erwin Data Intelligence Suite

Mapping Management Guide

Release v10.0

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Managing Mappings

This section walks you through managing source to target mappings in the Mapping Manager.

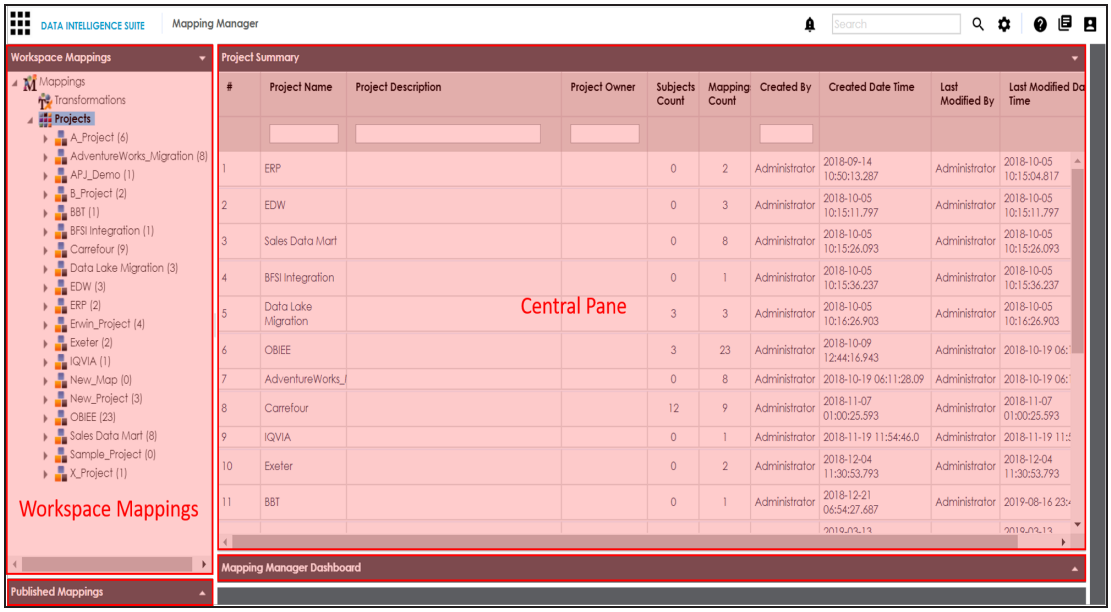
Mapping Manager is the core of erwin Data Intelligence Suite (DI Suite), where you do the following:

- Source to target mappings using the Metadata Catalogue
- Associate crosswalks to mappings using the Code Mapping Catalogue
- Associate reference data to mappings using the Reference Table Catalogue
- Associate requirements to mappings using the Specification Artifact Catalogue
- Create new mapping versions
- Specify test cases

Once the mappings are approved for coding, ETL developers can export them as coding requirements. They can also export the mappings to XML to automatically generate ETL/ELT jobs for ETL tools, such as Informatica PowerCenter, IBM DataStage, Microsoft SQL Server SSIS, and so on.

Using Mapping Manager

To access the Mapping Manager, go to **Application Menu** > **Data Catalog** > **Mapping Manager**. The Mapping Manager dashboard appears:



UI Section	Function
Workspace Mappings	Use this pane to browse and work on different projects and mappings.
Published Mappings	Expand this pane and browse through it to view and export published mapping details.
Central Pane	Based on your selection in the browser pane, use this pane to view or work on the data.
Mapping Manager Dashboard	Expand this pane to view statistics related to mappings and projects in the Mapping Manager.

Managing mappings involves the following:

- Defining and managing transformations
- Creating and managing mapping specifications
- Analysing mappings
- Associating mappings
- Publishing and creating new versions of mappings
- Exporting mapping specifications

Defining and Managing Transformations

We recommend that you define an exhaustive list of enterprise transformations that can be shared across the organization. This drives standards by streamlining processes, and improves efficiency and productivity.

This section walks you through the process of defining and managing transformations. You can define transformations at the enterprise level or at the project level. The scope of the enterprise level transformations is across all the projects in the Mapping Manager. The project-specific transformations are applicable to that specific project only.

Defining and managing transformations involves:

- Defining transformations
- Defining project specific transformations
- Uploading transformation details
- Configuring transformation library
- Managing transformation

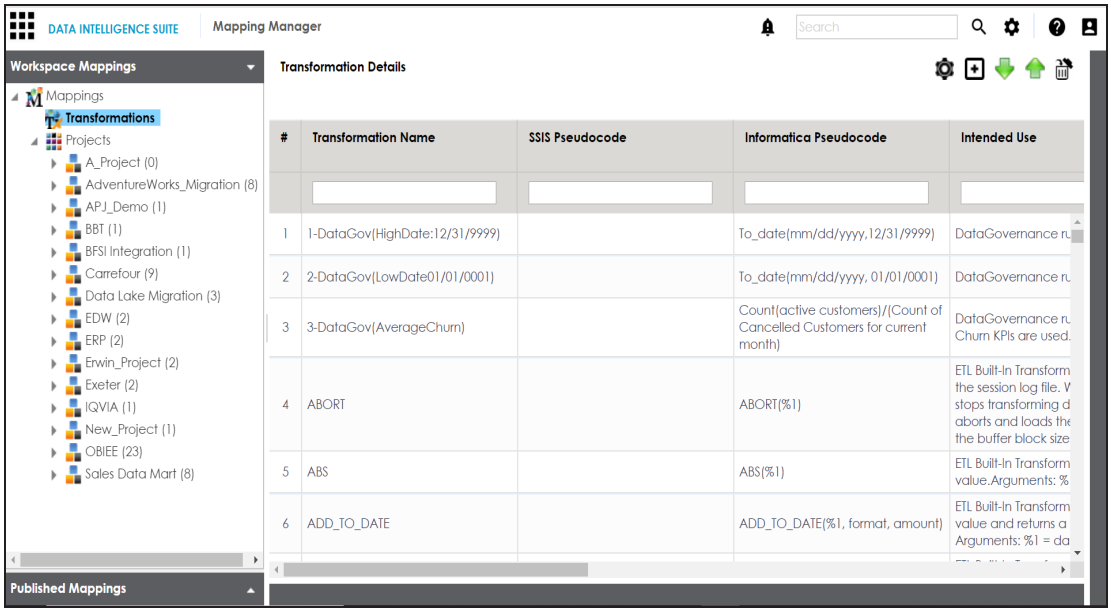
Defining Transformations

You can define transformations which can be used as business rules and extended business rule transformations in a mapping specification.

To define transformations, follow these steps:

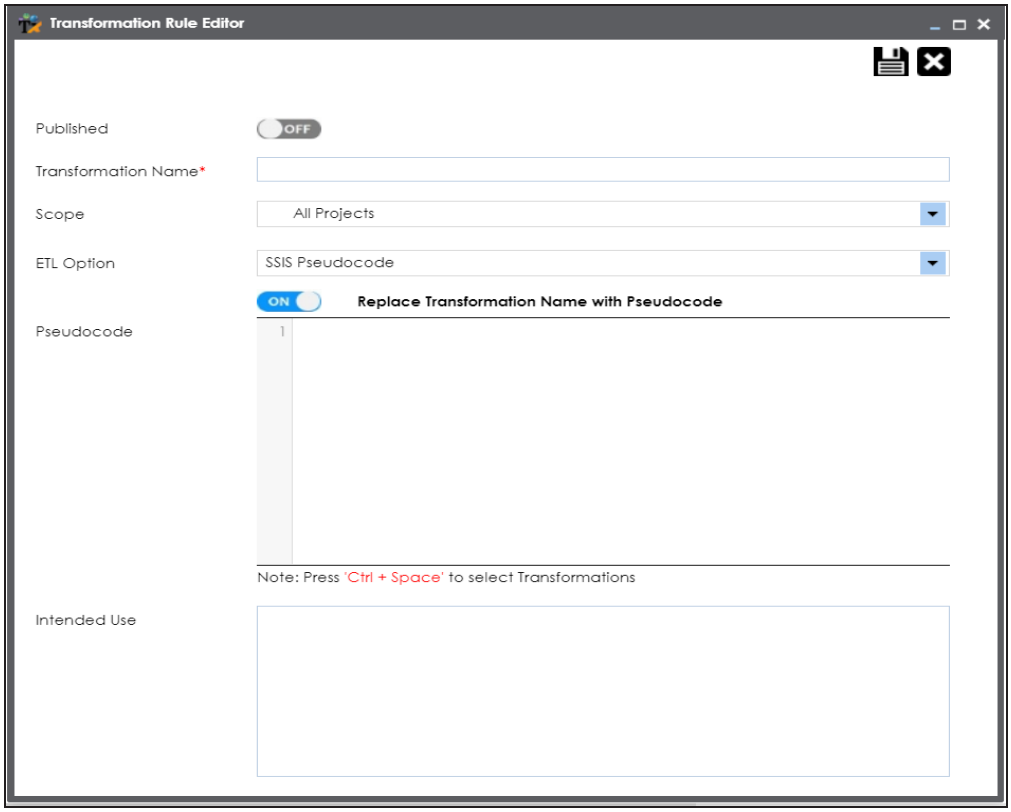
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the **Transformations** node.

   The Transformation Details page appears.



3. Click ⊞.

   The Transformation Rule Editor page appears.



4. Switch **Published** to **ON** to publish the transformation.
5. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Transformation Name	Specifies the unique name of the transformation. For example, ASCII.
Scope	Specifies the scope of the transformation. For example, All Projects.
ETL Option	Specifies the ETL option. Valid values are: ▪ BODS Pseudocode ▪ SSIS Pseudocode

Field Name	Description
	▪ Informatica Pseudocode ▪ ODI Pseudocode ▪ Talend Pseudocode You can configure ETL option list and add or remove an ETL option from the list.

6. Switch **Replace Transformation Name with Pseudocode** to **ON** to replace the transformation name with pseudocode.
7. Place the cursor in the **Pseudocode** box and type a pseudocode or use Ctrl + Space to select a pseuducode.

   Note: You can use multiple pseudocode for a transformation.
8. Click .

   A new transformation is added under the Transformations node.

The transformations can also be uploaded in bulk using MS Excel file.

You can manage transformations by:

- Editing transformation details
- Running impact analysis on transformations
- Viewing history of transformations

You can also add or remove ETL Options from the global transformation library, for more information on this, refer to the Configuring Transformation Library topic.

Defining Project Specific Transformations

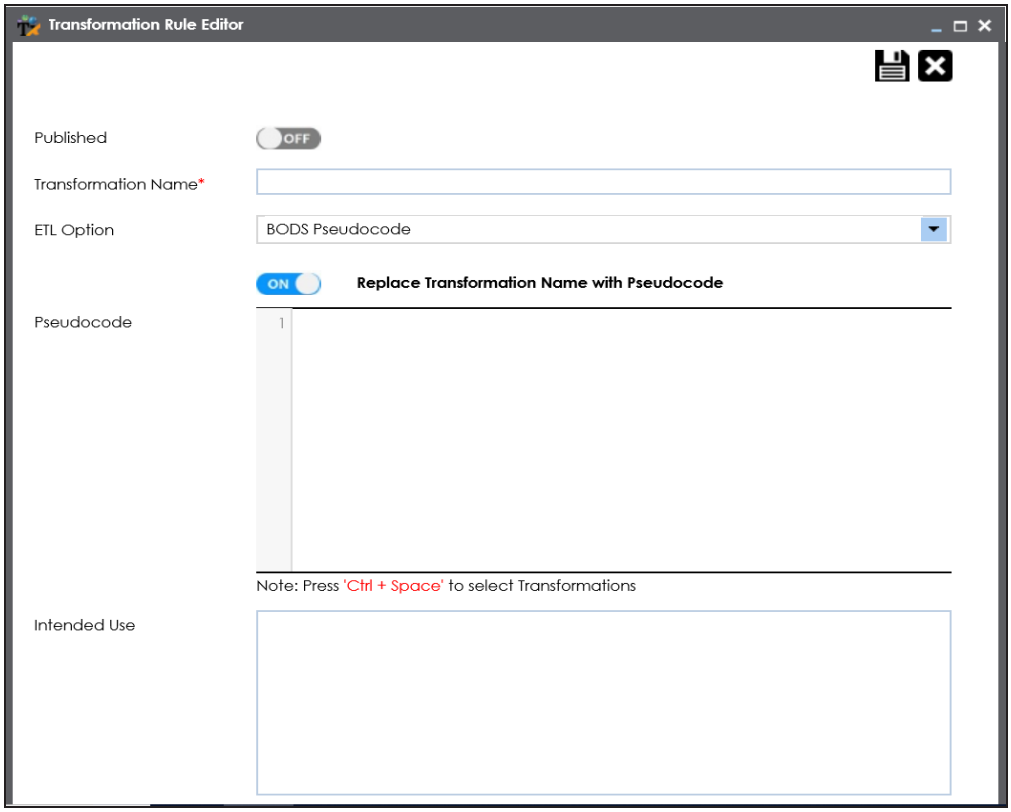
You can define project specific transformations which would be available for a specific project in the Mapping Manager.

To define project specific transformations, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the **Transformations** node under a project.

   The Transformation Details page appears.
3. Click .

   The Transformation Rule Editor page appears.



4. Switch **Published** to **ON** to publish the transformation.
5. Enter a unique transformation name. For example, ASCII.
6. Select an ETL option. For example, BODS Pseudocode.
7. Switch **Replace Transformation Name with Pseudocode** to **ON** to replace transformation name with pseudocode.

8. Place the cursor in **Pseudocode** box and type a pseudocode or press Ctrl-Space to select a pseudocode.
9. Click .

   The transformation is available for the selected project.

Uploading Transformation Details

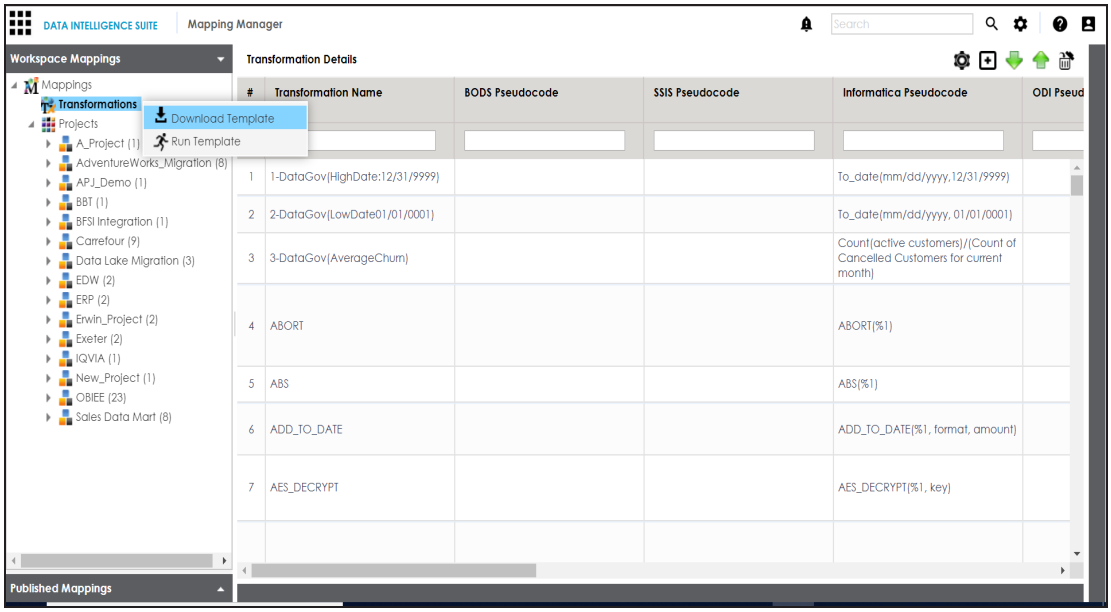
You can use MS Excel file to upload transformations in bulk.

The uploading transformation details involves:

1. Downloading the template
2. Updating the template with transformations
3. Uploading the updated template file

To upload transformation details, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the **Transformations** node.



3. Click **Download Template**.

   The template is downloaded in .xlsx format.

4. Enter transformations in the downloaded template.
5. Click .

   The Upload Transformations page appears.
6. Use to browse the updated template file.
7. Click .

   The transformations are uploaded.

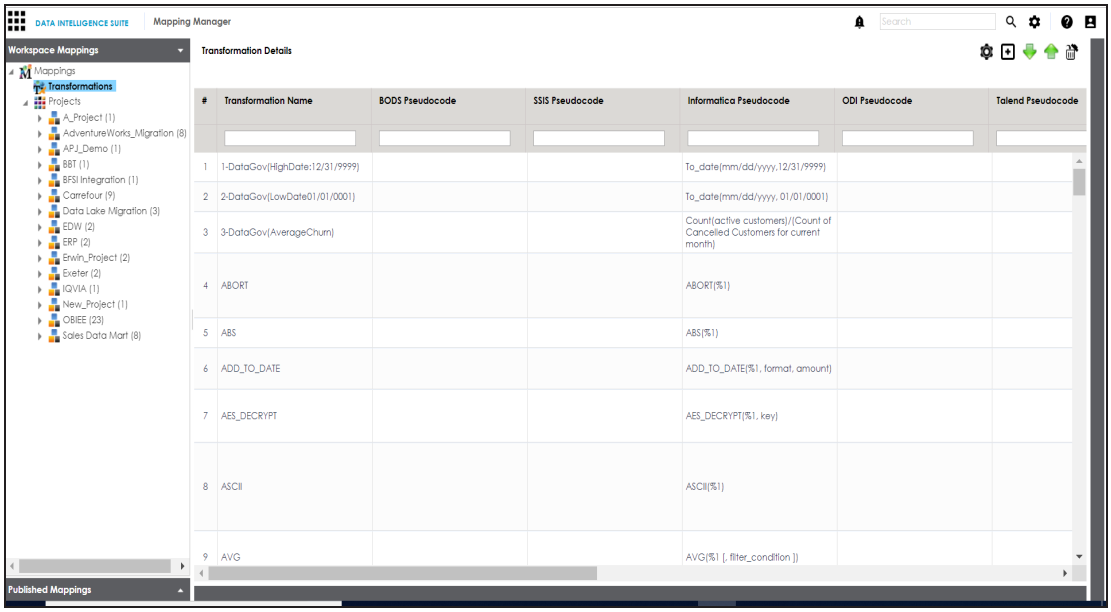
Configuring Transformation Library

You can configure the Transformation Library and add or remove an ETL option from the ETL options list.

To configure transformation library, follow these steps:

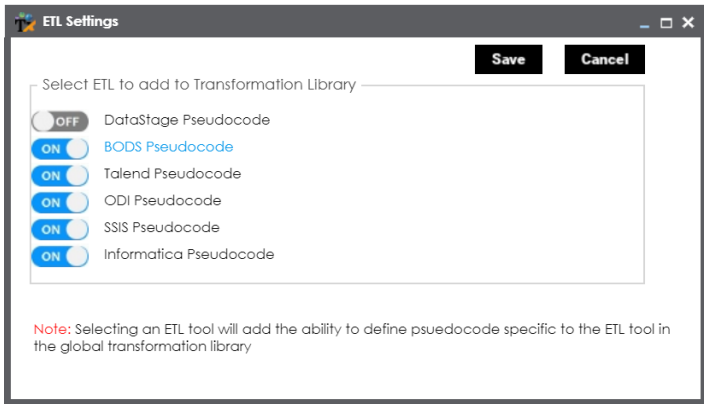
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the **Transformations** node.

   The Transformation Details page appears.



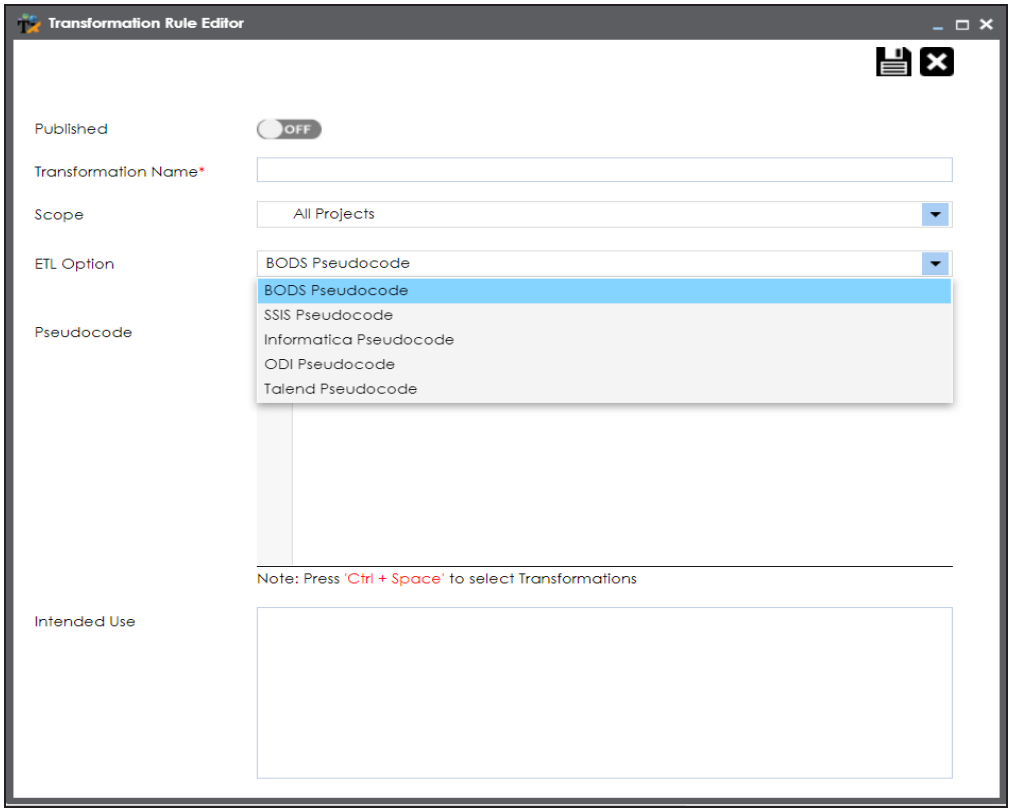
3. Click .

The ETL Settings page appears.



4. Switch a **<ETL_Option>** key to **ON** to add the corresponding ETL option to the Transformation Library. For example, switch **BODS Pseudocode** to **ON** to add BODS Pseudocode to the Transformation Library.
5. Click **Save**.

   ETL options are added to the ETL Option list.



Managing Transformations

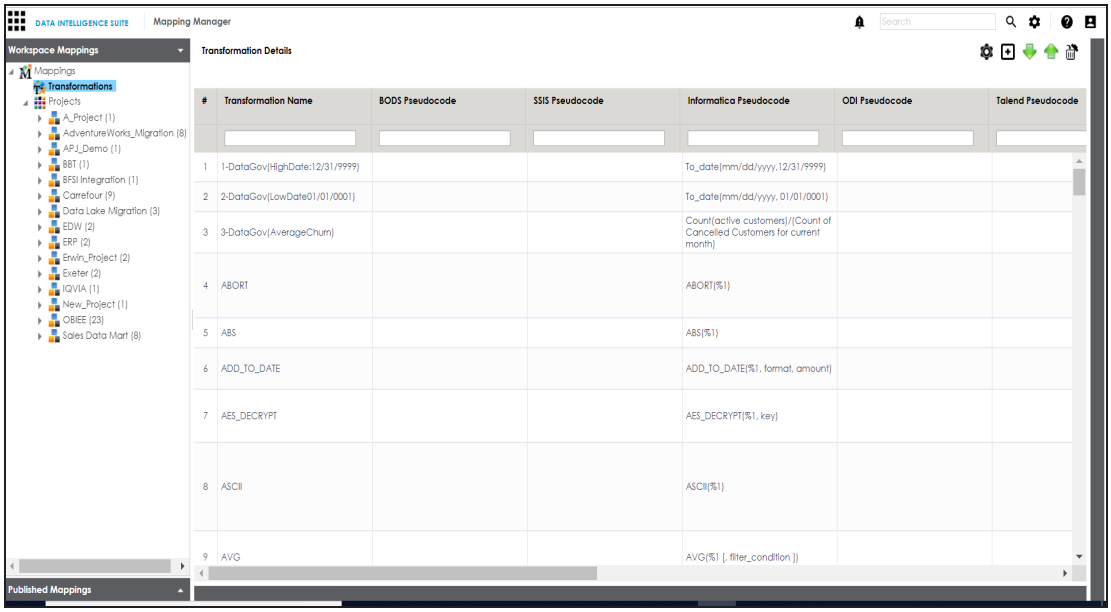
Managing transformations involves:

- Editing transformations
- Running impact analysis report on transformations
- Viewing history
- Deleting transformations

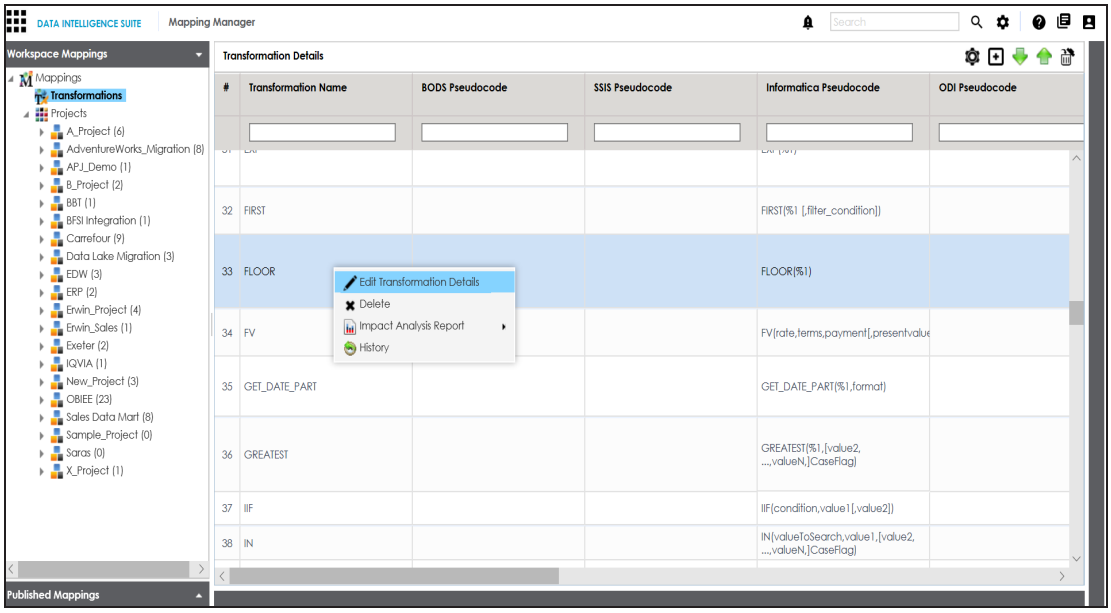
To edit transformations, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the **Transformations** node.

   The Transformation Details page appears.

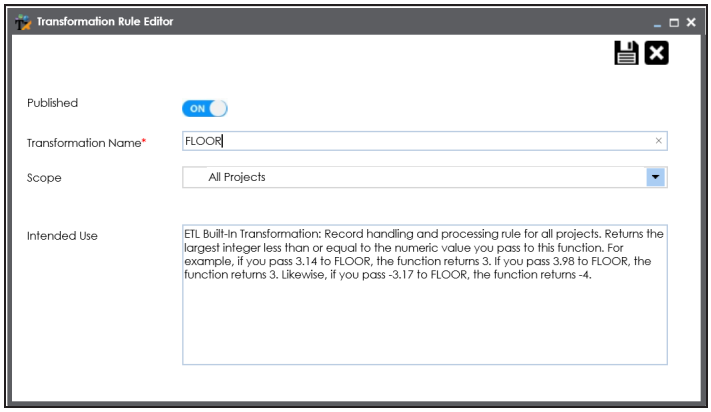


3. In the Transformation Details grid, select a transformation and right-click it.



4. Click **Edit Transformation Details**.

   Transformation Rule Editor page appears.

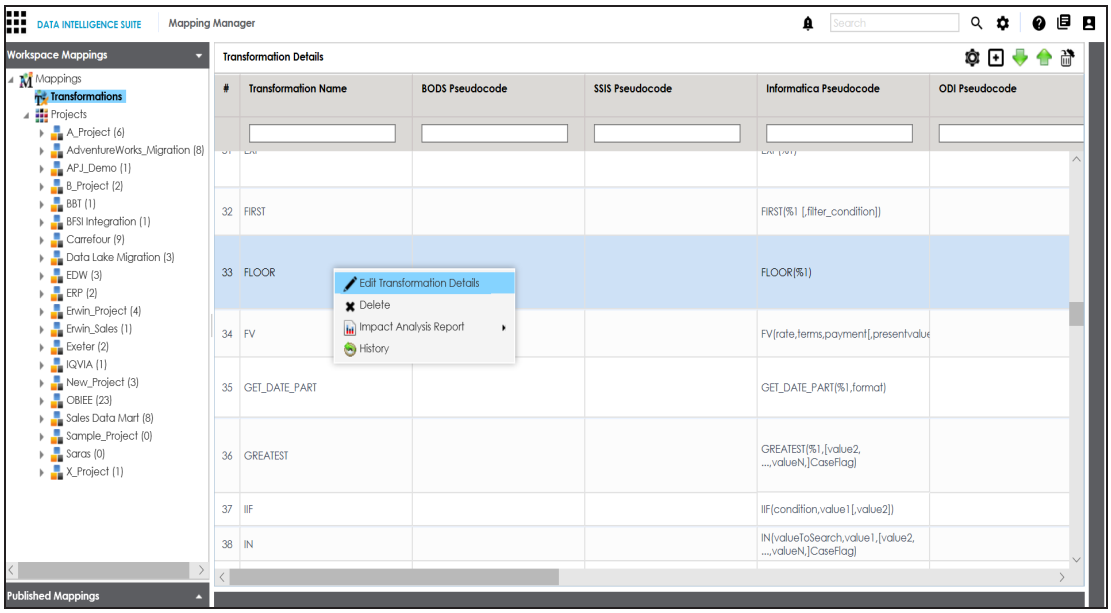


5. Edit the fields as desired.
6. Click .

   The transformation is updated.

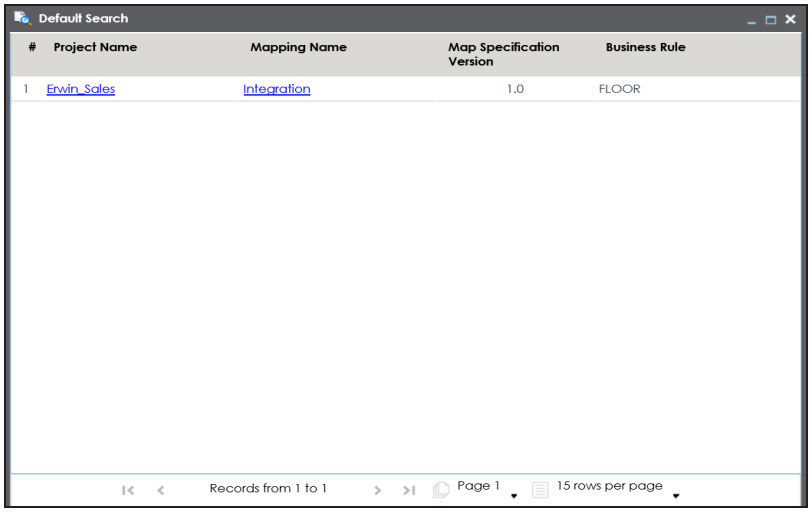
To run impact analysis on transformations, follow these steps:

1. In Transformation Details grid, select a transformation and right-click it.



2. Hover over the **Impact Analysis Report** and click **Default Search**.

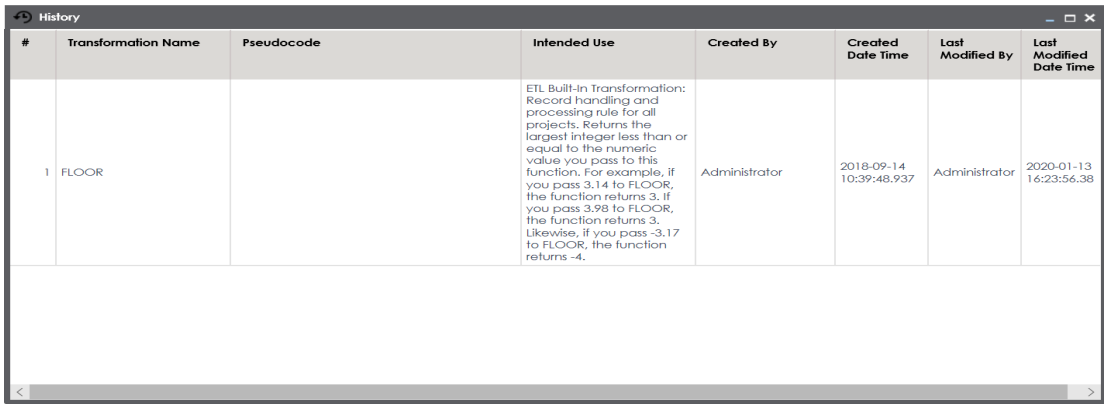
The list of projects and mappings appears where the transformation was used.



To view history of transformations, follow these steps:

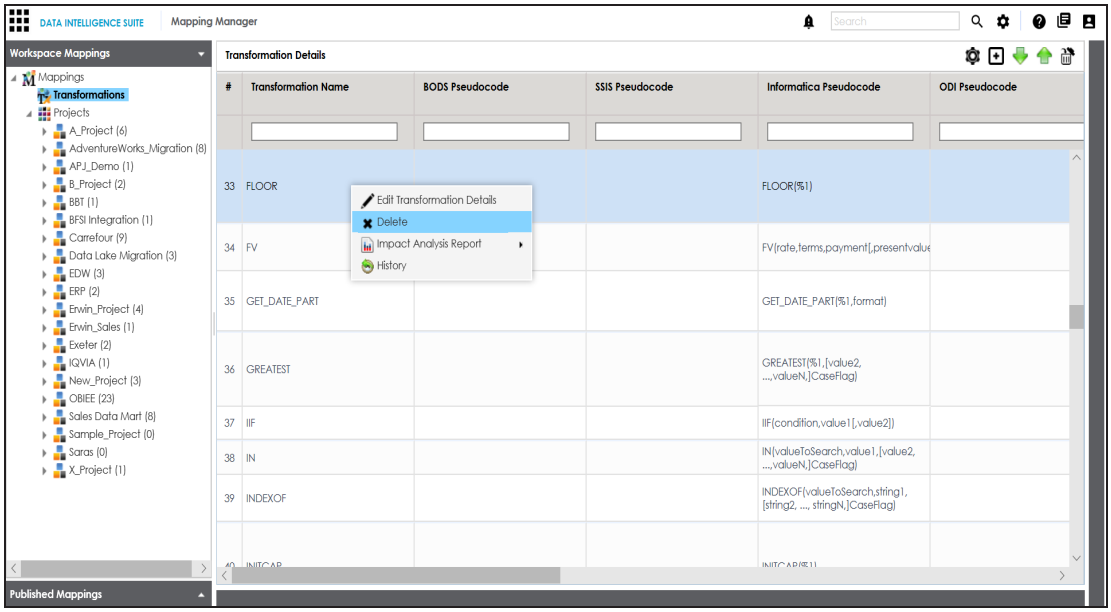
1. Right-click a transformation.
2. Click **History**.

   The history of the transformation appears.



To delete the transformation, follow these steps:

1. Right-click a transformation.



2. Click **Delete**.

   A warning message appears.

3. Click **Yes**.

   The transformation is deleted.

   Note: If the transformation was used in the Mapping Specification, then it will still be there. But, it will not be available for future use.

Creating and Managing Mapping Specifications

After defining systems and uploading metadata, you can create mapping specifications. Mapping Manager enables you to create mapping specifications in multiple ways. In this section you will walk through how to build metadata driven source to target mapping specifications and enterprise standards to manage them.

Creating and managing mapping specifications involves:

- Creating projects
- Creating Maps
- Adding transformation and lookup details
- Updating mapping specifications manually
- Uploading Mapping Specifications in XML
- Specifying XPath in mapping specification
- Setting column order and column visibility
- Switching to business view
- Updating additional mapping information
- Branching and merging mappings
- Deleting maps
- Viewing workflow logs

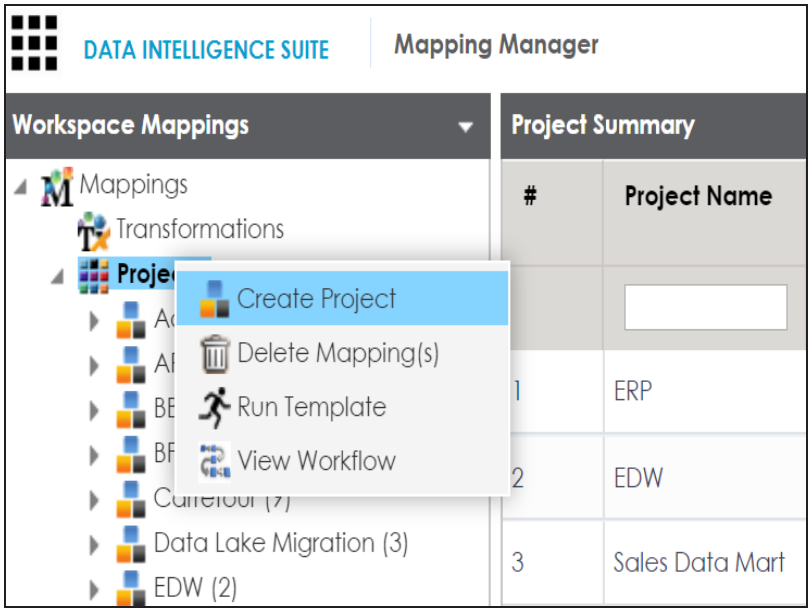
Creating Projects

Projects store and categorize maps in a hierarchy, Projects > Mappings. You can create a project, specific to an ETL tool and specify:

- Project description
- Project manager
- Business sponsor
- Cost center
- IT sponsor

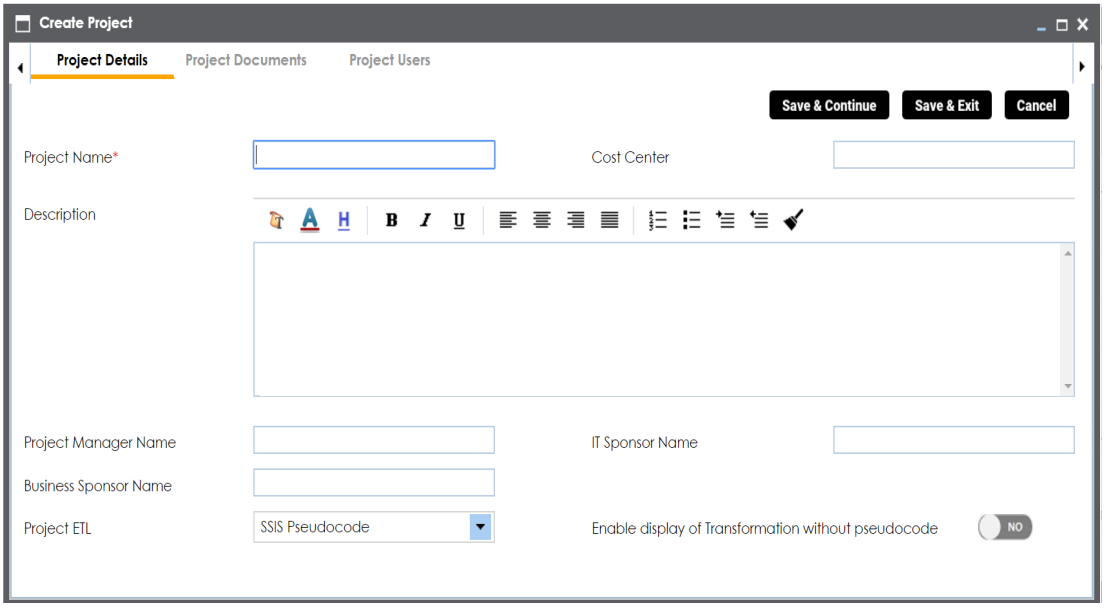
To create projects, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the **Projects** node.



3. Click **Create Project**.

   The Create Project page appears.



4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Project Name	Specifies the name of the project. For example, Data Lake Migration. For more information on naming conventions, refer to the Best Practices section.
Description	Specifies the description of the project. For example: The project contains the mapping specifications for the sales data migration.
Project Manager Name	Specifies the project manager's name. For example, John Doe.
Business Sponsor Name	Specifies the business sponsor of the project. For example, ABC Consulting Services.
Project ETL	Specifies the ETL tool assigned to the project. For example, Informatica Pseudocode.
Cost Center	Specifies the cost center of the project. For example, Finance and Accounting.
IT Sponsor Name	Specifies the IT sponsor of the project. For example, XYZ IT Services.
Enable display of Transformation without pseudocode	Specifies whether the transformation is displayed without pseudocode. Switch **Enable display of Transformation without pseudocode** to **Yes** to display transformation without pseudocode.

5. Click **Save and Exit**.

   A new project is created and stored in the project tree.

Once a project is created, you can do the following:

- Upload project documents
- Assign users to the project

- Create subject areas
- Create maps

Uploading Project Documents

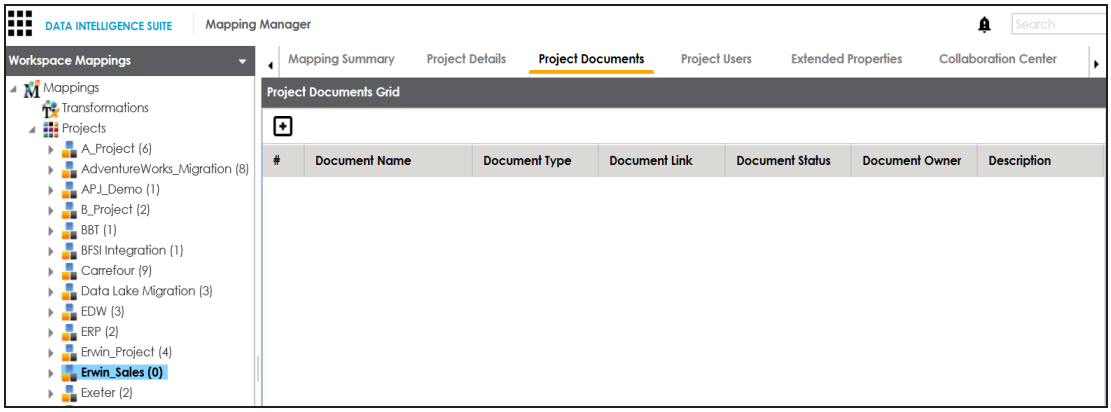
You can upload relevant documents at project level and specify:

- Document name
- Document owner
- Document URL
- Document status

To upload documents at project levels, follow these steps:

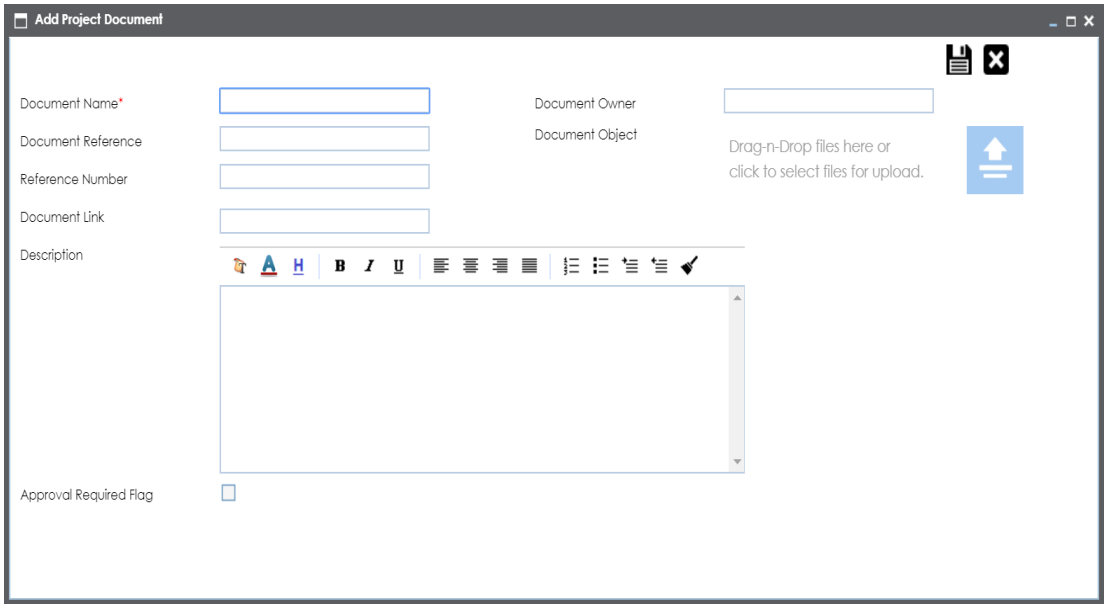
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a project.
3. Click the **Project Documents** tab.

   The following page appears.



4. Click .

   The Add Project Document page appears.



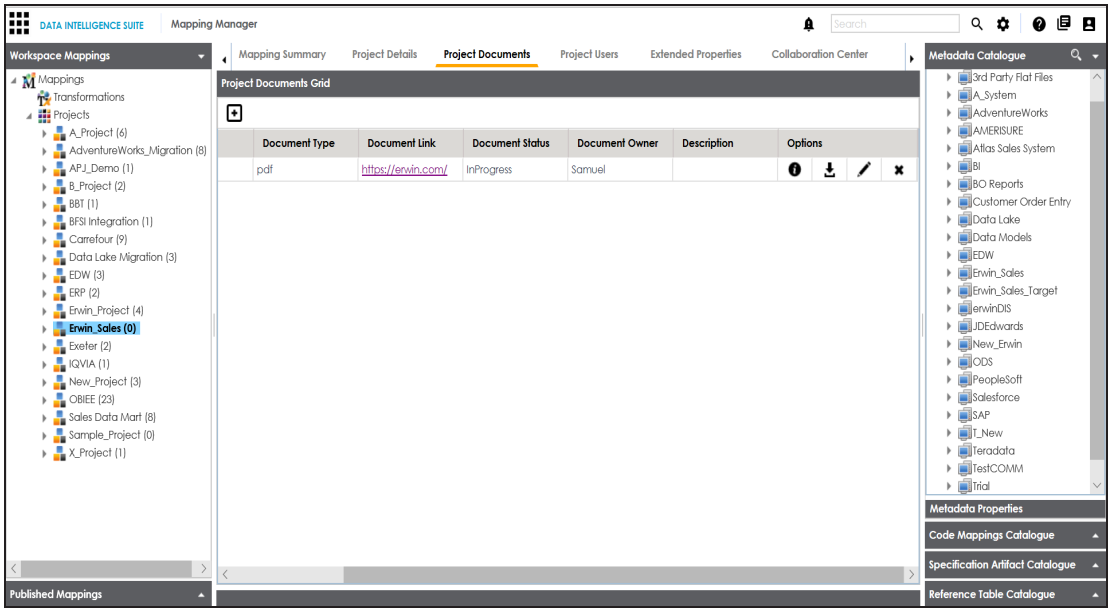
5. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Option	Description
Document Name	Specifies the name of the physical document being attached to the project. For example, Project Details.
Document Reference	Specifies the name of the reference document. For example, Wikipedia pages.
Reference Number	Specifies the reference number of the reference document. For example, KB_230145.
Document Owner	Specifies the document owner's name. For example, John Doe.
Document Object	Drag and drop or use to browse and select the document.
Document Link	Specifies the URL of the document. For example, https://drive.google.com/file/l/2sC2_SZIyeFKI7OOn-b5YkMBq4ptA7jhg5/view

Option	Description
Description	Specifies the description of the document. For example: The document is to keep a record of description and data dictionary of the system.
Approval Required Flag	Specifies whether the document requires approval or not. Select the **Approval Required Flag** check box to select the document status.
Document Status	Specifies the status of the document. For example, In Progress. Select the status of the document from the drop down. This field is available only when the **Approval Required Flag** check box is selected.

6. Click .

   The project document is saved in the Project Documents Grid.



7. Use the following options:

   Information ( )

   To view the document information, click .

Download ( )

To download the document, click .

Edit

To edit the document details, click .

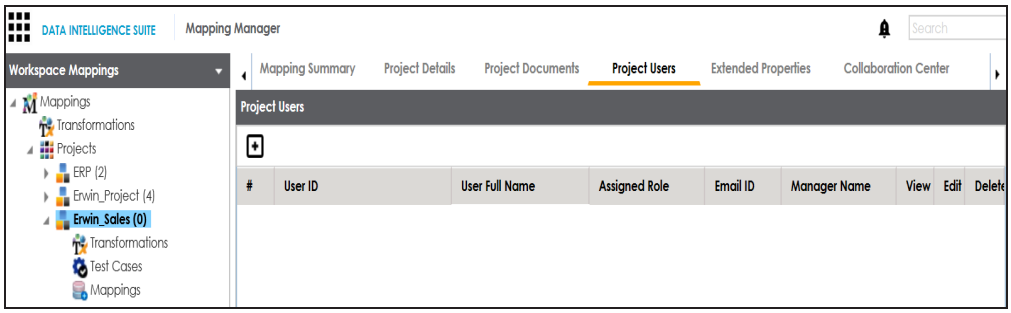
Assigning Users to Projects

You can assign multiple users to a project. Users assigned to a project have write access to all the mappings under it.

To assign users to projects, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a project.
3. Click the **Project Users** tab.

   The following page appears.



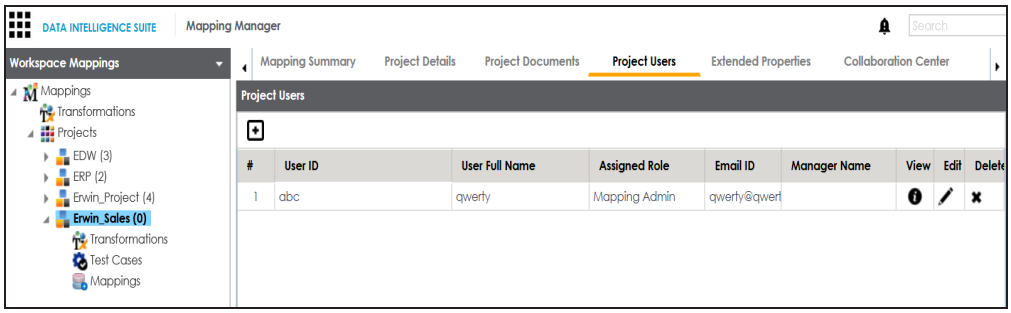
4. Click .

   The Assign Project Users page appears.

5. Use or to move users from **User ID** box to **Assigned Users** box.
6. Use or to move users from **Assigned Users** box to **User ID** box.

   Note: Users with Administrator role cannot be assigned to a project.
7. Click .

   The users are assigned to the project and saved in the Project Users tab.



8. Use the following options:

Information ( )

To view user details, click .

Edit ( )

To edit user details, click .

Delete ( )

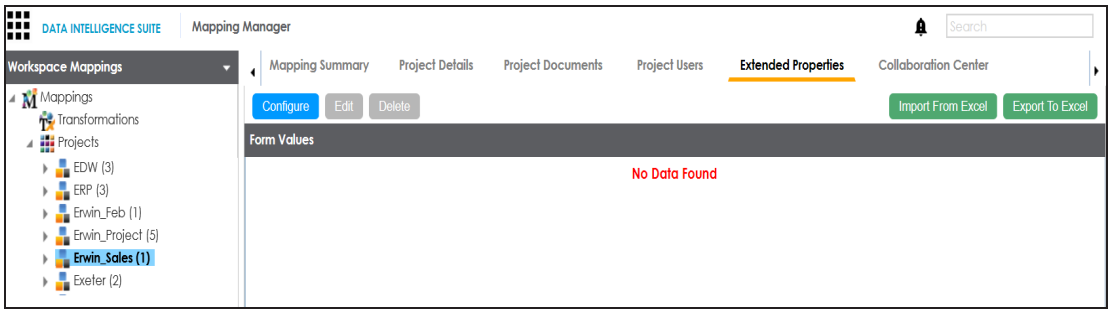
To delete the user, click .

Extending Project Properties

You can configure extended properties of a project by designing a form and access the form under the **Extended Properties** tab.

To configure extended properties of projects, follow these steps:

1. Under the **Workspace Mappings** pane, click a project and click the **Extended Properties** tab.

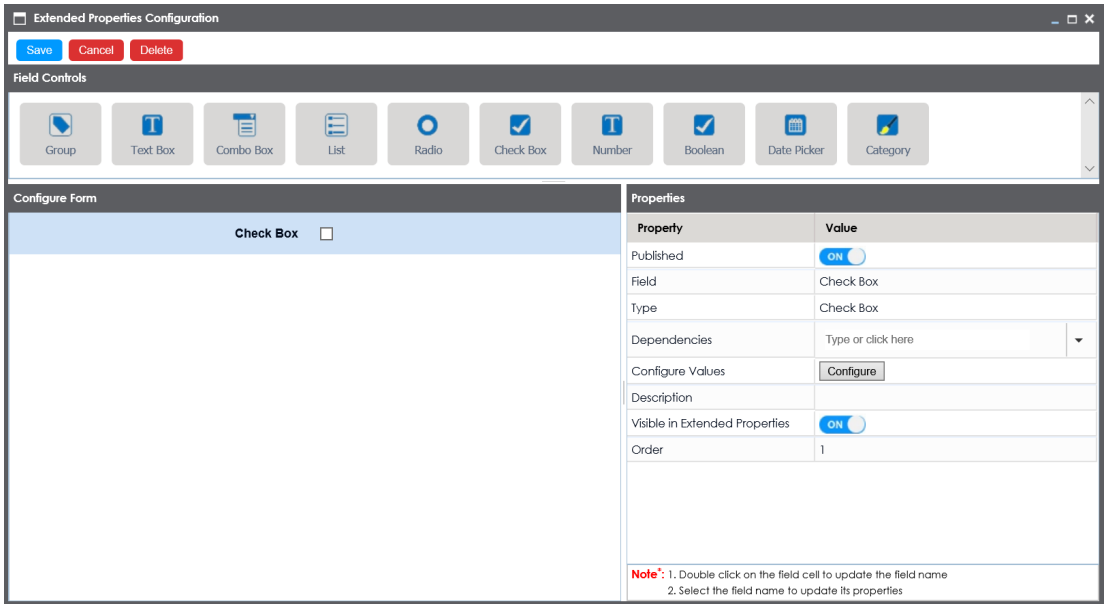


2. Click **Configure**.

The **Extended Properties Configuration** page contains the following sections:

- **Field Controls**: This pane displays the available UI elements.
- **Configure Form**: Use this pane to design forms using the available UI elements in the **Field Controls** pane.
- **Properties**: This pane displays the properties of the selected UI element in the **Configure Form** pane.

