.

Database Support Updates

Support for the following databases has been updated:

Database	Enhancements
Oracle	Views tab has been added to the Oracle Reverse Engineering Wizard. For more information, refer to theReverse Engineering Parameters topic.
All supported NoSQL databases	The Link tab is available in the Attribute Editor and the Column Editor for all NoSQL databases. You can use it to access the Link Wizard. For more information, refer For more information, refer to the Link Wizard section.

erwin Mart Portal Enhancements

erwin Mart Portal has undergone the following enhancement:

- Productivity Enhancements

Productivity Enhancements

The following enhancement has been made to erwin Mart Portal:

- **erwin Mart PortalSettings configuration**: The Settings module now includes a new DM AI Credentials field under the General tab. This field is used to enable AI-powered features in

erwin DM. For more information, refer to the General Settings topic.

- The label Azure AD has been renamed to Entra ID to reflect the updated branding.

erwin ER360 Features and Enhancements

erwin ER360 15.1 includes the following enhancements.

- **Object-Level CSV and Excel Export**: While browsing Metadata, you can now export data directly from cards using the Download CSV and Download Excel icons—making it easier to extract object-specific data. Previously, export options were only available at the model level.
- **Permissions Added for Collections, Worksheets, and Views**: To improve access control, two new permissions have been added:
  - **View:** Allows you to see shared items without modifying them.
  - **Shared Delete:** Enables you to delete shared items only when explicitly granted permission.

  Previously, only Create and Edit permissions were available, which led to concerns around unintended access—especially for shared views.
- **Display Name in Collections and Views**: Display Names are now shown instead of usernames across Collections and Views, making user identification clearer and more intuitive. This also applies when selecting users to share views and collections with them.
- **Validation Rule Card for Columns**: Validation rule cards are now displayed for applicable columns while browsing metadata.
- **Improved ER Diagrams**: The ER Diagram now renders bend points and subtype discriminators for relationships, improving diagram clarity and the visual representation of inheritance structures. To enable subtype discriminators, select Display Subtype Discriminator under the Relationship tab in the ER Diagram Editor in erwin Data Modeler.

  > To reflect these changes in the ER diagrams of existing models, you must reharvest your models.