Performing Lineage Analysis on Custom Metadata in Metadata Manager 8.5
Overview

In Metadata Manager 8.5, you can create object-level relationships between custom resource objects and packaged resource objects. You can view these relationships in a data lineage diagram. This article describes how to display relationships between custom resource objects and packaged resource objects in a data lineage diagram.

Models use classes to define metadata object types. To create an object-level relationship, you must first create a class-level relationship in the model between two classes. Then, you can create the relationship between two metadata objects which are based on the classes in the model.

For example, the Relation class in the custom model Relational_model and the Oracle Table class in the Oracle model have a class-level relationship with each other. CustomResource is the custom resource based on the Relational_model and the Oracle resource is based on the Oracle model. A customer table that contains information about customer names, addresses, and phone numbers exists in the custom resource and in an Oracle resource. You can create a relationship between these two tables and display the relationship in a data lineage diagram.

The following figure shows the hierarchy of the relationship between the resource objects:

To view data lineage between custom resource objects and packaged resource objects, complete the following steps:
1. Create a relationship between the custom model class and the packaged model class.
2. Create a relationship between the objects that belong to each class.
3. Perform data lineage analysis on the custom object. View the relationships between the objects in a data lineage diagram.

**Step 1. Create a Class-level Relationship**

Create a relationship between model classes for the objects. Use this class-level relationship to create object-level relationships between the metadata objects in each class.
For example, you can create a class-level relationship between a custom model class named Relation and an Oracle packaged model class. You use this class-level relationship to create the object-level relationship between the CUSTOMERS table in the custom resource and the Customers table in the packaged resource.

**To create a class-level relationship:**

4. On the Model page, select the class for which you want to create the relationship.
5. In the Model navigator or the Details section, click Actions > Open.
   -or-
   Right-click and choose Open.
   Metadata Manager opens a new tab for the class.
7. Click Add Relationship and configure the relationship properties.
   The following figure shows the class-level relationship, between the custom class named Relation and the packaged Oracle Table class:

8. Click Save.

**Step 2. Create an Object-Level Relationship**

After you create the class-level relationship between a custom model class and a packaged model class, create the relationship between the metadata objects that belong to these classes.

For example, create an object-level relationship between objects in the CUSTOMERS table in the custom resource and objects in the Customers table in a packaged Oracle resource.

**To create an object-level relationship:**

1. On the Browse page, select the custom metadata object for which you want to create a relationship.
2. In the Details section, click the Relationships tab.
   Metadata Manager displays the existing relationships for the object.

The following figure shows the existing relationships for a CUSTOMERS table in the resource named CustomResource. The CUSTOMERS table has a relationship with the CUSTOMERS_VIEW table in the same resource. The CUSTOMERS table belongs to the Relation model class, and the CUSTOMERS_VIEW table belongs to the View model class in the same model:
3. Click Edit Relationships.

The Edit Relationships window displays the object types for which you can create a relationship to this metadata object.

The following figure shows the Edit Relationships window.

4. Search or browse the metadata catalog and shortcuts for the metadata object to which you can create a relationship.

The Edit Relationships window stays open while you browse or search for the object. You may need to move the Edit Relationships window to access the Browse page.

5. Drag the metadata object into the Edit Relationships window.

-or-

Right-click the object in the metadata catalog or Results section and select Add as a Dependency.

The following figure shows the Edit Relationships window after you select the Customers table in the packaged Oracle resource and drag it into the Edit Relationships window.
6. Click OK.

The following figure shows the Relationship tab for the CUSTOMERS table in the custom resource after you add the relationship to the Customers table in the packaged Oracle resource:

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**Step 3. Run Data Lineage Analysis on the Custom Metadata Object**

Run data lineage analysis on a custom metadata object to see the relationships between the object and the objects to which you created relationships.

**To perform data lineage analysis:**

1. Select the custom metadata object.
2. Click Actions > Lineage Analysis.
   - or-
   Right-click and select Lineage Analysis.

Metadata Manager displays the relationship between the custom metadata object and the metadata object in the packaged resource in a data lineage diagram. You can view this diagram in the Results section. You can expand the diagram to see specific object-level relationships.

The following figure shows the relationship between the CUSTOMERS table in the custom resource and the Customers table in the Oracle resource:

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The data lineage diagram displays the relationship between the CUSTOMERS table in the custom resource and the Customers table in the packaged Oracle resource. When you expand the tables, you can view the relationships between the columns in each table. For example, there are relationships between columns that contain information for Name, Address, and Phone Numbers in each table.

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