3. Click **Edit** and double-click or drag and drop the required UI elements from the **Field Controls** pane to the **Configure Form** pane.
4. Select UI elements, one at a time, and configure their properties in the **Properties** pane.



Note: The available properties differ based on the type of UI element.

Refer to the following table for property descriptions:

Property	Description
Published	Turn **Published** to **ON** to publish the field.
Field	Double-click the corresponding **Value** cell to change the label of the field.
Type	Double-click the corresponding **Value** cell to select different types of the field.

Property	Description
Configure Values	Click **Configure Values** to enter option values. You can use: ▪ **Default connector**: It enables you to enter options manually. ▪ **Reference Data Manager** : It enables you to pull the data from reference tables in the Reference Data Manager.
Mandatory	Select the check box to make the field mandatory in the form.
Description	Double-click the corresponding Value cell to enter a description of the field.
Visible in Extended Properties	Turn **Visible in Extended Properties** to ON to make it visible.
Order	Displays the order of the field. You can drag and drop the field in the **Configure Form** pane to change its order.

5. Click **Save**.

   The form is saved under the **Extended Properties** tab.

To use the form, follow these steps:

1. Under the Workspace Mappings pane, click a project and click the **Extended Properties** tab.
2. Click **Edit** and use the form.
3. Click Save.

The form is updated.

Collaborating with Other Users

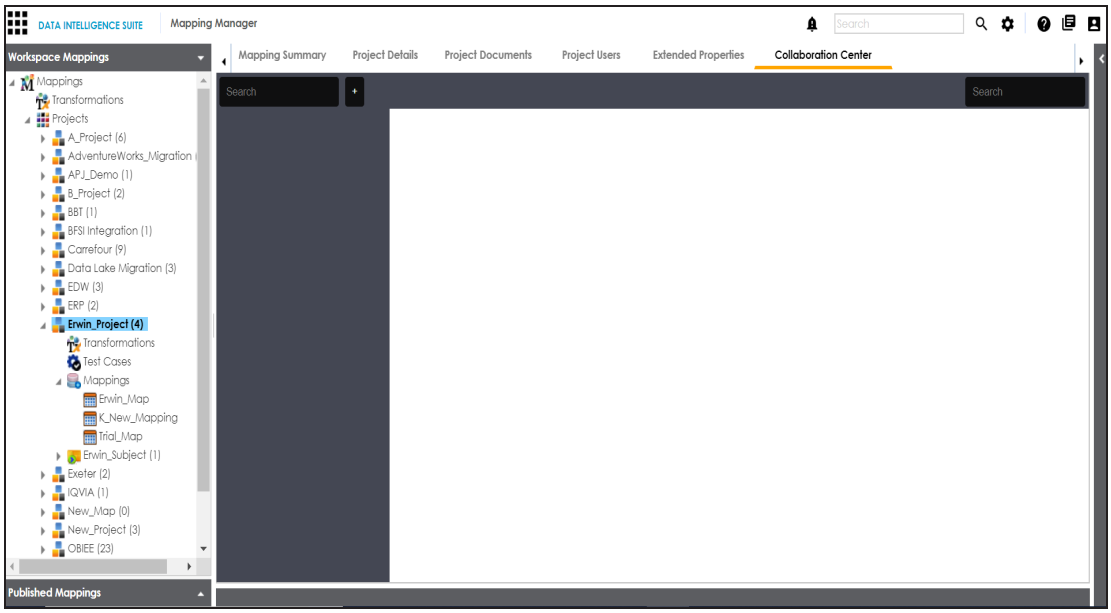
You can collaborate with other users on a project in the Mapping Manager. You need to create a topic under the Collaboration Center and assign users to the topic. The assigned users can chat with each other and discuss the topic.

To collaborate with other users, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a project.

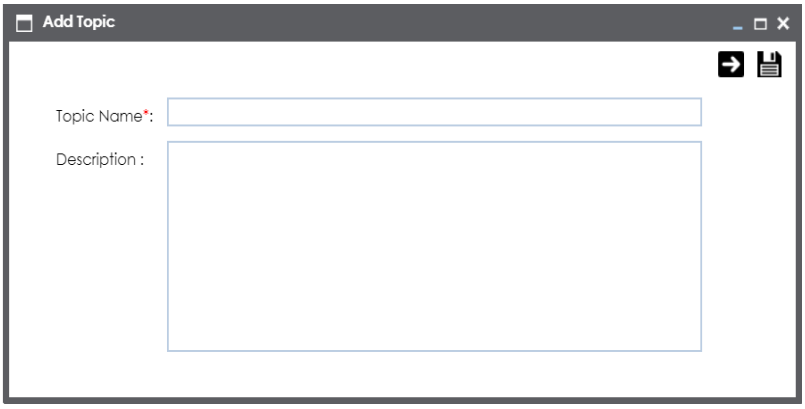
The Mapping Summary page appears.

3. Click the **Collaboration Center** tab.



4. Click to add a topic.

The Add Topic page appears.

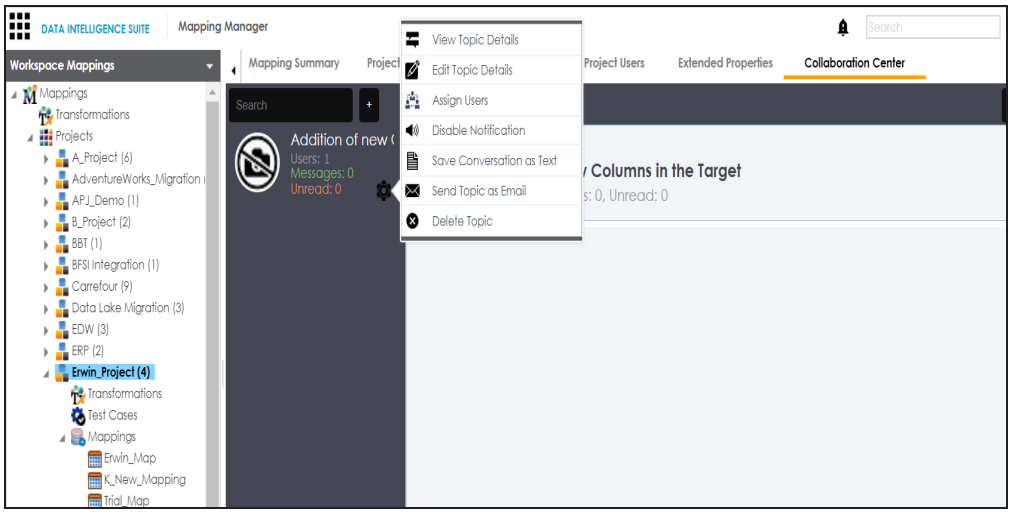


5. Enter the Topic Name and Description.

6. Click .

The new topic is created and saved under the Collaboration Center tab.

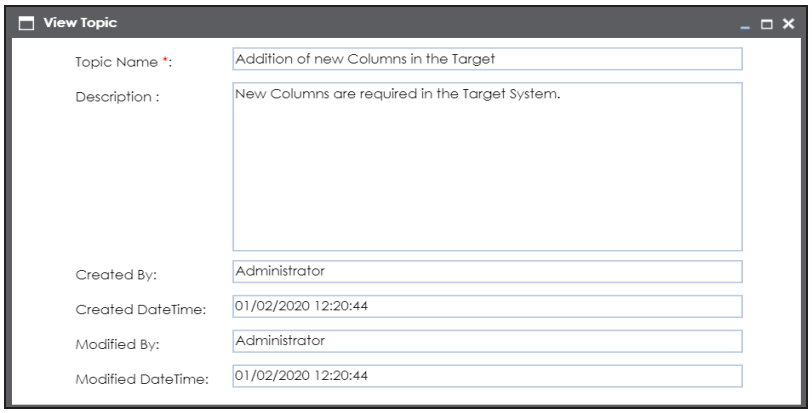
7. Click .



8. Use the following options:

View Topic Details

Use this option to view the topic details.

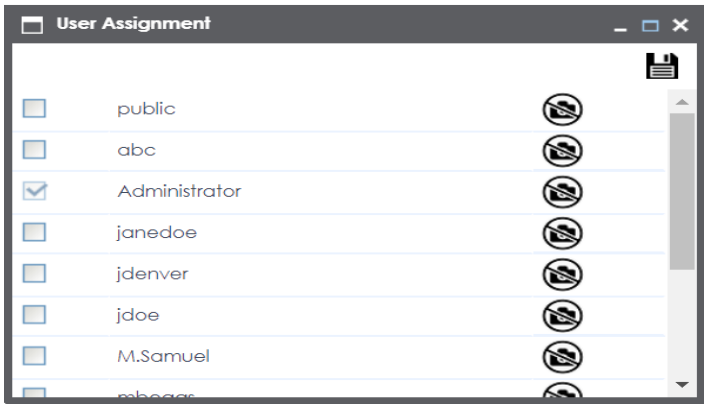


Edit Topic Details

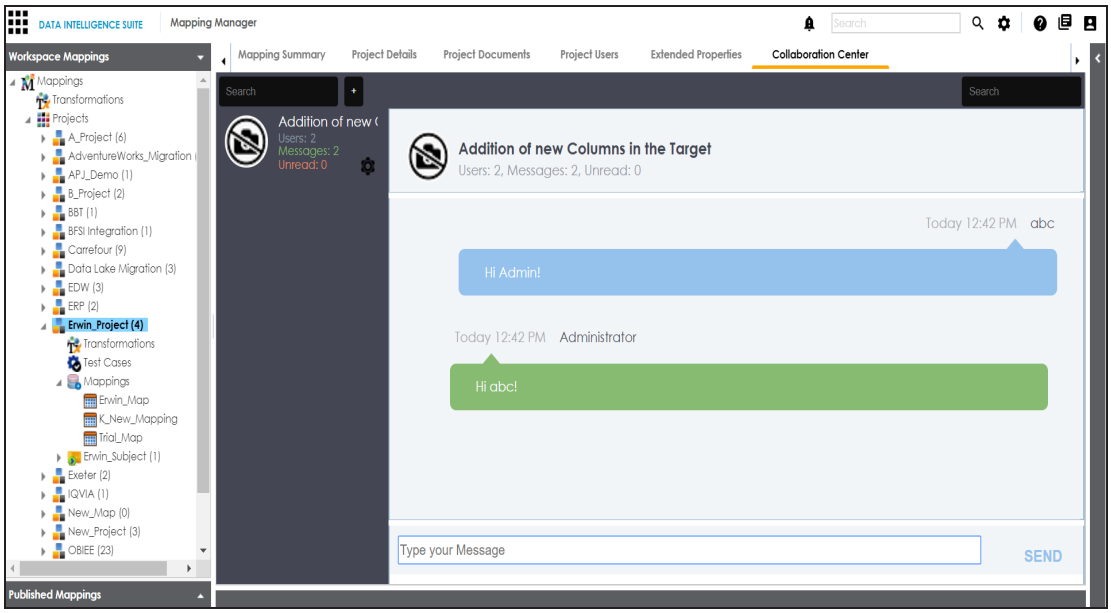
Use this option to edit the topic details.

Assign Users

Use this option to assign users to the topic.



Select check boxes to assign users to the topic and then click . The assigned users can chat and collaborate with each other.



Save Conversation as Text

Use this option to download the conversation in a .txt file.

Send Topic as Email

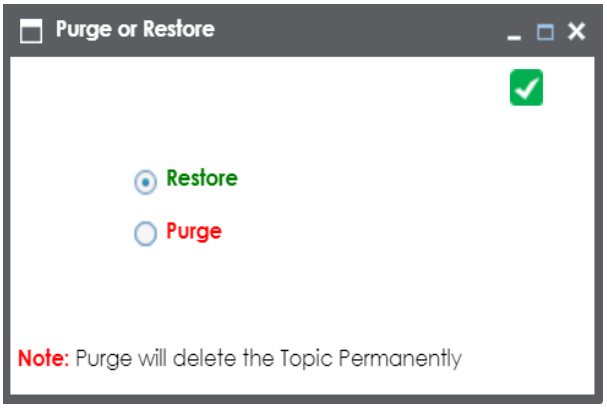
Use this option to send topic as an email to the assigned users.

Delete Topic

Use this option to delete the topic. The topic is deleted for all the assigned users.

Note: Any assigned user can delete the topic.

Restore or Purge Topic: The deleted topic can be restored or deleted permanently (Purge). To restore or purge the topic, click **Restore or Purge Topic**. The Purge or Restore page appears.



To restore the topic, select the **Restore** radio button and click .

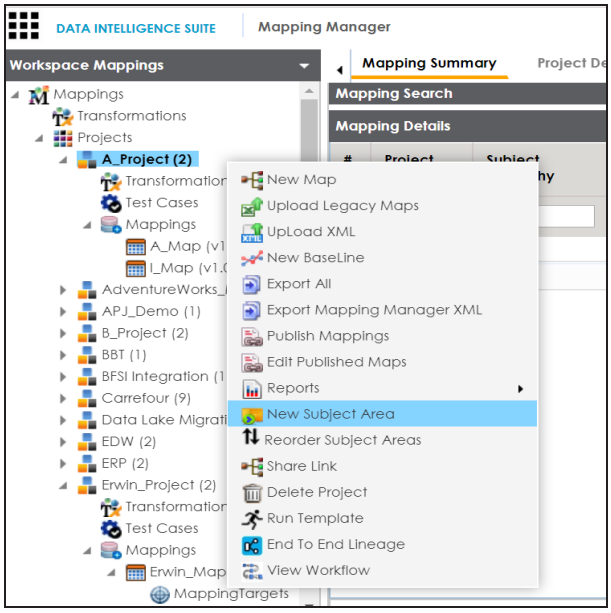
To delete the topic permanently, select the **Purge** radio button and click .

Creating Subject Areas

Subject areas provide one more level of categorization for mapping specifications. You can create a subject area within a project or within another subject area. The subject area name should be unique at the project root level. That is, the same subject name cannot exist more than once within a project.

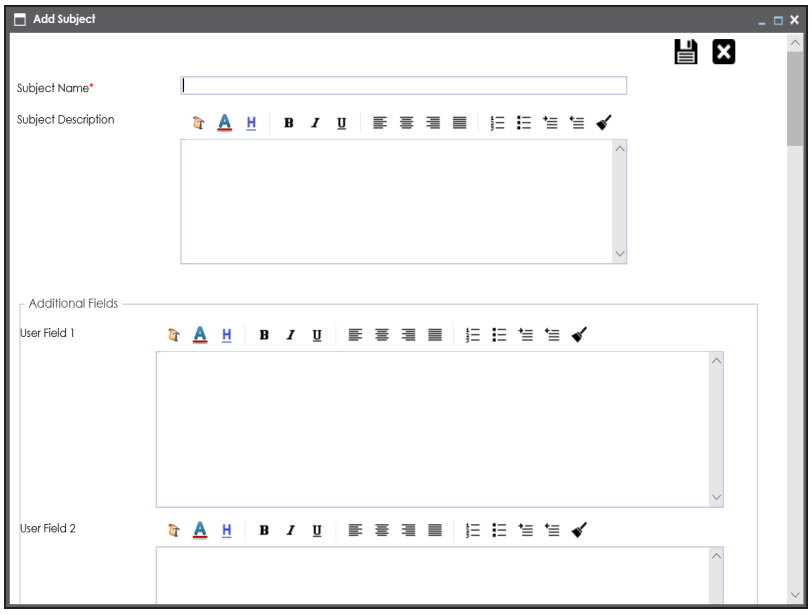
To create subject areas, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click a project.



3. Click **New Subject Area**.

   The Add Subject page appears.



4. Enter the Subject Name and Subject Description.

   Note: You can use additional fields and define UI labels in Language Settings.

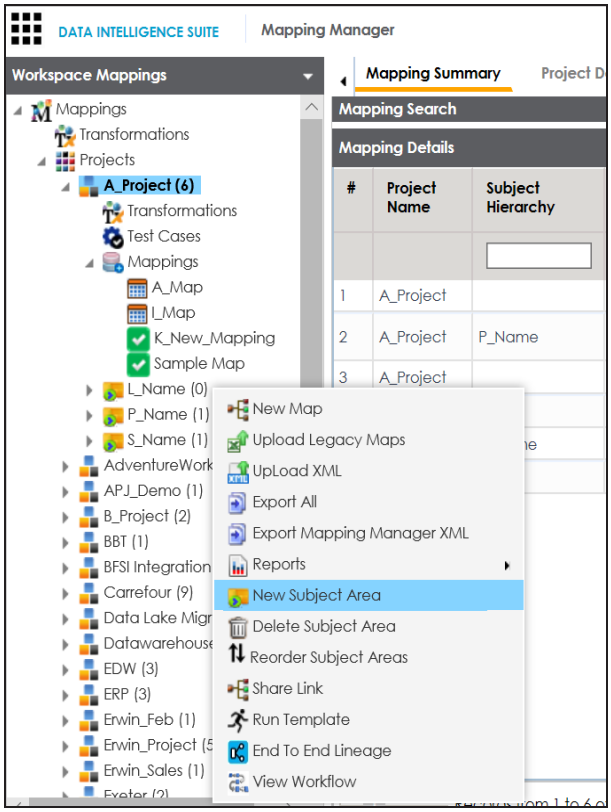
5. Click .

   A new subject area is created and saved under the project node.

You can create subject areas within a subject area. These subject areas are called nested subject areas.

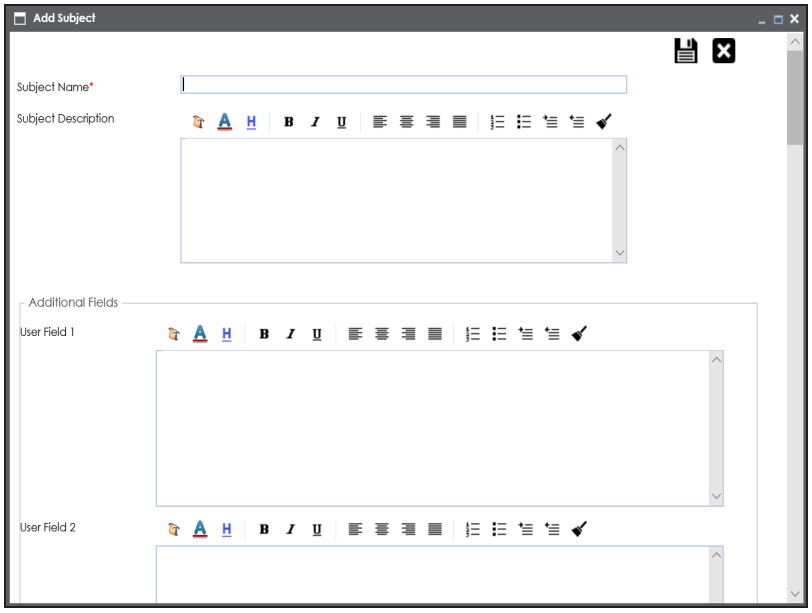
To create nested subject areas, follow these steps:

1. Under the **Workspace Mappings** pane, right-click a subject area.



2. Click **New Subject Area**.

   The Add Subject page appears.



3. Enter the Subject Name and Subject Description.

   Note: You can use additional fields and define UI labels in Language Settings.

4. Click .

   A subject area is created under the subject area.

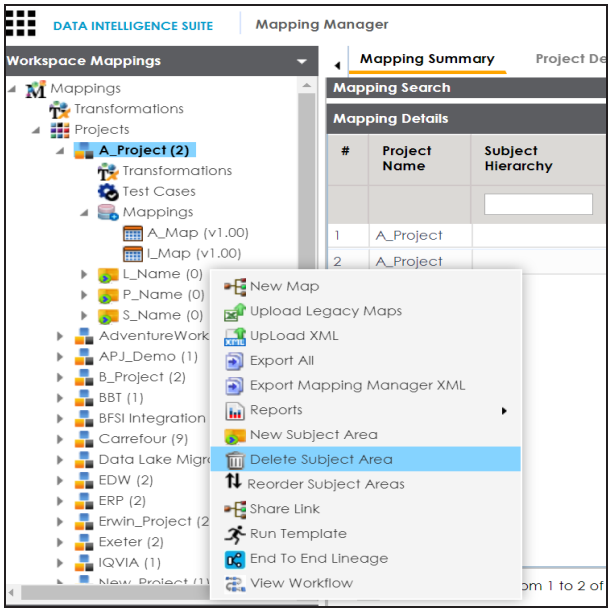
Managing Subject Areas

Managing subject areas involves:

- Deleting subject areas
- Reordering subject areas

To delete subject areas, follow these steps:

1. Under the **Workspace Mappings** pane, right-click a subject area.



2. Click **Delete Subject Area**.

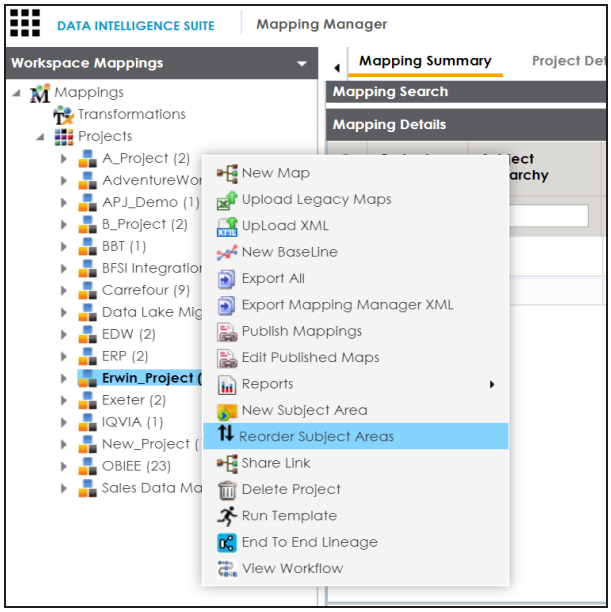
   The warning message appears.

3. Click **Yes** to delete the subject area.

   The subject area is deleted.

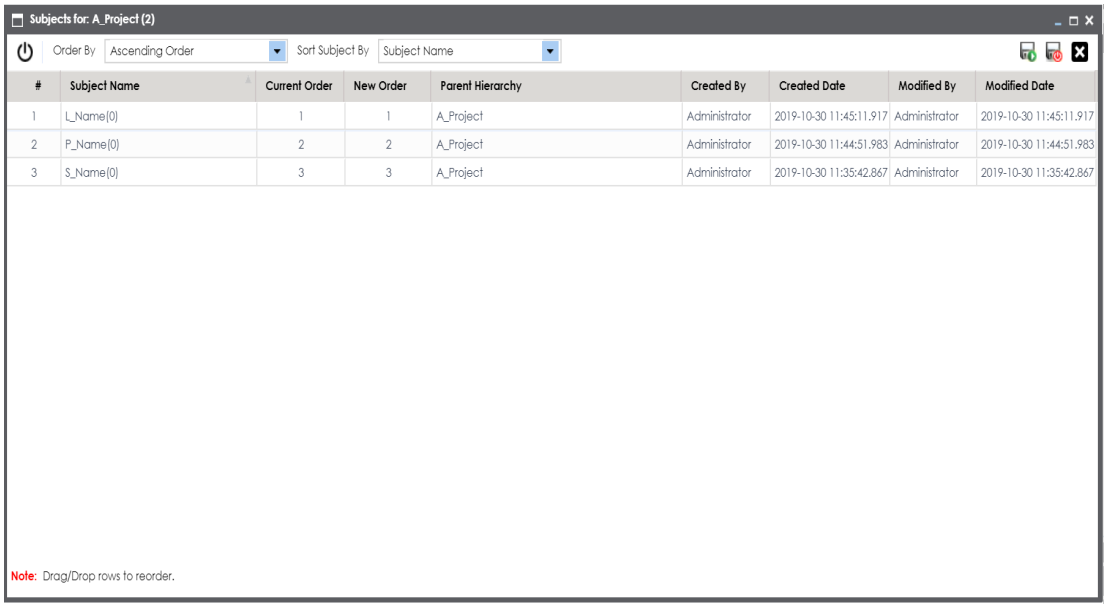
To reorder subject areas, follow these steps:

1. Under the **Workspace Mappings** pane, right-click a project.



2. Click **Reorder Subject Areas**.

   The following page appears showing all the subjects under the project.



   You can sort subjects by :

a. Subject Name
b. Created By
c. Created Date
d. Modified By
e. Modified Date

You can order by:

a. Ascending Order
b. Descending Order
c. Custom Order

3. Use to reset order.
4. Click .

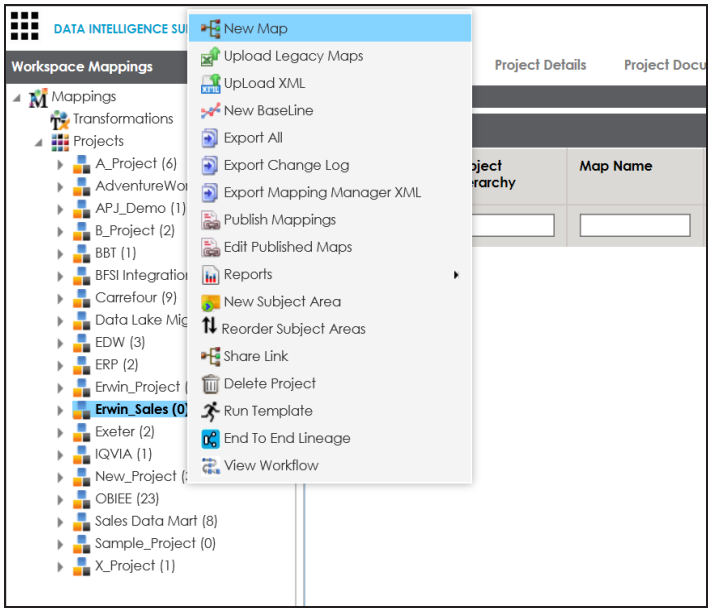
   The subject ordering is saved.

Creating Maps

You can create multiple maps under a project or subject area. You can perform source to target mappings and create mapping specification under a map.

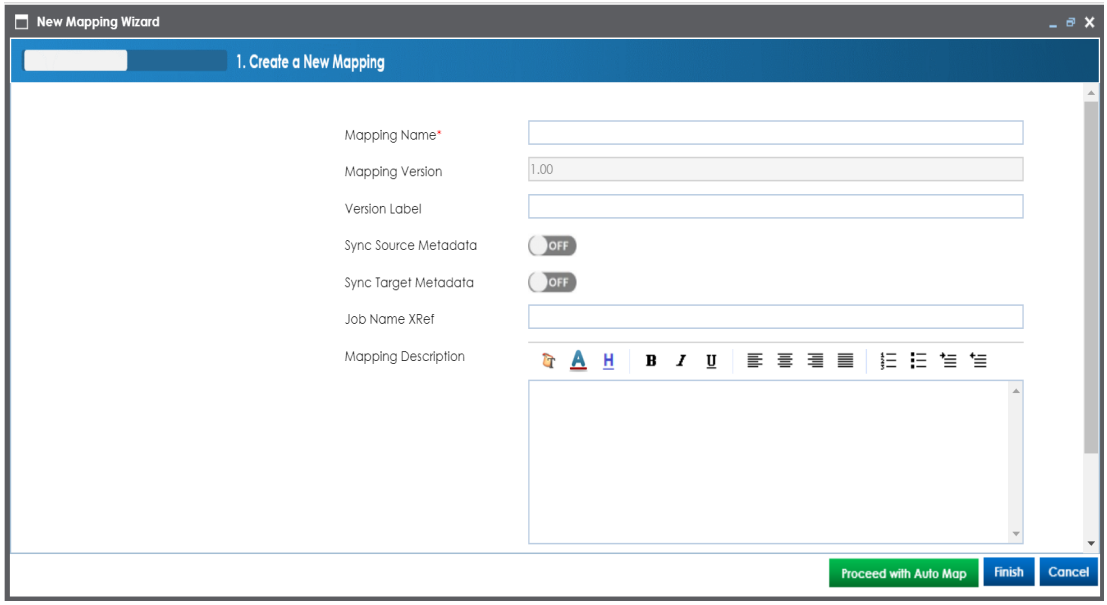
To create maps under a project, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click a project.



3. Click **New Map**.

   The New Mapping Wizard page appears.

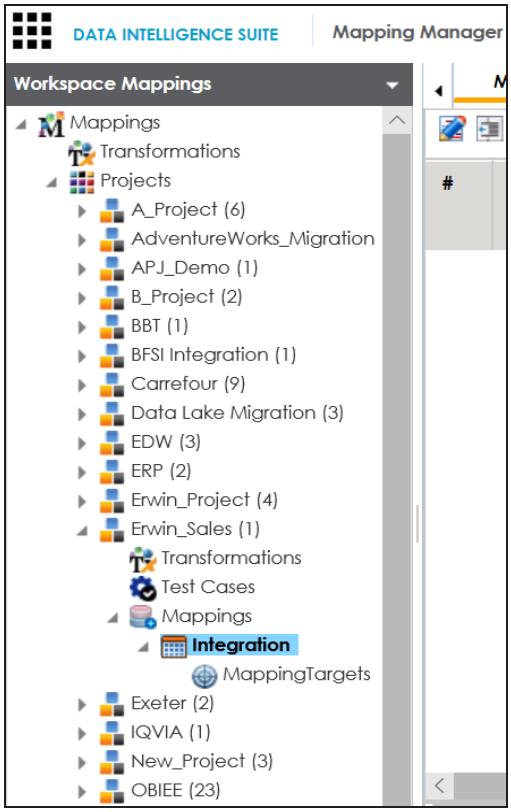


4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

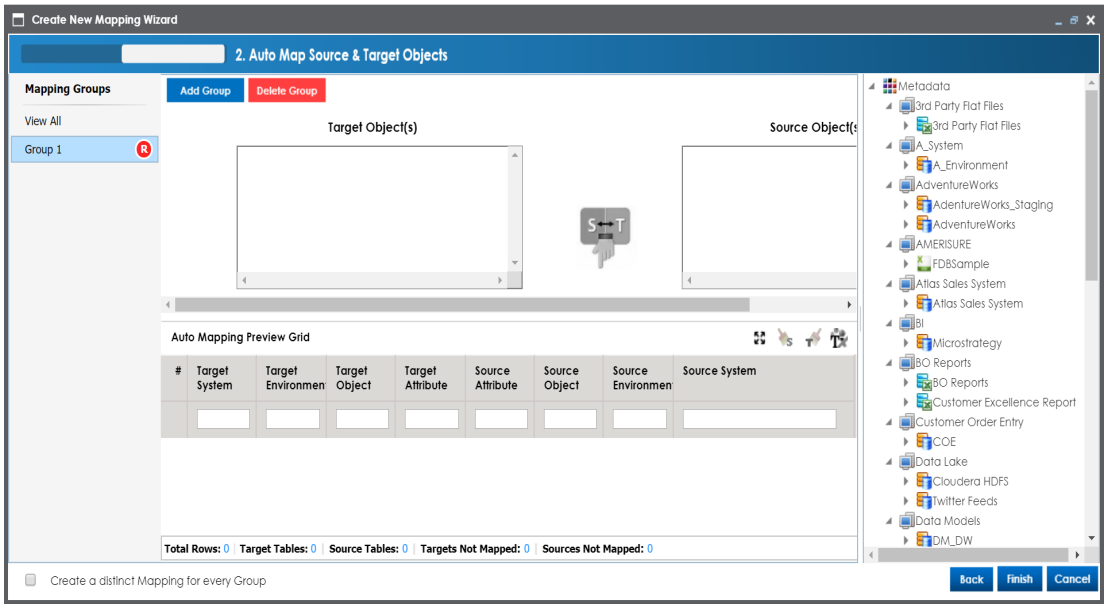
Field Name	Description
Mapping Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail. For more information on naming conventions, refer to the Best Practices section.
Mapping Version	Specifies the version of the mapping specification. For example, 1.00. It is autopopulated. For more information on configuring version display of maps, refer to the Configuring Version Display topic.
Sync Source Metadata	Switch **Sync Source Metadata** to **ON** to sync source metadata with the mapping.
Sync Target Metadata	Switch **Sync Target Metadata** to **ON** to sync target metadata with the mapping.
Mapping Description	Specifies the description about the mapping. For example: This is a map between EDW source and IDS target systems.
Mail Comments	Specifies the mail comments, which can be sent to the project users through an email notification. For example: Source and target have identical columns, hence they can be mapped using auto-map technique. For more information on configuring notifications, refer to the Configuring Notifications topic.

5. Click **Finish** or **Proceed with Auto Map**.

   When you click Finish, a map is created and saved in the mappings tree. You can create a mapping specification under the map using drag and drop method or graphical design.



When you click Proceed with Auto Map, you can create mapping specification using auto-map technique.



Creating Mapping Specifications Using Drag and Drop

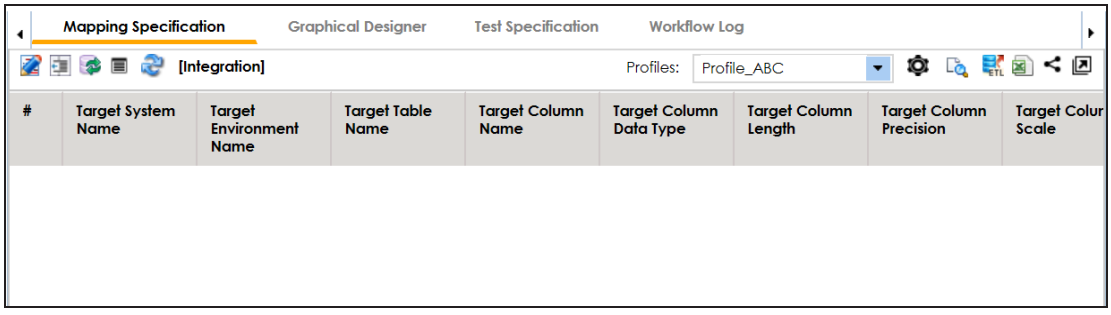
You can create mapping specifications using drag and drop method, even when source column names are different from target column names. After mapping source to target, you can set the target update strategy and enter a description about the strategy.

Creating Mapping Specifications

To create mapping specifications using drag and drop method, follow these steps:

1. Under the **Workspace Mappings** pane, click the required map.

   By default, it opens the Mapping Specification tab.

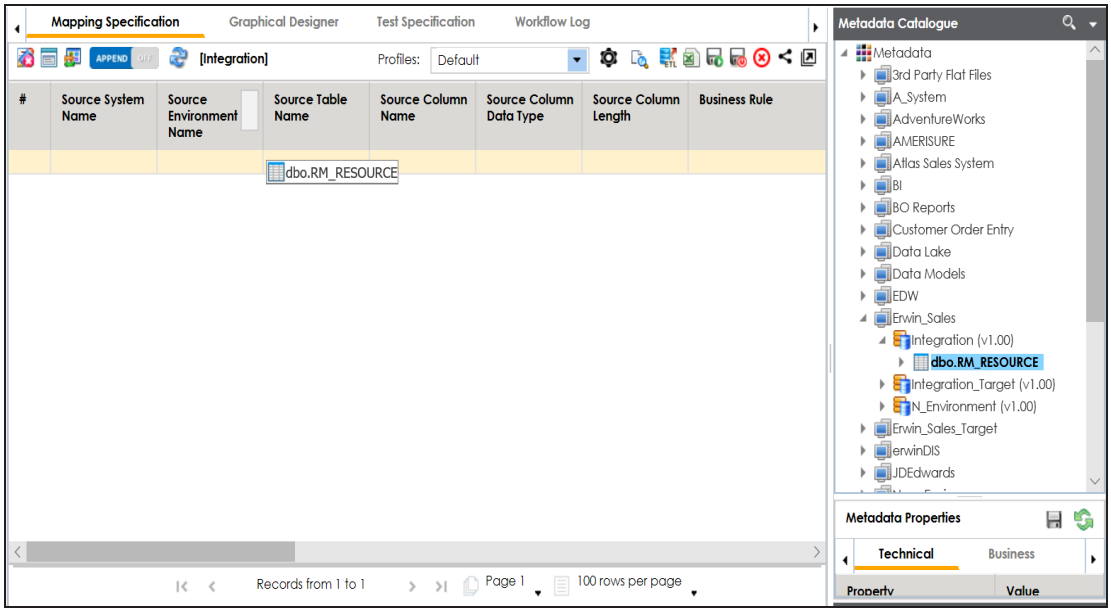


2. Click .

   You can now, edit the Mapping Specification tab.

3. Drag source table or column from **Metadata Catalogue** and drop in **Mapping Specification**.

   You cannot drop source system or source environment in Mapping Specification. Ensure that you drop source table or column under the respective column.



4. Drag target table or column from **Metadata Catalogue** and drop in **Mapping Specification**.

   You cannot drop target system or target environment in Mapping Specification. Ensure that you drop target table or column under the respective column.

5. Click .

   The mapping specification is saved.

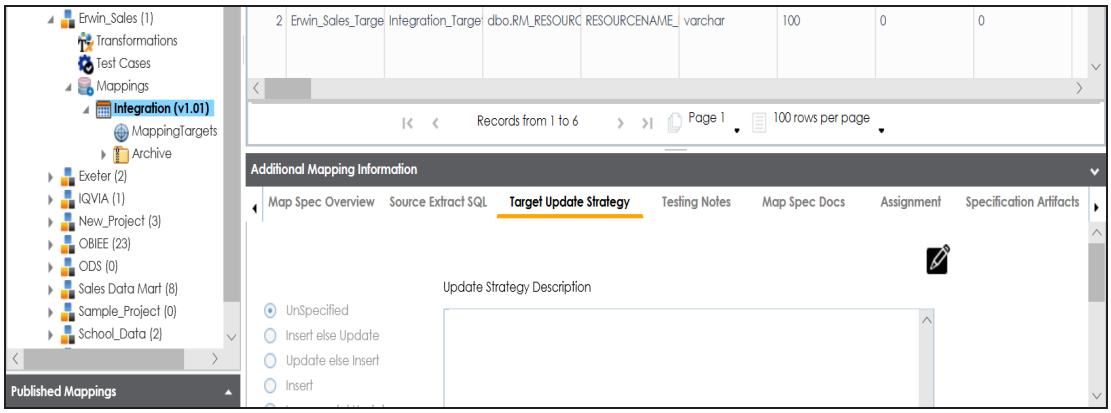
Setting Target Update Strategy

To set the target update strategy, follow these steps:

1. Expand the **Additional Mapping Information** pane.

   The pane is available at bottom of the central pane when you click the map in Workspace Mappings.

2. Click the **Target Update Strategy** tab.



3. In the **Target Update Strategy** tab, click .

4. Click the required strategy, enter **Update Strategy Description**, and click .

The target update strategy is set.

You can enrich a mapping specification by:

- Adding transformation and lookup details
- Associating code cross walks (code mappings)
- Associating reference tables
- Linking requirements

After creating a mapping specification, you can analyze a mapping specification. Analyzing mapping specification involves:

- Generating virtual preview of target
- Previewing Data
- Performing table gap analysis
- Performing column gap analysis
- Running impact analysis

- Running lineage analysis
- Running end to end lineage
- Opening business view
- Viewing mapping statistics

Creating Mapping Specifications Graphically

You can use graphical method to create mapping specifications when columns in source and target have:

- Same names
- Different names

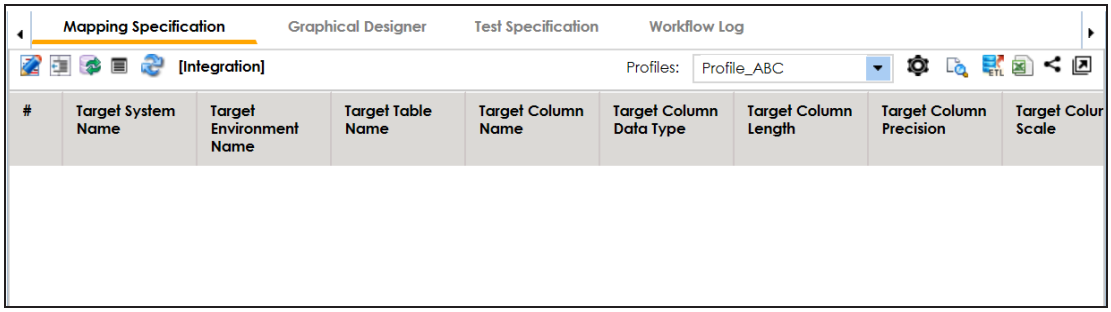
After mapping source to target, you can set the target update strategy and enter a description about the strategy.

Creating Mapping Specifications

To create mapping specifications graphically, follow these steps:

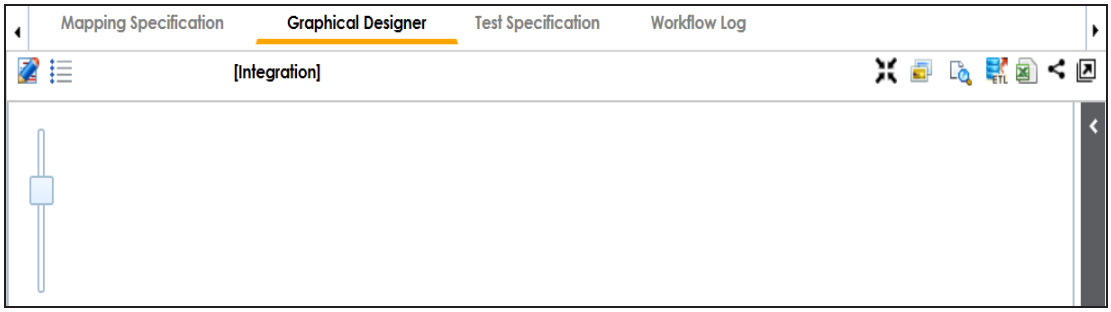
1. Under the **Workspace Mappings** pane, click the required map.

   By default, it opens the Mapping Specification tab.

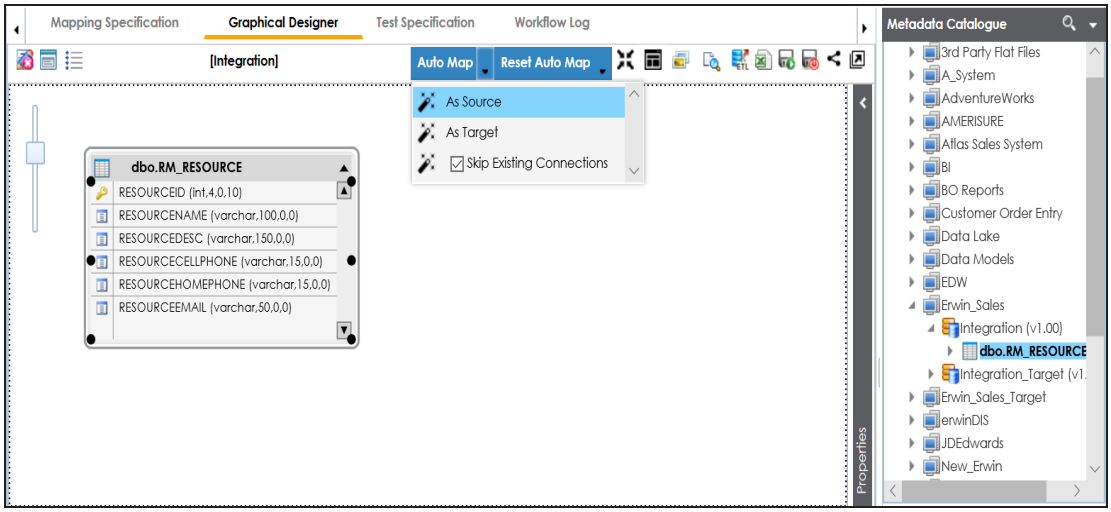


2. Click the **Graphical Designer** tab.

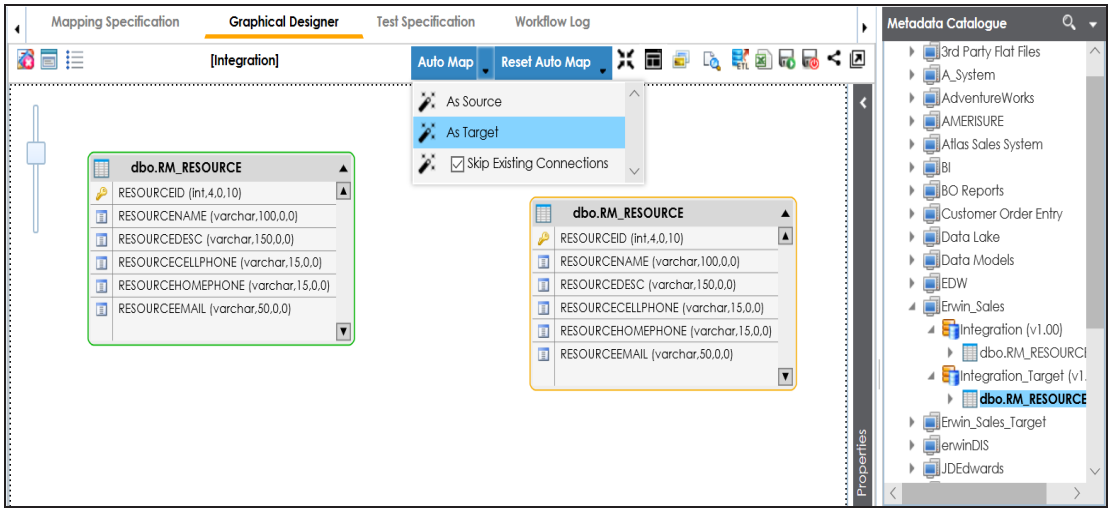
   The following page appears.



3. Click .
4. Drag source table from **Metadata Catalogue** and drop in **Graphical Designer**.
5. In **Graphical Designer**, click the source table and specify it **As Source**.



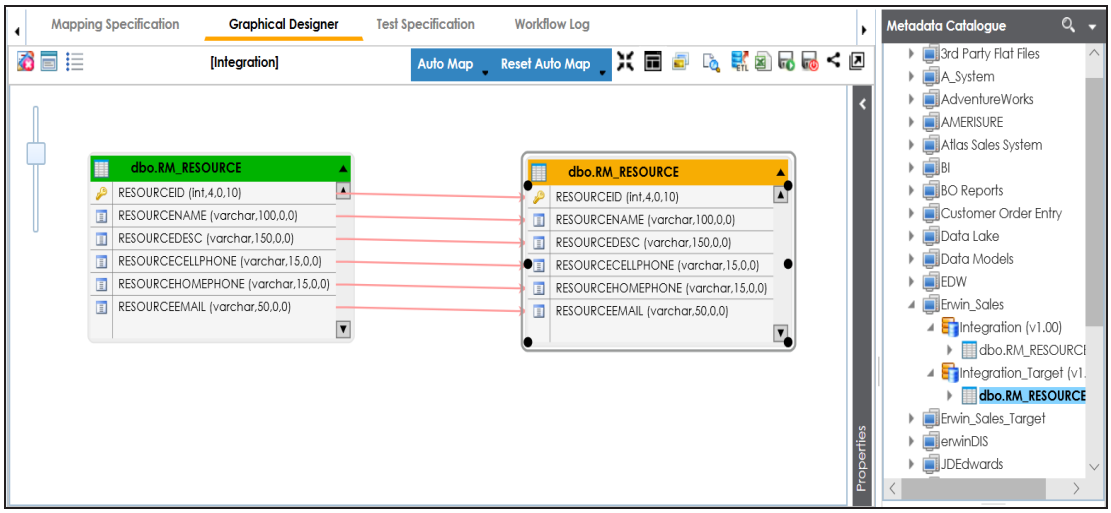
6. Drag target table from **Metadata Catalogue** and drop it in **Graphical Designer**.
7. In **Graphical Designer**, click the target table and specify it **As Target**.



8. Use the following options to map source with target:

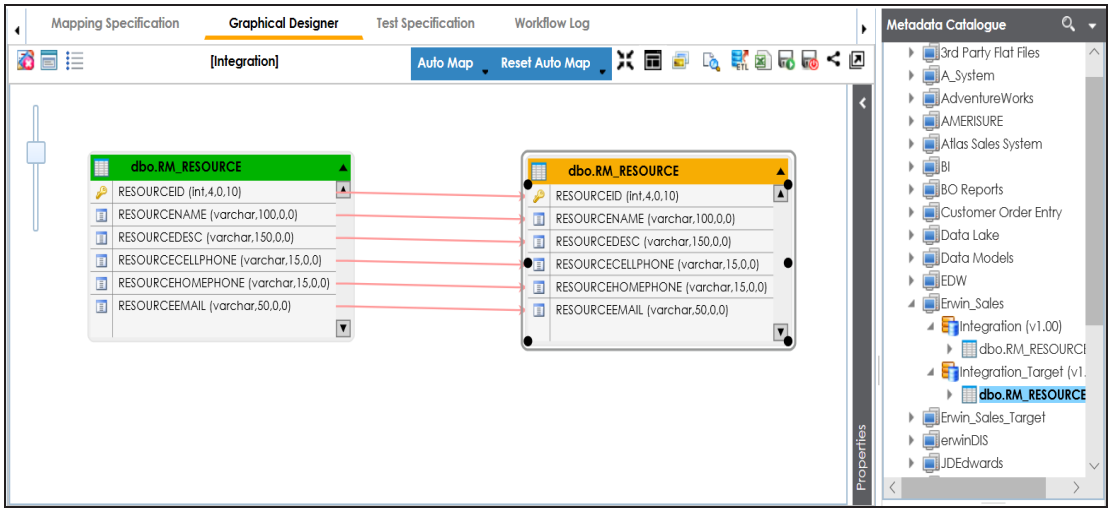
   - If the source and target have same column names, click **Auto Map**.

     The source and target columns are mapped.



   - If the source and target have different names, then drag your mouse from respective source column to the target column.

     The source and target columns are mapped.



9. Click .

   The mapping specification is saved.

Setting Target Update Strategy

To set the target update strategy, follow these steps:

1. Expand the **Additional Mapping Information pane**.

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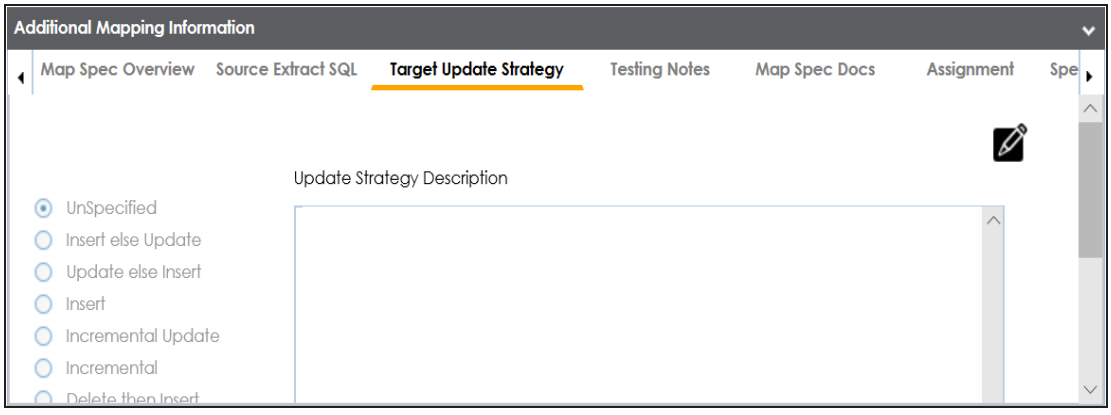
2. Click the **Target Update Strategy** tab.



3. In the **Target Update Strategy**, click .

4. Click the required strategy, enter **Update Strategy Description**, and click .

   The target update strategy is set for the mapping specification.

You can enrich a mapping specification by:

- Adding transformation and lookup details
- Associating code cross walks (code mappings)
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After creating a mapping specification, you can analyze a mapping specification. Analyzing mapping specification involves:

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- Performing column gap analysis
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- Running lineage analysis
- Running end to end lineage
- Opening business view
- Viewing mapping statistics

Creating Mapping Specifications Using Auto-Map

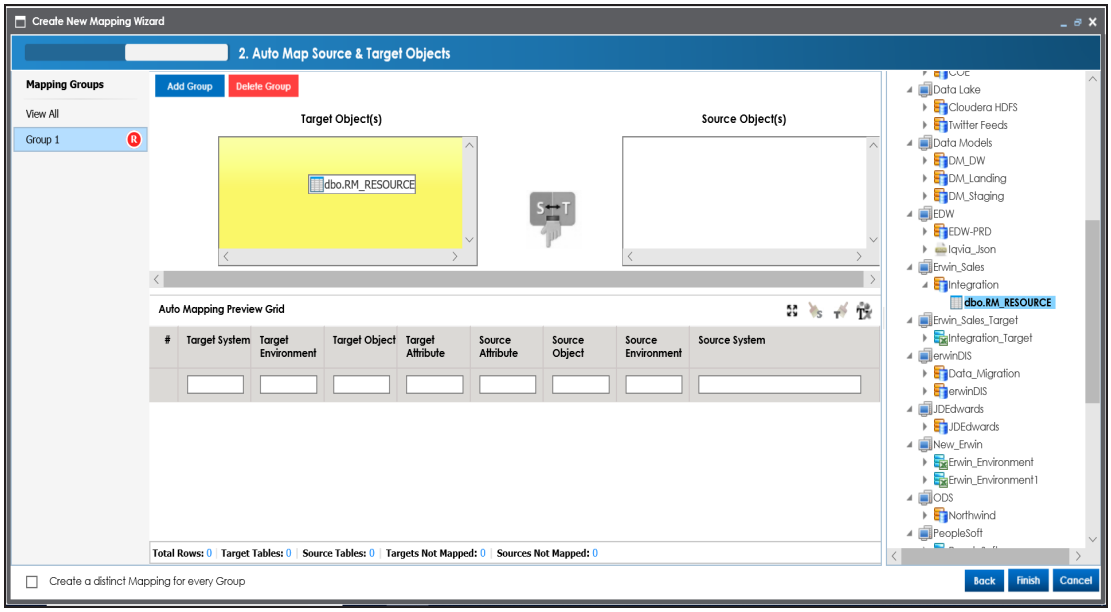
You can create a map and proceed with auto-map to create mapping specification when source column names and target column names are same. For more information about creating maps, refer to the Creating Maps topic.

After creating a mapping specification, you can set the target update strategy and enter a description about the strategy.

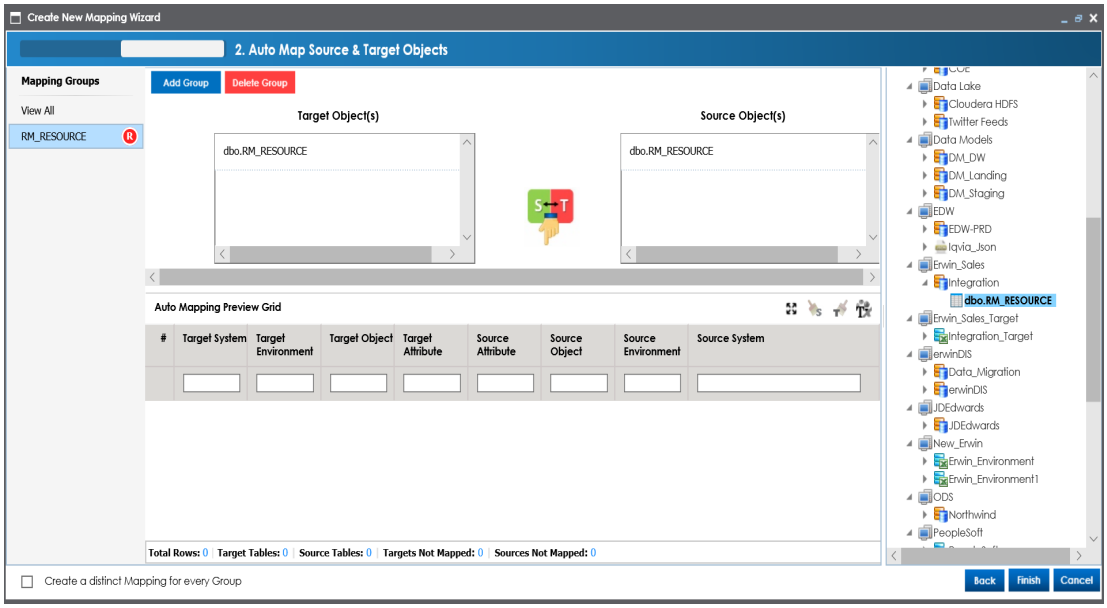
Creating Mapping Specifications

To create mapping specifications using auto-map, follow these steps:

1. In the **Creating New Mapping Wizard** page, drag the target table from **Metadata** pane and drop it in **Target Object(s)** box.

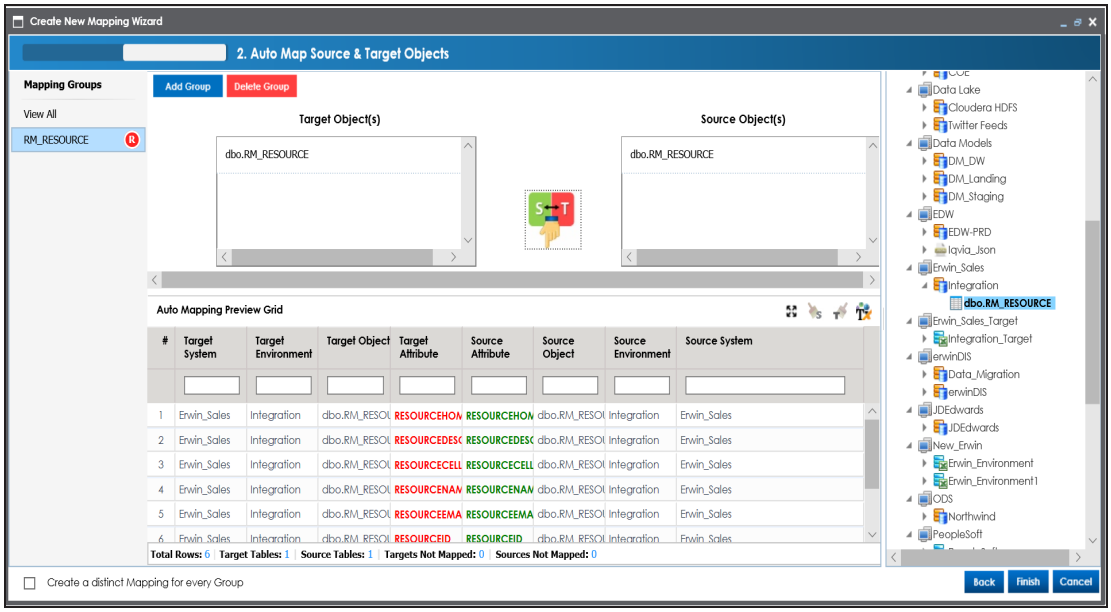


2. Drag source table from the **Metadata** pane and drop it in **Source Object(s)** box.



3. Click .

The source columns are mapped with the target columns under a mapping group with the target table name. The mappings can be previewed in the Auto Mapping Preview Grid, which gives information about the target and source tables.



Use the following options to manage the auto-map:

Maximize ( )

You can maximize or minimize the Auto Mapping Preview Grid.

Delete Orphan Sources ( )

Use this option to delete source attributes which are not mapped.

Delete Orphan Targets ( )

Use this option to delete target attributes which are not mapped.

Add Transformations ( )

Use this option to add transformations for the auto map. You can add business rule, extended business rule transformation, look up reference column, lookup on, and trans look up condition.

Add Group

Use this option to add a mapping group to perform other mappings.

Rename Mapping Group ( )

Use this option to rename a mapping group.

Delete Group

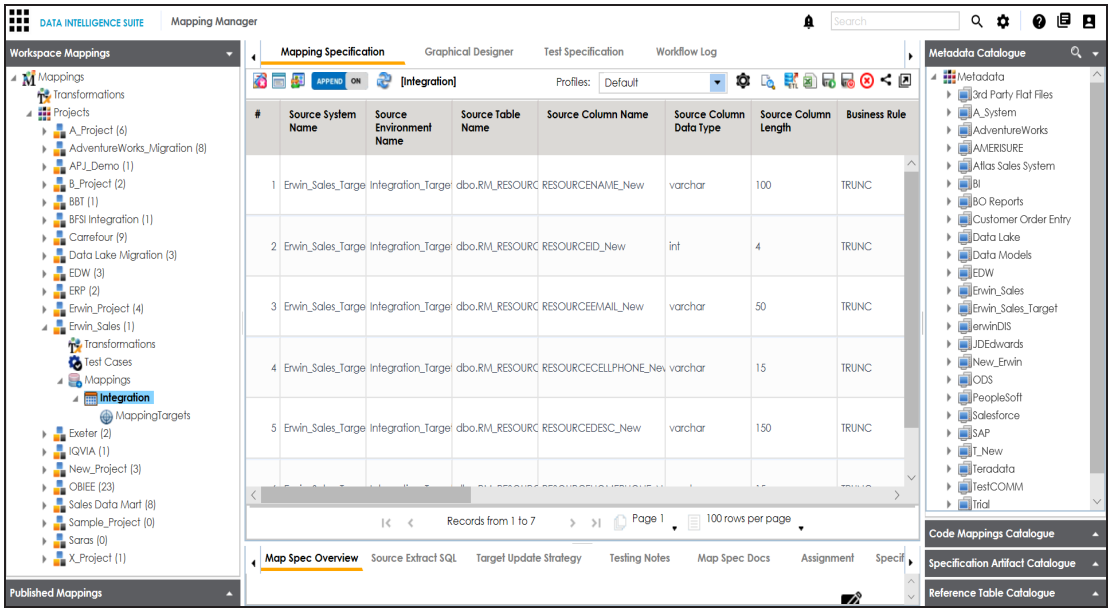
Use this option to delete a mapping group. To delete a mapping group, click the mapping group and then click **Delete Group**.

Create a distinct Mapping for every Group

Select the check box to create distinct mapping for every group.

4. Click **Finish**.

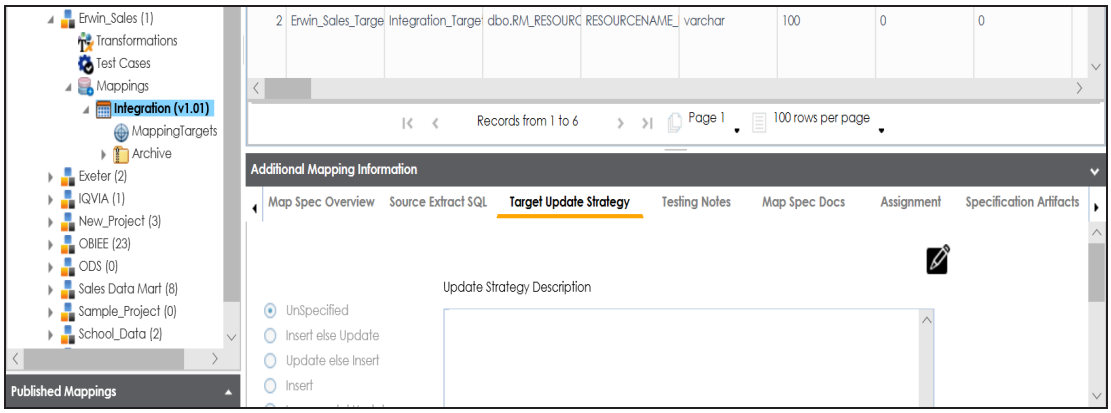
A new map is created and saved under the Mappings tree. All the auto-maps in the multiple mapping groups appear in the same sequence in the Mapping Specification grid.



Setting Target Update Strategy

To specify target update strategy, follow these steps:

1. Expand the **Additional Mapping Information** pane and click the **Target Update Strategy** tab.



2. In the **Target Update Strategy** tab, click .
3. Click the required strategy, enter **Update Strategy Description**, and click .

The target update strategy is set.

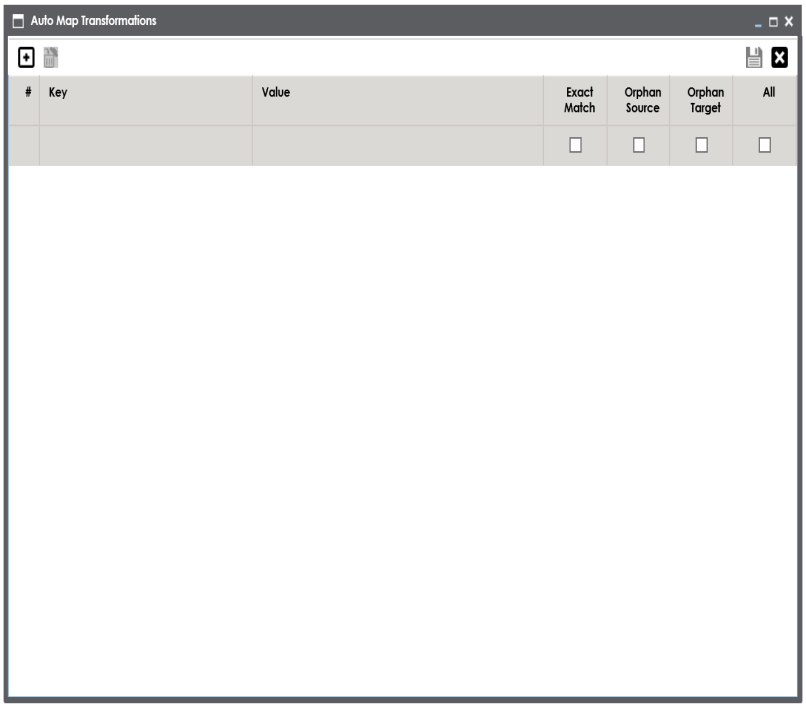
Adding Transformations

You can add transformations to an auto-map and specify whether it is applicable to exact match, orphan source, orphan target, or all the rows.

To add transformations in auto-maps, follow these steps:

1. In the **Auto Mapping Preview Grid** section, Click .

   The Auto Map Transformation page appears.

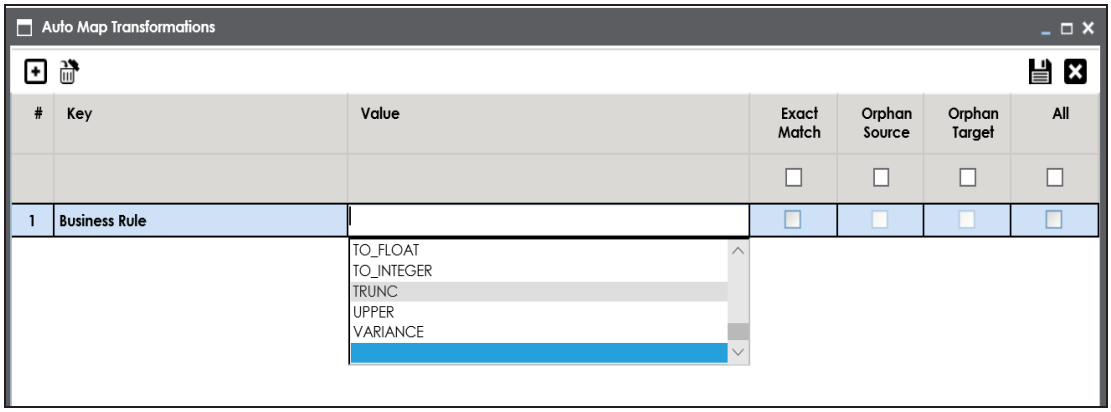


2. Click .

   A row is added to the grid.

3. Double-click the cell under the **Key** column and select the required transformation.
4. Double-click the cell under the **Value** column and select the value.

   Note: You can use transformations created under the Transformations node only for Business Rule. For other transformations, enter the required value.



5. Use the following options:

   Exact Match

   Select the check box to apply the transformation on the exactly matched rows in the Auto Mapping Preview Grid.

   Orphan Source

   Select the check box to apply the transformation on the orphan source rows in the Auto Mapping Preview Grid.

   Orphan Target

   Select the check box to apply the transformation on the orphan target rows in the Auto Mapping Preview Grid.

   All

   Select the check box to apply the transformation on every row in the Auto Mapping Preview Grid.

6. Click .

   The transformations are added to the auto map.

You can enrich a mapping specification by:

- Adding transformation and lookup details
- Associating code cross walks (code mappings)
- Associating reference tables
- Linking requirements

After creating a mapping specification, you can analyze a mapping specification. Analyzing mapping specification involves:

- Generating virtual preview of target
- Previewing Data
- Performing table gap analysis
- Performing column gap analysis
- Running impact analysis
- Running lineage analysis
- Running end to end lineage
- Opening business view
- Viewing mapping statistics

Creating One to Many and Many to Many Mapping Specifications

You can map multiple source columns to a single or multiple target columns to create a mapping specification. After creating mapping specification, you can set the target update strategy and enter a description about the strategy.

Creating Mapping Specification

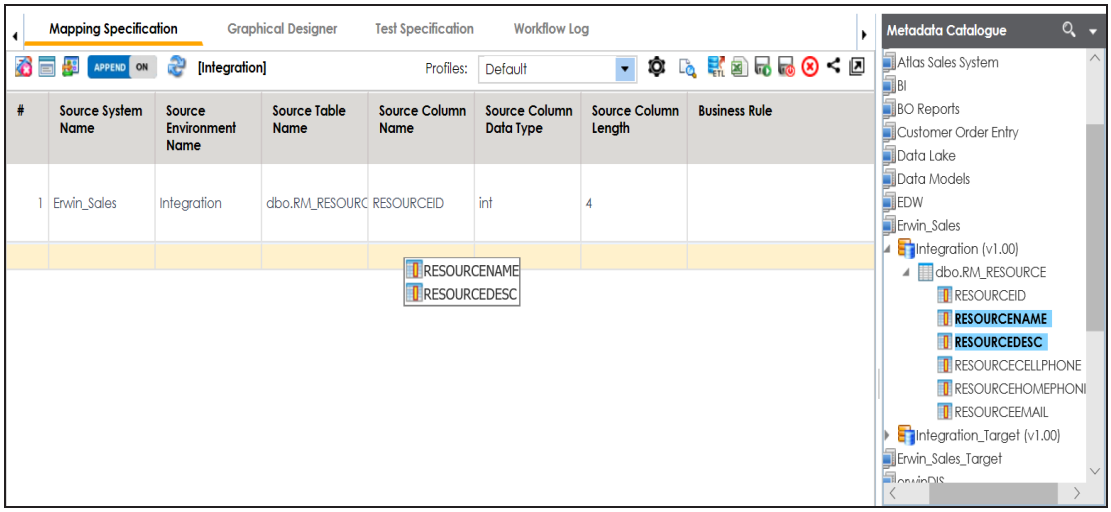
To create one to many or many to many mapping specifications, follow these steps:

1. Under the **Workspace Mappings** pane, click the required map.
2. In **Mapping Specification**, click .
3. Switch

to **ON** to enable the append mode.

   The append mode enables you to drop multiple columns from Metadata Catalogue in one row of the Mapping Specification grid.
4. Drag one or multiple source columns from **Metdata Catalogue** in **Mapping Specification** under the **Source Columns Name**.

Note: Use Ctrl key to select multiple columns in Metadata Catalogue.

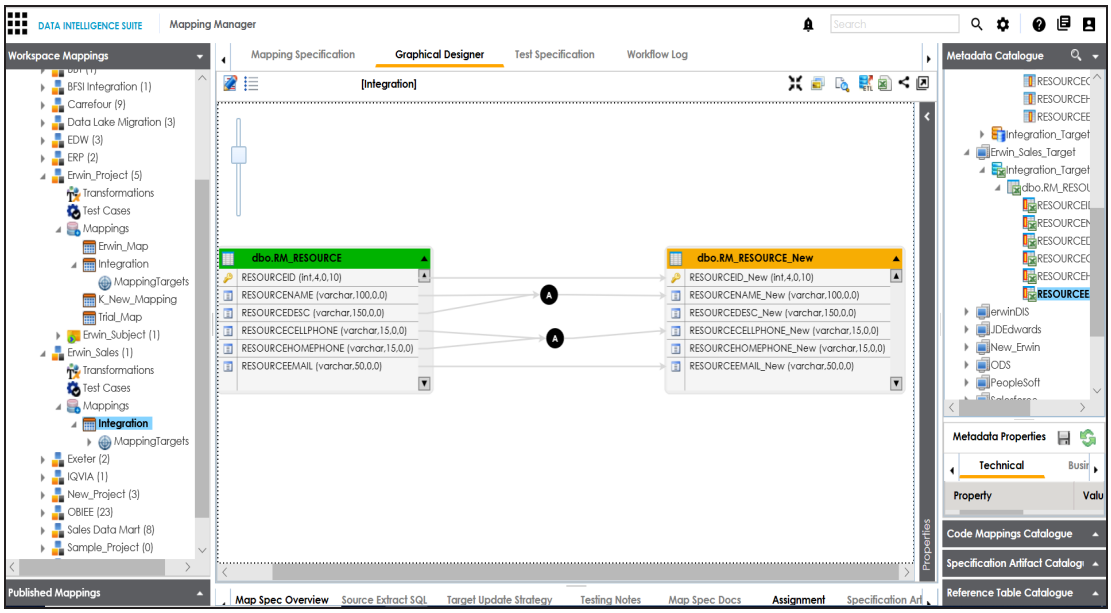


5. Drag single or multiple target columns from **Metadata Catalogue** in **Mapping Specification** under the **Target Columns Name**.

6. Click .

   The mapping specification is saved.

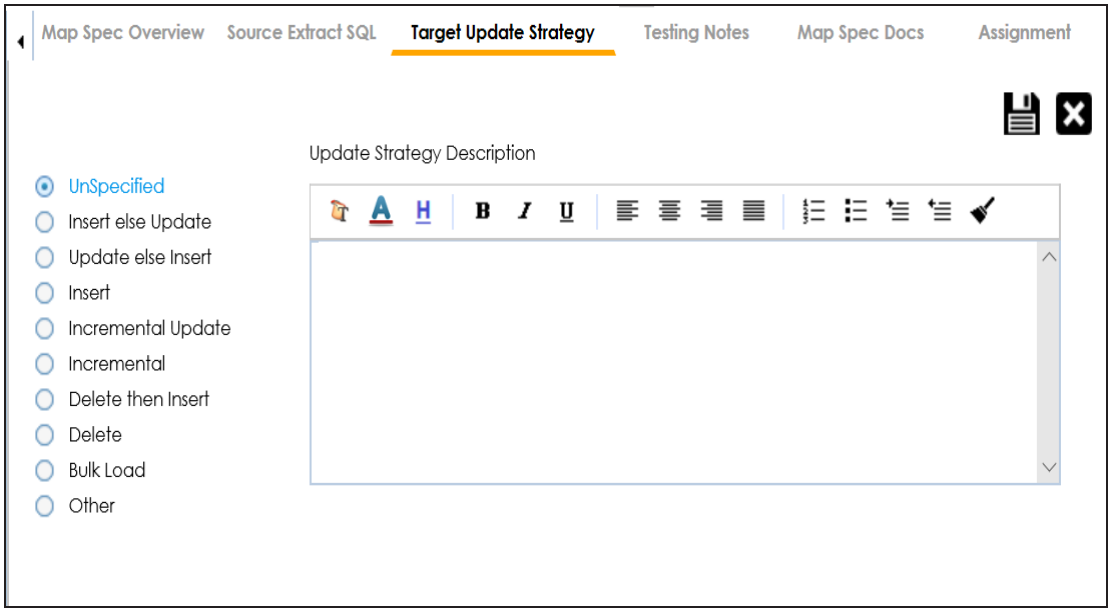
   You can view the mapping specification in the **Graphical Designer** tab to view the graphical representation of the many to one mappings.



Setting Target Update Strategy

To set target update strategy, follow these steps:

1. Expand the **Additional Mapping Information** pane and click the **Target Update Strategy** tab.
2. In the **Target Update Strategy** tab, click .



3. Click the required strategy, enter **Update Strategy Description**, and click .
4. Click .

   The source to target mapping is saved.

You can enrich a mapping specification by:

- Adding transformation and lookup details
- Associating code cross walks (code mappings)
- Associating reference tables
- Linking requirements

After creating a mapping specification, you can analyze a mapping specification. Analyzing mapping specification involves:

- Generating virtual preview of target
- Previewing Data
- Performing table gap analysis
- Performing column gap analysis
- Running impact analysis
- Running lineage analysis
- Running end to end lineage
- Opening business view
- Viewing mapping statistics

Adding Transformation and Lookup Details

You can add transformation and lookup details to a mapping specification in the Mapping Specification grid.

Adding transformation details involves setting up:

- Business rule
- Extended business rule transformation

Ensure that you define business rules under the Transformations node for the same ETL Option as the Project ETL. For more information on defining business rules, refer to the Defining and Managing Transformations section.

Adding lookup details involves setting up:

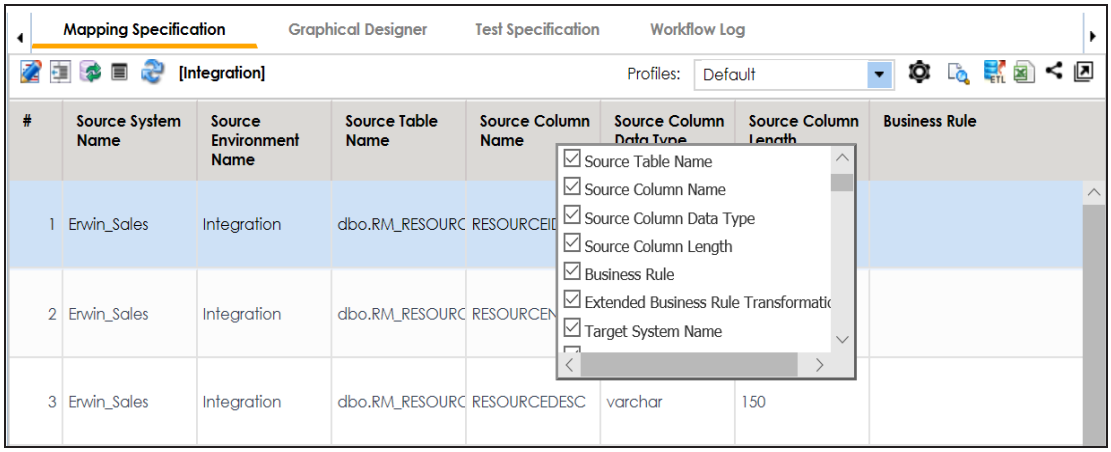
- Trans lookup condition
- Lookup reference column
- Lookup on

Ensure that you scan the required table in the Metadata Manager to set trans lookup condition.

Adding Transformation Details

To add business rules to mapping specifications, follow these steps:

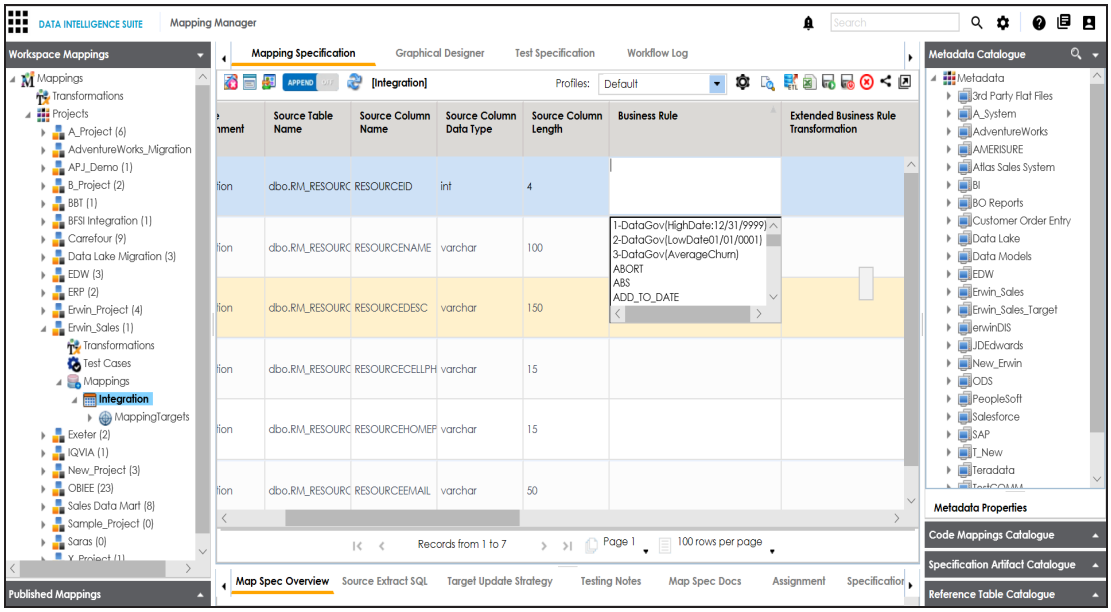
1. Under the **Workspace Mappings** pane, click the required map.
2. Right-click the header menu of the Mapping Specification grid.



3. Select **Business Rule**.

   The Business Rule column is now available in the Mapping Specification grid.

4. Click .
5. Double-click the cell under **Business rule** for the required source column.



6. Select the business rule from the drop down options.

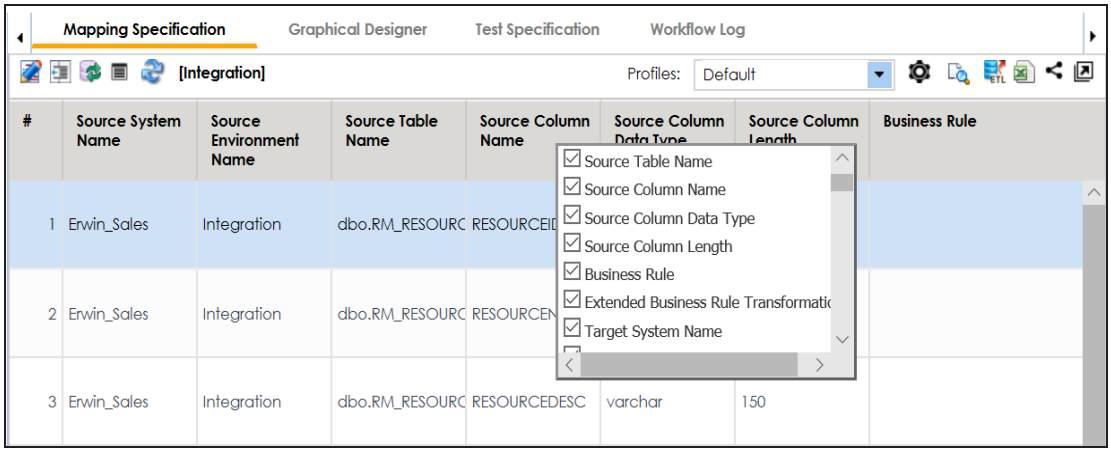
   You can add business rules for multiple source columns.

7. Click .

   The business rule is added to the mapping specification.

To add extended business rule transformation, follow these steps:

1. Under the **Workspace Mappings** pane, right-click the header menu of the Mapping Specification grid.



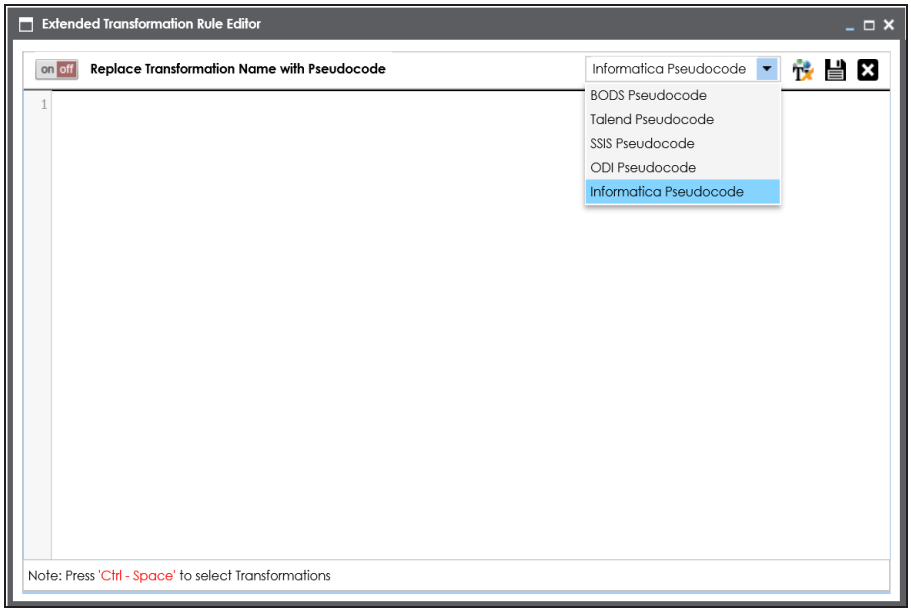
2. Select **Extended Business Rule Transformation**.

   The Extended Business Rule Transformation column is now available in the Mapping Specification grid.

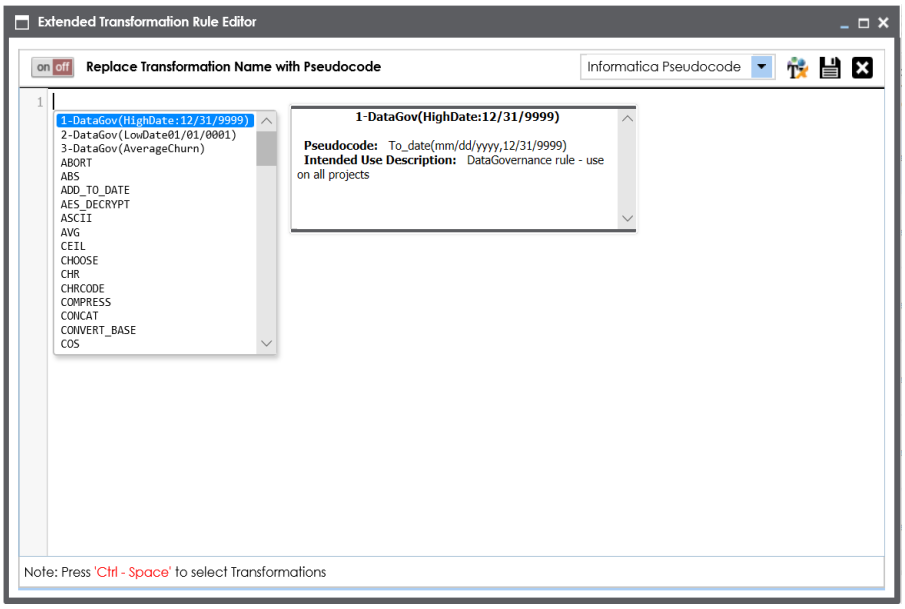
3. Double-click the cell under **Extended Business rule Transformation** for the required source column.

   The Extended Transformation Rule Editor page appears.

4. Select the pseudocode based on the Project ETL.



5. Press Ctrl-Space.



If the desired transformation is not available in the list, use to create and update the transformations list.

6. Double-click the required transformation.

   You can add extended business rule transformation to multiple source columns.

7. Switch to **ON** to replace the transformation name with the pseudocode.

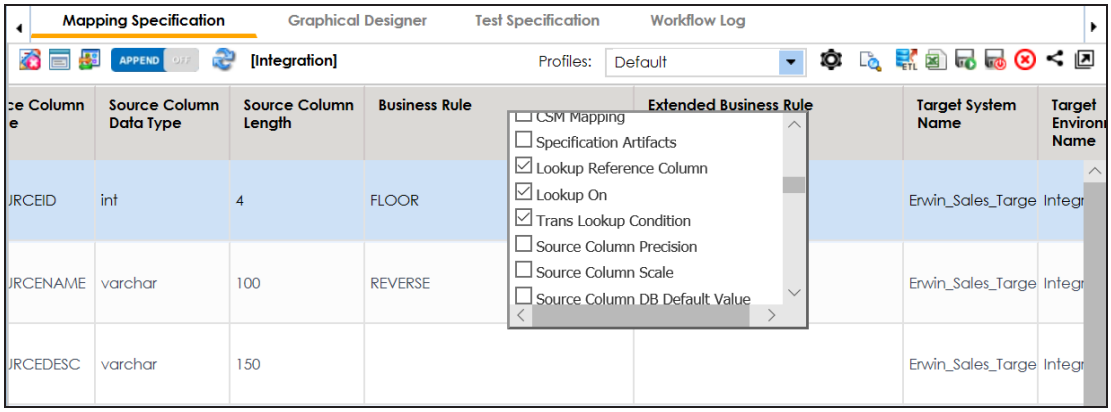
8. Click .

   The extended business rule transformation is added to the source column. You can configure UI labels for user defined fields. For more information on configuring UI labels, refer to the Configuring Language Settings topic.

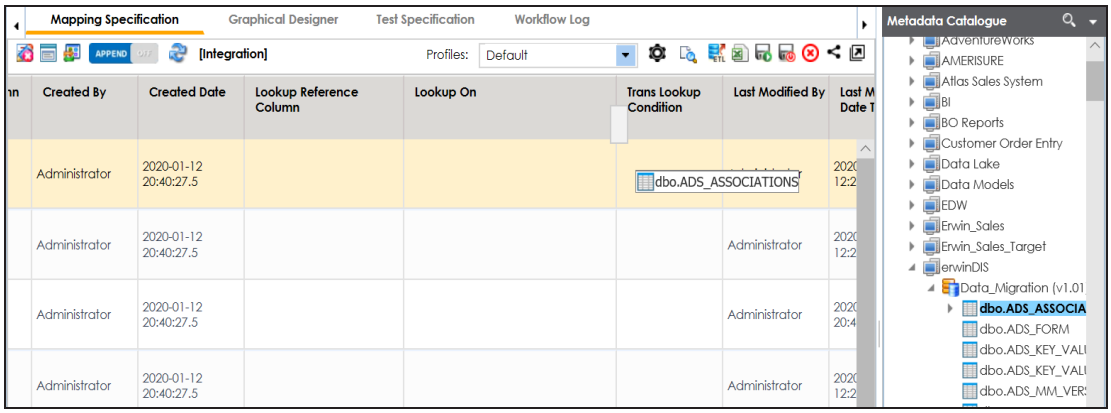
Adding Lookup Details

To add lookup details in mapping specifications, follow these steps:

1. Under the **Workspace Mappings** pane, right-click the header menu of the mapping specification grid.
2. Select **Lookup Reference Column**, **Lookup On**, and **Trans Lookup Condition**.



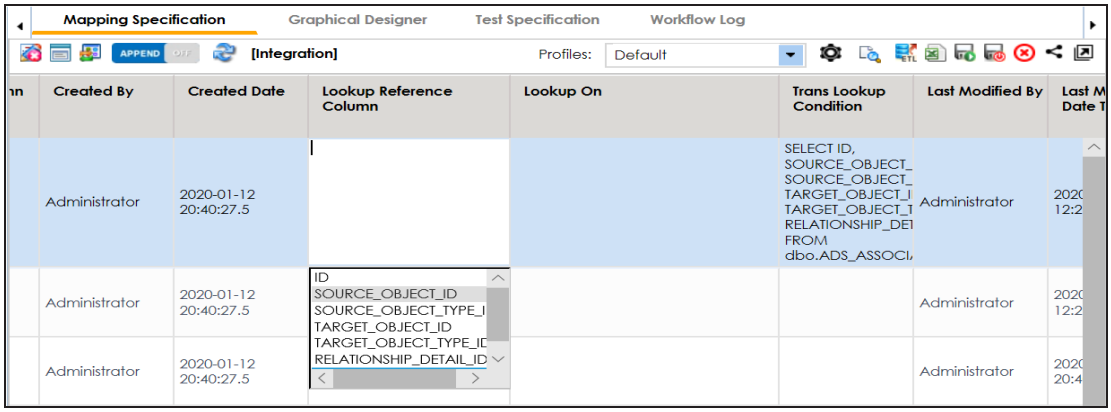
3. Drag the required table from **Metadata Catalogue** and drop it under the **Trans Lookup Condition** column for the required source column.



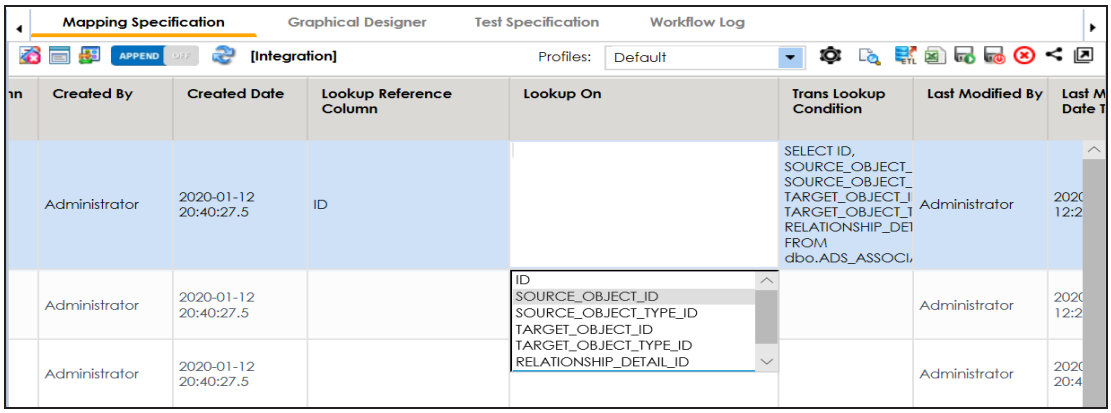
A SQL query populates.

Once trans lookup condition is set for the source column, you can add lookup reference column and lookup on.

To add lookup reference column, double-click the cell under the **Lookup Reference Column** and select the required column.



To add lookup on, double-click the cell under **Lookup On** and select the required column.



4. Click .

   The lookup details are updated in the Mapping Specification. You can add lookup details for multiple source columns.

Alternately, you can add transformation and lookup details to a mapping specification graphically. For more information about adding transformation and lookup details graphically, refer to the Adding Transformation and Lookup Details Graphically topic.

Adding Transformation and Lookup Details Graphically

You can add transformation and lookup details to a mapping specification in the Graphical Designer tab.

Adding transformation details involves setting up:

- Business rule
- Extended business rule transformation

Ensure that you define business rules under the Transformations node for the same ETL Option as the Project ETL. For more information on defining business rules, refer to the Defining and Managing Transformations section.

Adding lookup details involves setting up:

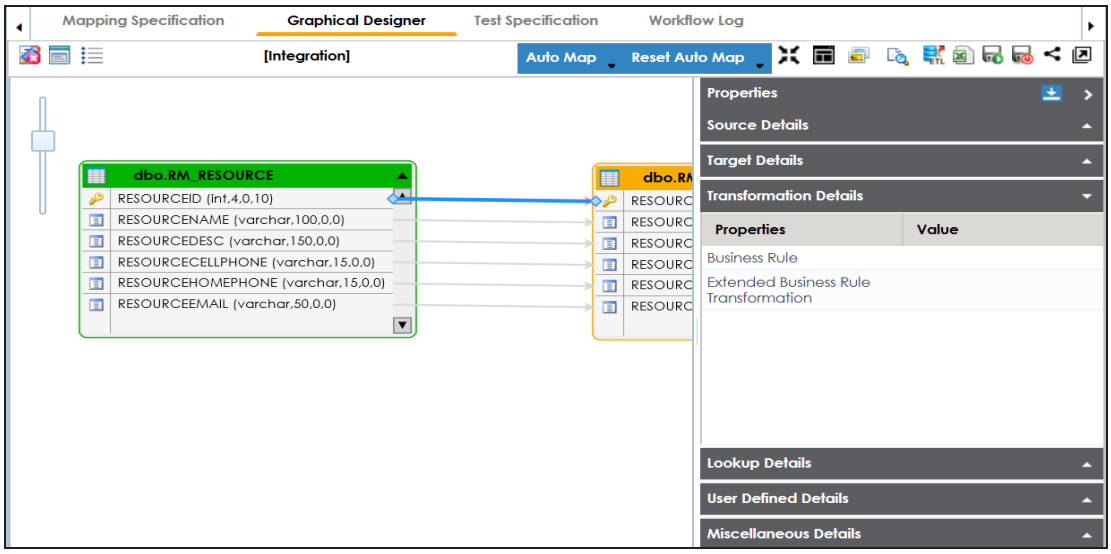
- Trans lookup condition
- Lookup reference column
- Lookup on

Ensure that you scan the required table in the Metadata Manager to set trans lookup condition.

Adding Transformation Details

To add business rules graphically, follow these steps:

1. In the **Graphical Designer** tab, click the mapping link of the required column and expand the **Properties** side deck.
2. In **Properties**, expand the **Transformation Details** tab.



3. Double-click the cell against the **Business Rule** and select the required value.

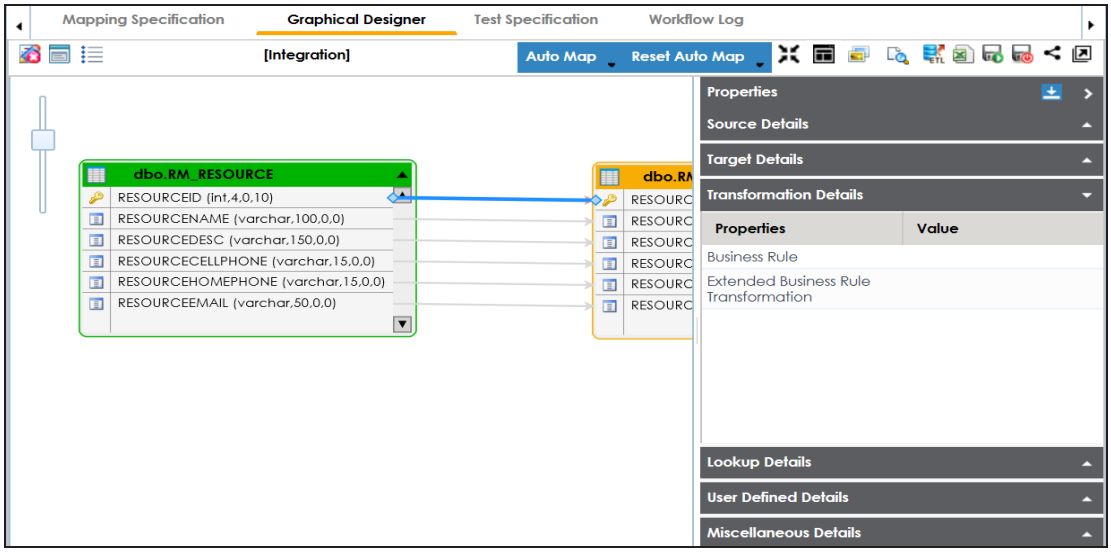
   Ensure that you defined business rules under the Transformations node for the same ETL Option as that of the Project ETL.

4. Click .

   The business rule is added to the mapping link. You can add business rules for multiple mapping links.

To add extended business rule transformation graphically, follow these steps:

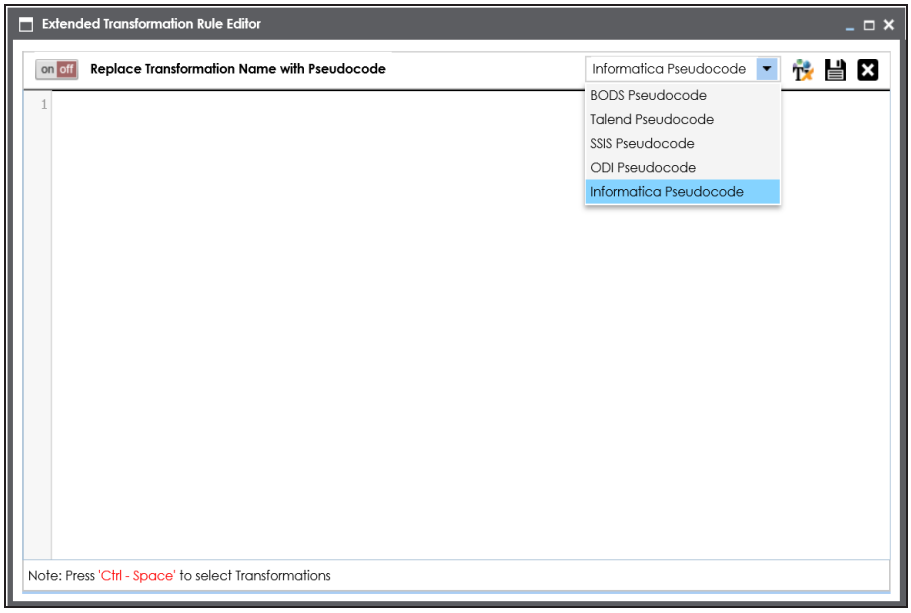
1. In the **Graphical Designer** tab, click the mapping link of the required column and expand the **Properties** side deck.
2. In **Properties**, expand the **Transformation Details** tab.



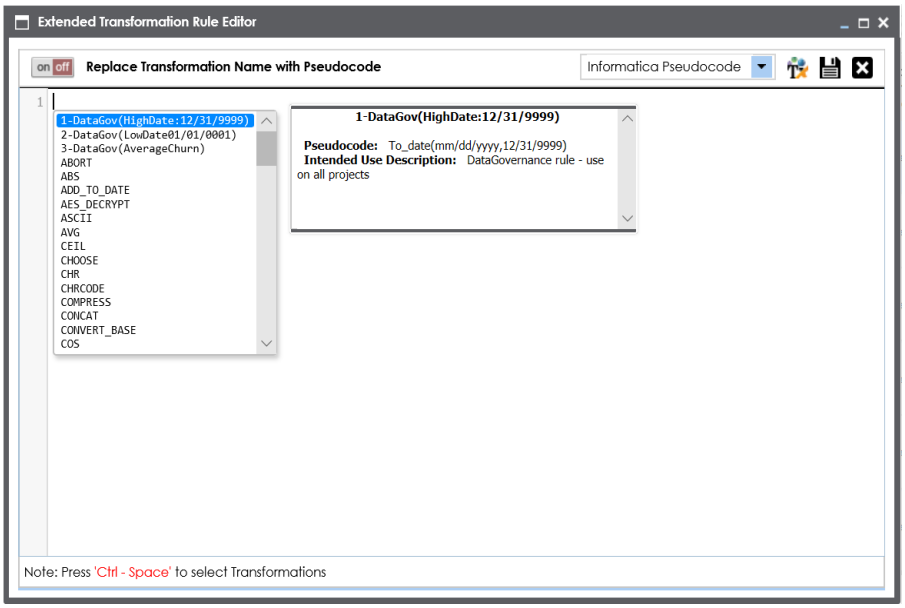
3. Double-click the cell against **Extended Business Rule Transformation**.

   The Extended Transformation Rule Editor page appears.

4. Select the pseudocode based on the Project ETL.



5. Press Ctrl-Space.



Note: If the required transformation is not available in the list, use to create and update the transformations list.

6. Double-click the required transformation.

   You can use to replace transformation name with pseudocode.

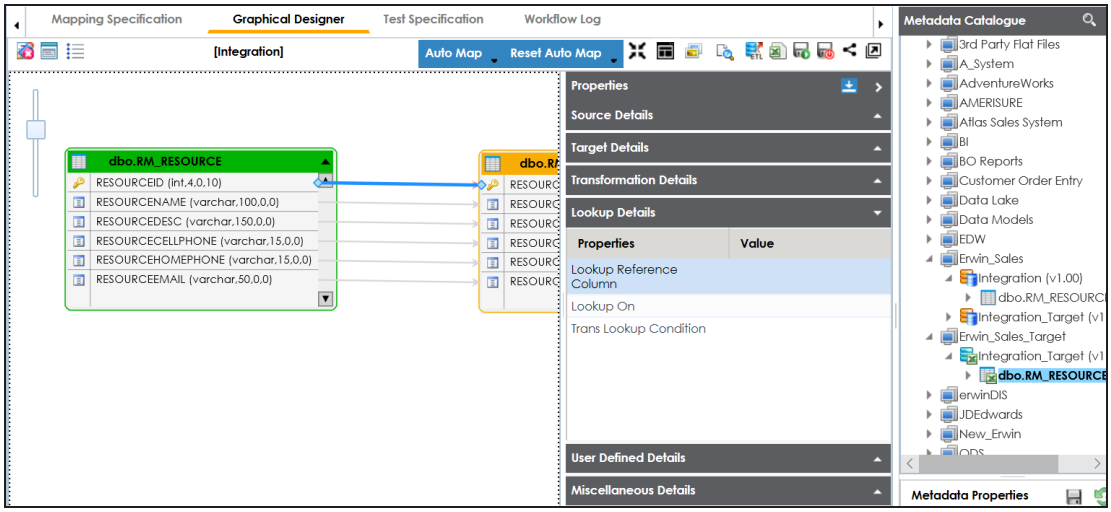
7. Click .

   The extended business rule transformation is added to the mapping link. You can add extended business rule transformations to multiple mapping links.

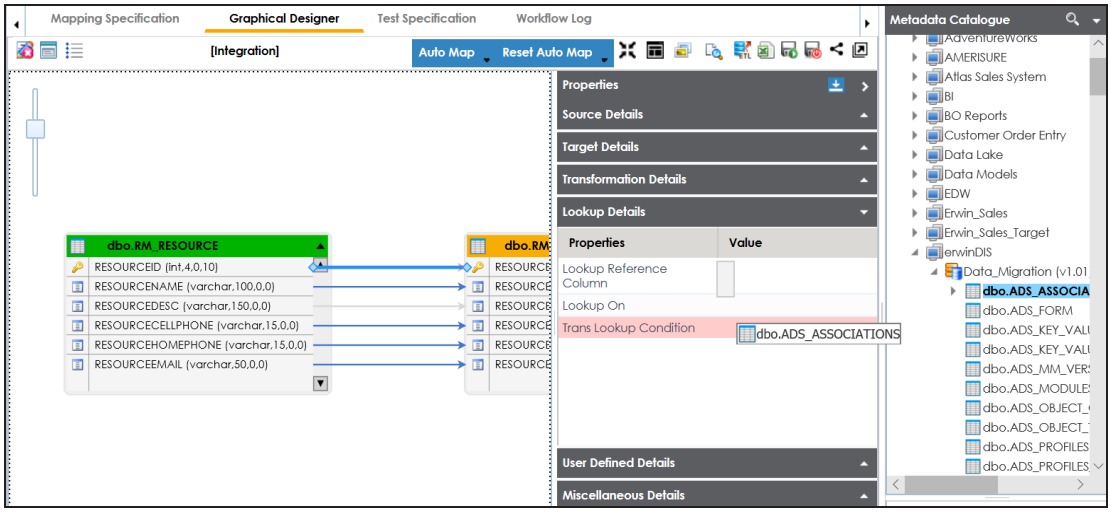
Adding Lookup Details

To add lookup details graphically, follow these steps:

1. In the **Graphical Designer** tab, click the mapping link of the required column and expand the **Properties** side deck.
2. Expand the **Lookup Details** tab.

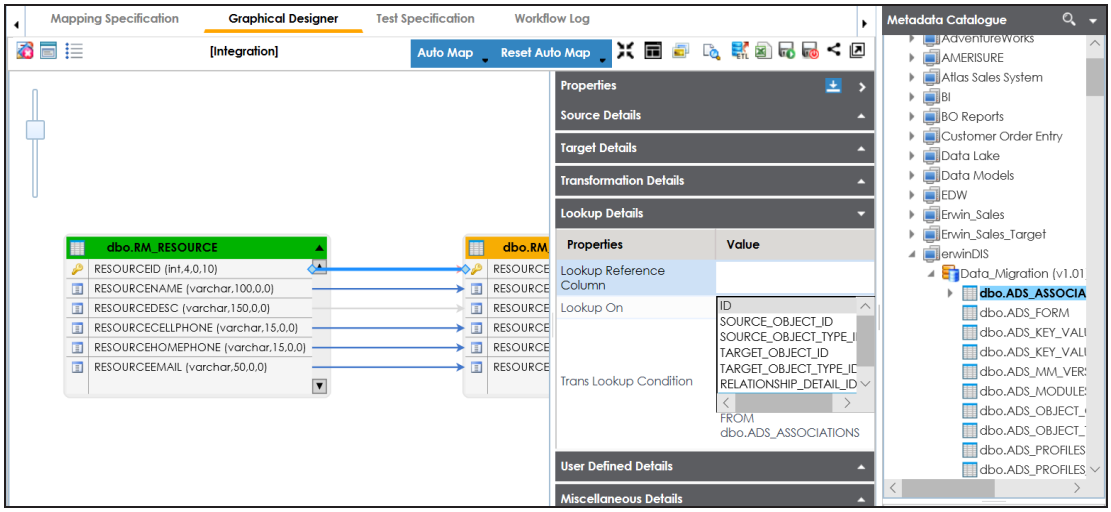


3. Drag the required table from **Metadata Catalogue** and drop it against **Trans Lookup Condition**.



Once trans lookup condition is set, you can add lookup reference column and lookup on.

To add lookup reference column, double-click the cell against **Lookup Reference Column** and select the required option.



To add lookup on, double-click the cell against **Lookup On** and select the required option.

4. Click .

The lookup details are added to the mapping specification. You can add lookup details for multiple mapping links.

Updating Mapping Specifications Manually

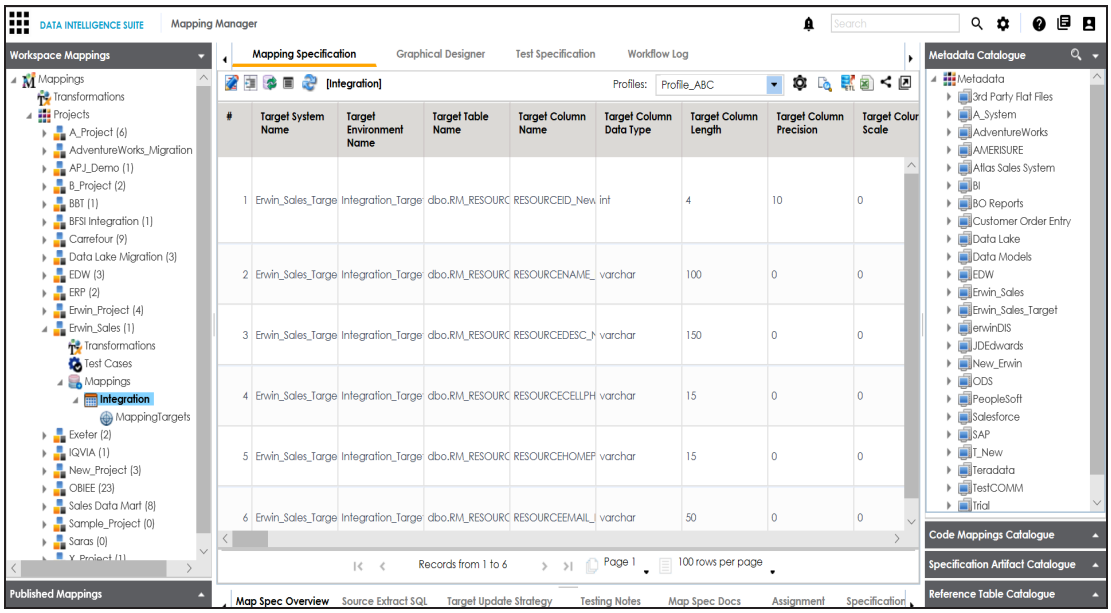
Manual entry of mapping specifications should be used case by case and on exception basis.

After creating mapping specifications, you can update mapping specifications manually.

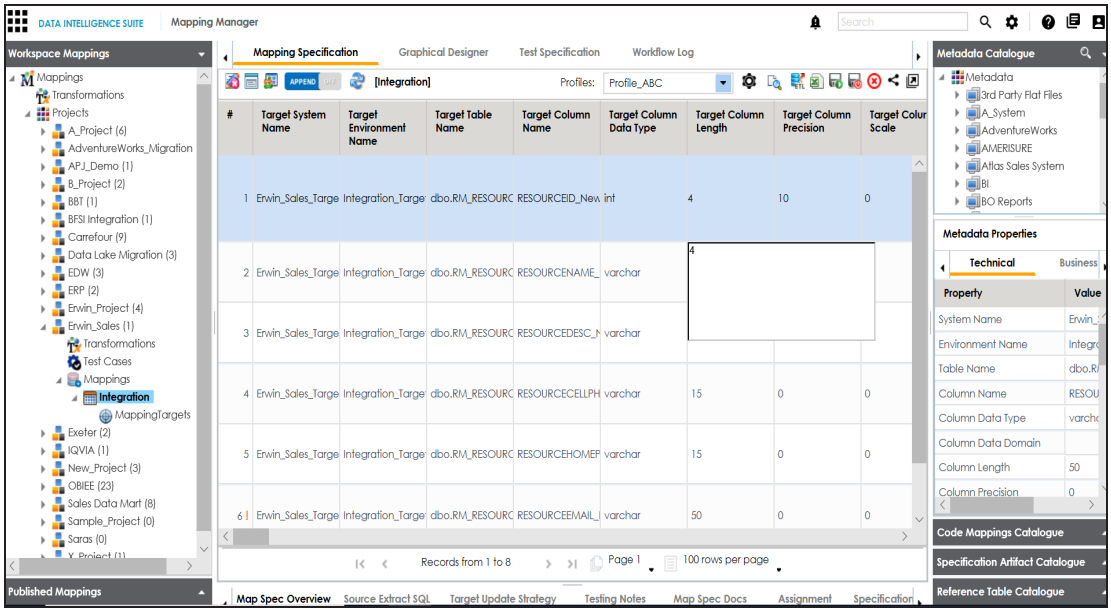
To update mapping specifications manually, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

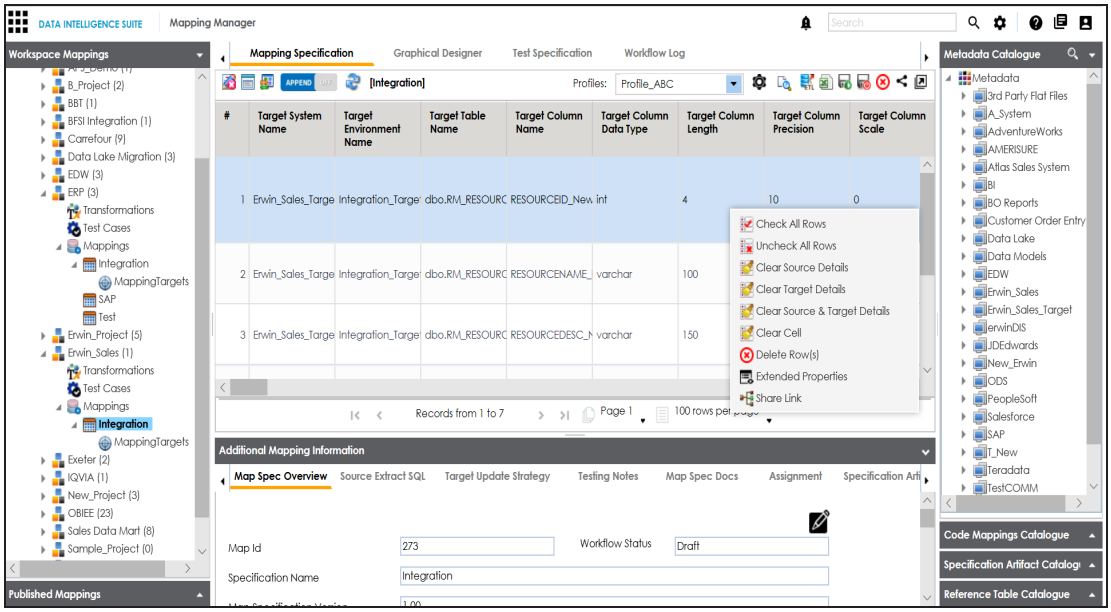
   The Mapping Specification grid appears.



3. Click .
4. Double-click a required cell to update its value.



5. Select a row (use Ctrl key to select multiple rows) in the Mapping Specification grid and right-click a required cell.



6. Use the following options:

Check All Rows

Use this option to select the check boxes under the Status column for the selected rows.

Note: Right-click the header menu of the mapping specification grid and select the **Status** check box, to make Status column visible in the mapping specification grid.

Uncheck All Rows

Use this option to unselect the check boxes under the Status column for the selected rows.

Clear Source Details

Use this option to clear source details in the mapping specification grid.

Clear Target Details

Use this option to clear target details in the mapping specification grid.

Clear Source & Target Details

Use this option to clear source and target details in the mapping specification grid.

Clear Cell

Use this option to clear the cell.

Delete Row(s)

Use this option to delete the selected rows.

Extended Properties

Use this option to configure Extended Properties.

Share Link

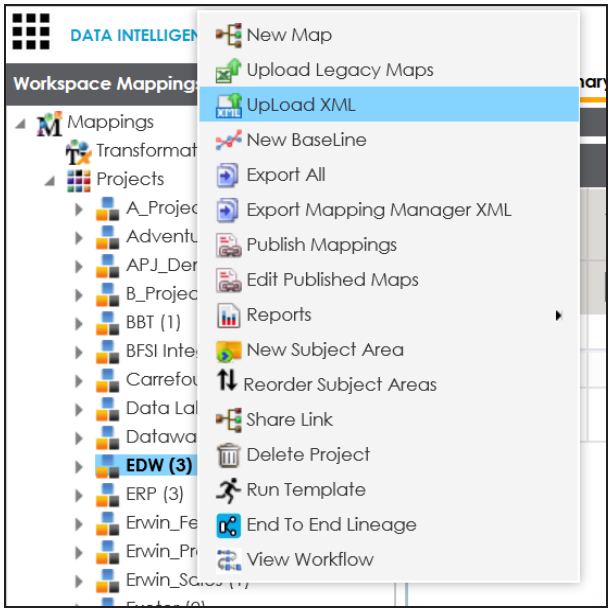
Use this option to copy or share the URL of the mapping specification.

Uploading Mapping Specifications in XML

You can upload a mapping specification to a project in the XML format. You can either use an existing XML file or export it from a suitable project. Ensure that the XML file follows the correct template. For more information on exporting a mapping specification in XML, refer to the Exporting Mapping Specification into Proprietary XML Format topic.

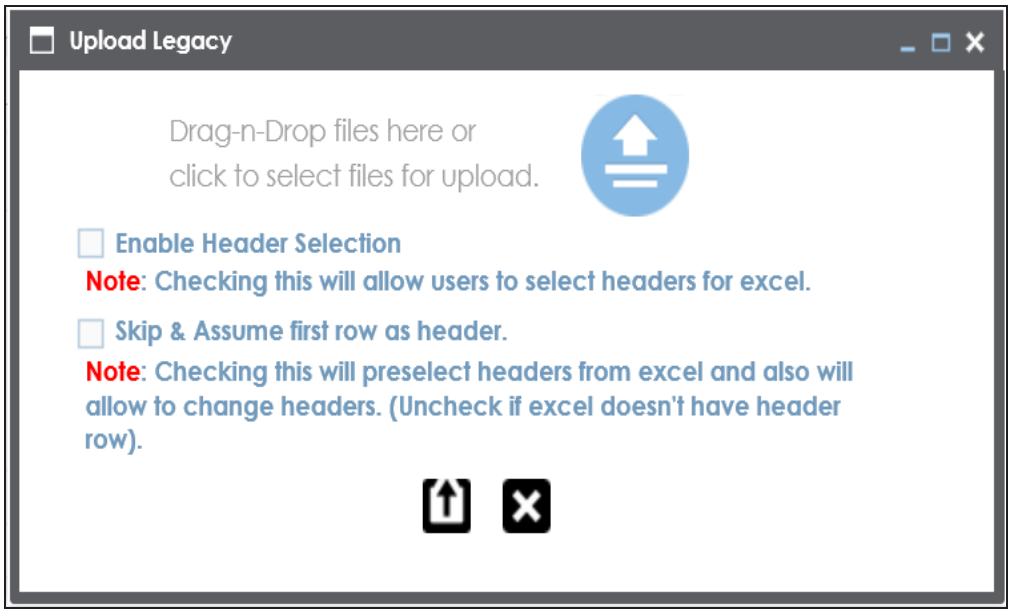
To upload mapping specifications in the XML format, follow these steps:

1. Under the **Workspace Mappings** pane, right-click the required project.



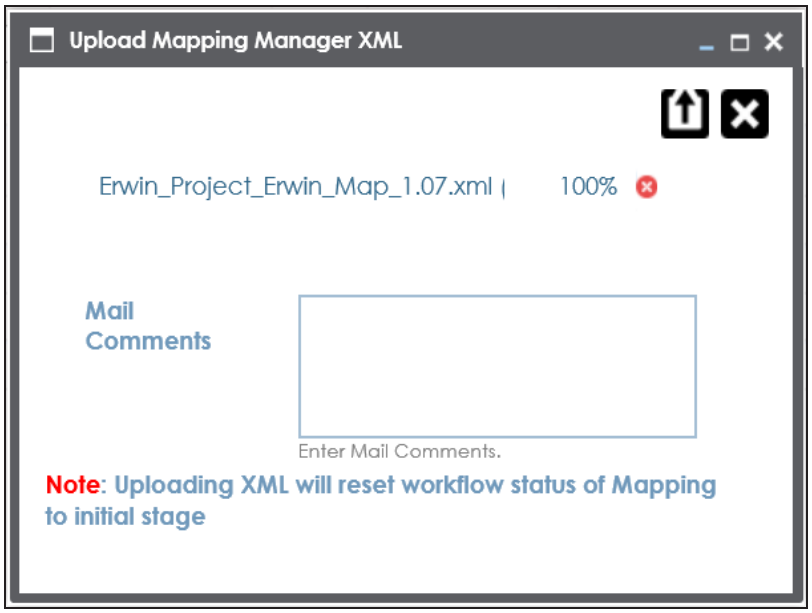
2. Click **Upload XML**.

   The Upload Legacy page appears.



3. Drag and drop or use to browse and select the XML file.

The Upload Mapping Manager XML page appears.



4. Enter **Mail Comments** and click .

   The Mapping Specification is uploaded successfully.

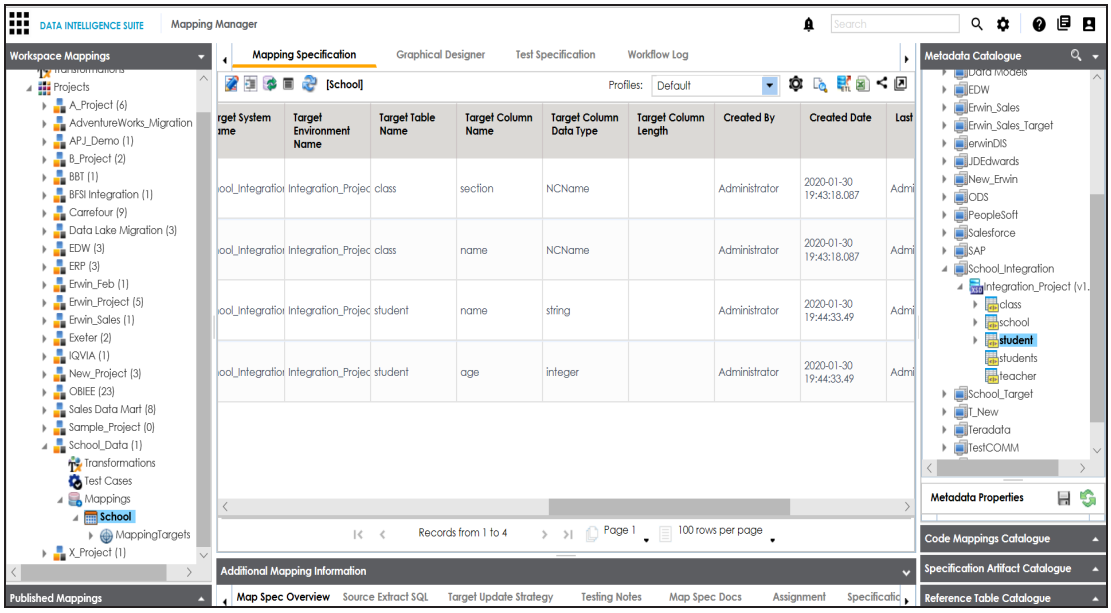
   If you have enabled notifications, project users receive notification emails and mail comments from the administrator's email ID. For more information on configuring notifications, refer to the Configuring Notifications topic.

Specifying XPath in Mapping Specification

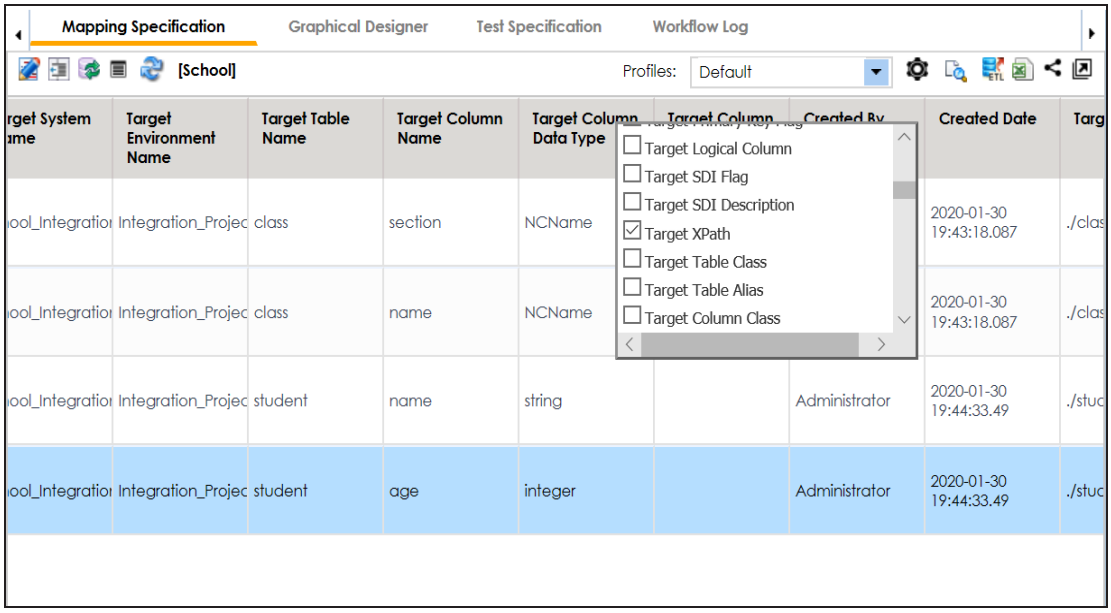
Xpath is a potential path expression in a XML document. Hence, if you have scanned source or target metadata using XSD database type then Xpath plays an important role in mappings. You can specify Xpath in a mapping specification for source and target columns.

To specify Xpath in mapping specifications, follow these steps:

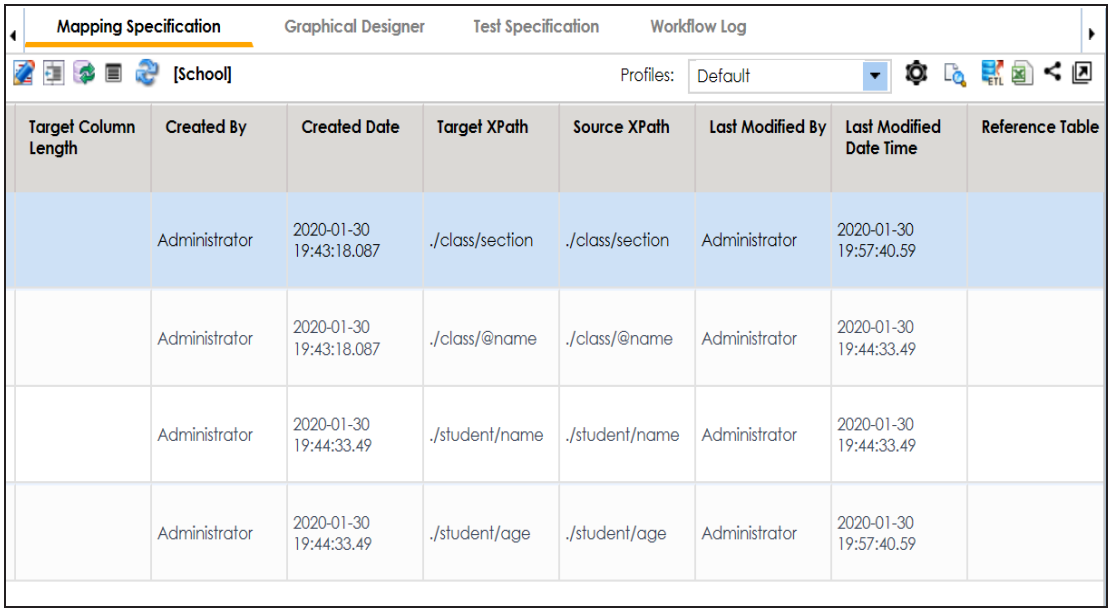
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a map.



3. Right-click the header menu and select **Target XPath** and **Source XPath**.



The Target XPath and Source XPath columns are visible with the corresponding XPath values in the mapping specification grid.



Target Column Length	Created By	Created Date	Target XPath	Source XPath	Last Modified By	Last Modified Date Time	Reference Table
	Administrator	2020-01-30 19:43:18.087	./class/section	./class/section	Administrator	2020-01-30 19:57:40.59	
	Administrator	2020-01-30 19:43:18.087	./class/@name	./class/@name	Administrator	2020-01-30 19:44:33.49	
	Administrator	2020-01-30 19:44:33.49	./student/name	./student/name	Administrator	2020-01-30 19:44:33.49	
	Administrator	2020-01-30 19:44:33.49	./student/age	./student/age	Administrator	2020-01-30 19:57:40.59	

4. Click .
5. Double-click a cell under **Target XPath** or **Source XPath** to enter the required XPath.
6. Click .

   The mapping specification is updated.

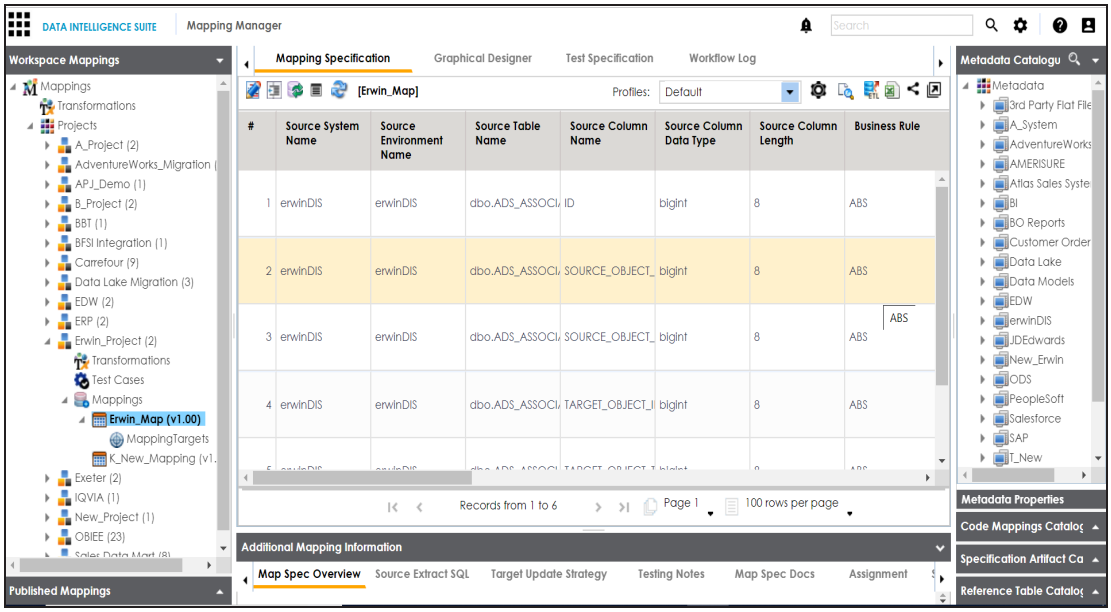
Setting Column Order and Column Visibility

You can change the column order and column visibility in the Mapping Specification. This helps you work more efficiently and accurately.

To set the column order in mapping specifications, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a map.

   The Mapping Specification grid page appears.



3. Click the required column header, drag and drop the column at your desired place.
4. Use to reset the column ordering and visibility.

   The Mapping Specifications can be exported with the new column order.

   Note: Column ordering in Mapping Specifications are not saved and gets reset.

To set the column visibility, follow these steps:

1. In the **Mapping Specification** grid, click .

   The Header Menu page appears.

2. Expand the respective nodes.
3. Select the required columns.

4. Close the **Header Menu** page.

   The selected columns are visible in the Mapping Specification grid.

Updating Additional Mapping Information

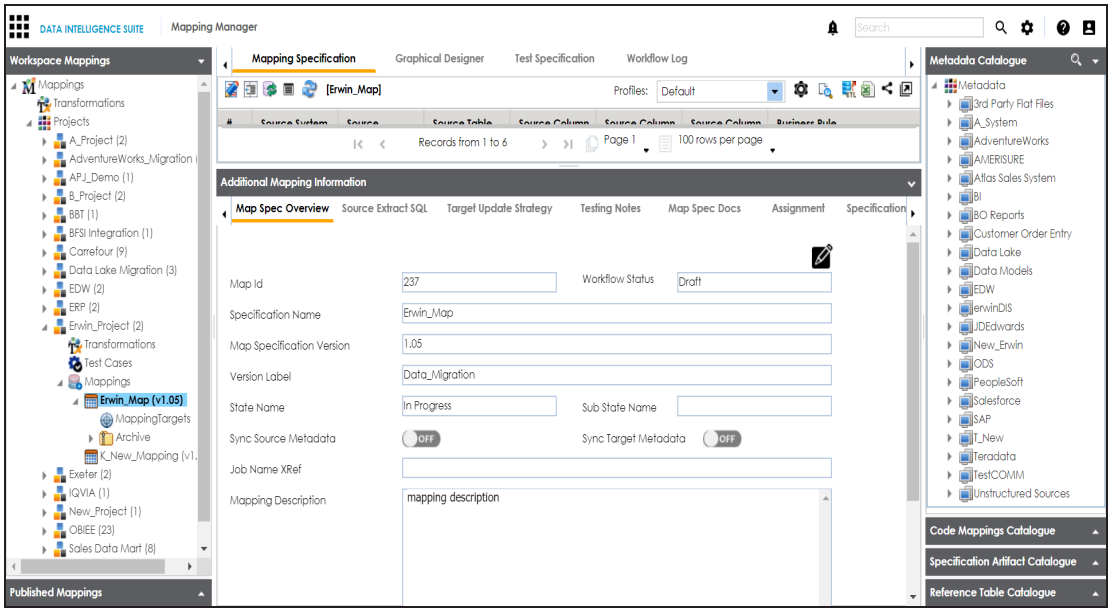
The Additional Mapping Information page enables you to add additional mapping information with respect to:

- Map Spec Overview: Under this you can update the following for a mapping specification:
  - Specification name
  - Version label
  - State name and sub-state name
  - Source and target metadata sync
  - Job Name XRef
- Source Extract SQL: Under this you can update:
  - SQL Query relevant to a mapping specification
  - SQL Query Description
- Target Update Strategy: It enables you to set your target update strategy as per your data integration requirements.
- Testing Notes: Under this you can add relevant testing notes with respect to a mapping specification.
- Map Specs Docs: Under this you can upload relevant documents.
- Assignment: Under this you can assign a mapping specification to multiple users.
- Specification Artifacts: Under this you can add specification artifacts relevant to a mapping specification.
- Level of Effort: Under this you can record planned level of effort and actual level of effort in creating mapping and ETL process.
- Change Log: This tab can be enabled in Mapping Manager Settings. It enables you to capture change logs in a mapping specification.
- Release Information: Under this you can view release information of a mapping.
- Collaboration Center: Under this you can collaborate with other users on a topic.
- User Defined Tabs (1-5): There are five user defined tabs that can be used by you with your own UI labels.
- Extended Properties: Under this you can extend properties of a mapping specification by creating custom forms.

To access Additional Mapping Information page of a mapping specification:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. In **Workspace Mappings**, click a map.
3. Expand the **Additional Mapping Information** pane.

   The Additional Mapping Information page can be accessed.



Updating Map Spec Overview

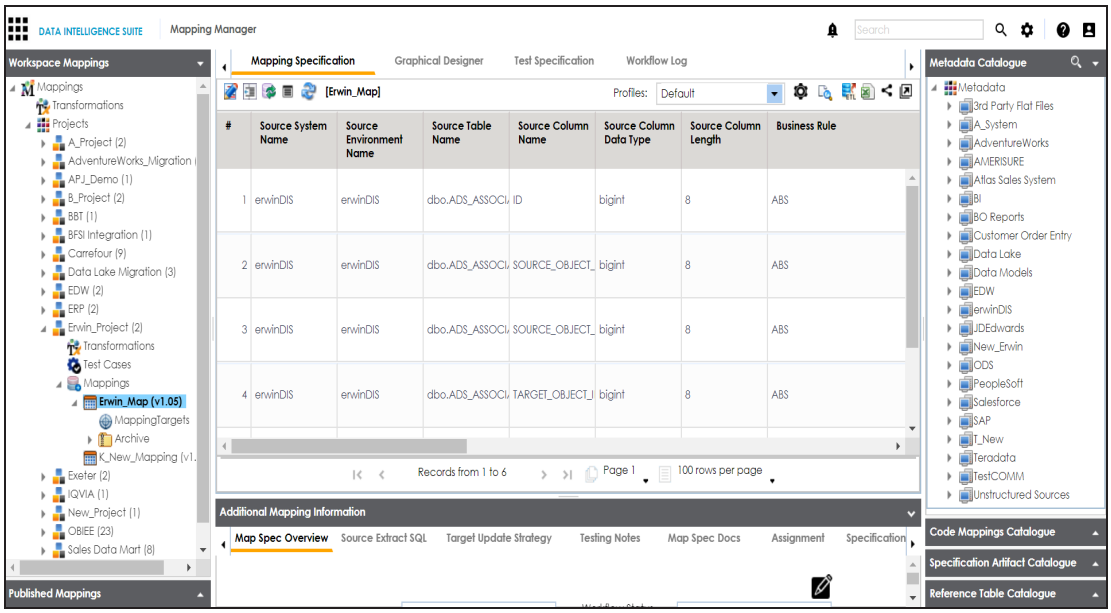
You can edit Map Spec Overview page and update various aspects of a mapping specification which includes:

- Specification name and its description
- Version label
- Mapping states and sub-states
- Syncing metadata with a mapping specification
- Job name XRef

To update Map Spec Overview tab, follow these steps:

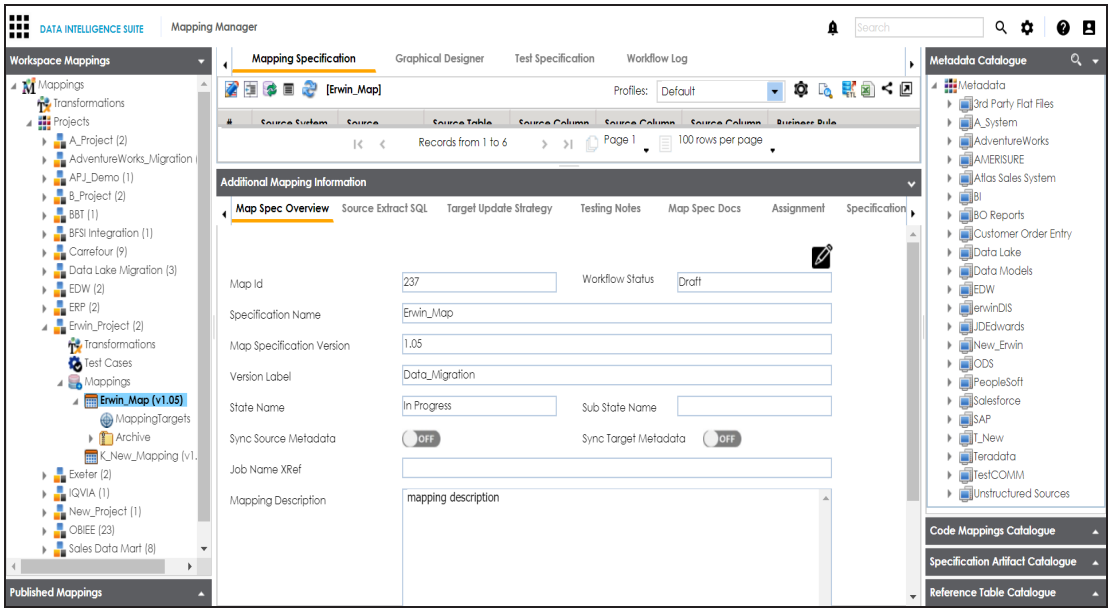
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.



3. Expand the **Additional Mapping Information** pane.

   The Map Spec Overview tab appears.



4. Click .

5. Select or enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Specification Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail. For more information on naming conventions, refer to the Best Practices section.
Version Label	Specifies the version label of the mapping specification. For example, EDW_PROD_IDS_Benefits_Detail (Alpha). For more information on configuring version display of maps, refer to the Configuring Version Display topic.
State Name	Specifies the mapping state of the mapping specification. For example, In Progress. You can add a state name in the Mapping Manager Settings.
Sub State Name	Specifies the sub-state of the mapping specification. For example, Needs Approval.

Field Name	Description
	You can add a sub state in Mapping Manager Settings.
Sync Source Metadata	Switch Sync Source Metadata to **ON** to sync source metadata with the mapping specification.
Sync Target Metadata	Switch Sync Target Metadata to **ON** to sync target metadata with the mapping specification.
Job Name XRef	Specifies the equivalent ETL mapping name. For example, ErwinDIS931.
Description	Specifies the description for the mapping specification. For example: This is a map between EDW source and IDS target systems.

Note: You cannot edit Map Id, Workflow Status, and Map Specification Version.

For more information on workflow status, refer to the Managing Mapping Manager Workflows topic.

6. Click .

   The fields in the Map Spec Overview tab are updated.

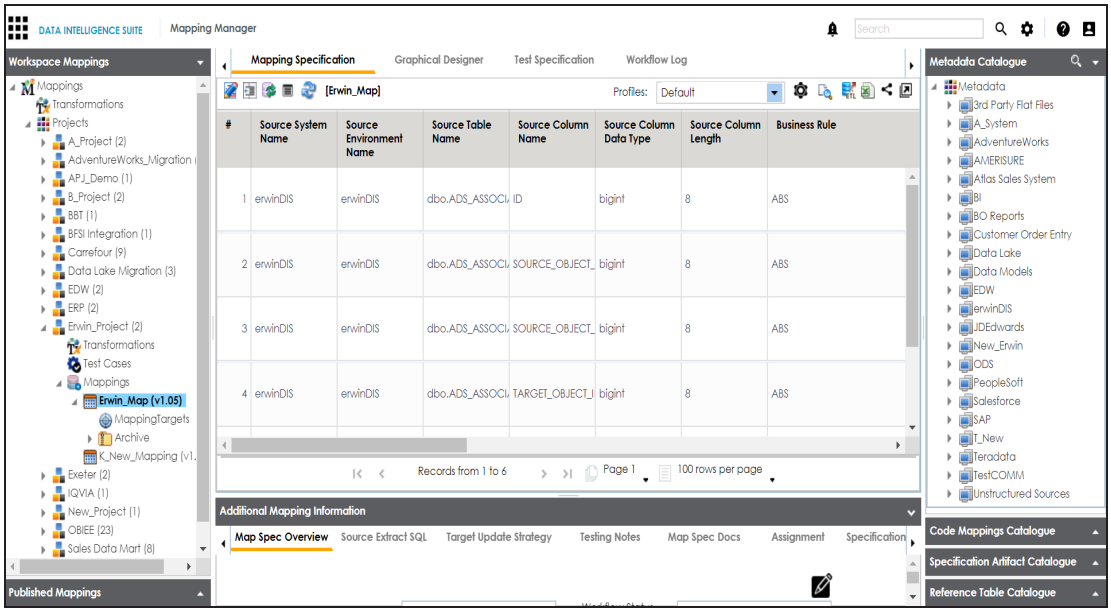
Updating Source Extract SQL

You can keep a record of multiple source extract SQL and its description. You can also update it as per your requirements.

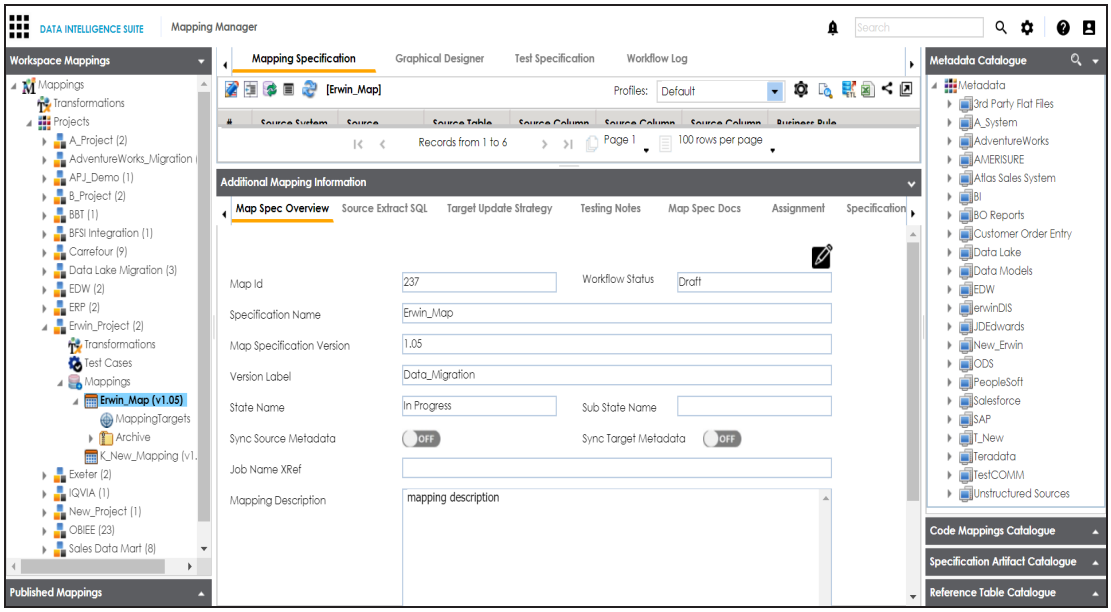
To update source extract SQL, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.

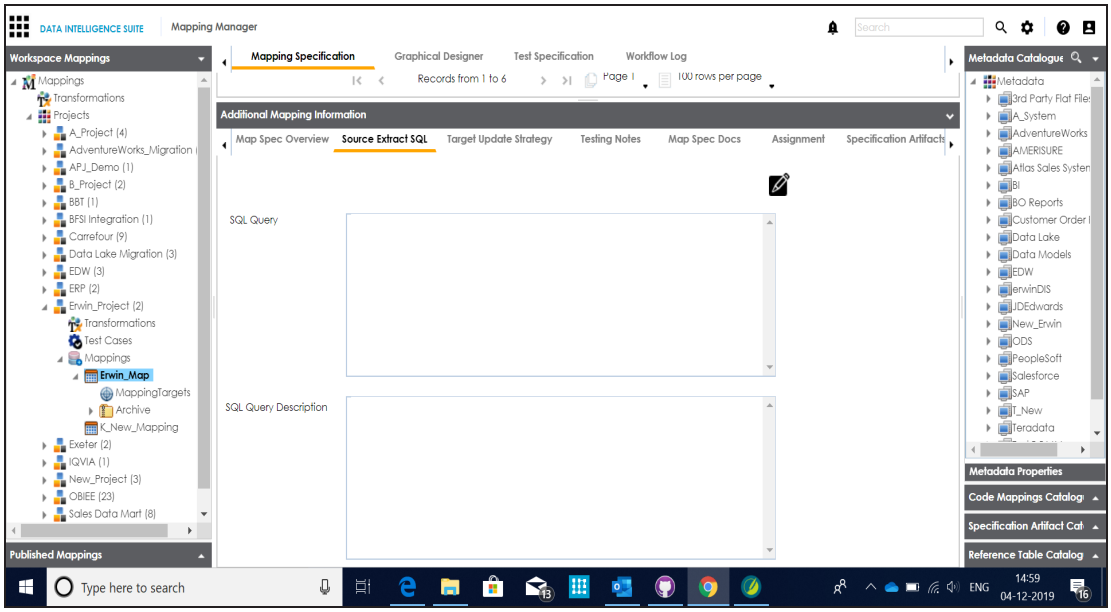


3. Expand the **Additional Mapping Information** pane.



4. Click the **Source Extract SQL** tab.

   The following page appears.



5. click .
6. Enter **SQL Query** and **SQL Query Description**.

   For example:

   - SQL Query - Select * from dbo.RM_Resource
   - SQL Query Description - The query extracts the data from dbo.RM_Resource table.

7. Click .

   The Source Extract SQL is updated.

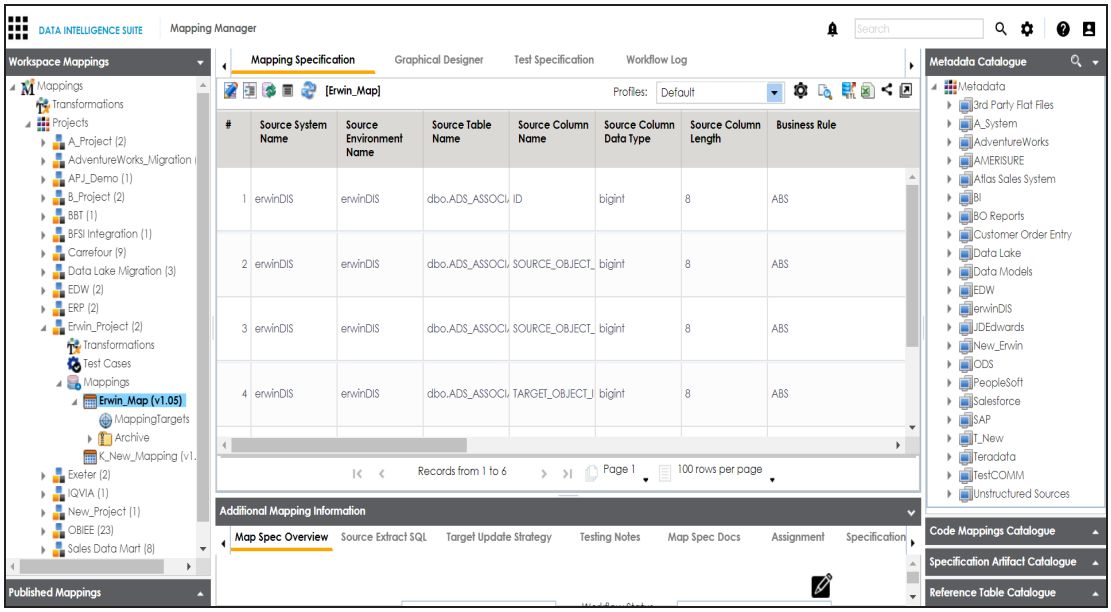
Setting Target Update Strategy

You can set the way target metadata is updated when you map source to target. You can update the strategy any time as per your need.

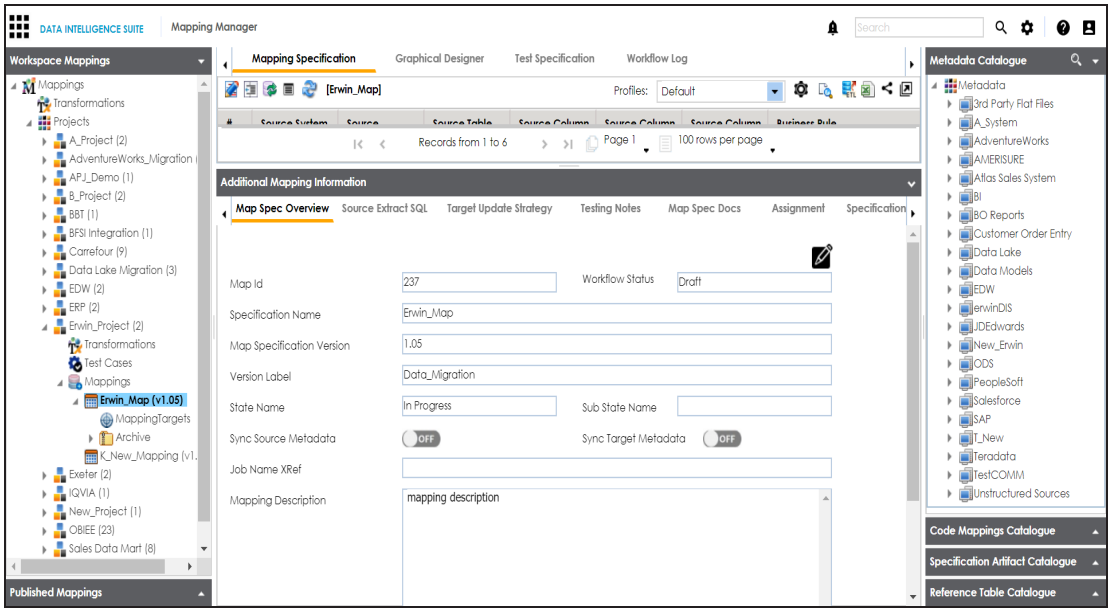
To set target update strategy, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

At the bottom of the central pane, you can locate the Additional Mapping Information pane.



3. Expand the **Additional Mapping Information** pane.



4. Click the **Target Update Strategy** tab.

5. Click .

6. Click the appropriate update strategy from the options and enter **Update Strategy Description**.

   For example:

   - Update strategy - Insert else Update
   - Update Strategy Description - Insert the source column value to a blank target column else update the target column value with the source column value.

7. Click .

   The Target Update Strategy is set.

Updating Testing Notes

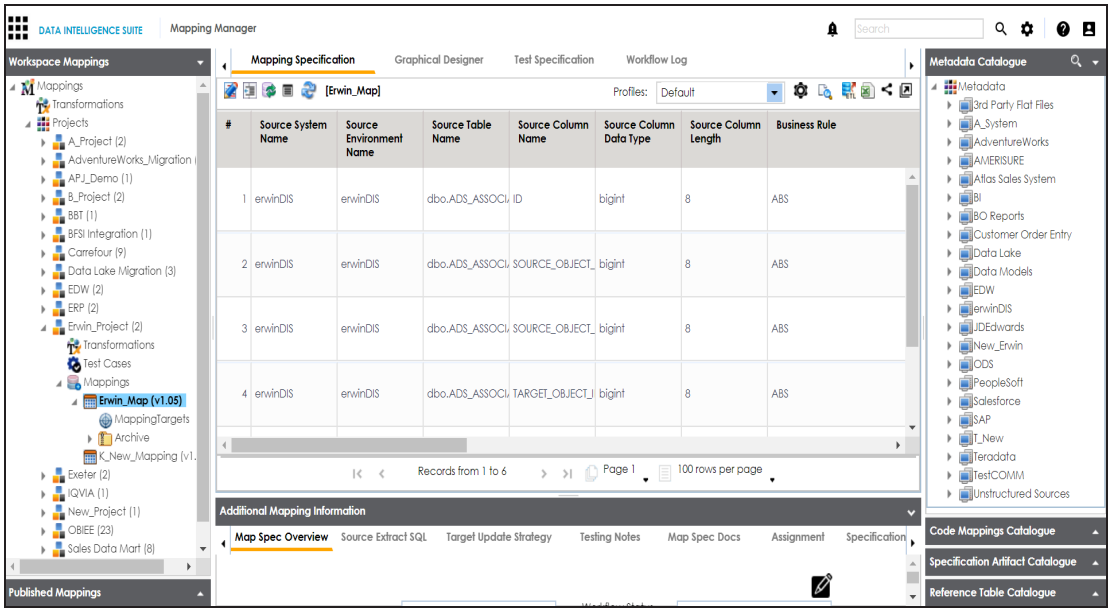
You can keep a record of testing notes related to a mapping specification and specify test results as:

- Un-specified
- Pass
- Fail
- Needs analysis

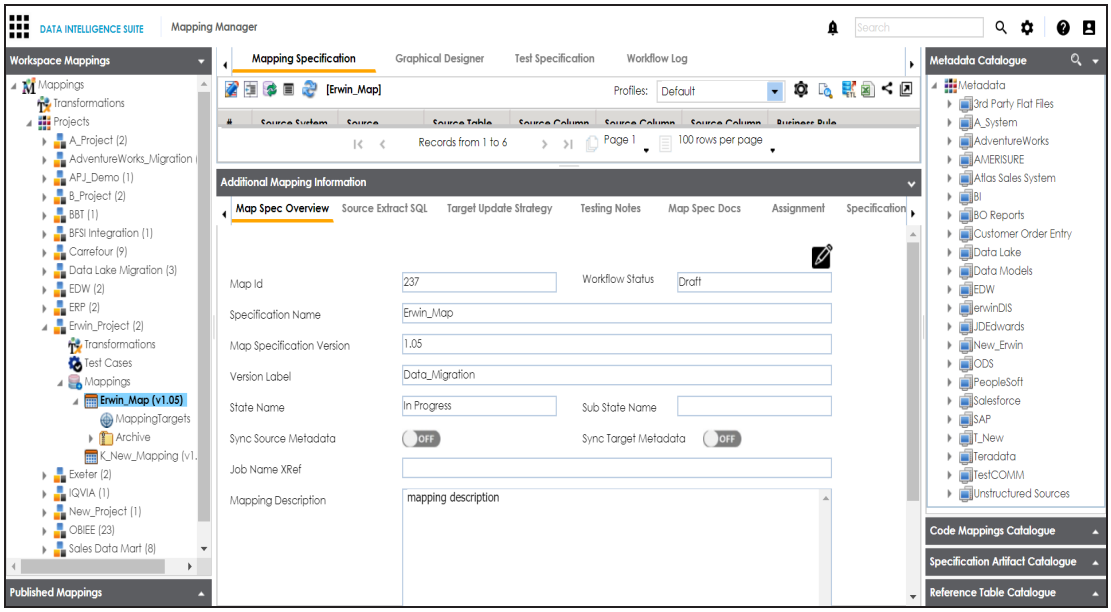
To update testing notes, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.



3. Expand the **Additional Mapping Information** pane.



4. Click the **Testing Notes** tab.
5. Click .
6. Click the appropriate option for test results and enter **Testing Notes**.

For example:

- Test results - Pass
- Testing Notes - The mapping specification passed the testing and it is ready for the ETL process.

7. Click .

   The Testing Notes are updated.

Uploading Mapping Specification Documents

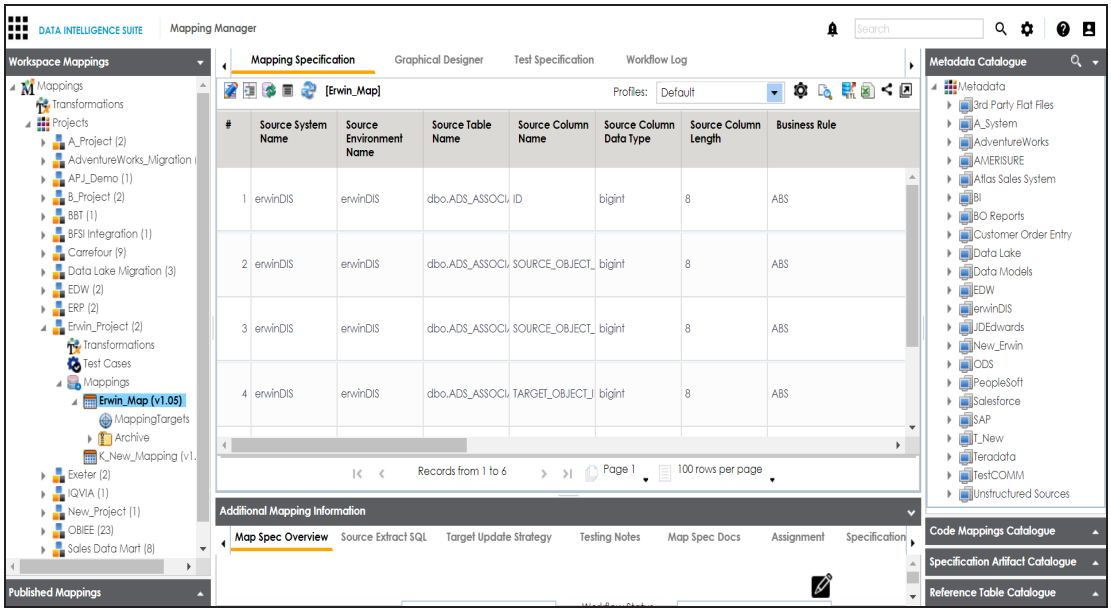
You can upload relevant documents related to a mapping specification and specify:

- Document name
- Document owner
- Document link
- Document status

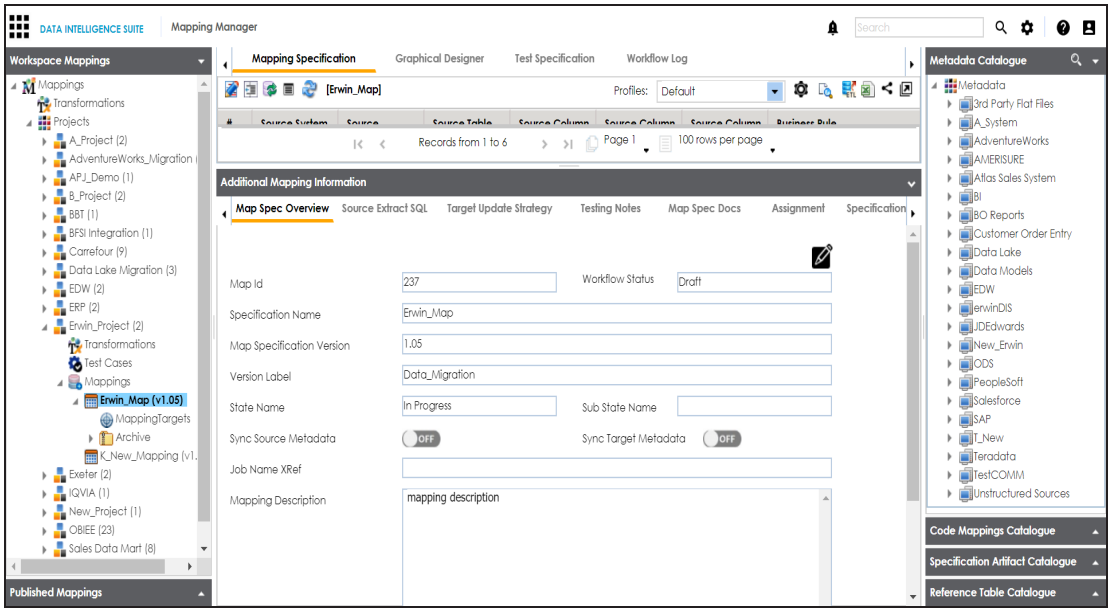
To upload mapping specification documents, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

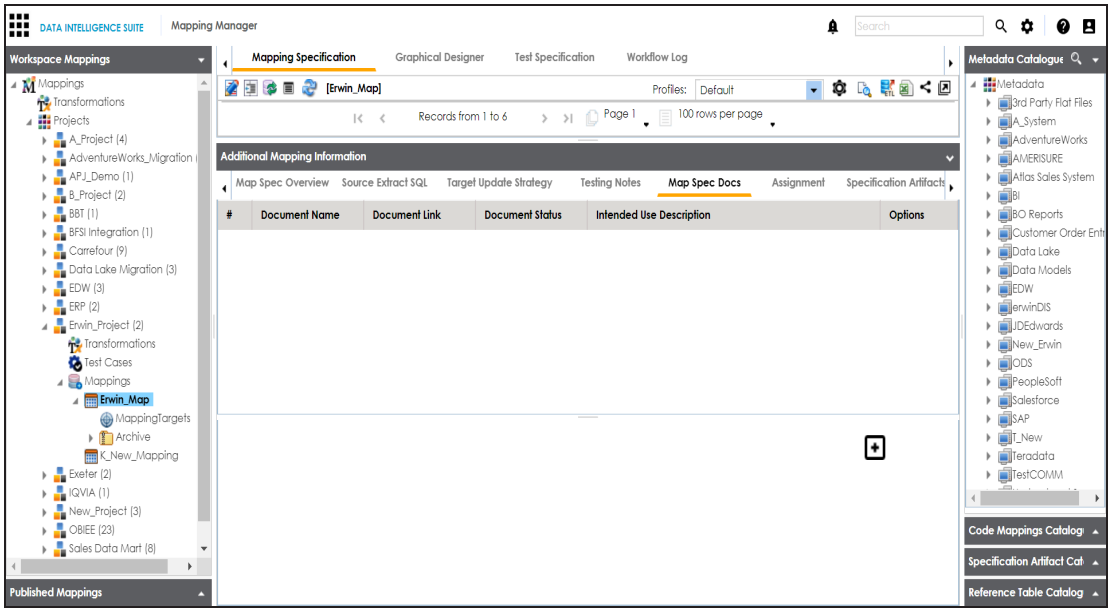
   At the bottom of the central pane, you can locate the Additional Mapping Information pane.



3. Expand the **Additional Mapping Information** pane.

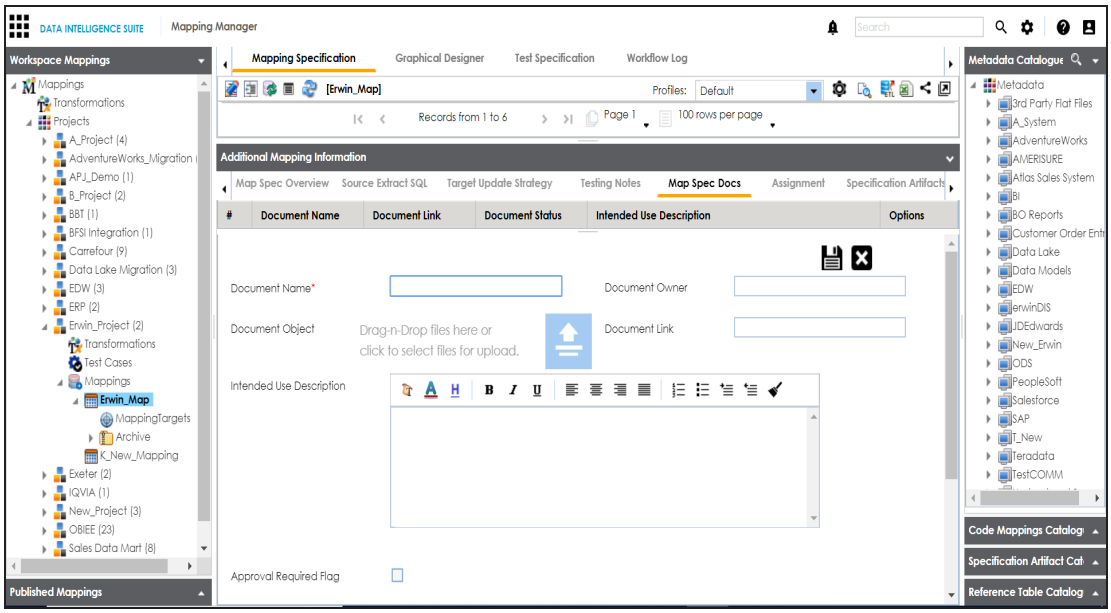


4. Click the **Map Sec Docs** tab.



5. Click .

   The following page appears.



6. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Document Name	Specifies the name of the physical document being attached to the mapping specification. For example, Mapping Details.
Document Object	Drag and drop document files or use to select and upload document files.
Document Owner	Specifies the document owner's name. For example, John Doe.
Document Link	Specifies the URL of the document. For example, https://drive.google.com/file/l/2sC2_SZIyeFKI7OOn-b5YkMBq4ptA7jhg5/view
Description	Specifies the description about the document. For example: The document has information about the mapping details.
Approval Required Flag	Specifies whether the document requires approval. Select the **Approval Required Flag** check box to select the document status.
Document Status	Specifies the status of the document. For example, In Progress. This field is available only when the **Approval Required Flag** check box is selected.

7. Click .

   The mapping specification document is uploaded.

Assigning Mapping Specifications to Users

You can assign a mapping specification to users, created in the Resource Manager as:

- Mapping Designer
- Mapping Approver

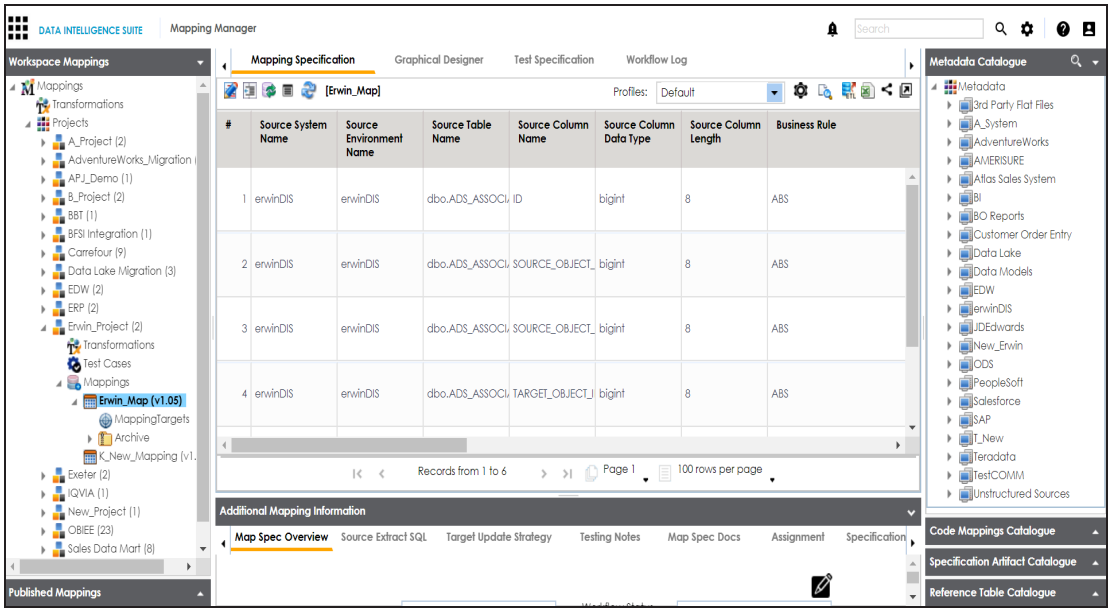
- Mapping ETL Developer
- Mapping Tester

By default, the user who creates mapping specification is the Mapping Designer of the mapping specification. You can re-assign Mapping Designer of the mapping specification to a different user.

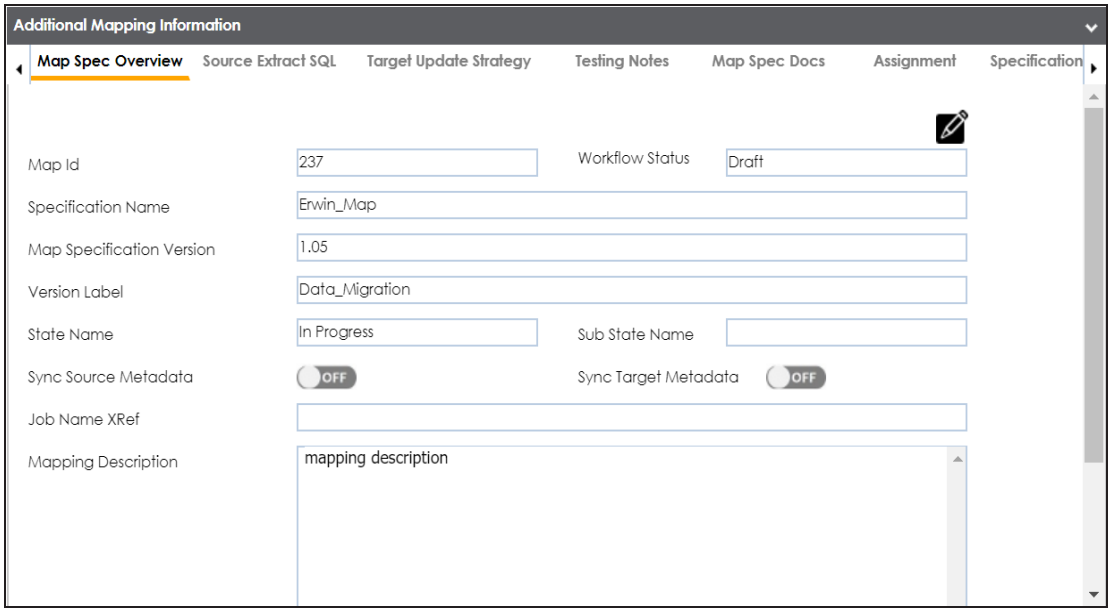
To assign mapping specifications to users, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a map.

   The central pane displays the mapping specification grid and at the bottom of the central
   pane, you can locate Additional Mapping Information pane.



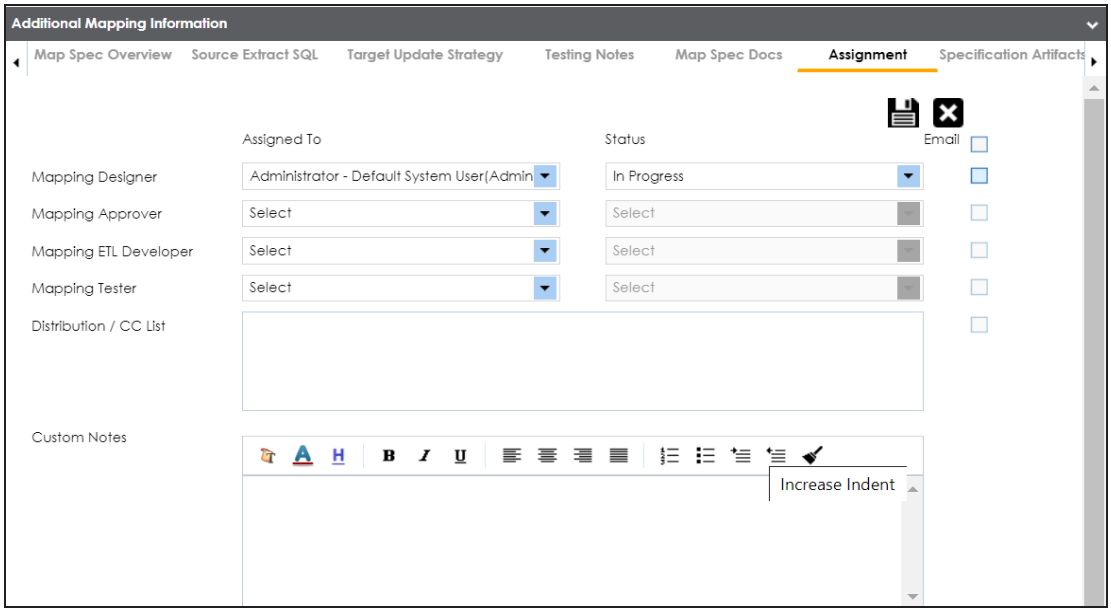
3. Expand the **Additional Mapping Information** pane.



4. In **Additional Mapping Information** pane, click the **Assignment** tab.

5. Click .

   The following page appears.



6. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Mapping Designer	Specifies the User Full Name and User ID of the Mapping Designer. For example, Jane Doe(janedoe).
Mapping Approver	Specifies the User Full Name and User ID of the Mapping Approver. For example, John Doe(jdoe).
Mapping ETL Developer	Specifies the User Full Name and User ID of the Mapping ETL Developer. For example, John Denver(jdenver).
Mapping Tester	Specifies the User Full Name and User ID of the Mapping Tester. For example, Michael Samuel(M.Samuel).
Status	Specifies the status of the user's task. For example, Pending Review.
Email	The Email check boxes populate as you select users as Mapping Designer, Mapping Approver, Mapping ETL Developer, and Mapping Tester. Select the check boxes to send email notifications to the corresponding users about the mapping assignment and change in mapping status. For more information on configuring email notifications, refer to the Configuring Notifications topic.
Distribution/CC List	Enter a comma-separated list of email IDs that should receive the email notification about the assignment. For example, ab.dav@xyz.com, cal.kai@xyz.com They receive the email notification from the administrator's email ID.
Custom Notes	Specifies the custom notes about the mapping assignment. For example: John Denver is the Mapping ETL Developer of the mapping specification.
Assignment Changes	Specifies the changes in the mapping assignment.

Field Name	Description
	For example: User Administrator - Default System User(Administrator) has been assigned to the mapping on 2020-01-12 19:58:15.815.

7. Click .

   The mapping assignment is updated.

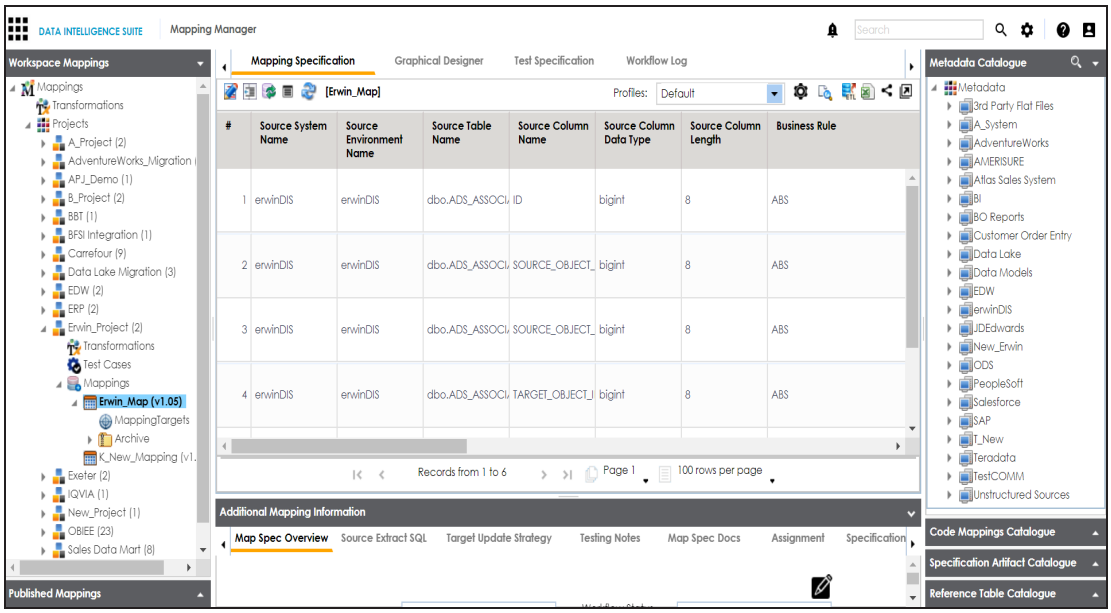
Noting Down Relevant Specification Artifacts

Requirements Manager captures the functional requirements of a data integration project with the help of Specification Artifacts. You can make a note of these specification artifacts relevant to the mapping specification.

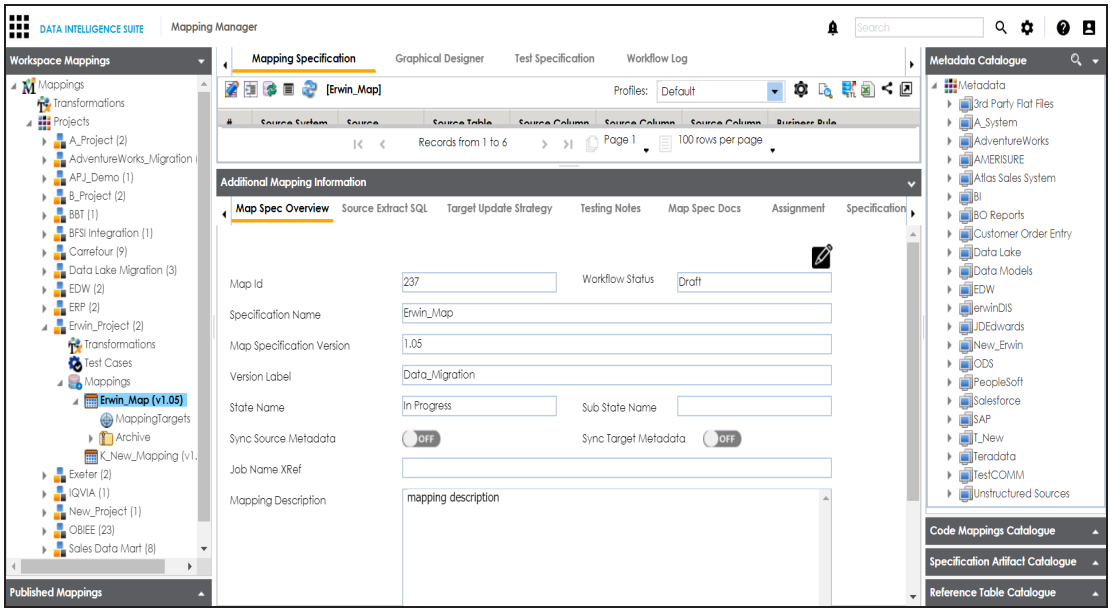
To keep a note of specification artifacts relevant to a mapping specification, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.



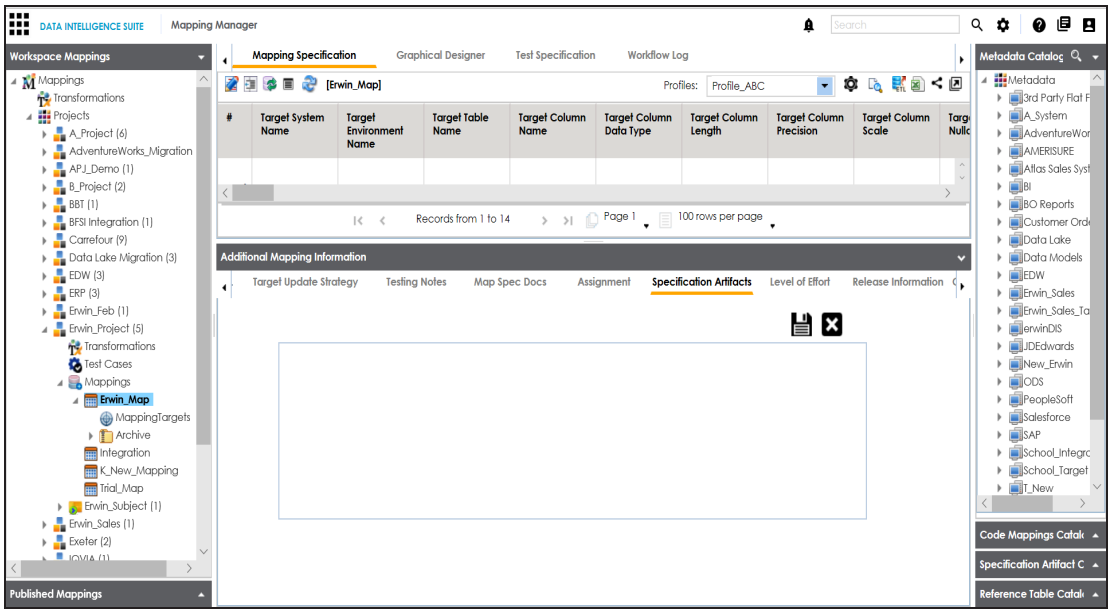
3. Expand the **Additional Mapping Information** pane.



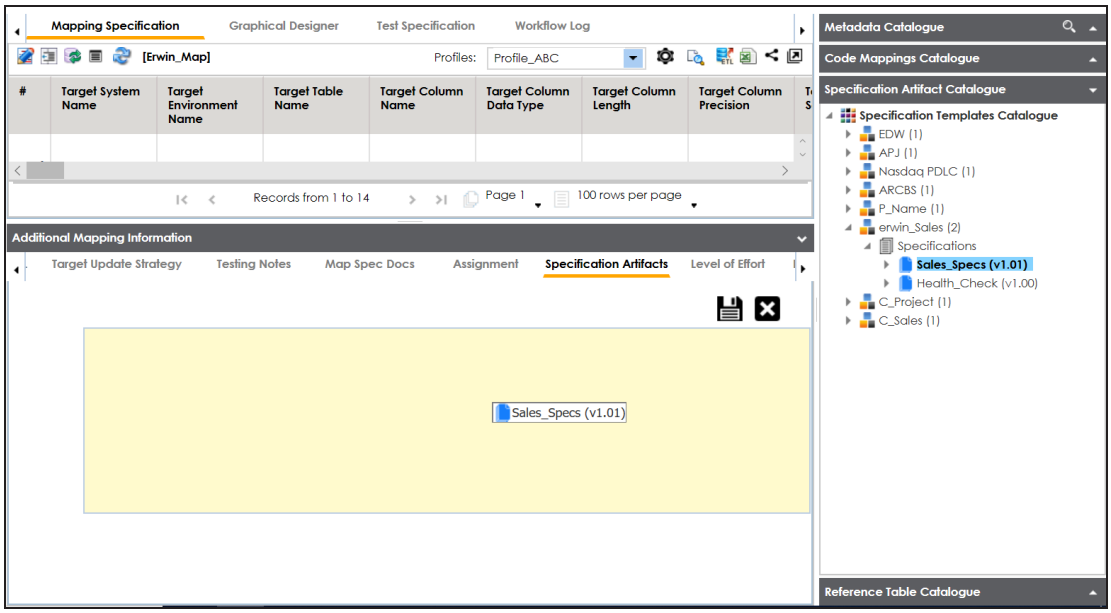
4. Use ▸ to scroll right.

5. Click the **Specification Artifacts** tab and click .

   The following page appears.



6. In the right pane, expand the Specification Templates Catalog pane and drag and drop the required specification.



7. Click .

   The Specification Artifacts information is saved.

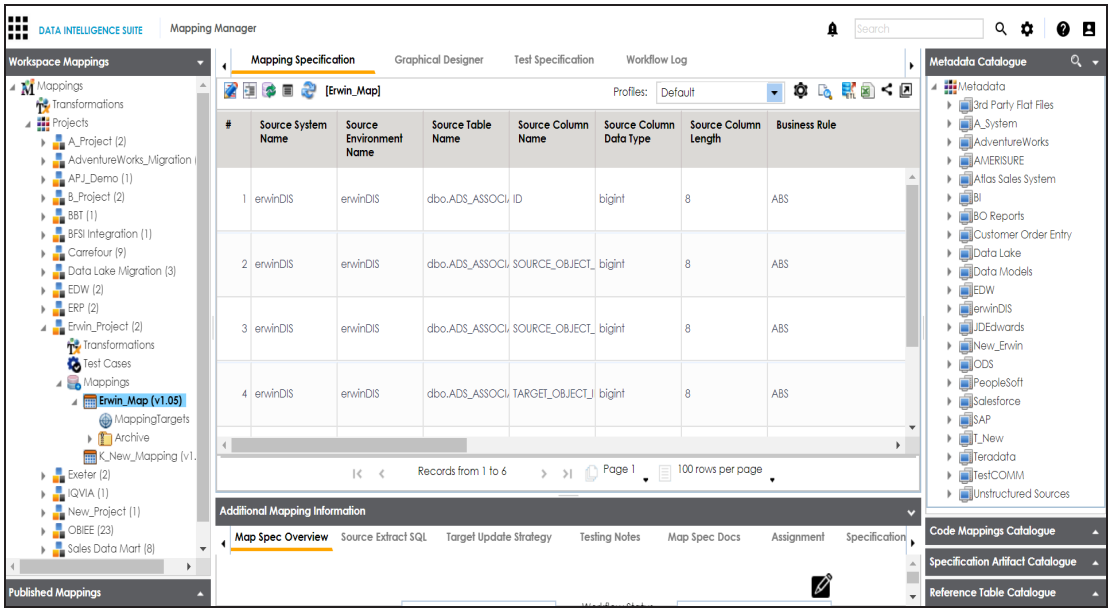
Recording Level of Effort

You can record and compare planned level of effort with the actual level effort devoted in creating and managing the mapping specifications for an ETL process.

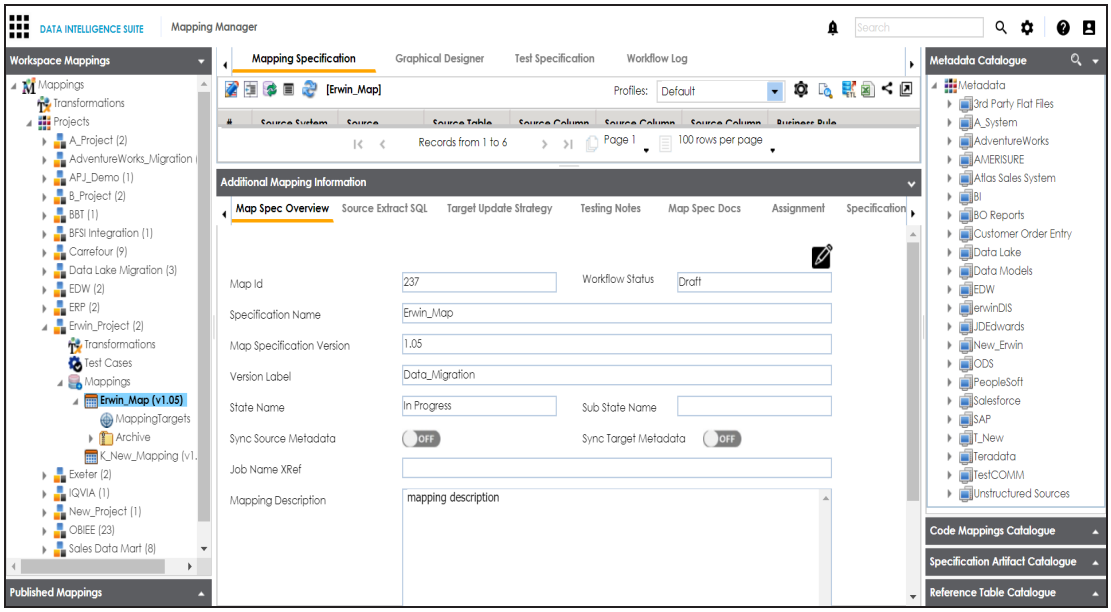
To record the level of effort, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.

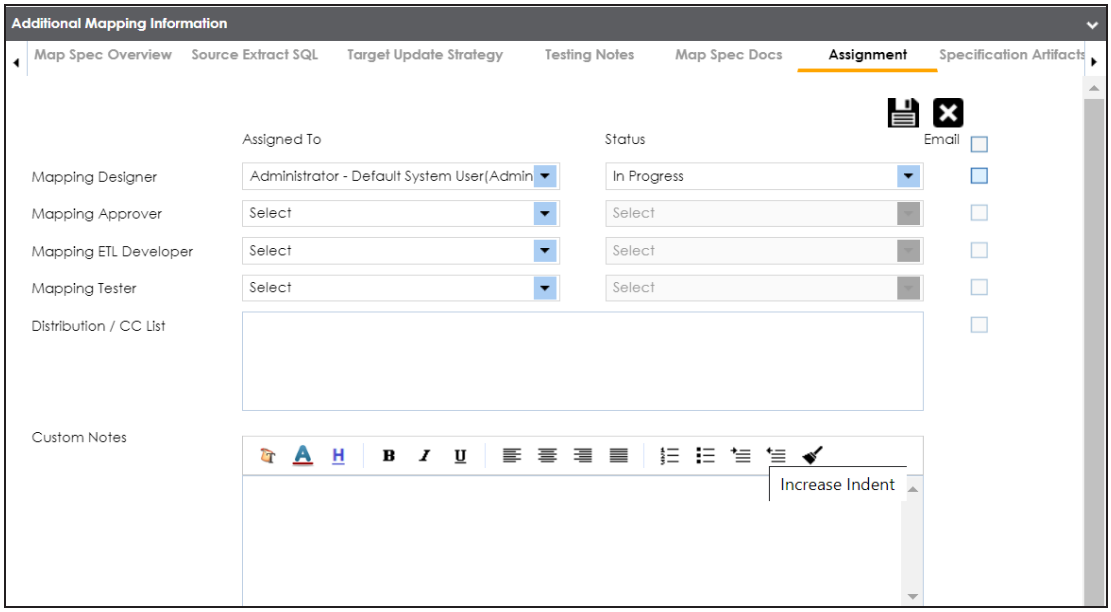


3. Expand the **Additional Mapping Information** pane.



4. Use ▸ to scroll right.
5. Click the **Level of Effort** tab.
6. Click .

The following page appears.



7. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Sub-Fields	Description
Planned Level of Effort	Mapping Effort	Specifies the planned mapping effort in days. For example, 11.5 days.
	ETL Effort	Specifies the planned ETL effort in days. For example, 10.5 days.
	Notes	Specifies notes about the planned level of effort. For example: Planned level of effort took all the project requirements into account.
Actual Level of Effort	Mapping Effort	Specifies the actual mapping effort in days. For example, 11.0 days.
	ETL Effort	Enter the actual ETL effort in days. For example, 9.5 days.
	Notes	Specifies the notes about the actual level.

Field Name	Sub-Fields	Description
		For example: Actual level of effort were lesser than the planned level of effort.

8. Click .

   The Level of Effort tab is updated.

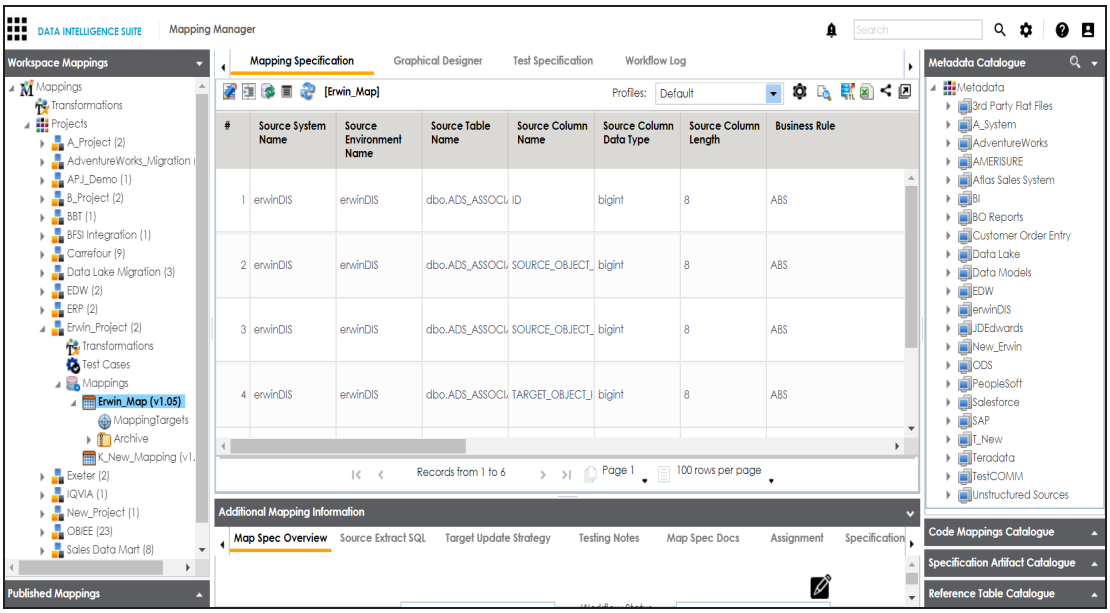
Viewing Change Logs

By default this tab is not available under Additional Mapping Information page. You can enable/disable the Change Log tab under Additional Mapping Information page. For more information on change log capture, refer to the Configuring Change Log Settings topic.

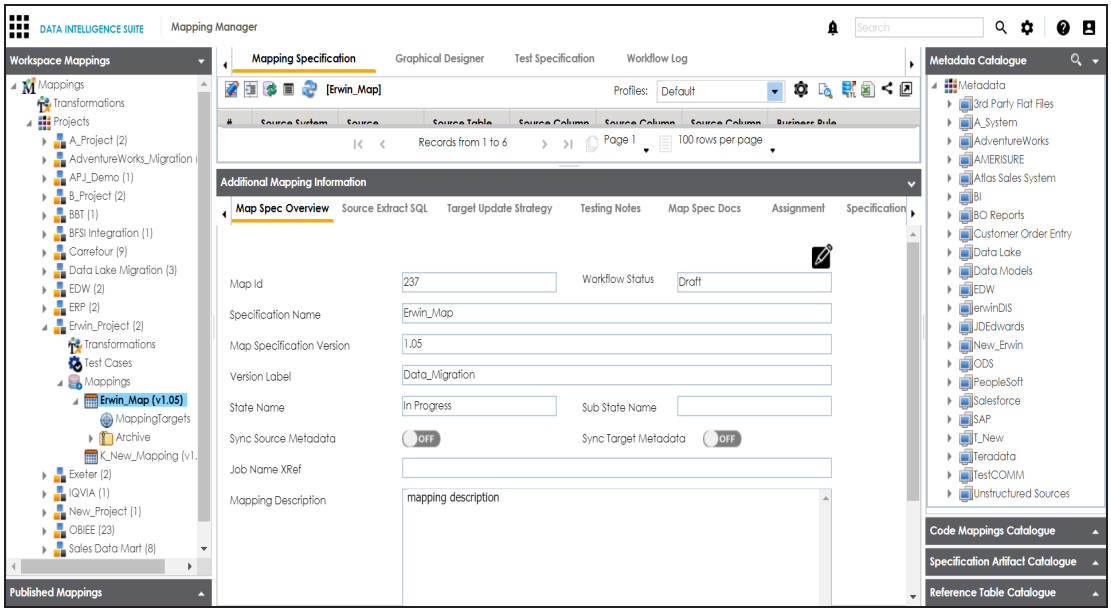
To view the change logs of the mapping specifications, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.

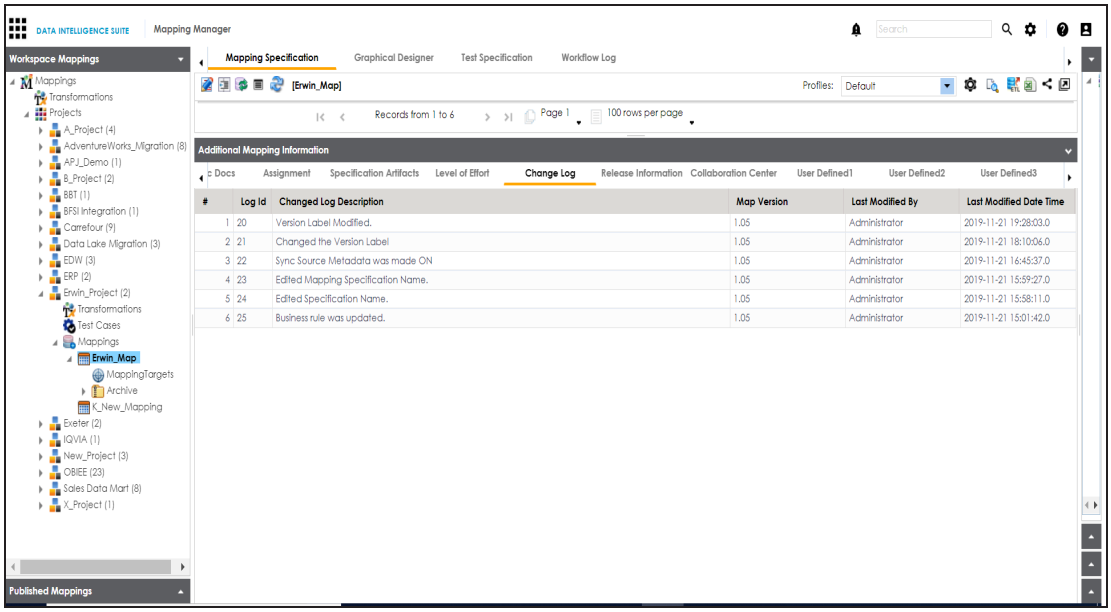


3. Expand the **Additional Mapping Information** pane.



4. Use ▸ to scroll right.
5. Click the **Change Log** tab.

   The following page appears showing the change logs.



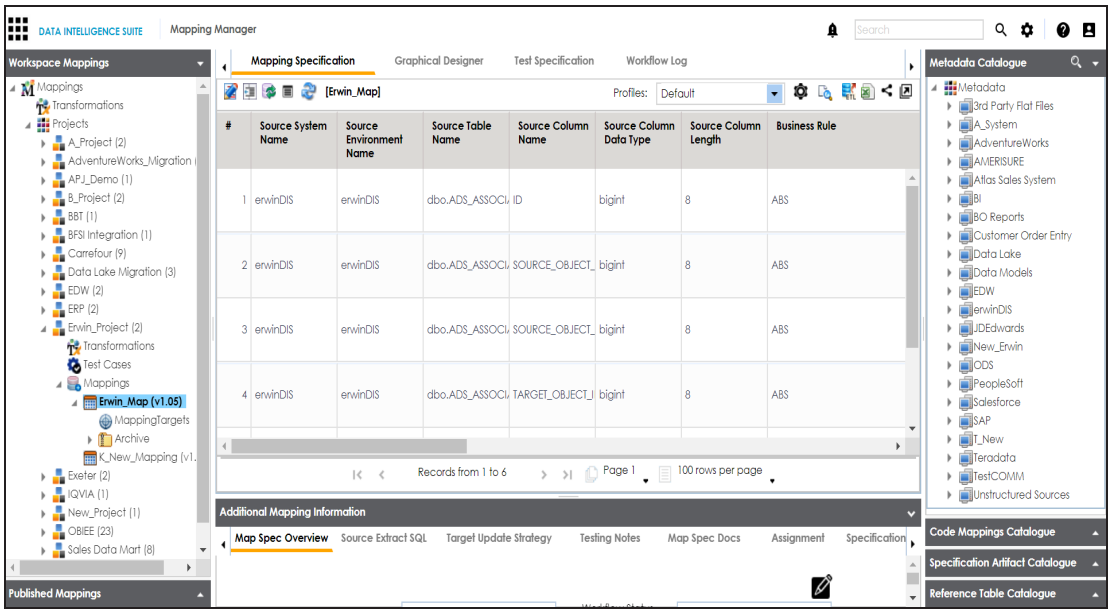
Viewing Release Information

You can manage your data item mapping releases in the Release Manager. The release details
are available in the Mapping Manager with all the migration and the audit details.

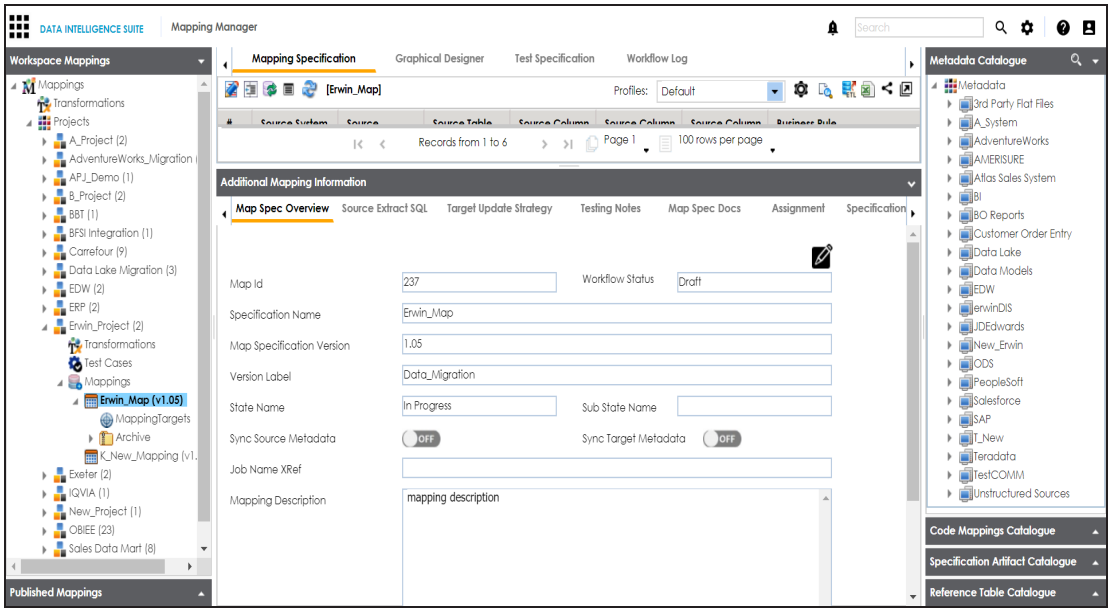
To view the release information of the mapping specifications, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   At the bottom of the central pane, you can locate the Additional Mapping Information pane.

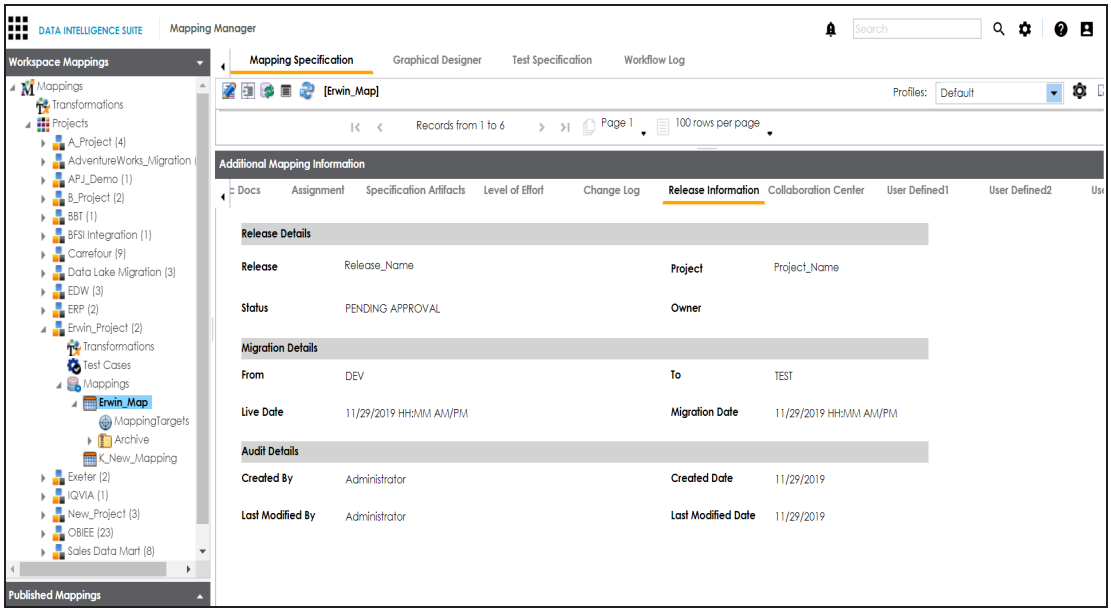


3. Expand the Additional Mapping Information pane.



4. Use ▸ to scroll right.
5. Click the **Release Information** tab.

   The following page appears showing the release information of the mapping specification.



For more information on releases, refer to the Release Manager section.

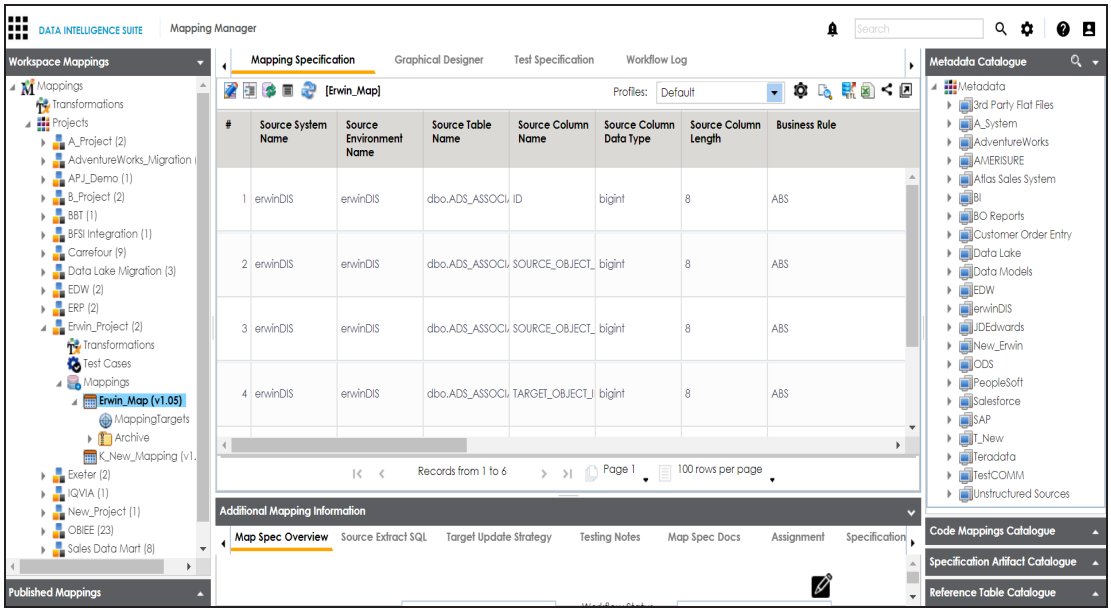
Collaborating with Users

You can collaborate with other users on a mapping specification in the Mapping Manager. You need to create a topic under the Collaboration Center and assign users to the topic. The assigned users can chat with each other and discuss the topic.

To collaborate with other users, follow these steps:

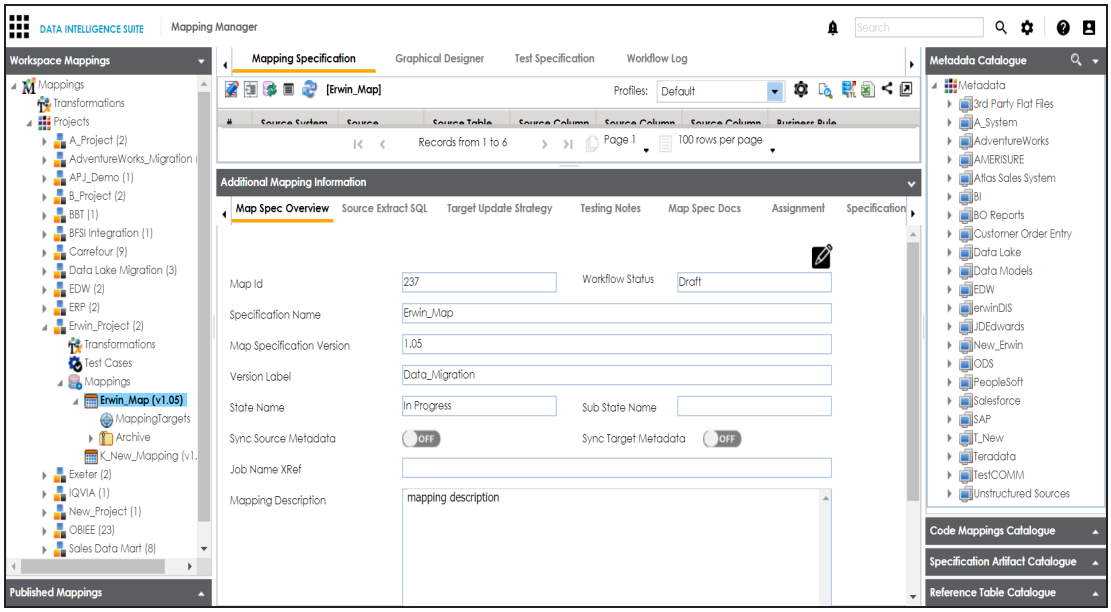
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. In **Workspace Mappings**, click the desired map.

   The Mapping Specification tab displays the mapping data grid. At the bottom of the middle pane, you can locate Additional Mapping Information page.

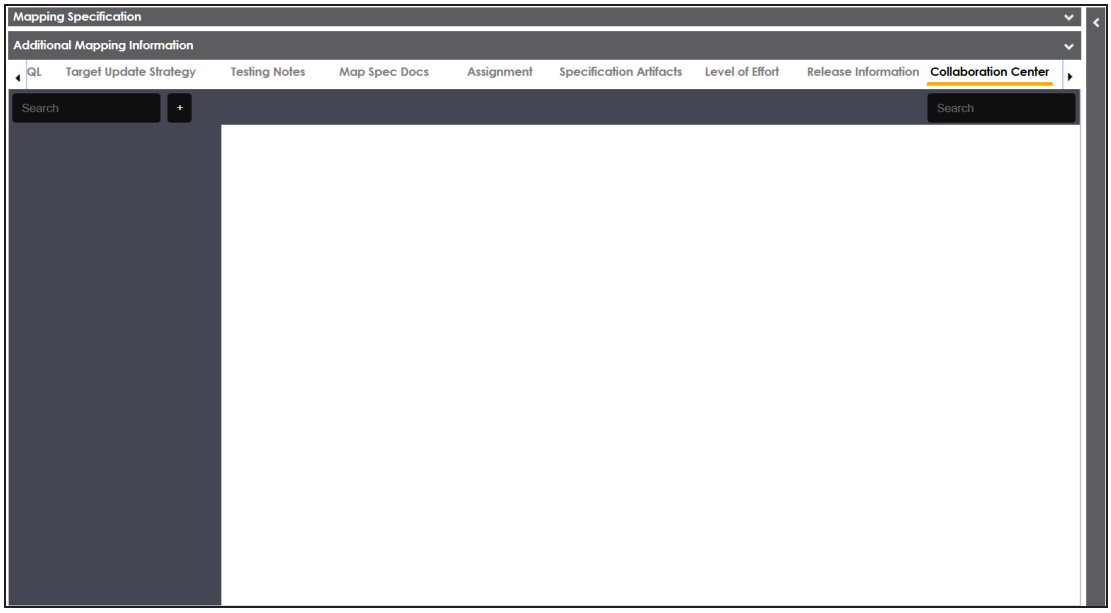


3. Expand the Additional Mapping Information page.

   The Map Spec Overview tab appears.

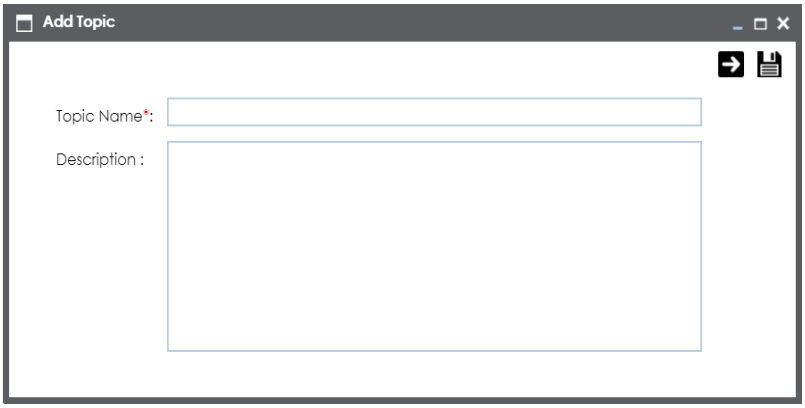


4. Use ▸ to scroll right and click the **Collaboration Center** tab.



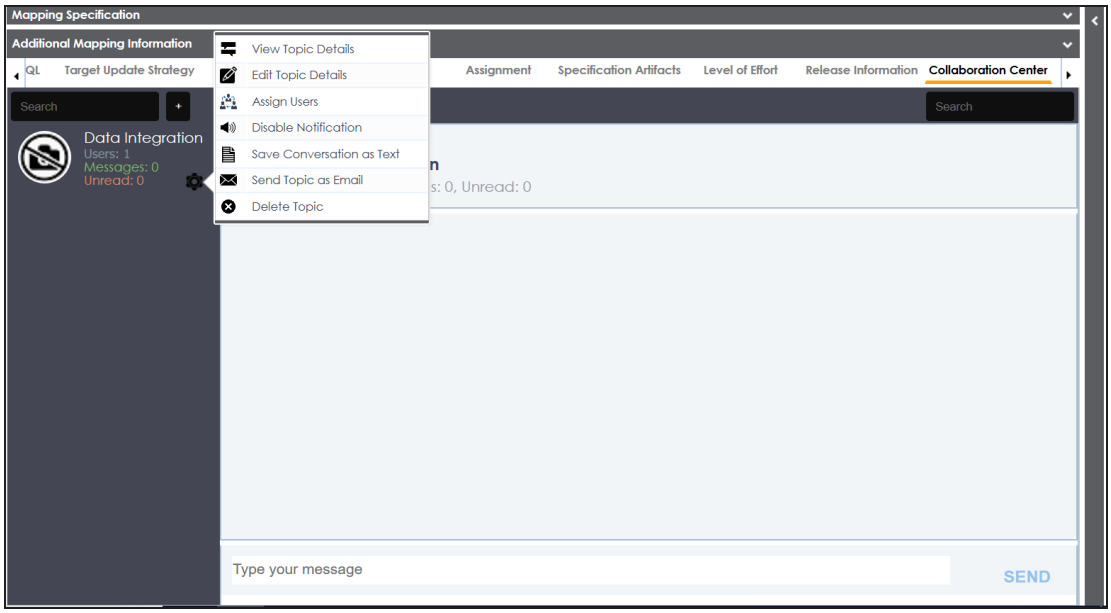
5. Click ⁘ to add a topic.

   The Add Topic page appears.



6. Enter Topic Name and Description.
7. Click .

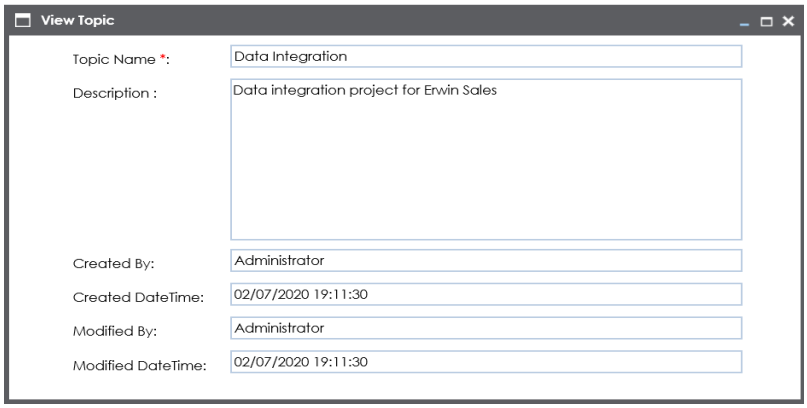
   The new topic is created and saved under the Collaboration Center tab.
8. Click .



9. Use the following options:

   View Topic Details

   Use this option to view the topic details.

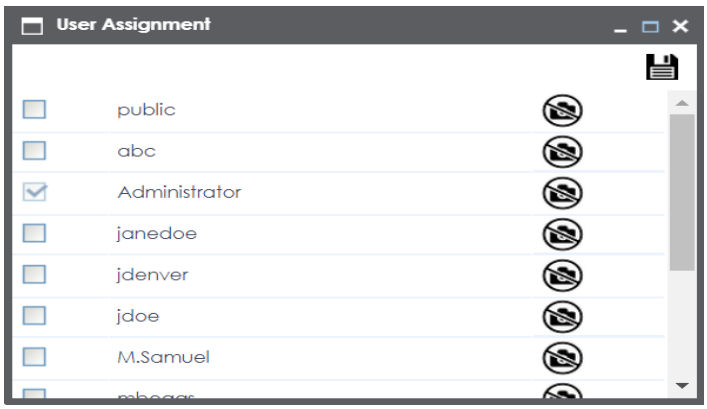


Edit Topic Details

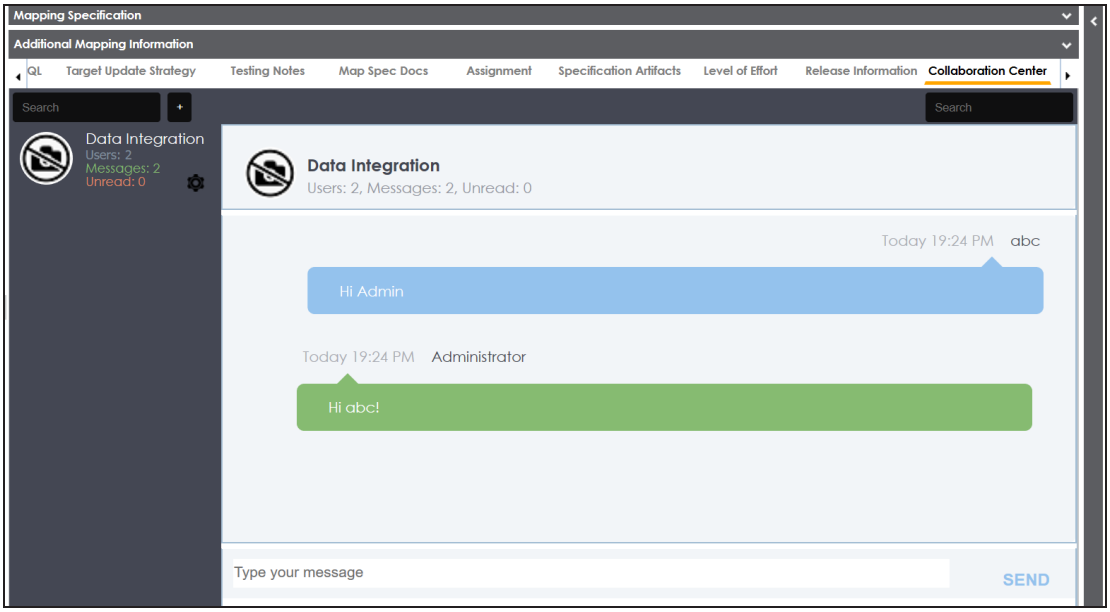
Use this option to edit the topic details.

Assign Users

Use this option to assign users to the topic.



Select check boxes to assign users to the topic and then click .
The assigned users can chat and collaborate with each other.



Save Conversation as Text

Use this option to download the conversation in a .txt file.

Send Topic as Email

Use this option to send topic as an email to the assigned users.

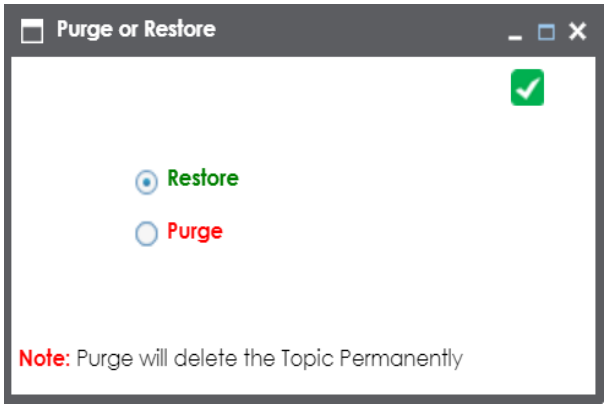
Delete Topic

Use this option to delete the topic. The topic is deleted for all the assigned users.

Note: Any assigned user can delete the topic.

Restore or Purge Topic

The deleted topic can be restored or deleted permanently (Purge). Click **Restore or Purge Topic**.



To restore the topic, select the **Restore** radio button and click .

To delete the topic permanently, select the **Purge** radio button and click .

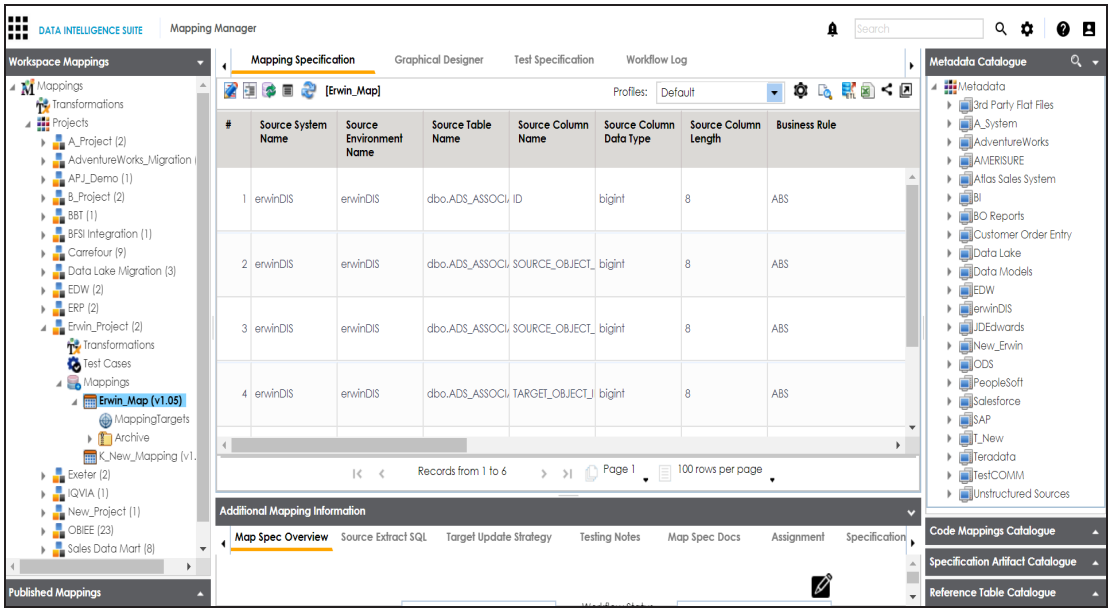
Extending Mapping Specification Properties

You can configure extended properties of a mapping specification by designing a form and access the form under the **Extended Properties** tab.

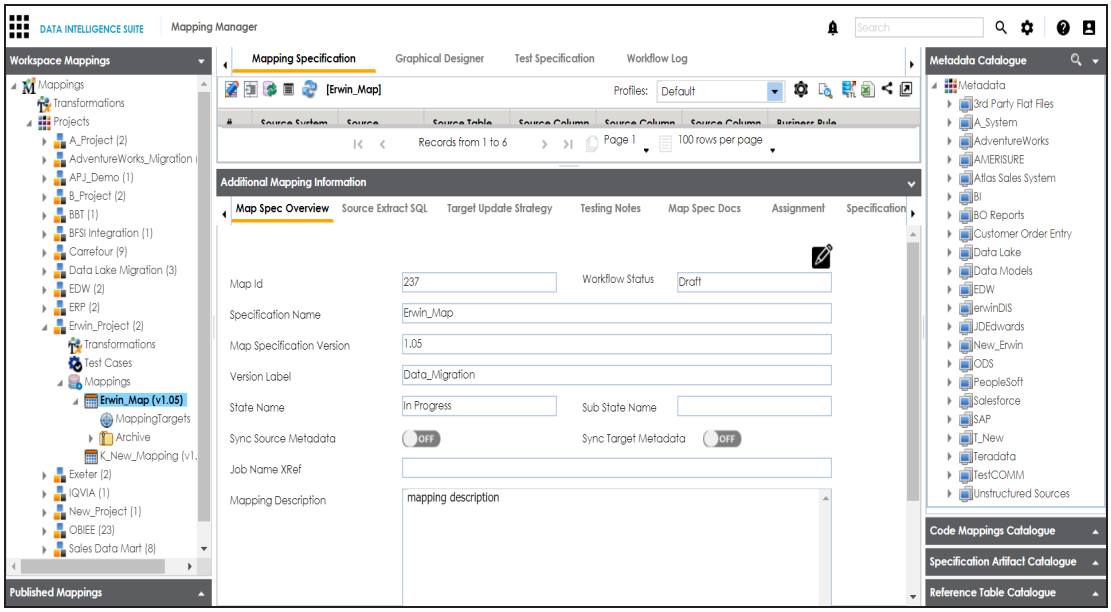
To configure extended properties of mapping specifications, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a map.

   The Mapping Specification tab displays the mapping data grid. At the bottom of the middle pane, you can locate Additional Mapping Information page.



3. Expand the Additional Mapping Information page.

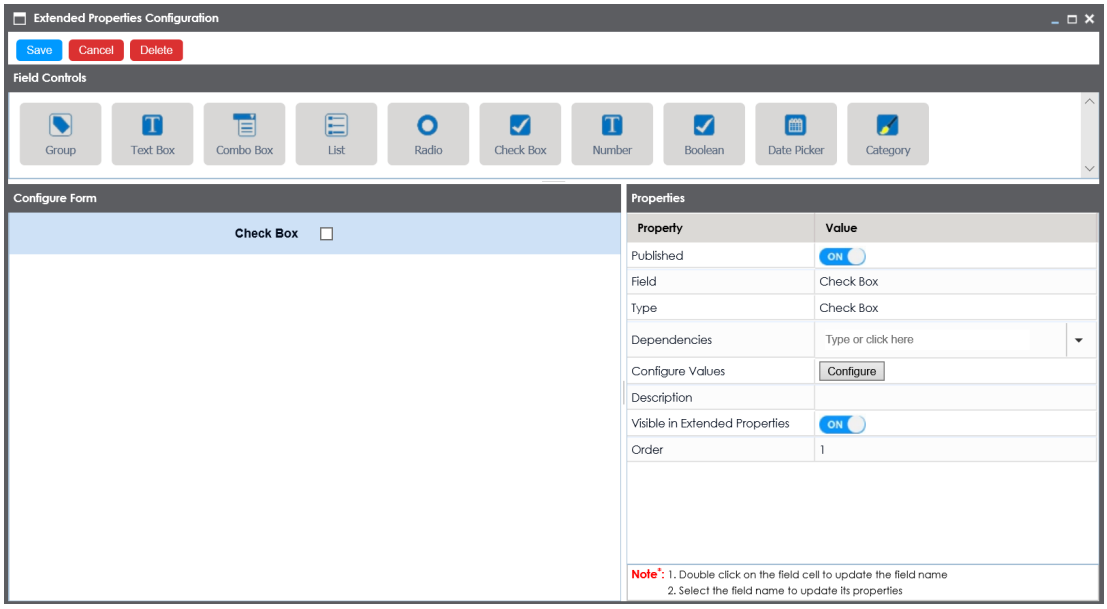


4. Use ▸ to scroll right and click the **Extended Properties** tab.
5. Click **Configure**.

The **Extended Properties Configuration** page contains the following sections:

- **Field Controls**: This pane displays the available UI elements.
- **Configure Form**: Use this pane to design forms using the available UI elements in the **Field Controls** pane.
- **Properties**: This pane displays the properties of the selected UI element in the **Configure Form** pane.

6. Click **Edit** and double-click or drag and drop the required UI elements from the **Field Controls** pane to the **Configure Form** pane.
7. Select UI elements, one at a time, and configure their properties in the **Properties** pane.



Note: The available properties differ based on the type of UI element.

Refer to the following table for property descriptions:

Property	Description
Published	Turn **Published** to **ON** to publish the field.
Field	Double-click the corresponding **Value** cell to change the label of the field.
Type	Double-click the corresponding **Value** cell to select different types of the field.
Configure Values	Click **Configure Values** to enter option values. You can use: ▪ **Default connector**: It enables you to enter options manually. ▪ **Reference Data Manager** : It enables you to pull the data from reference tables in the Reference Data Manager.
Mandatory	Select the check box to make the field mandatory in the form.
Description	Double-click the corresponding Value cell to enter a description of the field.
Visible in Extended Properties	Turn **Visible in Extended Properties** to ON to make it visible.

Property	Description
Order	Displays the order of the field. You can drag and drop the field in the **Configure Form** pane to change its order.

8. Click **Save**.

   The form is saved under the **Extended Properties** tab.

To use the form, follow these steps:

1. Under the **Workspace Mappings** pane, click a map, expand the **Additional Mapping Information** page and click the **Extended Properties** tab.
2. Click **Edit** and use the form.
3. Click **Save**.

The form is updated.

Branching and Merging Mappings

Branching mappings enables multiple users to work on a mapping specifications grid. You can create multiple branches of a parent mapping depending on the number of users. Different users can work on these branches and make changes in the mapping specification grid. These branches can then be merged into the parent mapping.

Branching and merging mappings involves:

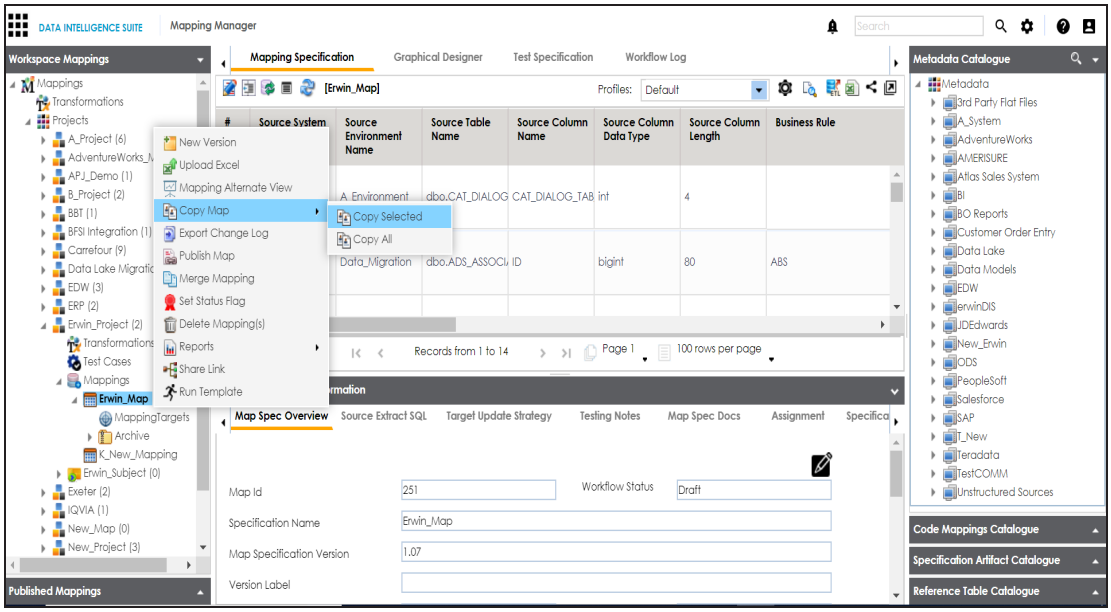
- Branching the mappings
- Merging changes into the parent mappings

Branching Mappings

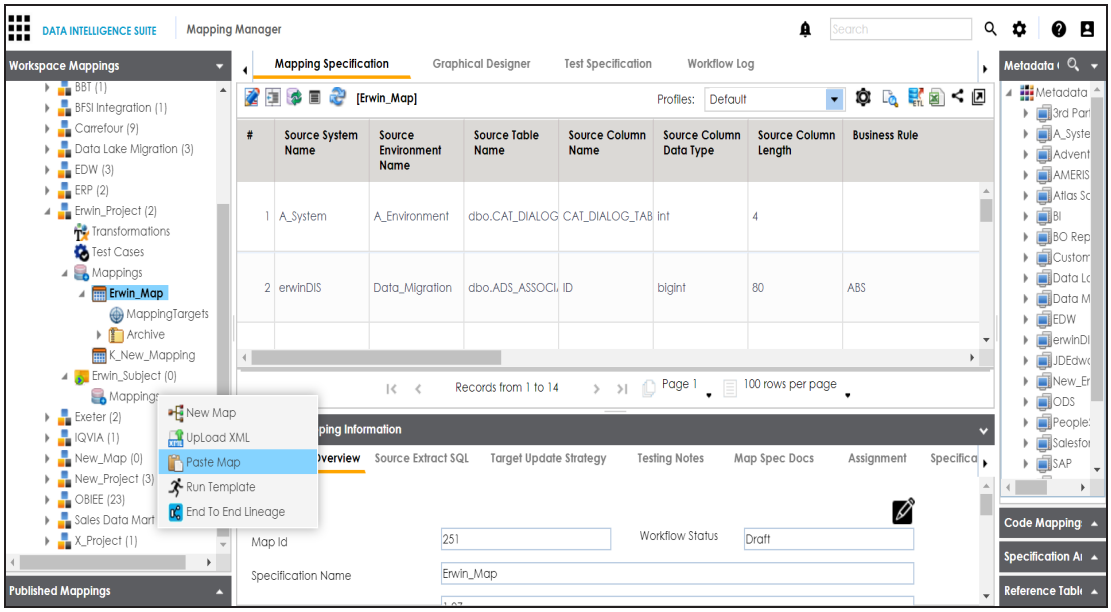
Branching a mapping means copying the mapping and pasting it in an another subject area or a project. The copied mapping acts as a child map and the original map is called the parent map.

To branch mappings, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the required map and hover over the **Copy Map**.

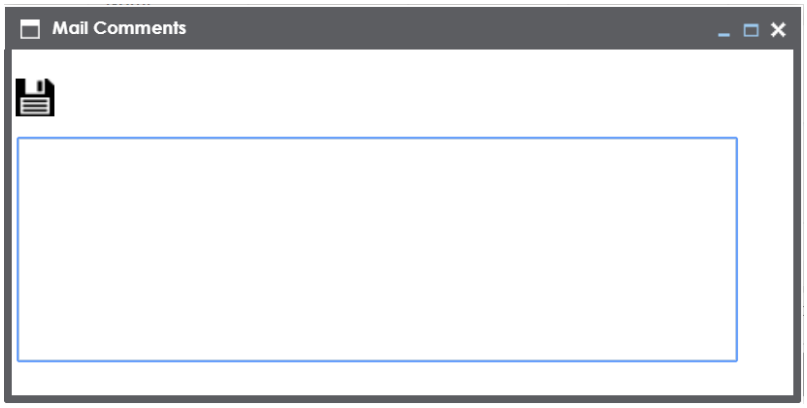


3. Click **Copy Selected**.
4. Right-click the **Mappings** node under required project/subject area.



5. Click **Paste**.

   The mail comments page appears.



6. Enter the mail comments and click .

   The map is copied successfully into the subject area or the project and you can rename the map if required. You can now modify the child map as per your requirements. For an example, you can change the reference table, business rule, or add or remove columns etc.

   If you enable notifications in the Mapping Manager Settings, the project users receive email notification when the map is copied in the project. For more information on configuring notifications, refer to the Configuring Notifications topic.

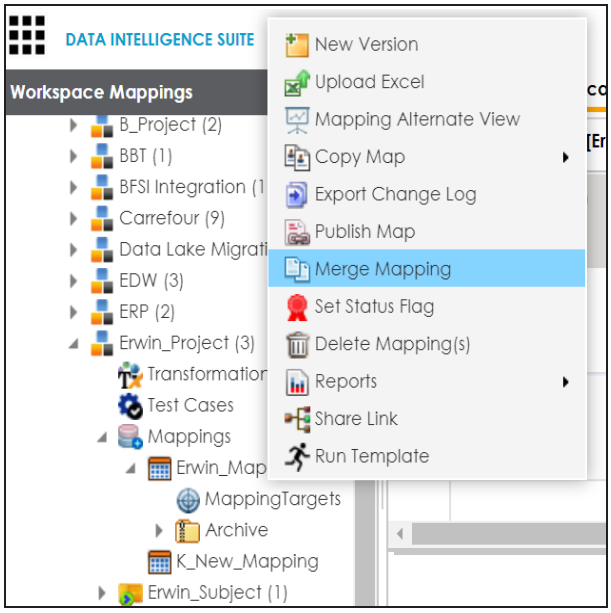
   For more information on renaming mappings, refer to the Updating Map Spec Overview topic.

Merging Changes into Parent Mappings

After making the desired changes in a child map you can merge it with a parent mapping. You can also notify project users about the merge through email notifications.

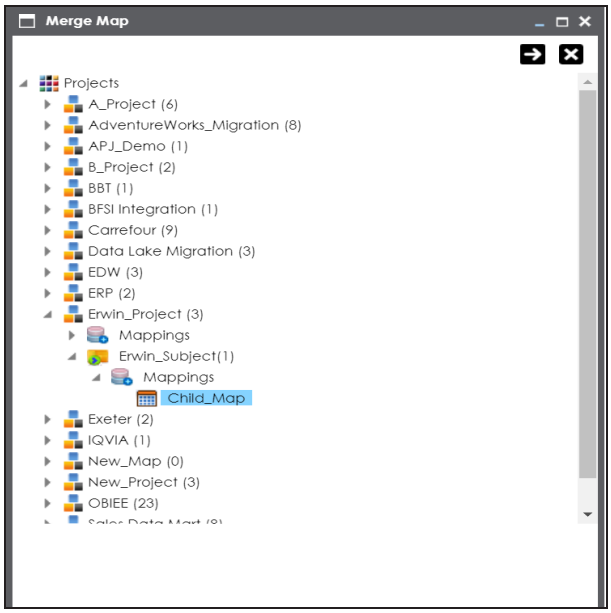
To merge child maps with parent maps, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Right-click a parent map.



3. Click **Merge Mapping**.

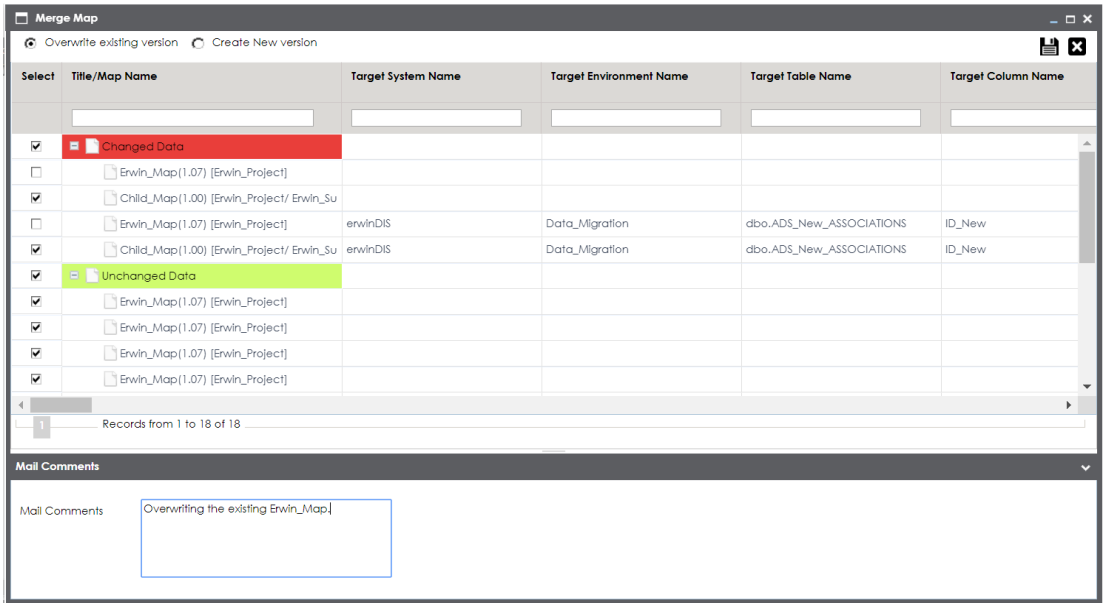
   The Merge Map page appears.



4. Select a child map.
5. Click .

The following page appears showing the changed data with respect to the parent map. There are two options to include the changes:

- Overwrite the parent map
- Create a new version of the parent map



6. Use the following options:

   Overwrite existing version

   Select the **Overwrite existing version** to overwrite the existing version.

   Create New Version

   Select **Create New Version** to create new version of the parent map.

7. Enter relevant **Mail Comments**.
8. Click .

   The parent map is merged.

   If you enable notifications in the Mapping Manager Settings the project users receive mail comments through an email notification. For more information on configuring notifications, refer to the Configuring Notifications topic.

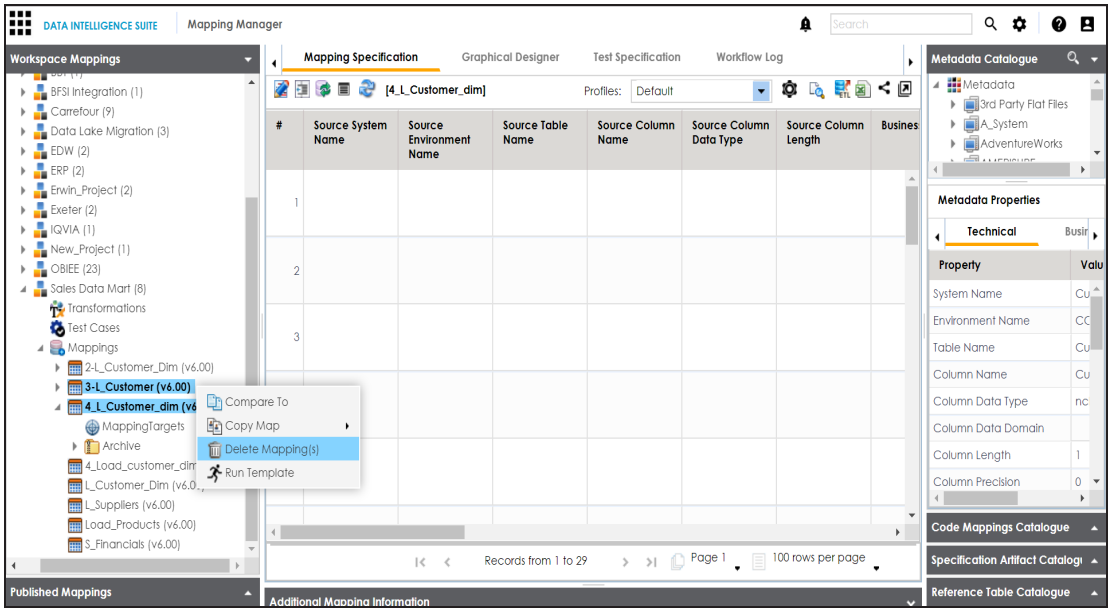
Deleting Maps

You can delete multiple maps in a project. You can also opt to delete all versions of a map.

To delete maps, follow these steps:

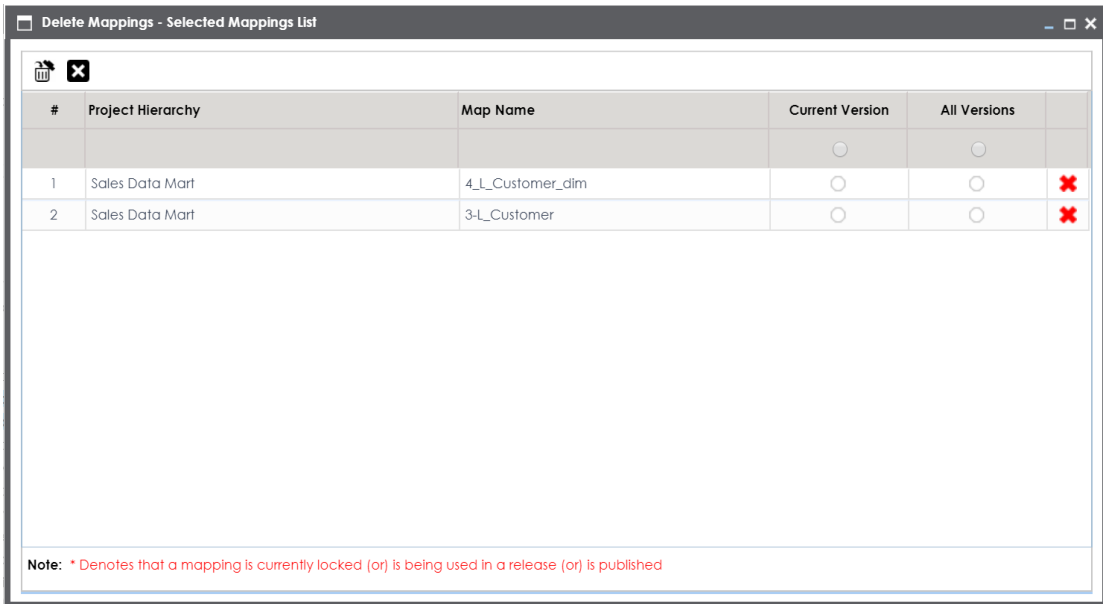
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, select a map or maps.

   Note: Use shift key to select multiple maps.
3. Right-click the selection.



4. Click **Delete Mapping(s)**.

   The Delete Mappings-Selected Mappings List page appears.



5. Use the following options:

   Remove Mapping from Current Selection ( )

   To remove mapping from the current selection, click .

   Delete all Versions

   To delete all versions of the maps, select **All Versions** and click .

   Delete Current Version

   To delete current version of the maps, select **Current Version** and click .

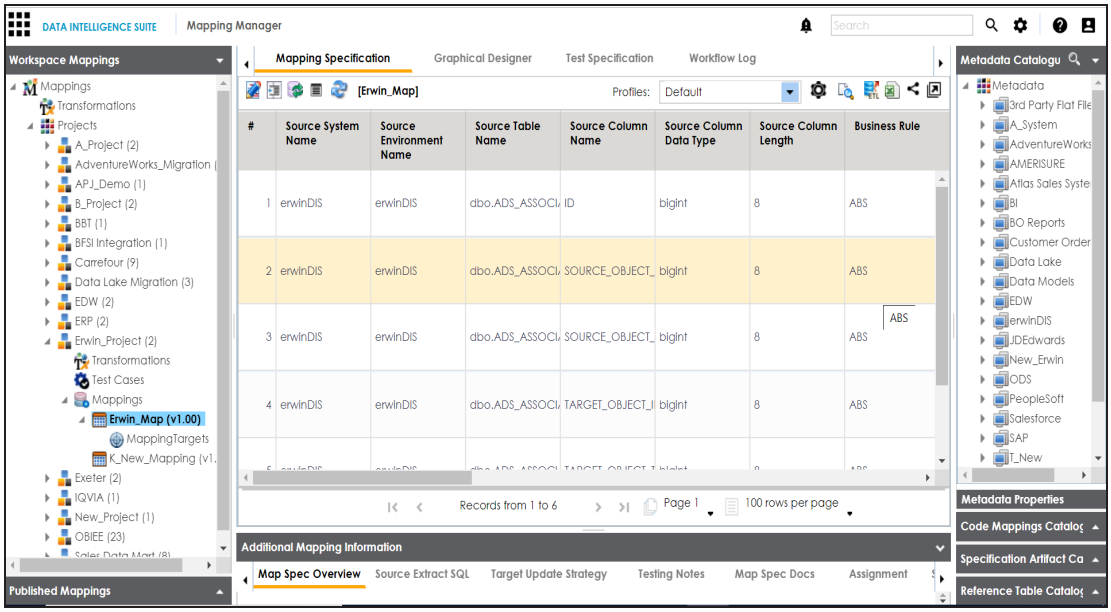
Deleting Mapping Specification Rows

You can delete single or multiple rows in a mapping specification grid.

To delete single or multiple rows in mapping specification grid, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a map.

   The Mapping Specification grid page appears.



3. Click .
4. Select the rows.

   Note: Use Shift key to select multiple rows.
5. Click .

   The warning message appears.
6. Click **Yes**.

   The selected rows are deleted from the Mapping Specification grid.

Viewing Workflow Logs

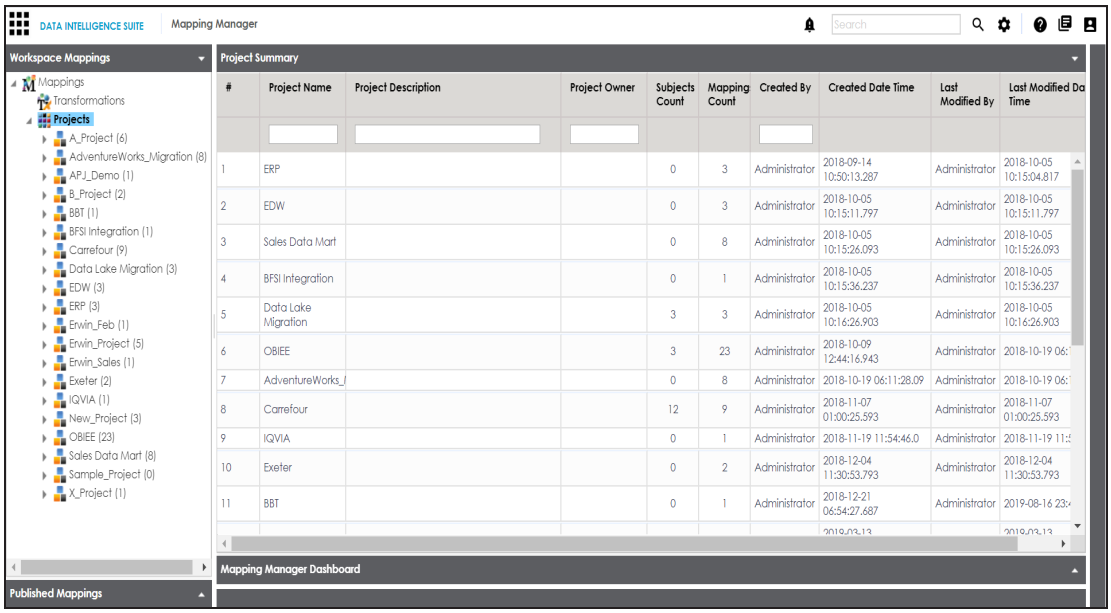
A default folder in the Workflow Manager contains a default workflow, Mapping_Manager_Default_Workflow. This default workflow is applicable to all the projects in the Mapping Manager. You can create your own workflow and assign it to a project by overriding the existing workflow.

For more information on assigning workflow to projects, refer to the Managing Mapping Manager Workflows section.

To view workflow logs of mappings, follow these steps:

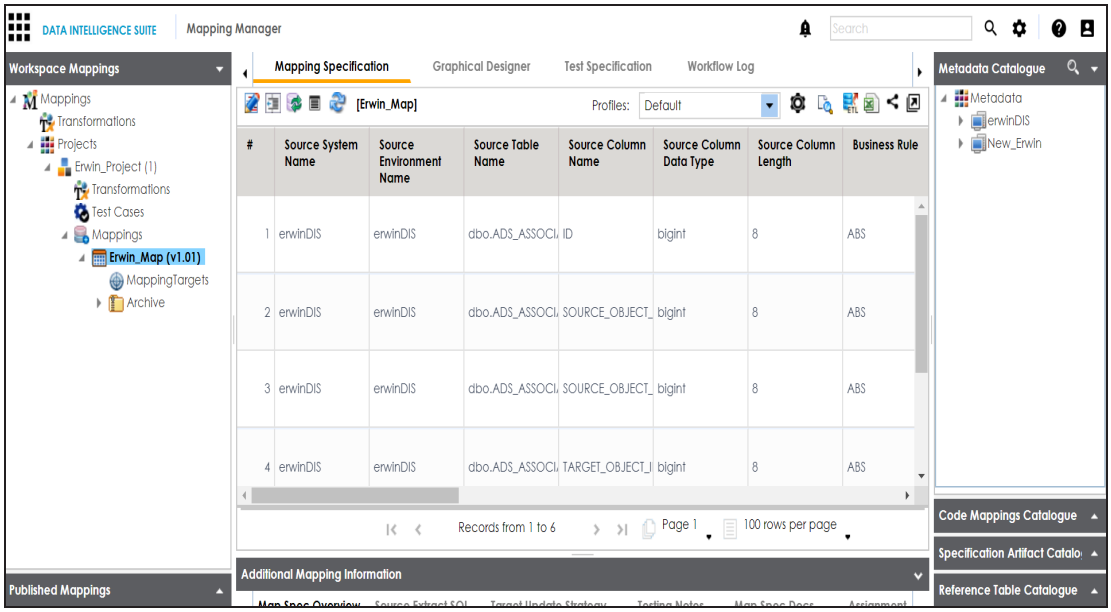
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.

   The following page appears.



2. Click the required map.

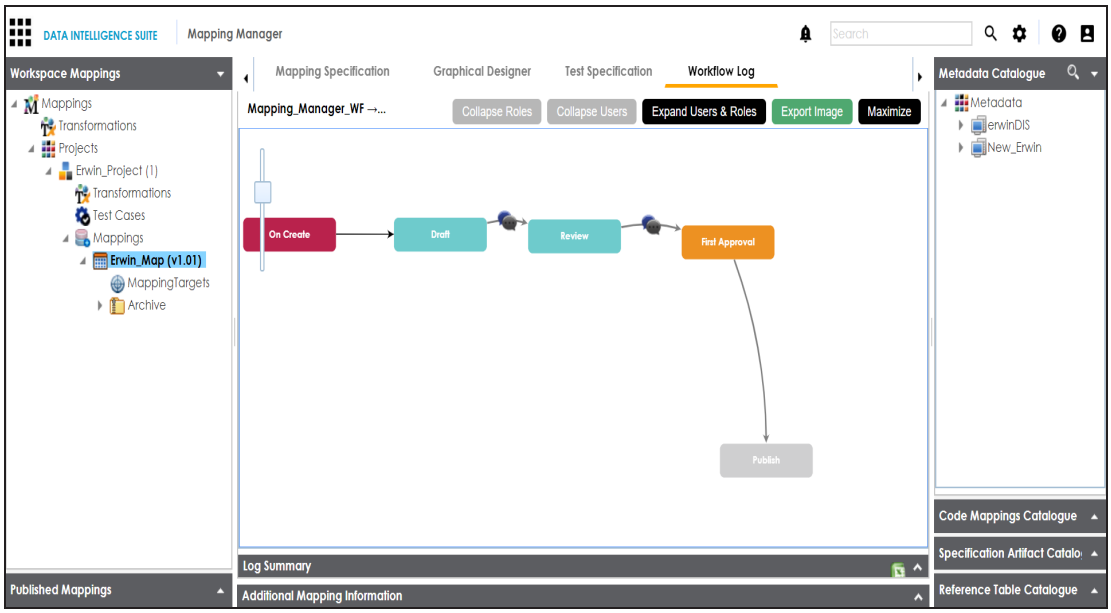
   The following page appears.



3. Click the **Workflow Log** tab.

The current workflow log status of the selected map appears.

Note: The current workflow stage blinks in the diagram.



Use the following options:

User Comments

To view the user and the comments entered by a user while moving it to the next stage, hover over .

Expand Users and Roles

To view users and roles assigned to all the stages, click **Expand Users and Roles**.

Export Image

To download the workflow log image, click **Export Image**.

Analyzing Mappings

This section walks you through how to analyze source to target mappings in different ways. Mapping Manager allows you to track forward and reverse lineages with the help of expressive reports. You can perform impact analysis on tables and columns as a target and as a

source. Further, it is possible to preview data from actual databases, generate virtual preview of target data and view mapping statistics.

Analyzing mappings involves:

- Generating virtual preview of target
- Previewing Data
- Performing table gap analysis
- Performing column gap analysis
- Running impact analysis
- Running lineage analysis
- Running end to end lineage
- Opening business view
- Viewing mapping statistics

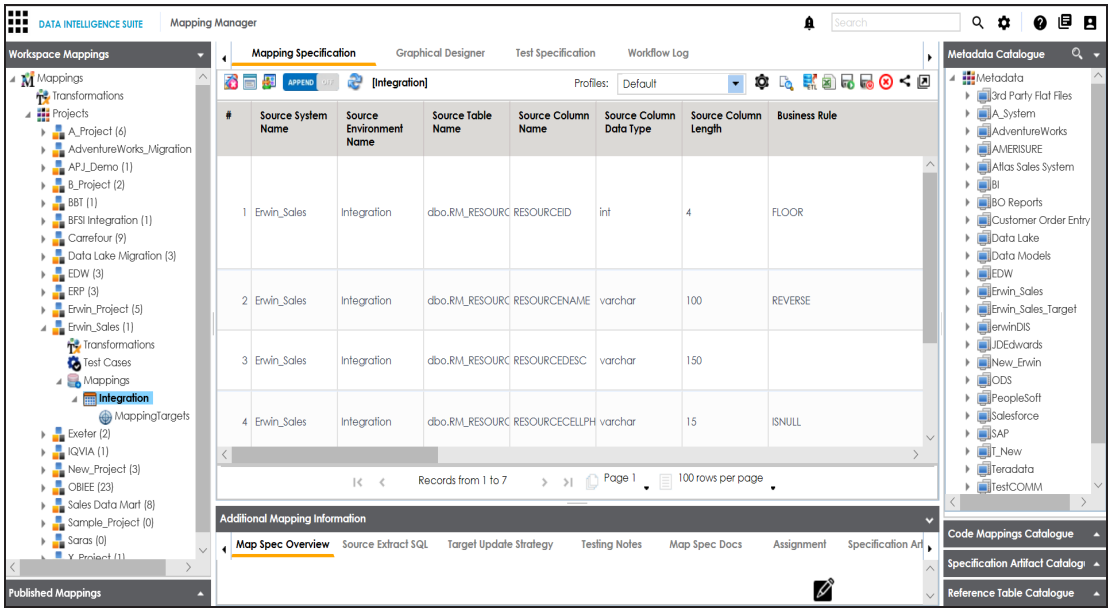
Generating Virtual Preview of Target

You can generate a virtual preview of a target based on a source and transformations.

To generate a virtual preview of the target, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map .

   The Mapping Specification grid page appears.

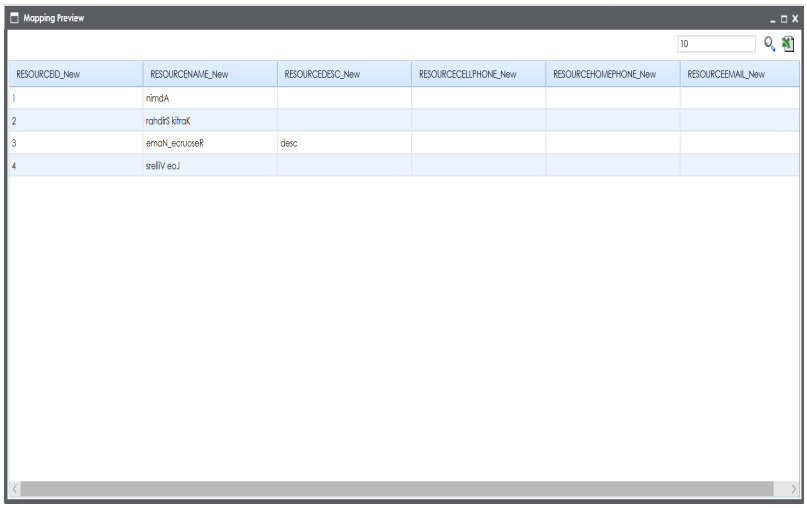


3. Click .

   Mapping Preview page appears, displaying the virtual preview of the target based on the source and transformation.

   Note: Mapping preview is currently supported for RDBMS only. Here is the list of transformation supported in Mapping Preview:

   CONCAT, LTRIM, RTRIM, TRIM, CEIL, FLOOR, RPAD, LPAD, ROUND, SQRT, SUBSTR, UPPER, LOWER, TRUNC, SIN, COS, TAN, SINH, TANH, REVERSE, IS_DATE, IS_NUMBER, IS_SPACES, ISNULL, IIF, ISEMPTY, NVL, DECODE.



4. Click to download the mapping preview.

   The mapping preview is downloaded in .xlsx format.

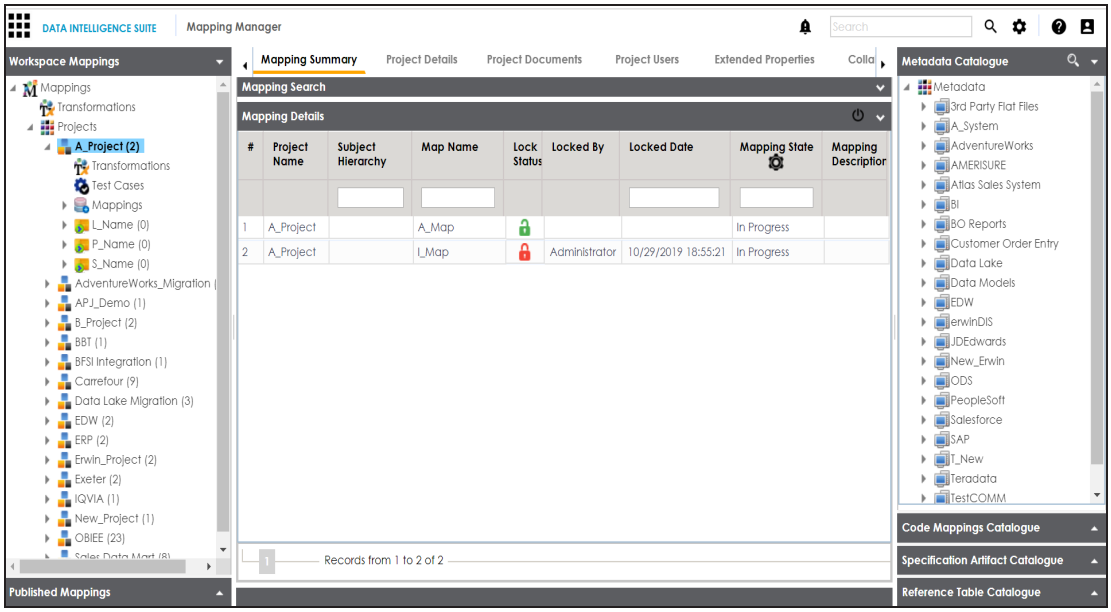
Previewing Data

You can view data in a table using the Metadata Catalogue. You can also write SQL query to view relevant data.

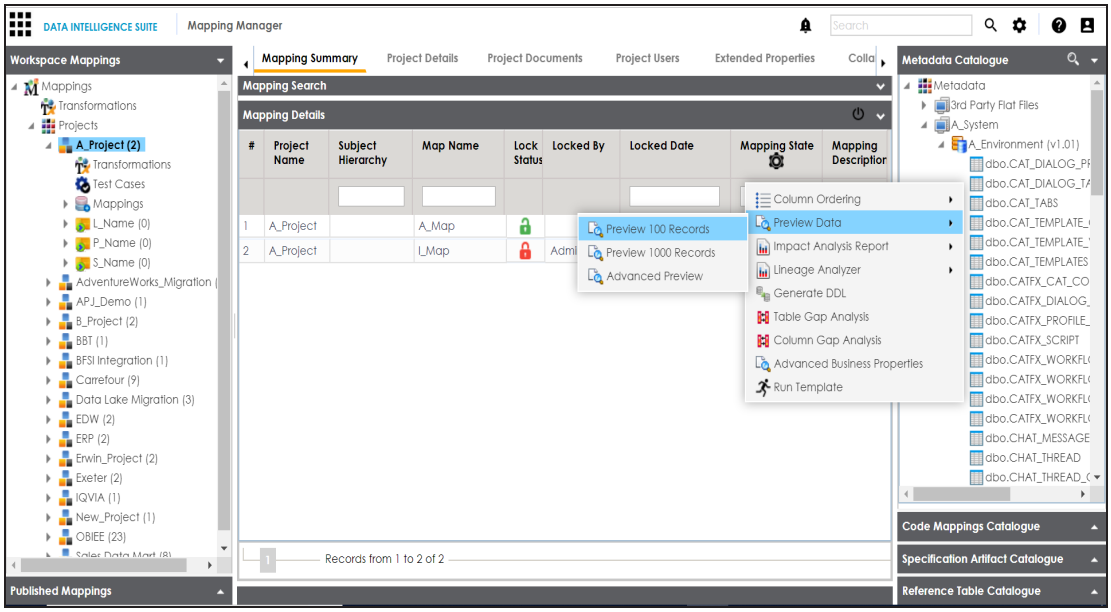
To preview data from actual database, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required project.

   The Metadata Catalogue appears on the right pane.



3. In **Metadata Catalogue**, right-click a table.



4. Hover over **Preview Data** and use the following options:

Preview 100 Records

To preview first 100 records, click **Preview 100 Records**.

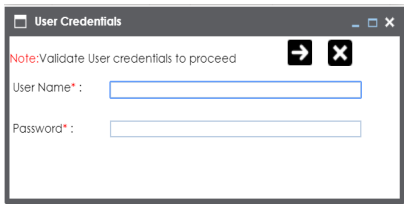
Preview 1000 Records

To preview first 1000 records, click **Preview 1000 Records**.

Advanced Preview

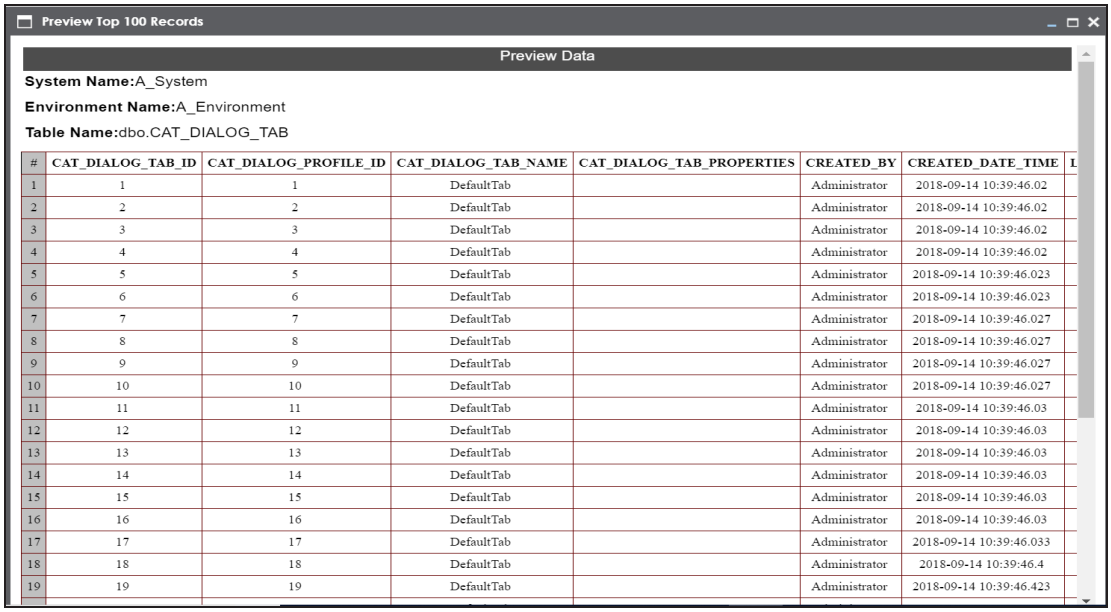
To preview the data set after writing a SQL query, click **Advanced Preview**.

The User Credentials page appears.



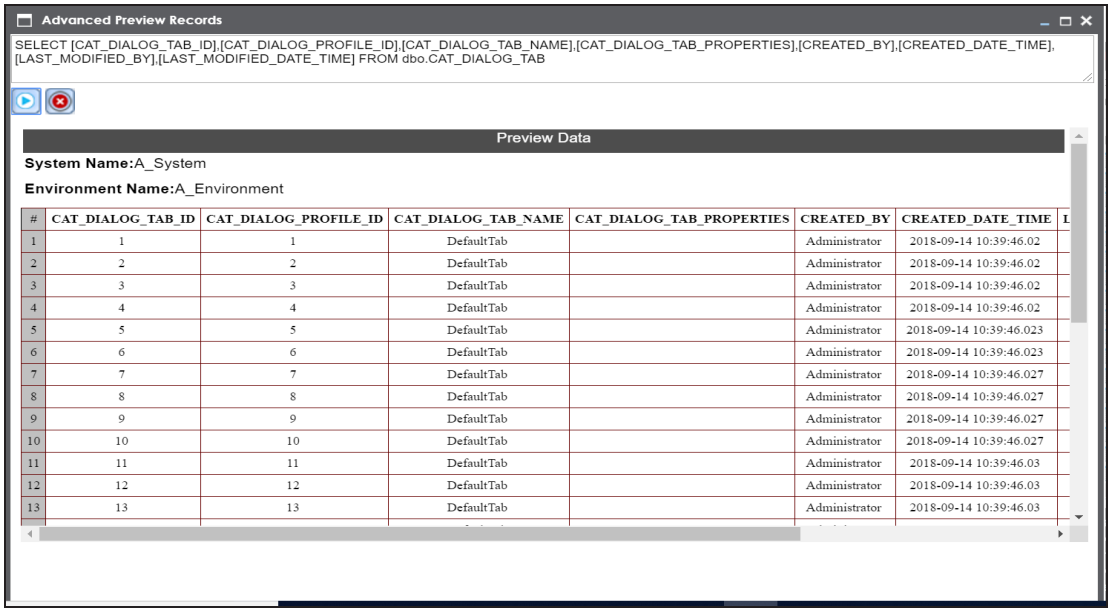
5. Enter your user credentials to connect with database.

The data is previewed.



#	CAT_DIALOG_TAB_ID	CAT_DIALOG_PROFILE_ID	CAT_DIALOG_TAB_NAME	CAT_DIALOG_TAB_PROPERTIES	CREATED_BY	CREATED_DATE_TIME	L
1	1	1	DefaultTab		Administrator	2018-09-14 10:39:46.02	
2	2	2	DefaultTab		Administrator	2018-09-14 10:39:46.02	
3	3	3	DefaultTab		Administrator	2018-09-14 10:39:46.02	
4	4	4	DefaultTab		Administrator	2018-09-14 10:39:46.02	
5	5	5	DefaultTab		Administrator	2018-09-14 10:39:46.023	
6	6	6	DefaultTab		Administrator	2018-09-14 10:39:46.023	
7	7	7	DefaultTab		Administrator	2018-09-14 10:39:46.027	
8	8	8	DefaultTab		Administrator	2018-09-14 10:39:46.027	
9	9	9	DefaultTab		Administrator	2018-09-14 10:39:46.027	
10	10	10	DefaultTab		Administrator	2018-09-14 10:39:46.027	
11	11	11	DefaultTab		Administrator	2018-09-14 10:39:46.03	
12	12	12	DefaultTab		Administrator	2018-09-14 10:39:46.03	
13	13	13	DefaultTab		Administrator	2018-09-14 10:39:46.03	
14	14	14	DefaultTab		Administrator	2018-09-14 10:39:46.03	
15	15	15	DefaultTab		Administrator	2018-09-14 10:39:46.03	
16	16	16	DefaultTab		Administrator	2018-09-14 10:39:46.03	
17	17	17	DefaultTab		Administrator	2018-09-14 10:39:46.033	
18	18	18	DefaultTab		Administrator	2018-09-14 10:39:46.4	
19	19	19	DefaultTab		Administrator	2018-09-14 10:39:46.423	

Note: If you select **Advanced Preview** then, you can write a SQL query and click to view the data.



#	CAT_DIALOG_TAB_ID	CAT_DIALOG_PROFILE_ID	CAT_DIALOG_TAB_NAME	CAT_DIALOG_TAB_PROPERTIES	CREATED_BY	CREATED_DATE_TIME
1	1	1	DefaultTab		Administrator	2018-09-14 10:39:46.02
2	2	2	DefaultTab		Administrator	2018-09-14 10:39:46.02
3	3	3	DefaultTab		Administrator	2018-09-14 10:39:46.02
4	4	4	DefaultTab		Administrator	2018-09-14 10:39:46.02
5	5	5	DefaultTab		Administrator	2018-09-14 10:39:46.023
6	6	6	DefaultTab		Administrator	2018-09-14 10:39:46.023
7	7	7	DefaultTab		Administrator	2018-09-14 10:39:46.027
8	8	8	DefaultTab		Administrator	2018-09-14 10:39:46.027
9	9	9	DefaultTab		Administrator	2018-09-14 10:39:46.027
10	10	10	DefaultTab		Administrator	2018-09-14 10:39:46.027
11	11	11	DefaultTab		Administrator	2018-09-14 10:39:46.03
12	12	12	DefaultTab		Administrator	2018-09-14 10:39:46.03
13	13	13	DefaultTab		Administrator	2018-09-14 10:39:46.03

Performing Table Gap Analysis

A table gap analysis enables you to find:

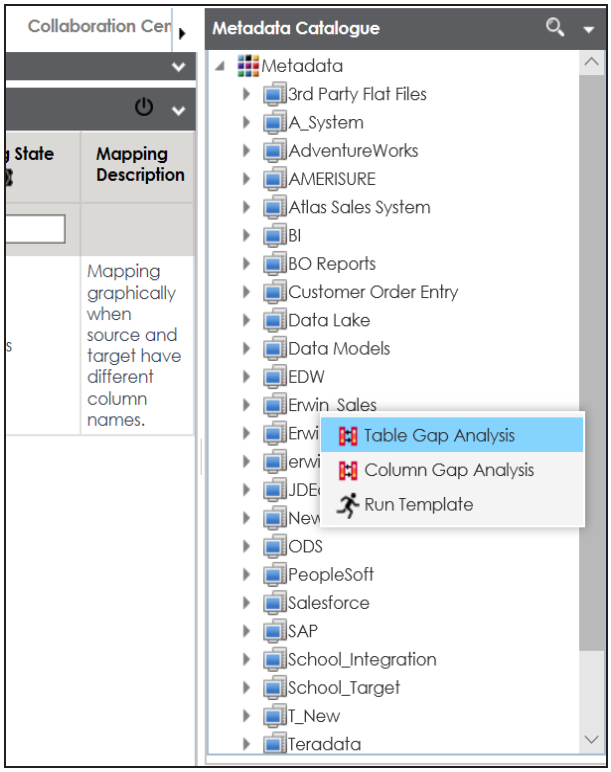
- Tables not being used in mappings
- Tables existing on mapping without valid source or target

You can perform table gap analysis at:

- **System level**: This option enables running the analysis on all the tables under a system.
- **Environment level**: This option enables running the analysis on all the tables under an environment.
- **Table level**: This option enables running the analysis on a table.

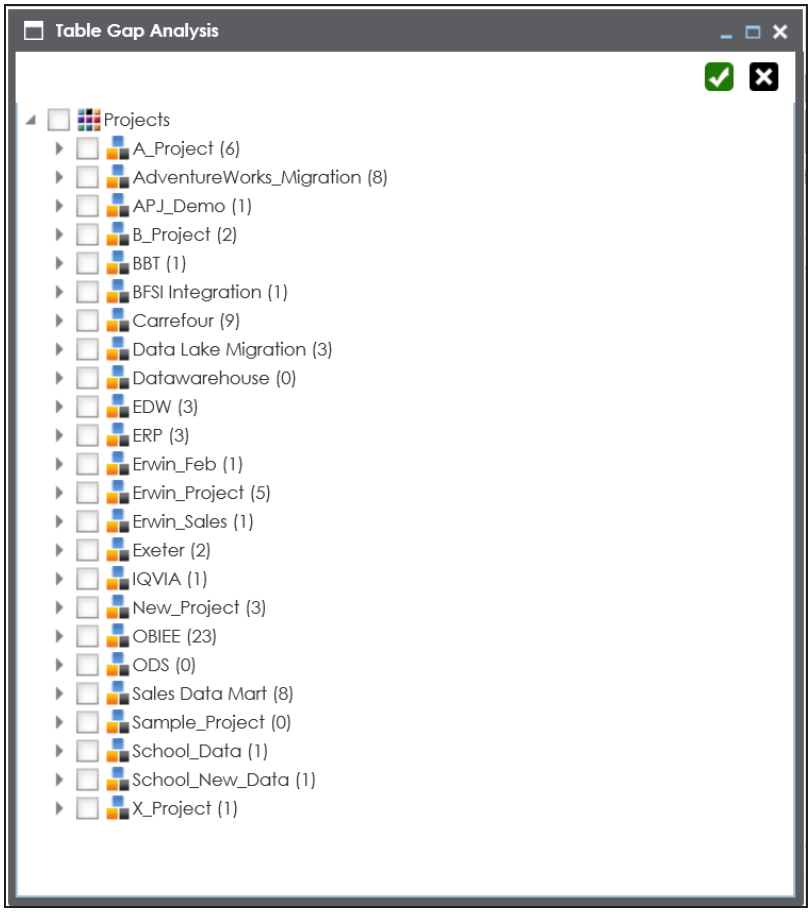
To perform table gap analysis at system level, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a project.
3. In **Metadata Catalogue**, right-click a system.



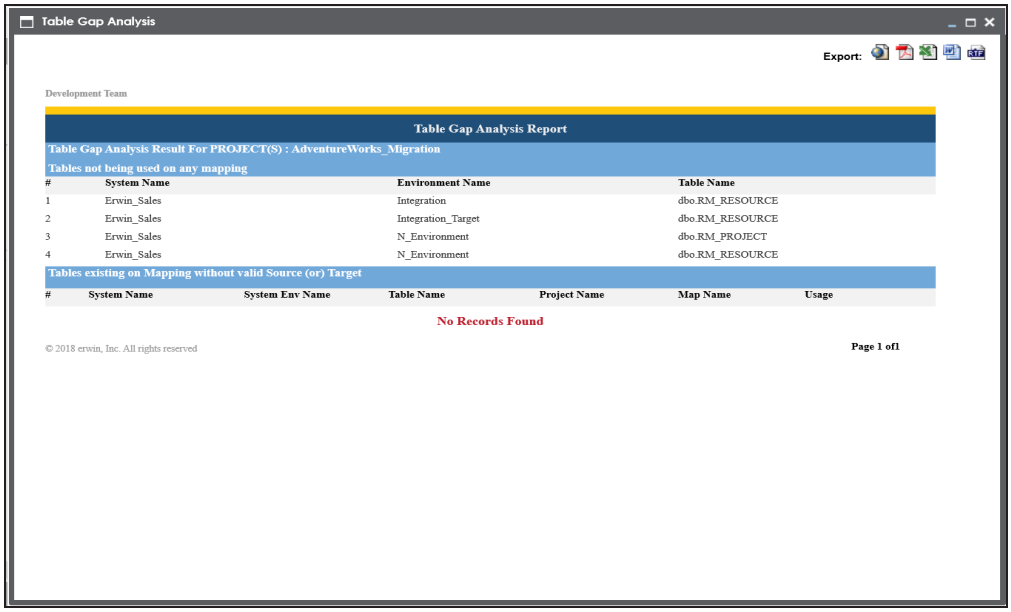
4. Click **Table Gap Analysis**.

   The Table Gap Analysis page appears.



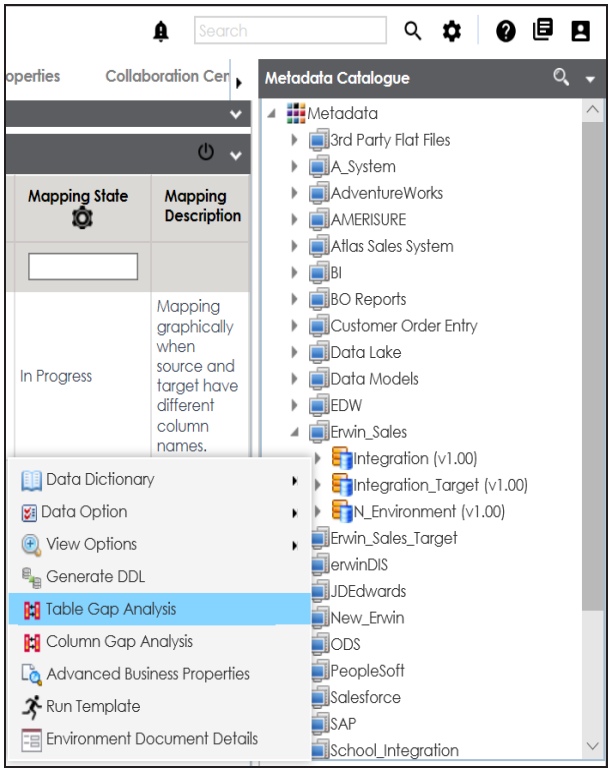
5. Select projects and mappings.
6. Click .

   The Table Gap Analysis Report for the selected projects and mappings appears.



To perform table gap analysis at environment level, follow these steps:

1. In **Metadata Catalogue**, right-click an environment.



2. Click **Table Gap Analysis**.

   The Table Gap Analysis page appears.

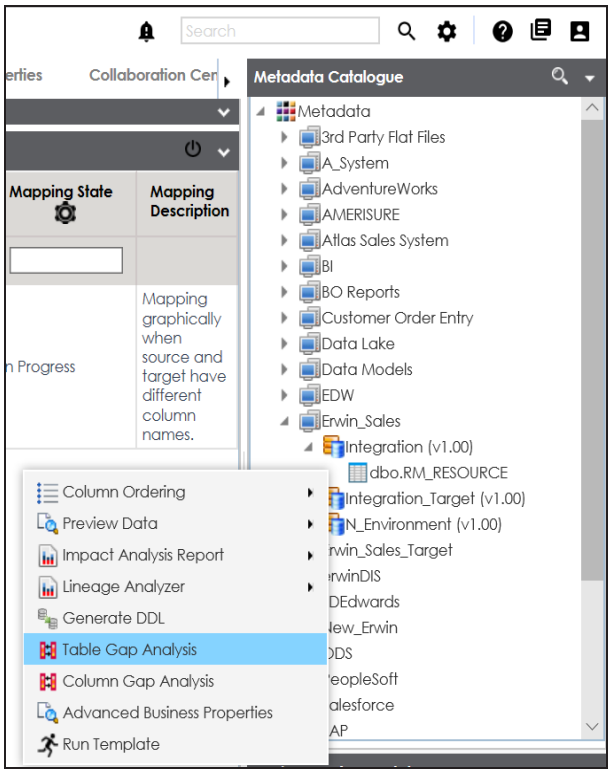
3. Select projects and mappings.

4. Click .

   The Table Gap Analysis Report for the selected projects and mappings appears.

To perform table gap analysis at table level, follow these steps:

1. In **Metadata Catalogue**, right-click a table.



2. Click **Table Gap Analysis**.

   The Table Gap Analysis page appears.

3. Select projects and mappings

4. Click .

   The Table Gap Analysis Report for the selected projects and mappings appears.

Performing Column Gap Analysis

A column gap analysis enables you to find:

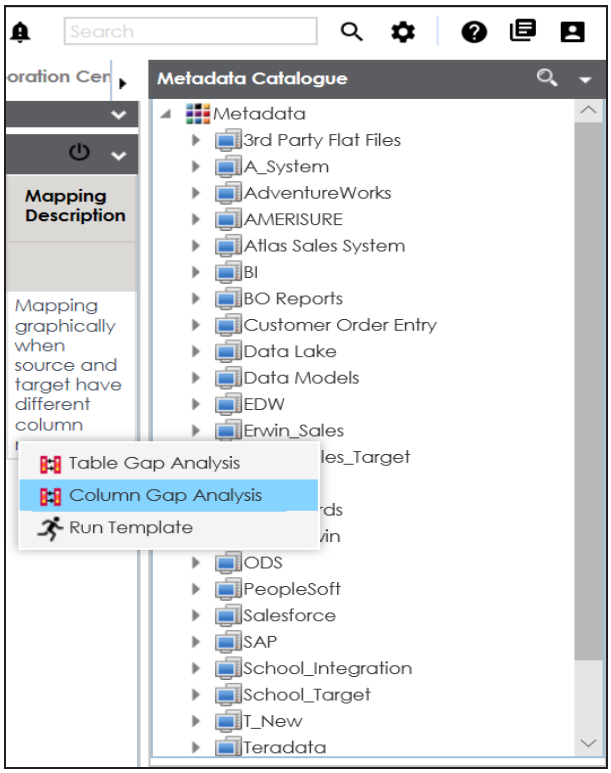
- Columns not existing in mappings
- Source columns existing on mappings without valid target
- Target columns listed on mappings without business rule and source column

You can perform column gap analysis at:

- **System level**: This option enables running the analysis on all the columns under a system.
- **Environment level**: This option enables running the analysis on all the columns under an environment.
- **Table level**: This option enables running the analysis on all the columns under a table.

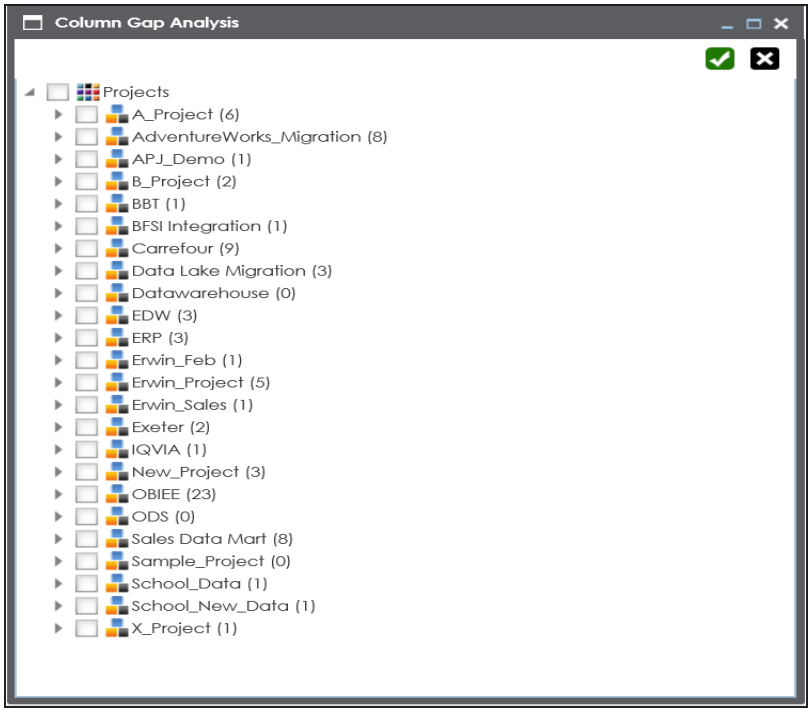
To perform column gap analysis at system level, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click a project.
3. In **Metadata Catalogue**, right-click a system.



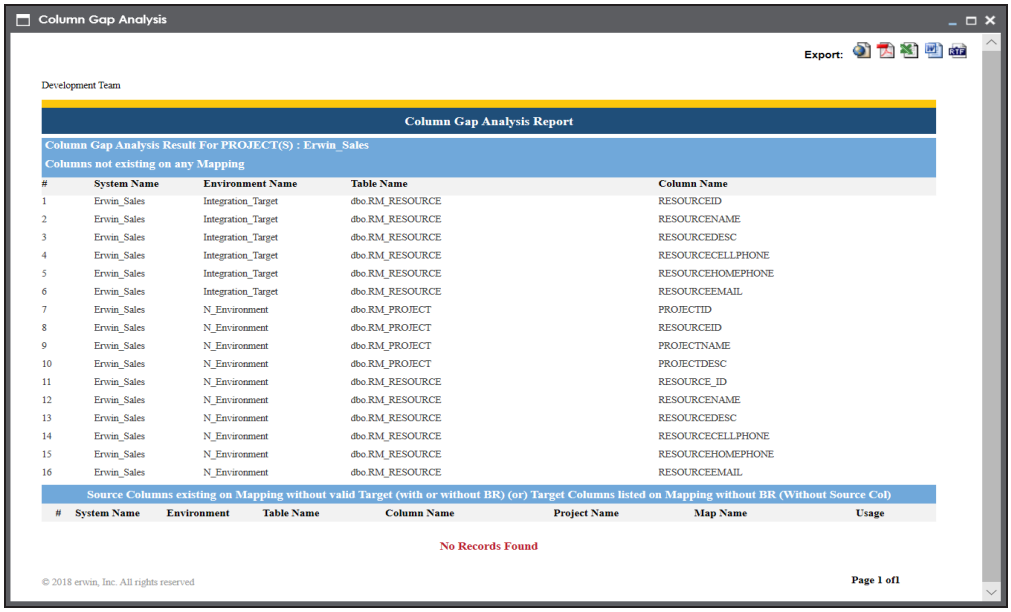
4. Click **Column Gap Analysis**.

   The Column Gap Analysis page appears.



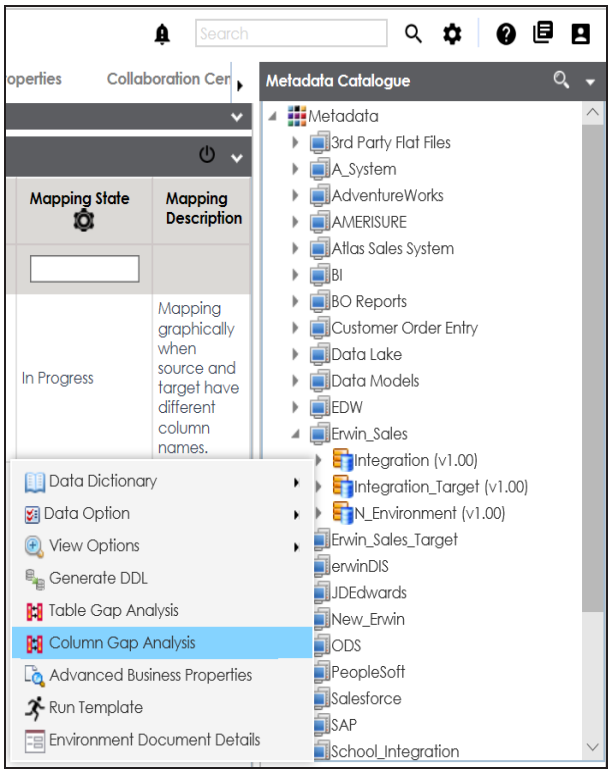
5. Select projects and mappings.
6. Click .

   The Column Gap Analysis Report for the selected projects and mappings appears.



To perform column gap analysis at environment level, follow these steps:

1. In **Metadata Catalogue**, right-click an environment.



2. Click **Column Gap Analysis**.

   The Column Gap Analysis page appears.

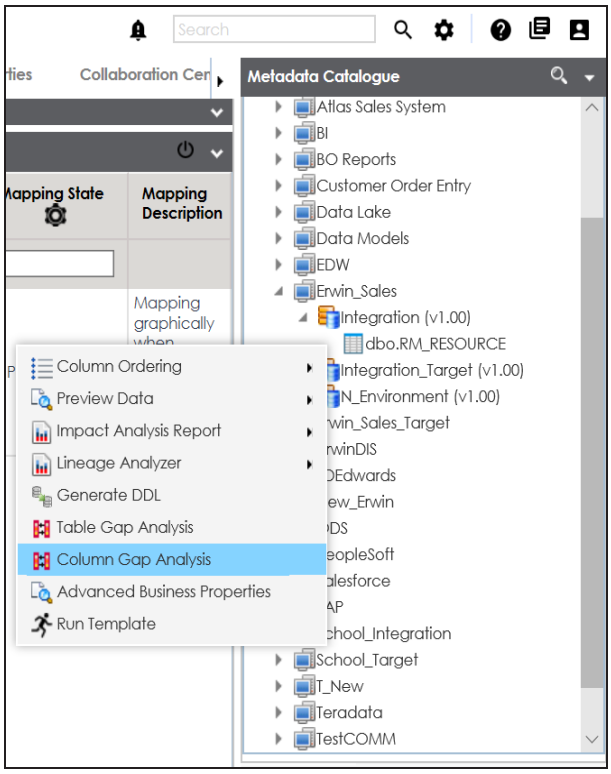
3. Select projects and mappings.

4. Click .

   The Column Gap Analysis Report for the selected projects and mappings appears.

To perform column gap analysis at table level, follow these steps:

1. In **Metadata Catalogue**, right-click a table.



2. Click **Column Gap Analysis**.
3. The Column Gap Analysis page appears.

   Select projects and mappings.
4. Click .

   The Columns Gap Analysis Report for the selected projects and mappings appears.

Running Impact Analysis

You can run impact analysis using the mapping specification grid on:

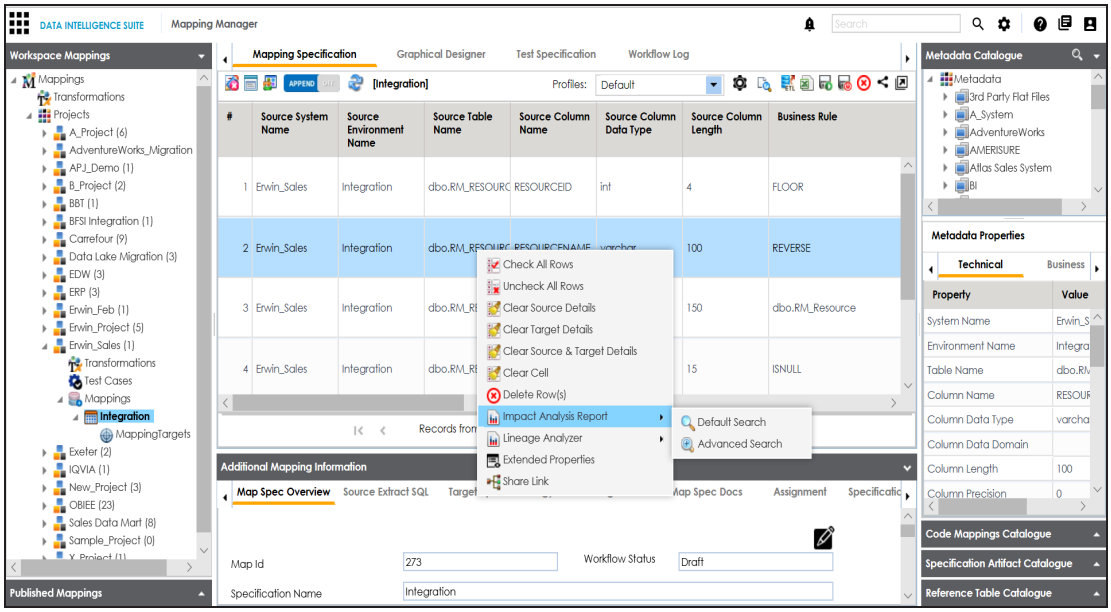
- Any source / target table
- Any source / target column

You can also export the impact analysis report in .pdf or .xlsx format.

To run impact analysis reports at table / column level, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, expand the desired project.
3. Click the desired map.

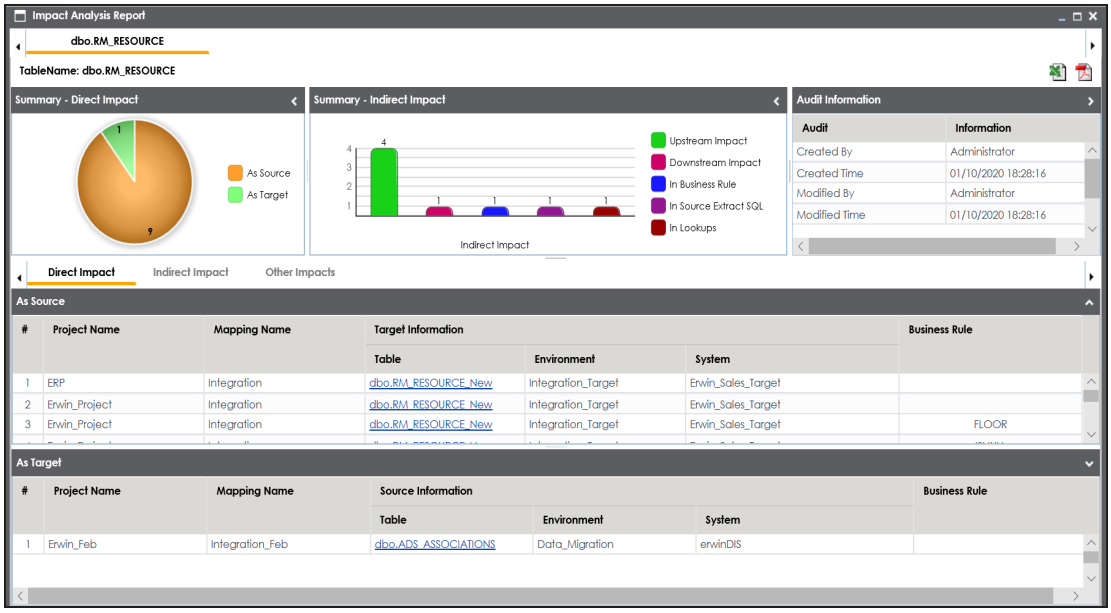
   The Mapping Specification grid appears.
4. Select the desired row.
5. Right-click the Target or Source table / column.



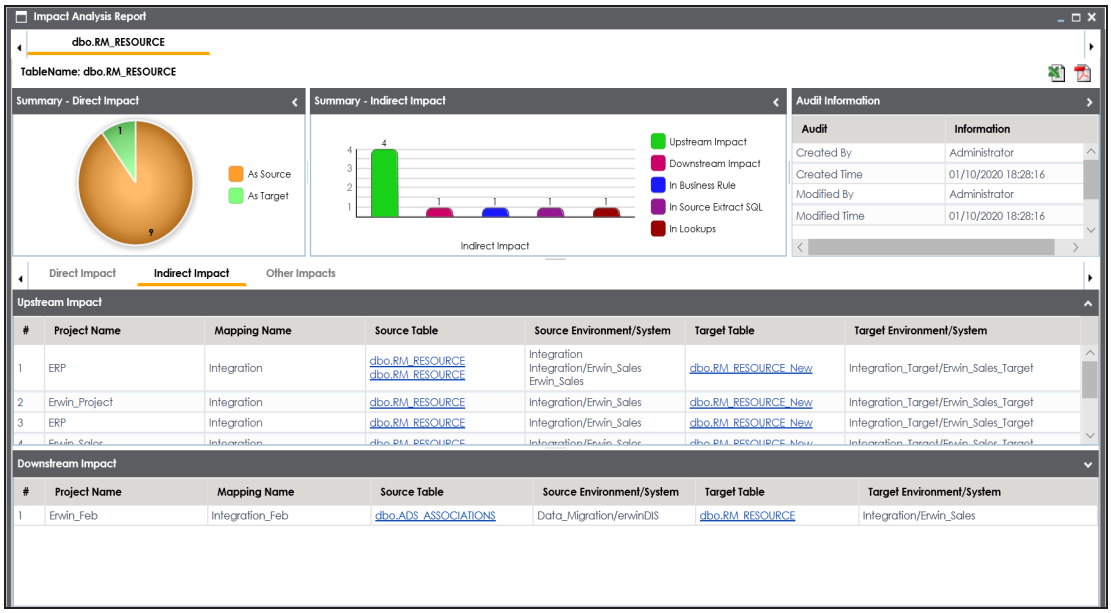
6. Hover over **Impact Analysis Report**.
7. Use the following options:

Default Search

Use this option to view the default report. The default report includes all the mappings into consideration while generating the report.
Direct Impact: It displays the impact of table / column as a source and as a target.

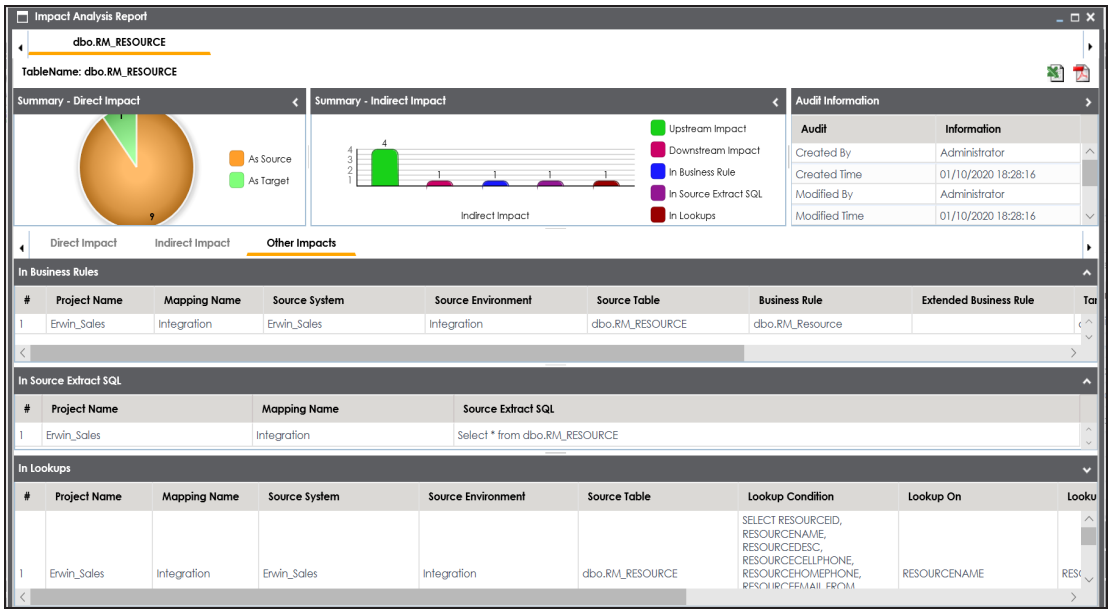


Indirect Impact: It displays the upstream impact and downstream impact of a table / column.



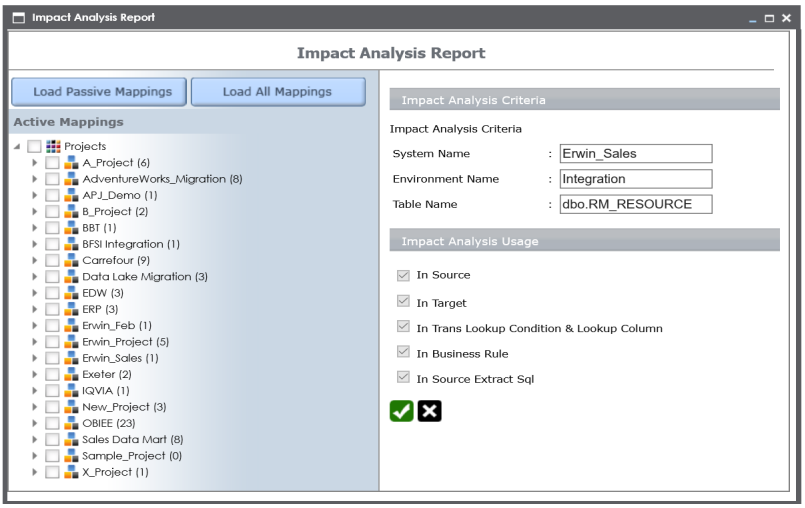
Other Impacts: It displays the impact of the table / column in:

- Business rules
- Source Extract SQL
- In Lookups



Advanced Search

Use this option to customize the impact analysis report by including or excluding other mappings.



Load Passive Mappings / **Load Active Mappings**: Use this option to load passive mappings.

Load All Mappings: Use this option to load all mappings.

Select the mappings to include them in the impact analysis and click .

The report is displayed.

8. Click to export the report in .xlsx format.
9. Click to export the report in .pdf format.

Running Lineage Analysis

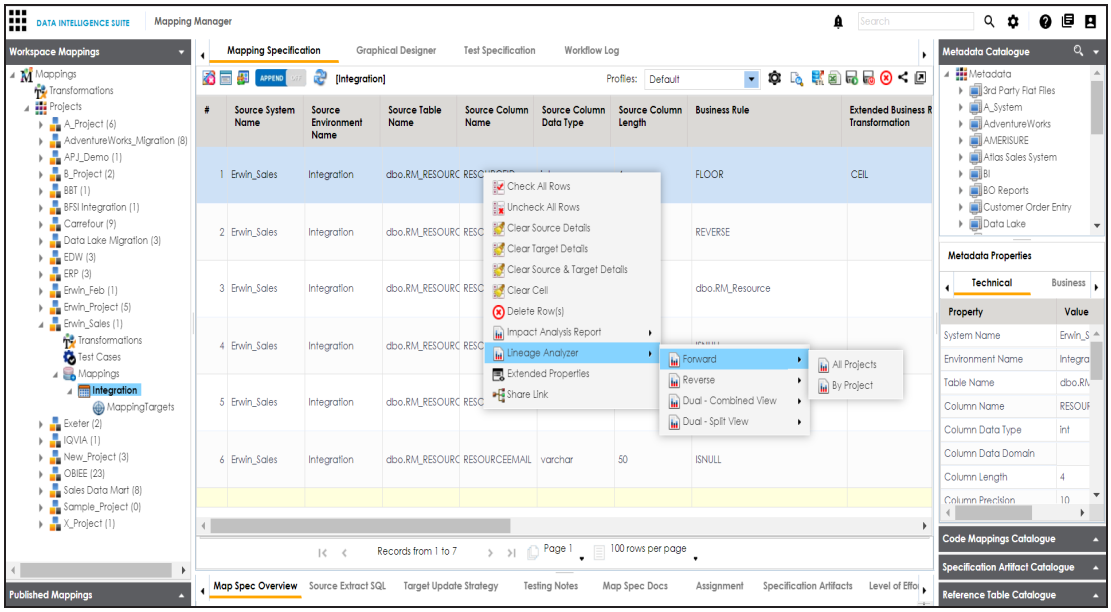
You can run forward or reverse lineage analysis using the mapping specification grid on:

- Any source / target table
- Any source / target column

To run forward lineage report at table / column level, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, expand the desired project.
3. Click the desired map.

   The Mapping Specification grid appears.
4. Select the desired row.
5. Right-click the target or source table name / column name cell.



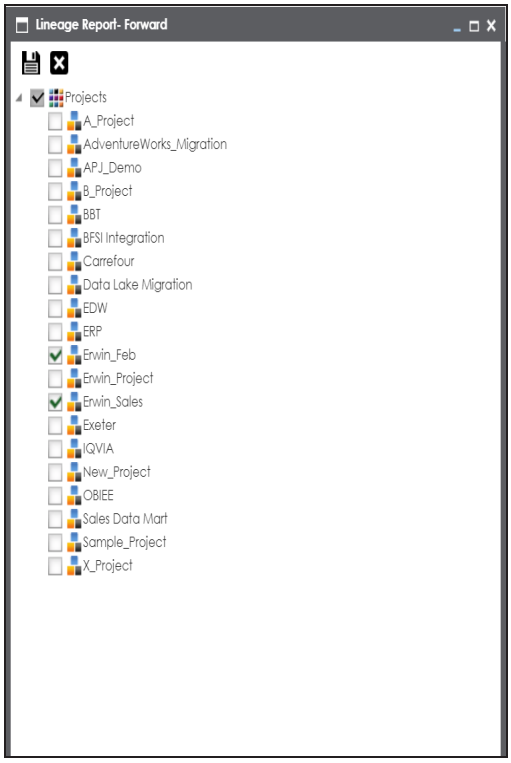
6. Hover over **Lineage Analyzer**.
7. Hover over **Forward**.
8. Use the following options:

All Projects

Use this option to include all the projects in the Mapping Manager for the analysis.

By Projects

Use this option to include or exclude projects in the Mapping Manager for the analysis.



Select the <project_name> check box to include the project in the forward lineage analysis and click .

Note: You can select multiple projects.

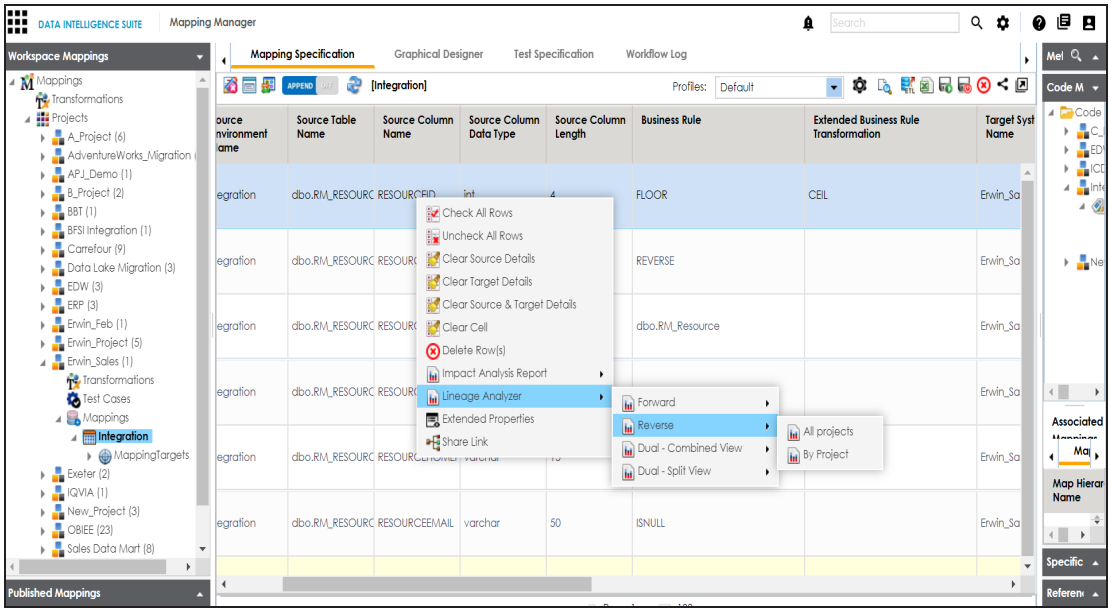
The forward lineage report appears.

To run reverse lineage report at table / column level, follow these steps:

1. Click the desired map.

   The mapping specification grid appears.

2. Right-click the target or source table name / column name cell.
3. Hover over Lineage Analyzer.
4. Hover over Reverse.



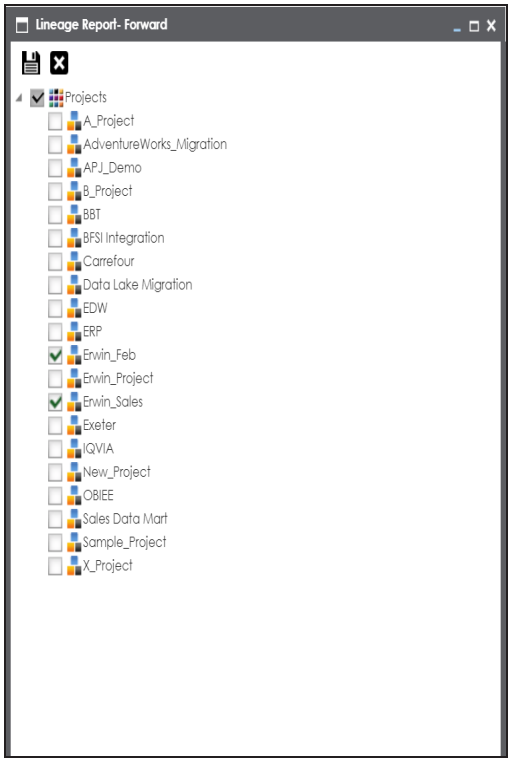
5. Use the following options:

All Projects

Use this option to include all the projects in the Mapping Manager for the analysis.

By Projects

Use this option to include or exclude projects in the Mapping Manager for the analysis.



Select the <project_name> check box to include the project in the reverse lineage analysis and click .

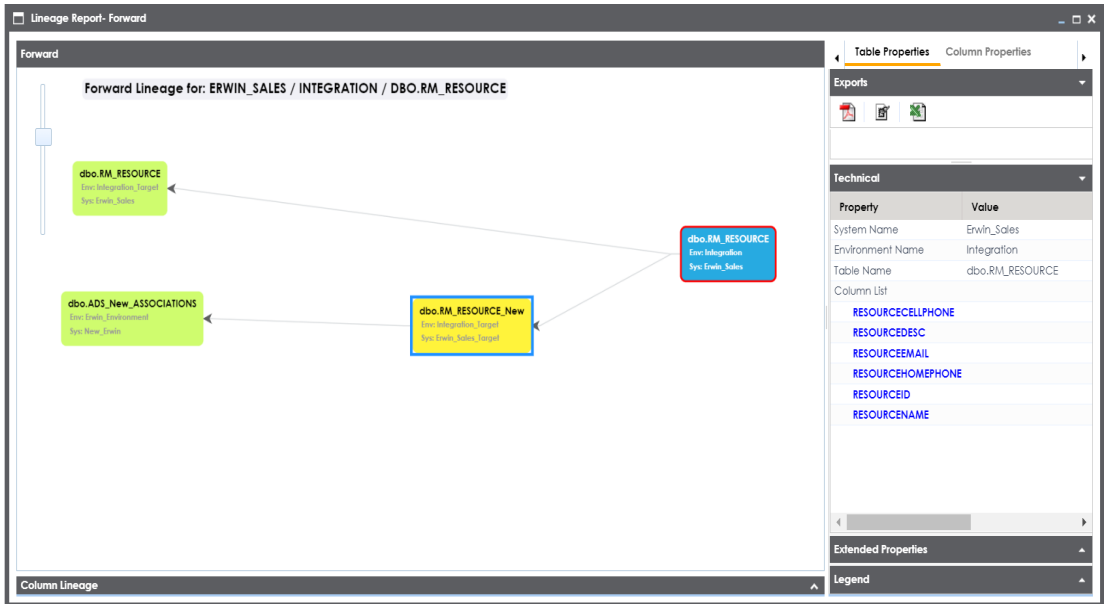
Note: You can select multiple projects.

The reverse lineage report appears.

You can use **Dual - Combined View** to view the dual lineage of a table / column and **Dual Split View** to view forward and reverse lineage of a table / column in two different tabs.

Lineage Reports of Tables

The lineage analysis report of a table appears like this:



Exports:

To export the report in .pdf format, click .

To export the report in .jpg format, click .

To export the report in .xlsx format, click .

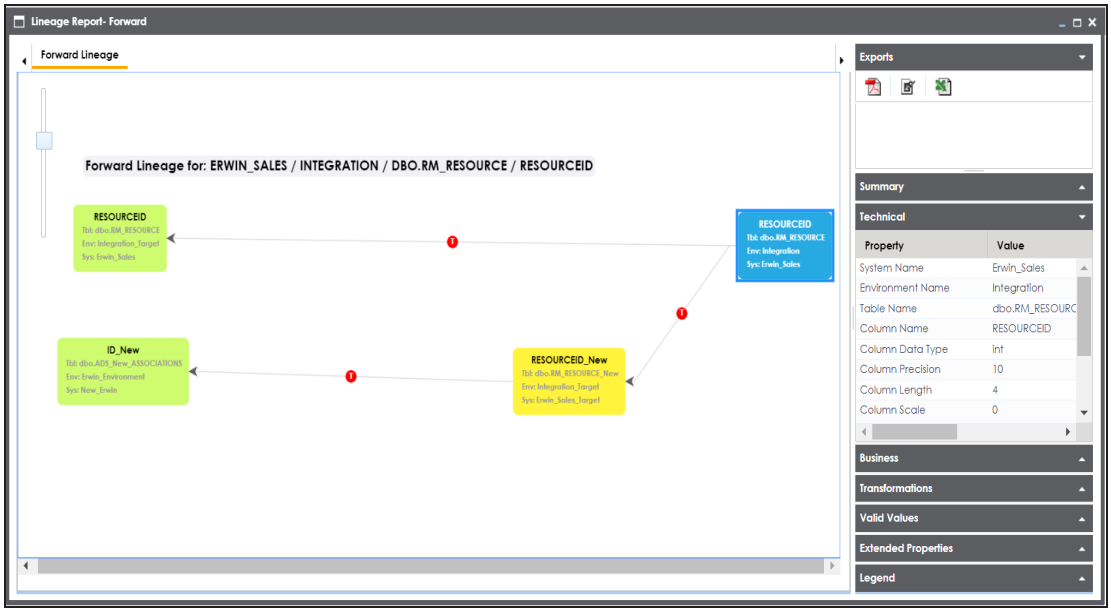
Technical: Use this pane to view the technical properties of the table.

Extended Properties: Expand this pane to view the extended properties of the table configured by you.

Legen

Lineage Reports of Columns

The lineage report of a column appears like this:



Exports:

To export the report in .pdf format, click .

To export the report in .jpg format, click .

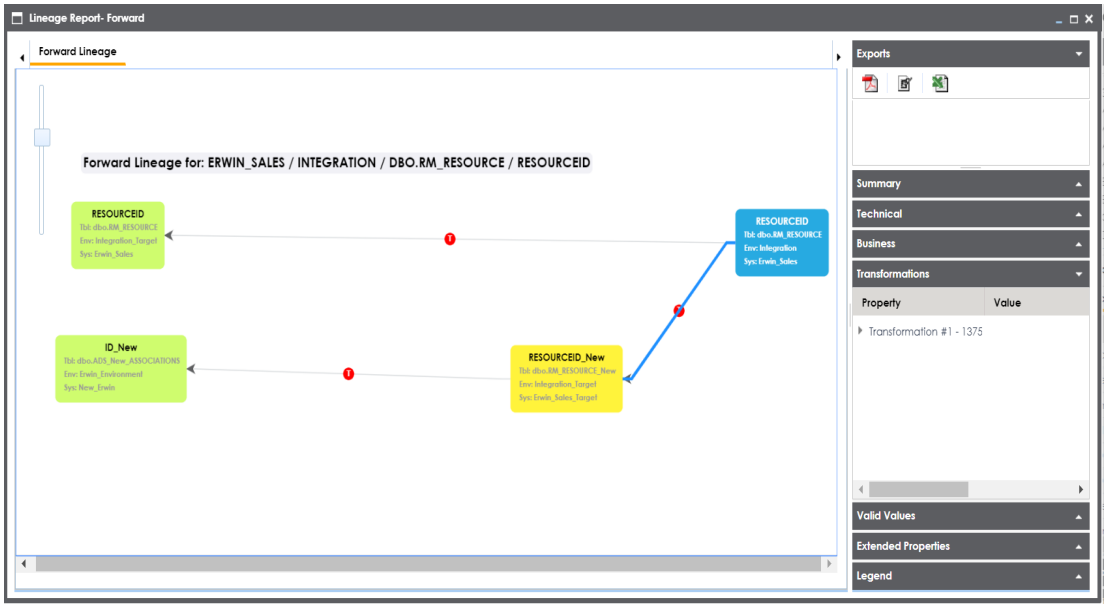
To export the report in .xlsx format, click .

Technical: Use this pane to view the technical properties of the column.

Business: Use this pane to view the business properties of the column.

Transformations: Use this pane to view the transformations involved in various lineage links.

To view the transformation, click the desired lineage link.



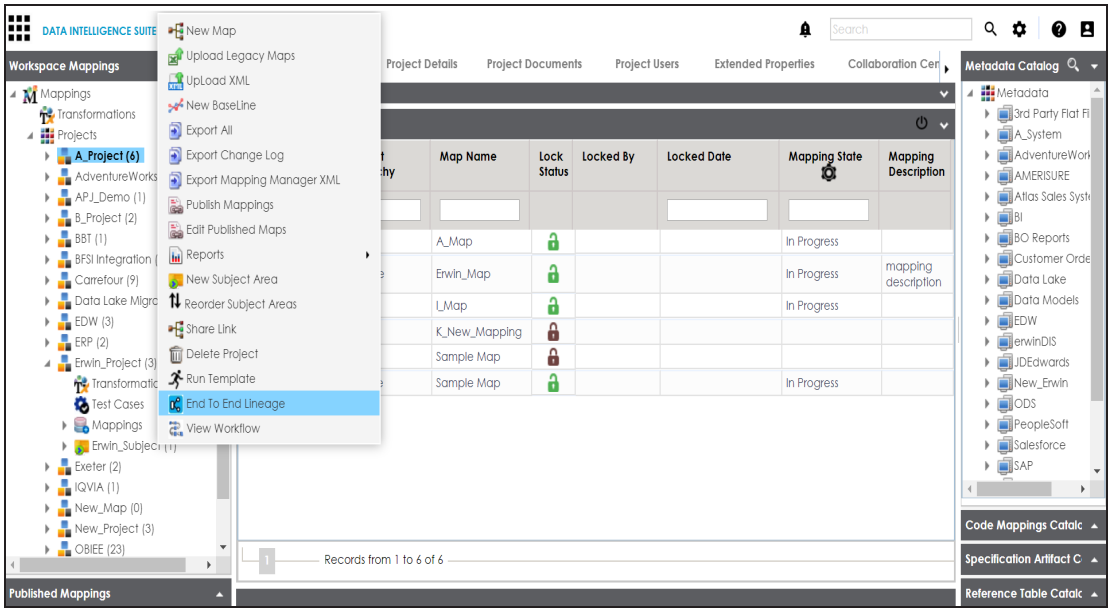
Valid Values: Expand this pane and click the hyperlink to view Codeset Valid Values. You can assign Codesets to a column in the Metadata Manager.
Extended Properties: Expand this pane to view the extended properties of the column.
Legend: Expand this pane to view the legend used in the report.

Running End to End Lineage

You can run end to end lineage on a project as source and specify the target project. You can also export the lineage report in .xlsx format.

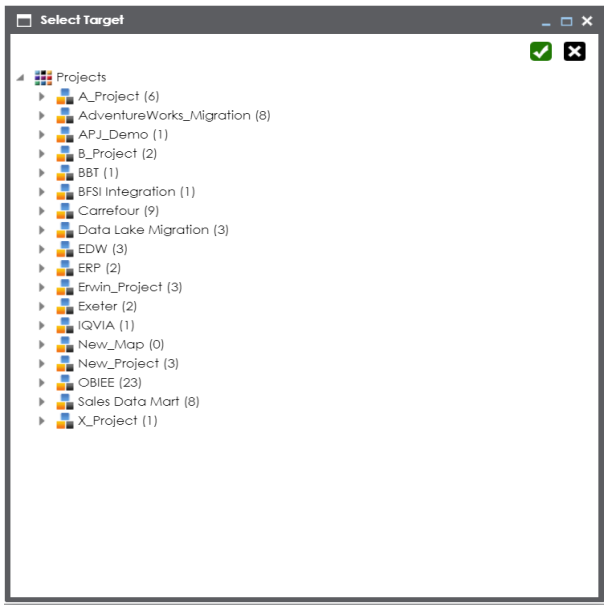
To run end to end lineage at project level, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the desired source project.



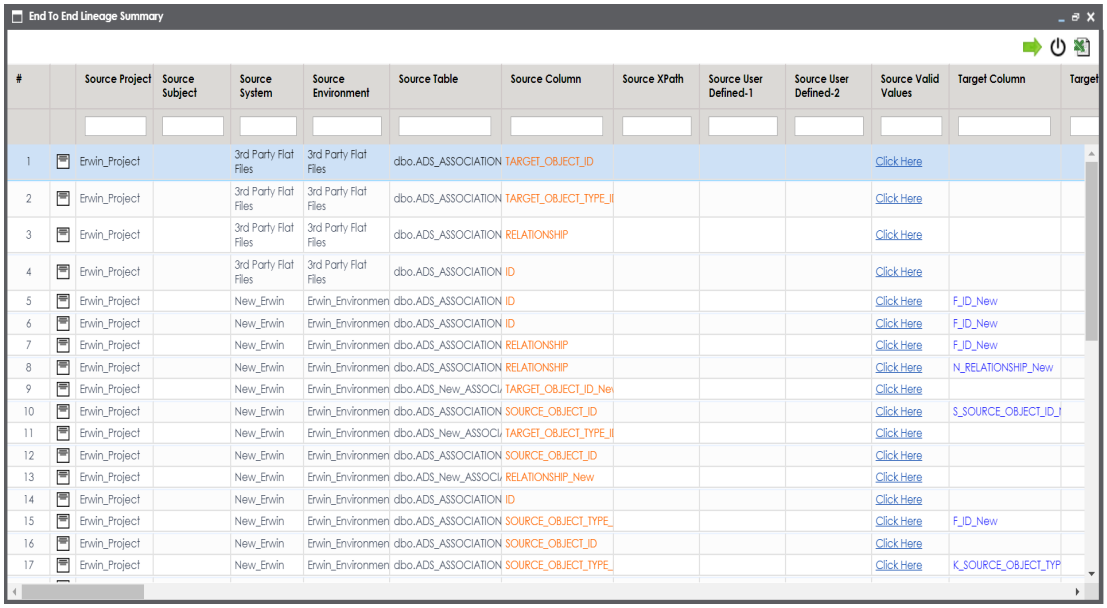
3. Click **End to End Lineage**.

   The Select Target page appears.



4. Select a target Subject or a target Project.
5. Click .

The End to End Lineage Summary page appears.



#		Source Project	Source Subject	Source System	Source Environment	Source Table	Source Column	Source XPath	Source User Defined-1	Source User Defined-2	Source Valid Values	Target Column	Target
1		Erwin_Project		3rd Party Flat Files	3rd Party Flat Files	dbo.ADS_ASSOCIATION	TARGET_OBJECT_ID				Click Here		
2		Erwin_Project		3rd Party Flat Files	3rd Party Flat Files	dbo.ADS_ASSOCIATION	TARGET_OBJECT_TYPE_I				Click Here		
3		Erwin_Project		3rd Party Flat Files	3rd Party Flat Files	dbo.ADS_ASSOCIATION	RELATIONSHIP				Click Here		
4		Erwin_Project		3rd Party Flat Files	3rd Party Flat Files	dbo.ADS_ASSOCIATION	ID				Click Here		
5		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	ID				Click Here	F_ID_New	
6		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	ID				Click Here	F_ID_New	
7		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	RELATIONSHIP				Click Here	F_ID_New	
8		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	RELATIONSHIP				Click Here	N_RELATIONSHIP_New	
9		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_New_ASSOCI	TARGET_OBJECT_ID_Ne				Click Here		
10		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	SOURCE_OBJECT_ID				Click Here	S_SOURCE_OBJECT_ID_	
11		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_New_ASSOCI	TARGET_OBJECT_TYPE_I				Click Here		
12		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	SOURCE_OBJECT_ID				Click Here		
13		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_New_ASSOCI	RELATIONSHIP_New				Click Here		
14		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	ID				Click Here		
15		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	SOURCE_OBJECT_TYPE_				Click Here	F_ID_New	
16		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	SOURCE_OBJECT_ID				Click Here		
17		Erwin_Project		New_Erwin	Erwin_Environmen	dbo.ADS_ASSOCIATION	SOURCE_OBJECT_TYPE_				Click Here	K_SOURCE_OBJECT_TYP	

6. Use the following options:

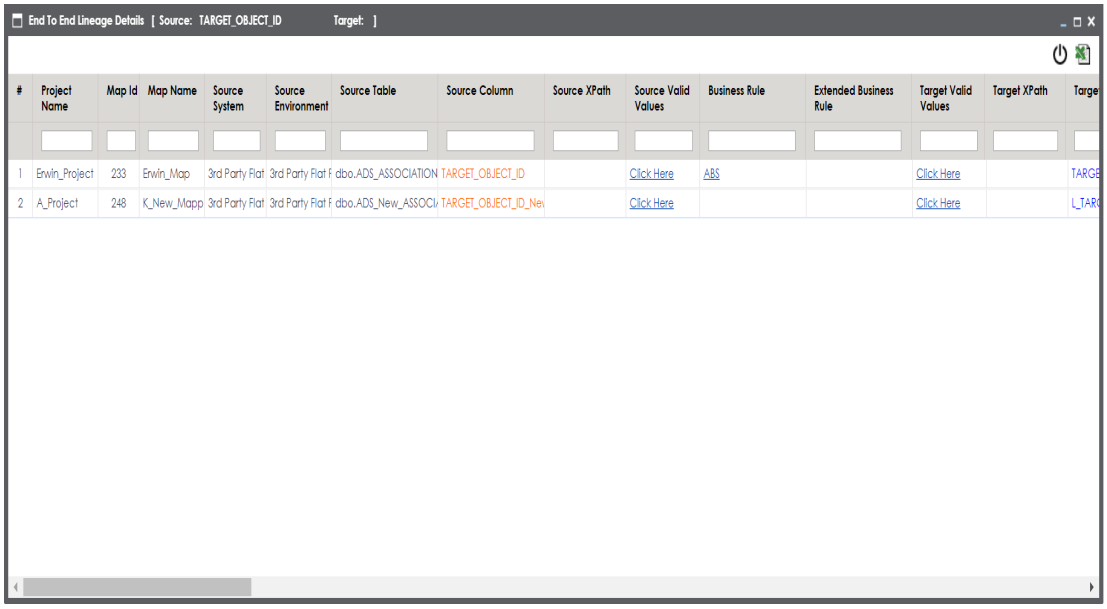
Navigate

Use or to navigate across the report.

Expand ( )

To expand the lineage summary, use .

The End to End Lineage Details page appears.



Reset Column Ordering ( )

To reset column ordering, click .

Export ( )

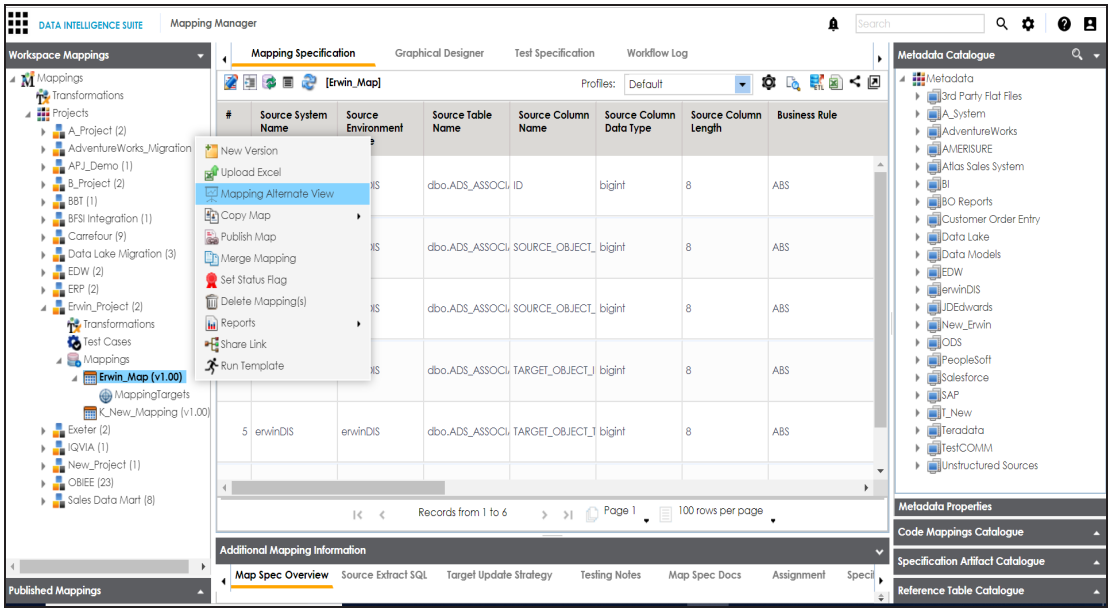
To export the report, click .

Opening Business View

You can have a concise view of the mappings with an ability to instantly generate lineage and impact analysis. This is an alternate view for both workspace and published maps.

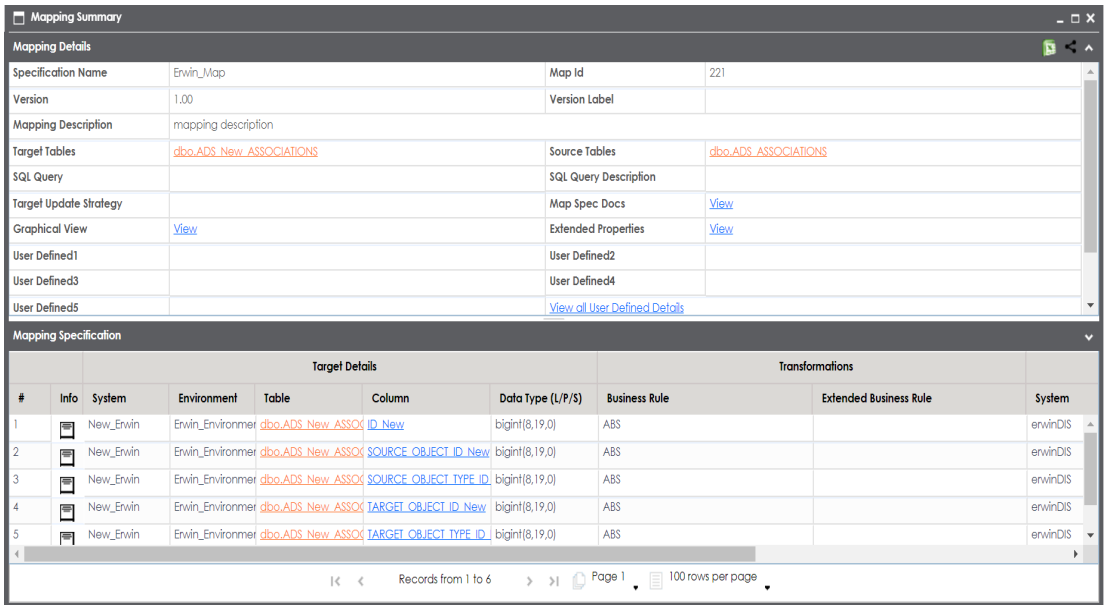
To open business view of mappings, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, expand the desired project node.
3. Expand the **Mappings** node.
4. Right-click the desired map.



5. Click **Mapping Alternate View**.

   The Mapping Summary page appears.



6. Use the following options:

   Export ( )

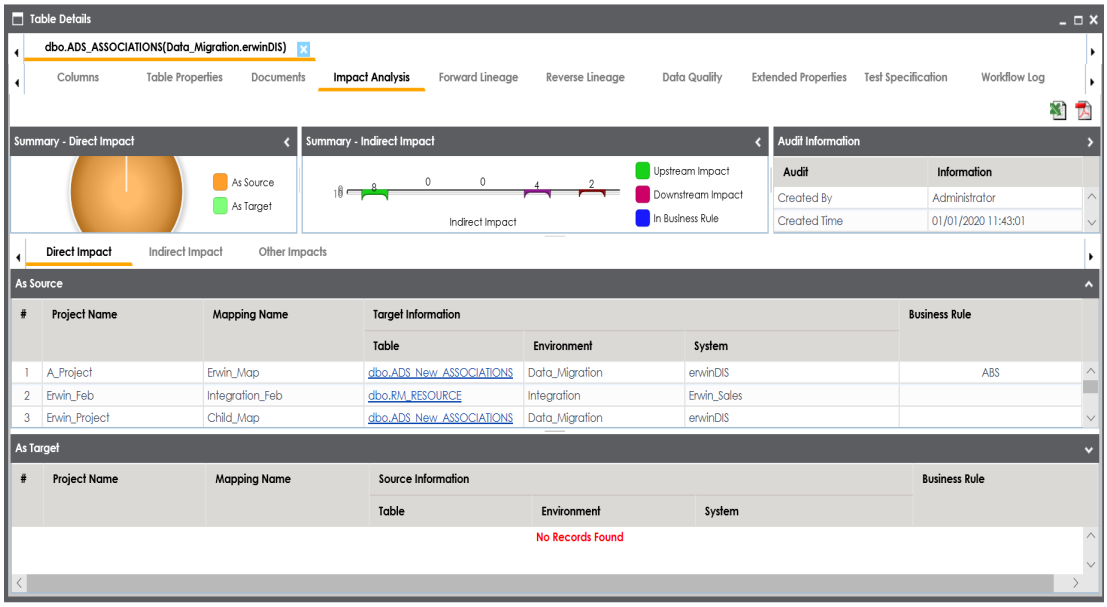
To download the mapping summary, click .

Share Link ( )

To share the link of the mapping summary, click .

7. Click a table name which appears as hyperlink and use the following options:

   The Table Details page appears showing the Impact Analysis of the table.



Forward Lineage

Use this option to view the forward lineage of the table.

Reverse Lineage

Use this option to view the reverse lineage of the table.

Data Quality

Use this option to profile the data in the table and generate various data profile reports. For more information on profiling data, refer to the Profiling Data at Table Level topic.

Extended Properties

Use this option to view the extended properties of the table.

Test Specification

Use this option to view test cases related to the table.

Workflow Log

Use this option to view the workflow status of the table.

Column

Use this option to list columns of the table.

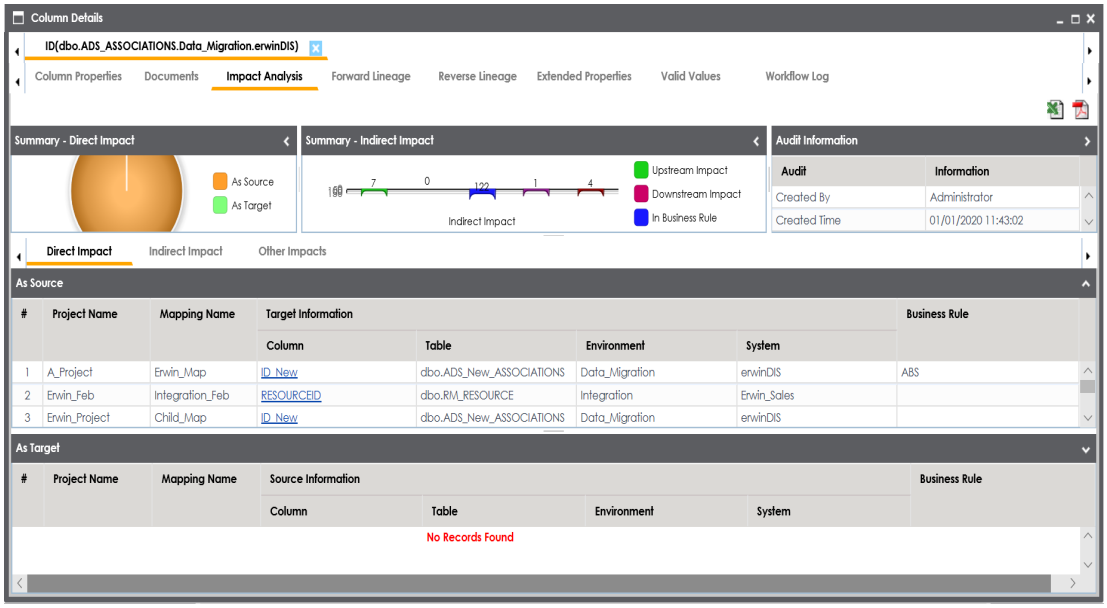
Table properties

Use this option to view the table properties.

Documents

Use this option to add documents related with the table.

8. Click a column which appears as hyperlink and use the following options:
   The Column Details page appear showing the Impact Analysis of the column.



Forward Lineage

Use this option to view the forward lineage of the column.

Reverse Lineage

Use this option to view the reverse lineage of the column.

Extended Properties

Use this option to view the extended properties of the column.

Valid Values

Use this option to view the associated codesets with the column.

Workflow Log

Use this option to view the workflow log status of the column.

Column Properties

Use this option to view the column properties.

Documents

Use this option to view the uploaded documents related to the column.

Viewing Mapping Statistics

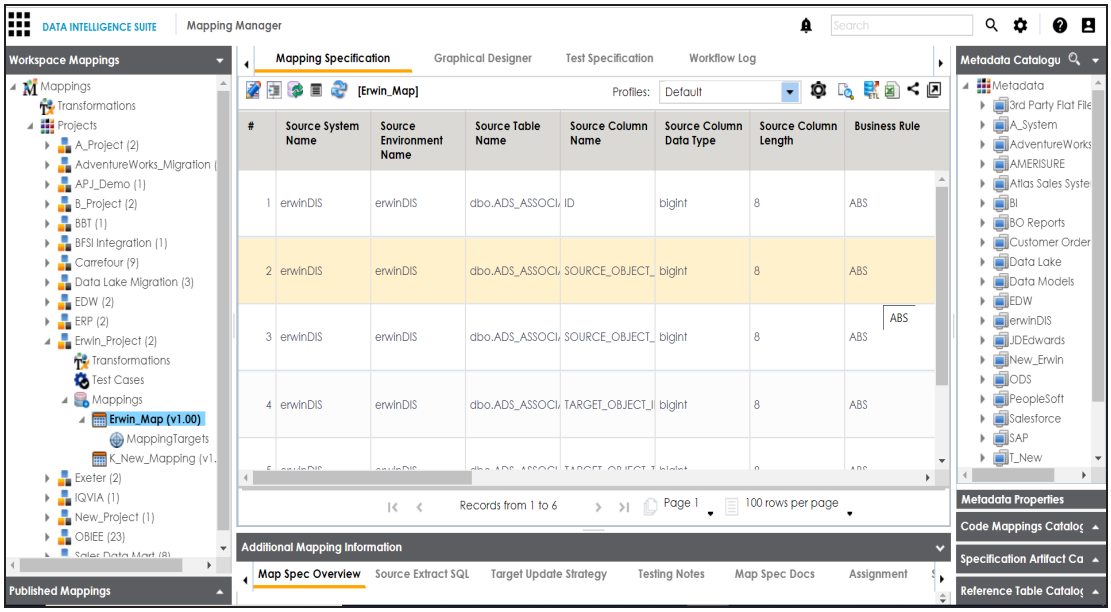
You can view mapping statistics and view the following information:

- Total rows in the mapping grid
- Number of target tables
- Targets not mapped
- Sources not mapped
- Business rule
- Lookups

To view mapping statistics, follow these steps:

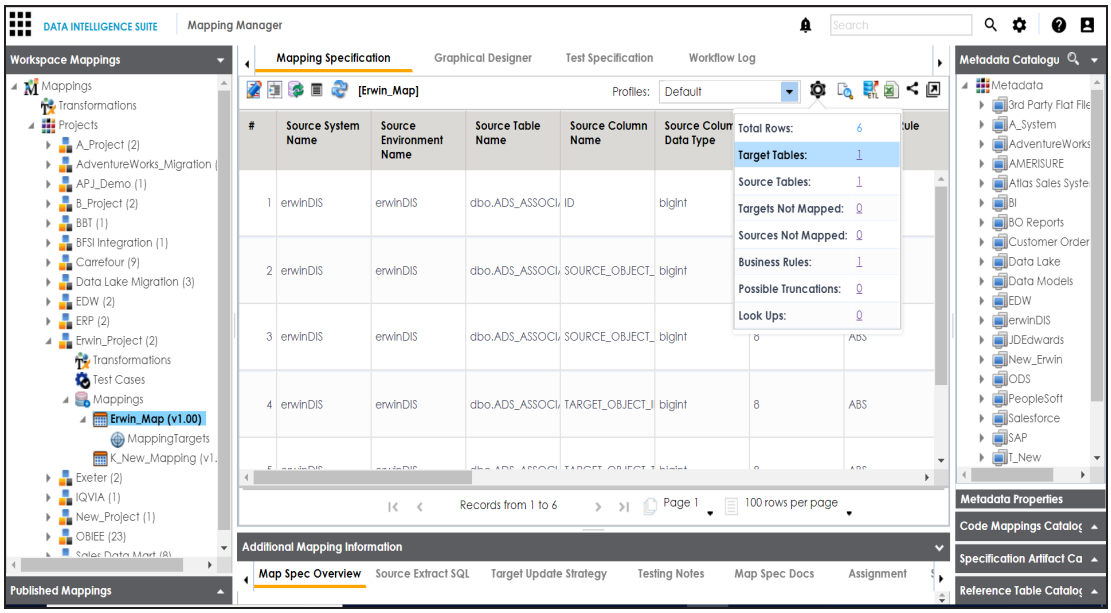
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, expand the desired project.
3. Click the desired map.

   The Mapping Specification grid appears.



4. click ⚙.

The mapping statistics are shown with hyperlinks.



Note: Click the hyperlinks to get the detailed information.

Associating Mappings

This section walks you through the process of associating mappings with the following:

- Code Mappings or Code Crosswalks
- Reference Tables
- Requirements

It involves:

- Associating code maps with data item mappings
- Associating reference tables with mappings
- Linking requirements with mappings

Associating Code Maps with Data Item Mappings

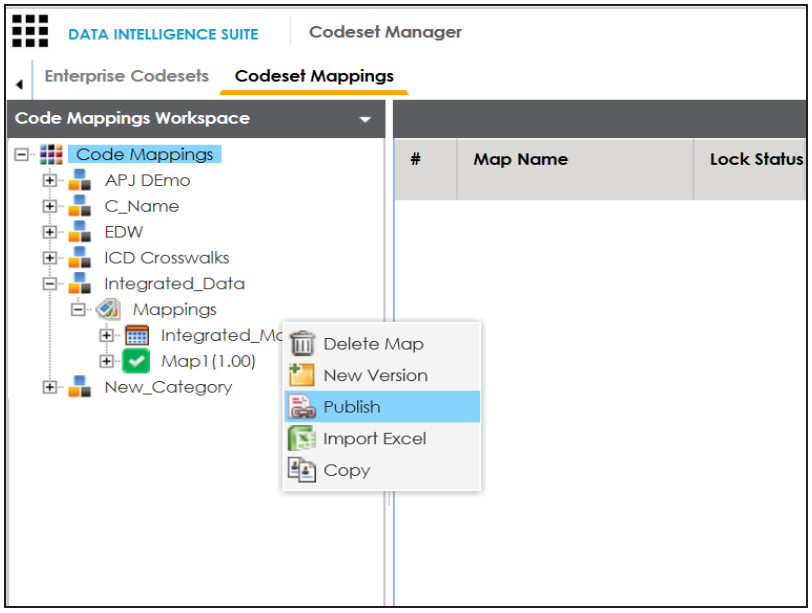
Before associating a code mapping with a data item mapping, you need to publish the code map.

Associating code mappings with data item mappings involves:

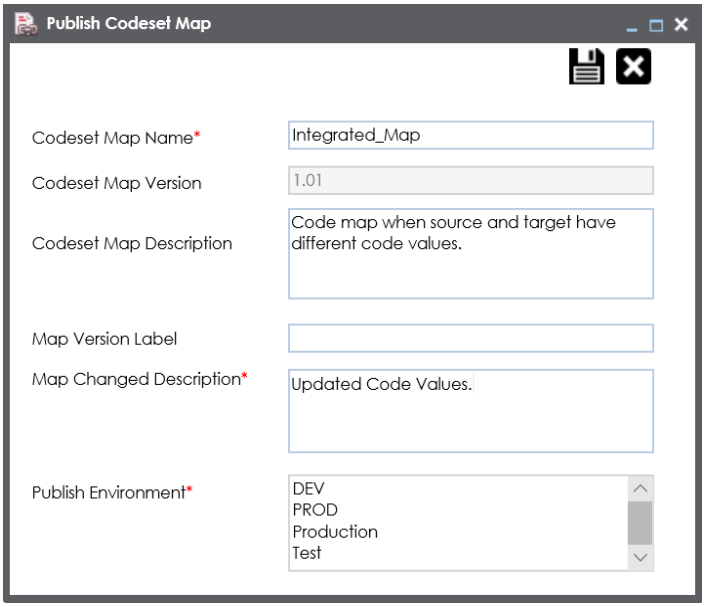
- Publishing code maps in the Codeset Manager
- Associating code maps with data item mappings in the Mapping Manager

To publish code maps, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Codeset Manager** > **Codeset Mappings**.
2. Under the **Code Mappings Workspace** pane, right-click the required map.



The Publish Codeset Map page appears.



3. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

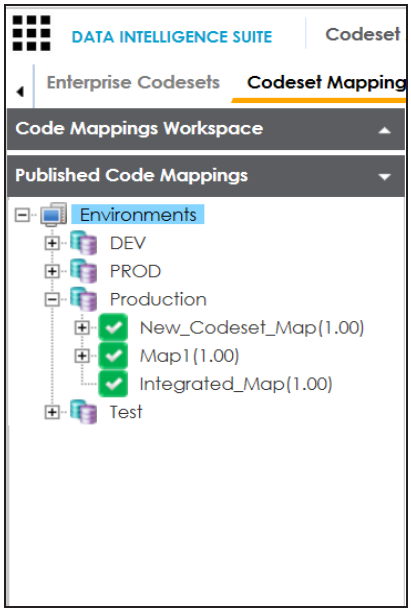
Field Name	Description
Codeset	Specifies the name of the code map.

Field Name	Description
Map Name	For example, Gender Crosswalk.
Codeset Map Version	Specifies the new version of the code map. For example, 1.02.
Codeset Map Description	Specifies the description about the code map. For example: The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.
Map Version Label	Specifies the version label of the code map. For example, Beta.
Map Changed Description	Specifies the description about the changes made in the code map. For example: Code values were updated.
Publish Environment	Specifies the environment where the code map is being published. For example, test. You can create publish environments in Enterprise Codesets. For more information on creating publish environments, refer to the Publishing Codesets topic.

4. Click .

   The codeset map is published and it can be found in the Published Code Mappings pane under the selected Publish Environment.

   A new version of the codeset map is created under the Mappings tree.

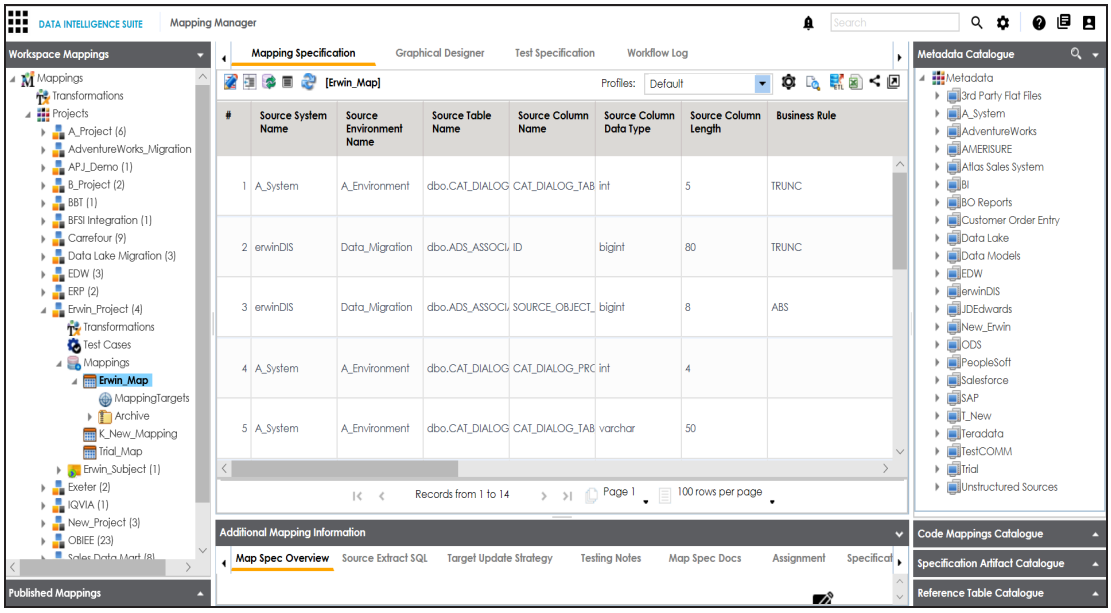


A published code map can be associated with a mapping in the Mapping Manager. The published code map is available under the Code Mappings Catalogue.

To associate published code maps with data item mappings, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

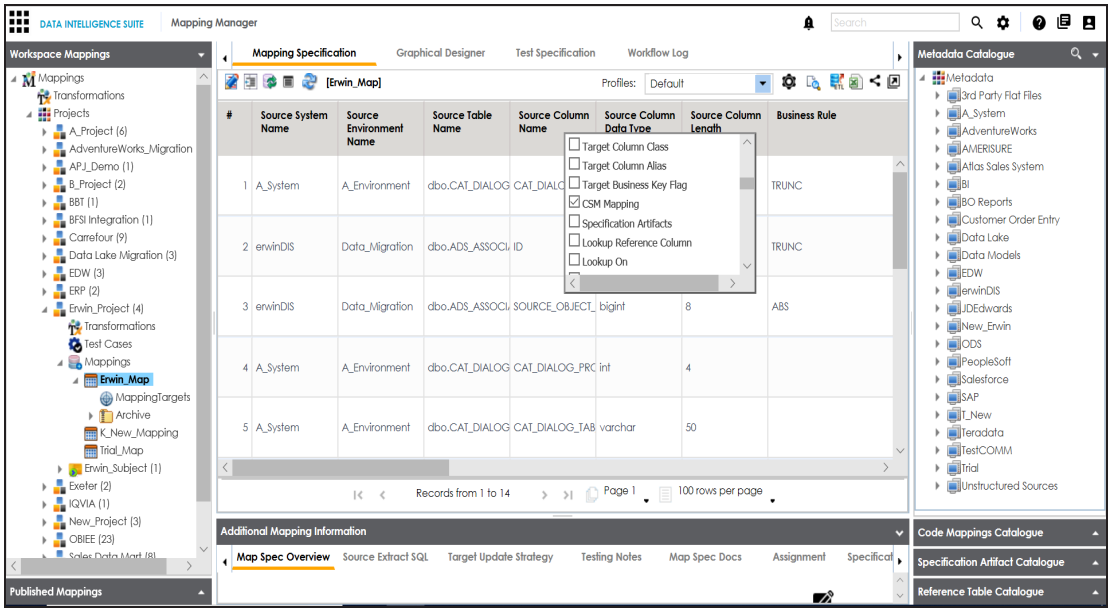
   The center pane shows the mapping specification.



3. In **Mapping Specification**, click .

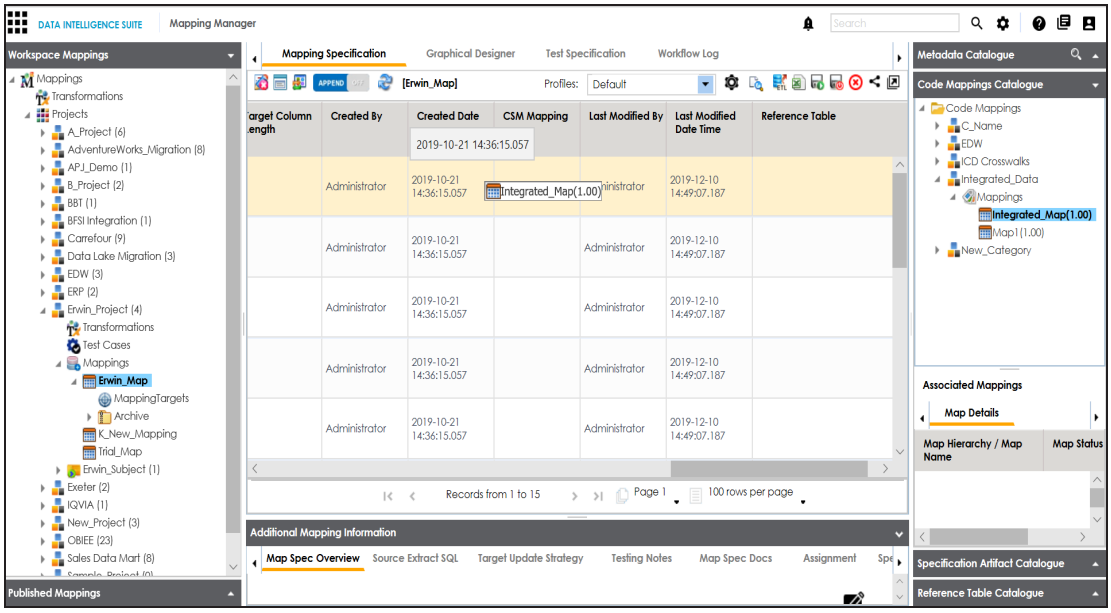
4. Right-click **Header Menu** and select the **CSM Mapping** check box.

   The CSM Mapping Column appears in the Mapping Specification.



5. On right pane, expand **Code Mapping Catalogue**.

6. Expand the required category, which contains the code crosswalks to be associated with the data item mapping.
7. Drag the code map into **Mapping Specification** and drop it under the **CSM Mapping** column in the required row.



8. In **Mapping Specification**, Click .

   The code map is associated with the data item mappings.

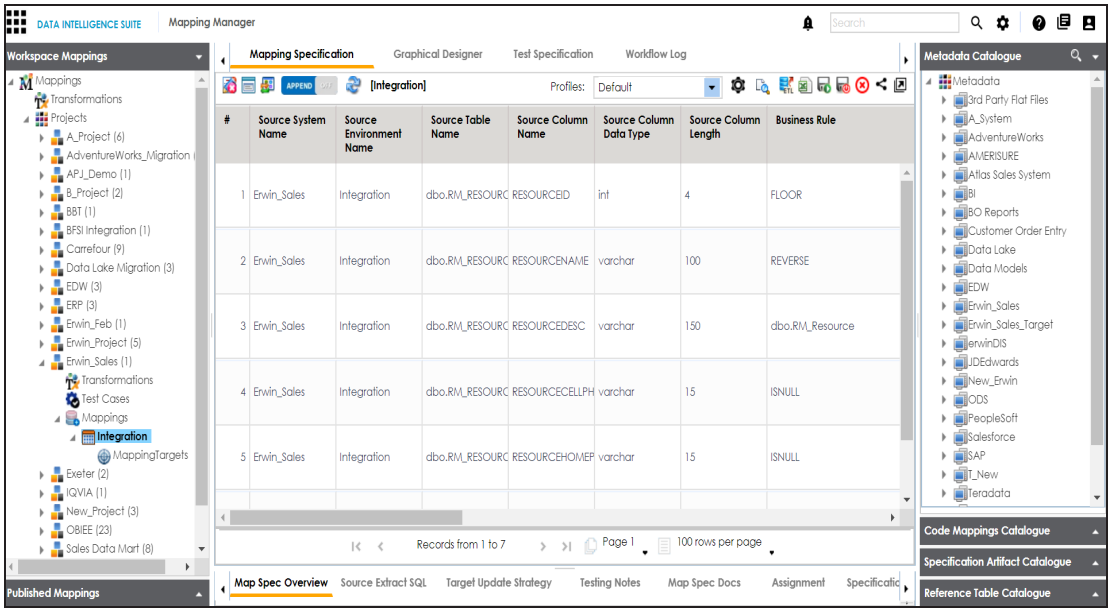
Associating Reference Tables with Mappings

The reference table must be published before you plan to link it with mappings.

To associate reference tables with Mappings, follow these steps:

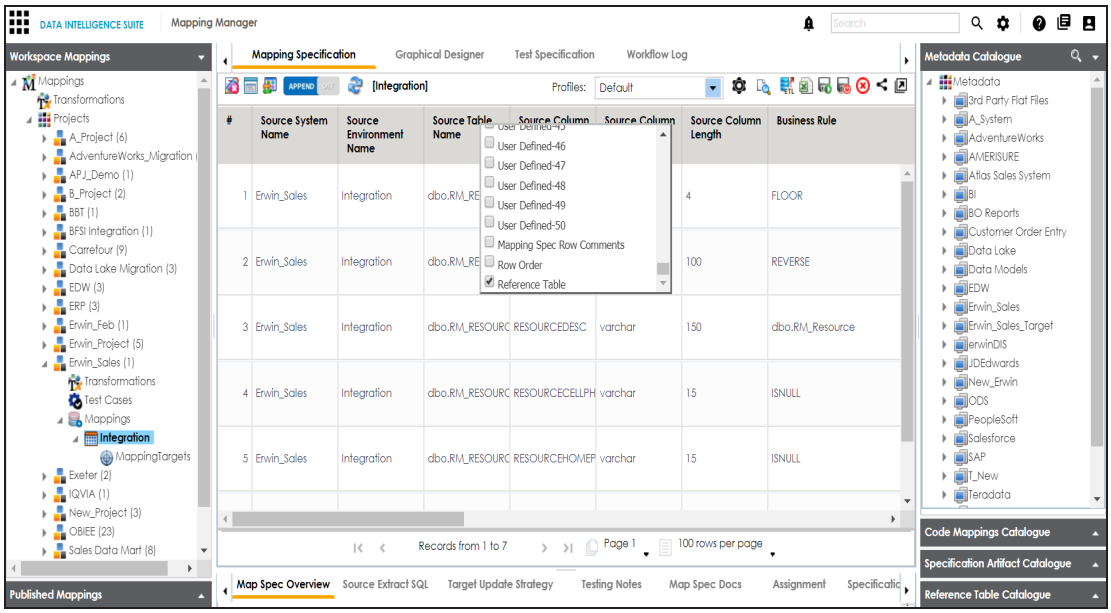
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, the desired project.
3. Expand the **Mappings** node and click the desired mappings.

   The Mapping Specification grid appears.



4. Click .

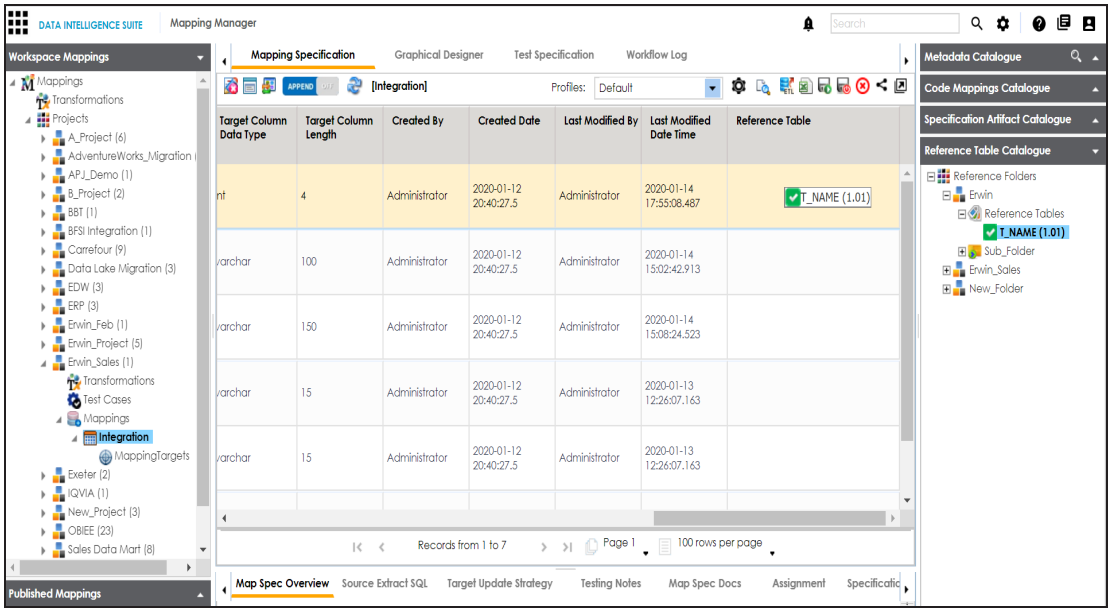
5. Right-click the **Header Menu** and select the **Reference Table** check box.



The **Reference Table** column becomes visible in **Mapping Specification** grid.

6. Drag and drop the reference table from **Reference Table Catalogue** to the required row under the **Reference Table** column.

   Note: You can associate multiple source columns with the reference tables.



7. Click .

   The Mapping Specification is saved and the reference table is associated with the mappings.

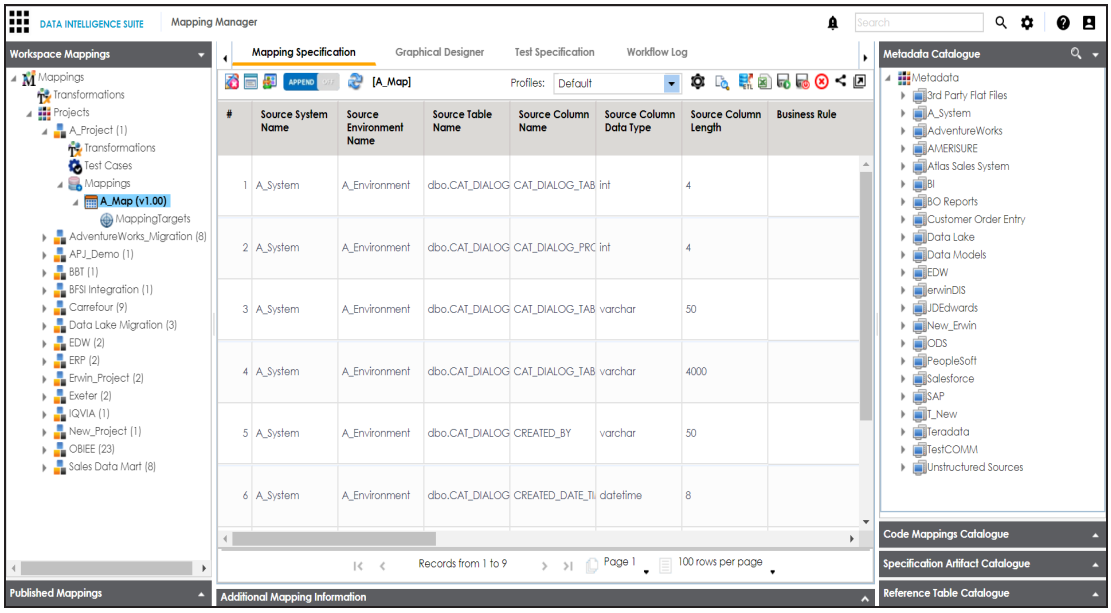
Linking Requirements to Mappings

You can link your functional requirements to data mappings. This helps in enterprise level traceability between requirements and mappings.

To link your functional requirements to mappings, follow these steps:

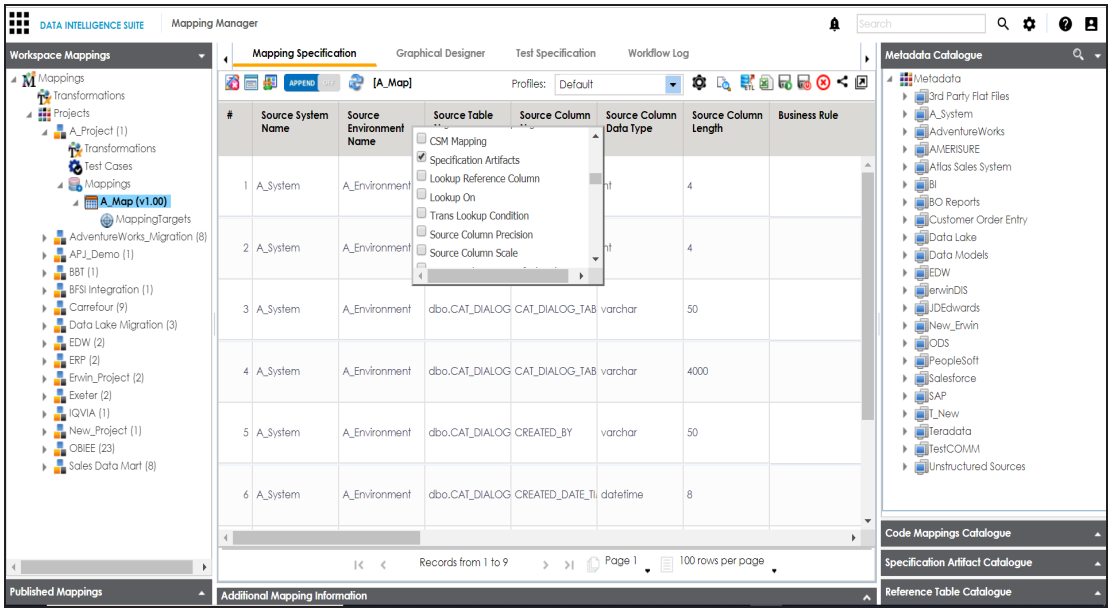
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Click the required map.

   The Mapping specification page appears.



3. In **Mapping Specification**, right click the **Header Menu**.

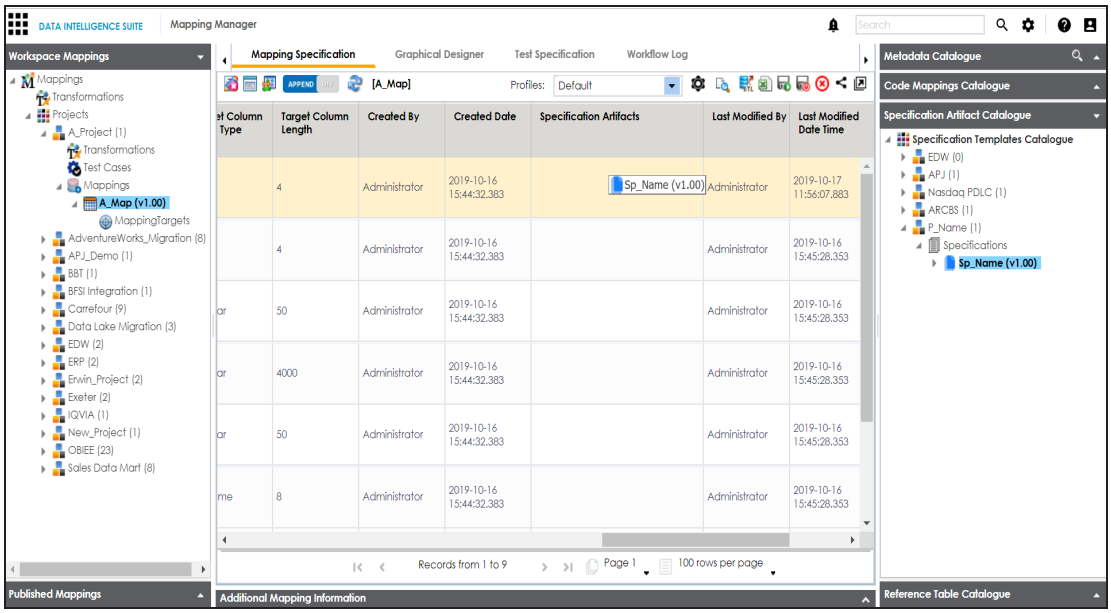
   A list of header columns appears.



4. Scroll down the header column list and select the **Specification Artifact** check box.

   Specification Artifact column becomes visible in the Mapping Specification.

5. In right pane, expand **Specification Artifact Catalogue**.
6. In **Specification Artifact Catalogue**, expand the project node which contains the required specification.
7. Drag and drop the specification on the **Specification Artifacts** column in the required row.



8. Click .

   Requirements are linked to the mappings.

Publishing and Creating Versions of Mappings

This section walks you through the process of publishing mappings to corresponding source or target production environments. Production environments of the source and the target are defined in the Metadata Manager. You can also create new versions of the mappings while archiving the older versions.

It involves:

- Creating versions of maps
- Base-lining Projects
- Comparing two different mapping versions

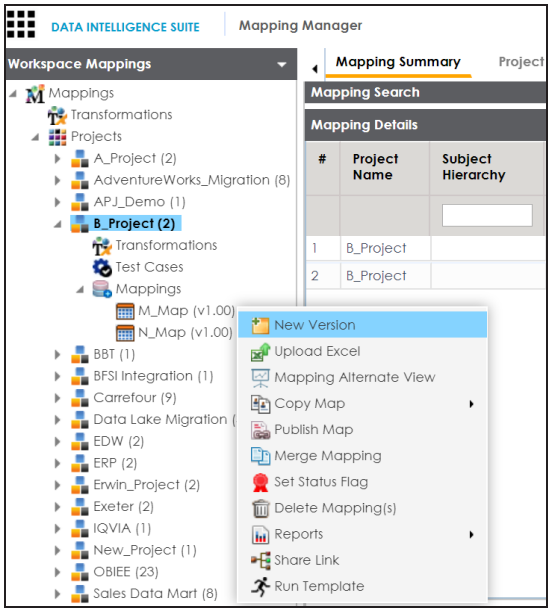
- Publishing mappings
- Restoring archived maps as active

Creating Versions of Maps

You can create new version of maps and track history of changes made in the mapping specification. You can also notify and send mail comments to all the project users about the creation of new version. For more information on notifying project users, refer to the Configuring Notifications topic.

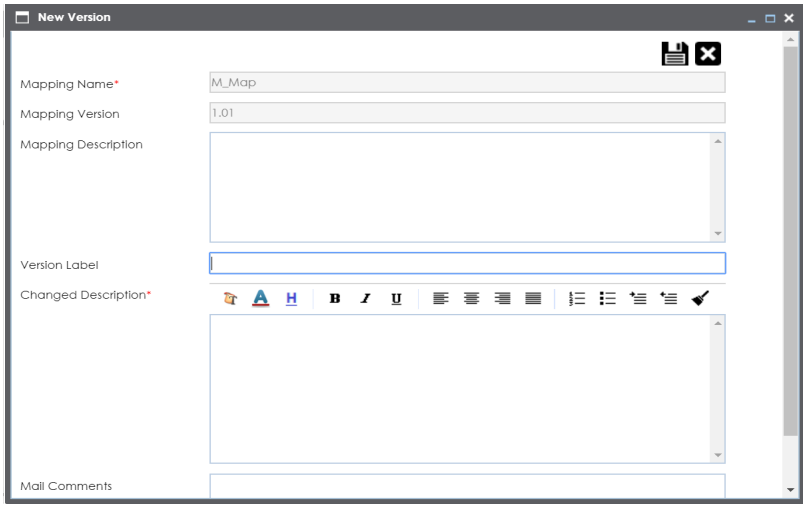
To create versions of maps, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click a map.



3. Click **New Version**.

   The New Version page appears.



4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

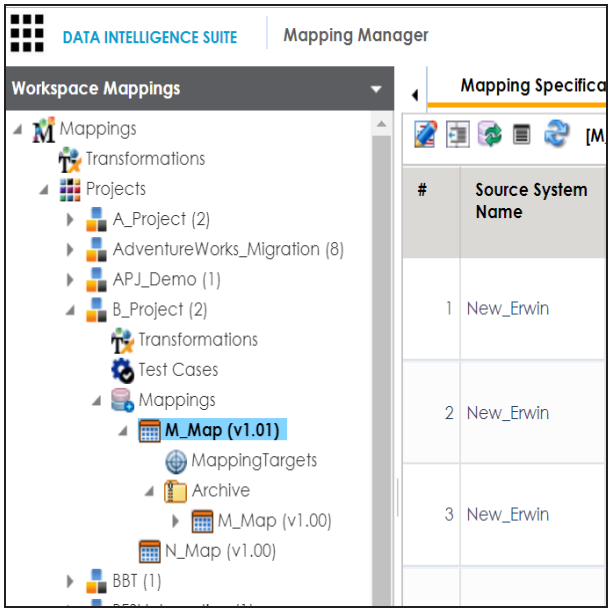
Field Name	Description
Mapping Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail.
Mapping Version	Specifies the new version of the mapping specification. For example, 1.02.
Mapping Description	Specifies the description about the mapping. For example: This is a map between EDW source and IDS target systems.
Version Label	Specifies the version label of the mapping specification. For example, Beta. For more information on configuring version display of mapping specifications, refer to the Configuring Version Display topic.
Changed Description	Specifies the description of the changes made in the mapping specification. For example: A business rule for a source column was added.
Mail Comments	Specifies the mail comments, which can be sent to the project users through an email notification. For example: Target update strategy is not updated.

Field Name	Description
	For more information on configuring notifications, refer to the Configuring Notifications topic.

5. Click .

   A new version of the map is created and the previously active version moves under the archive folder.

   Note: Archived maps are in read-only mode and cannot be edited.

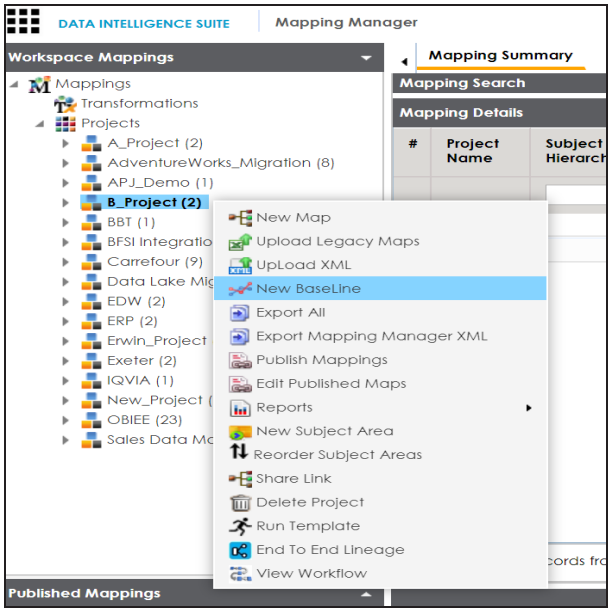


Base-lining Projects

Base-lining a project will bring all maps in the project to the same version. You can base-line all the maps in a project and record change description and notify all the project users and send mail comments to them.

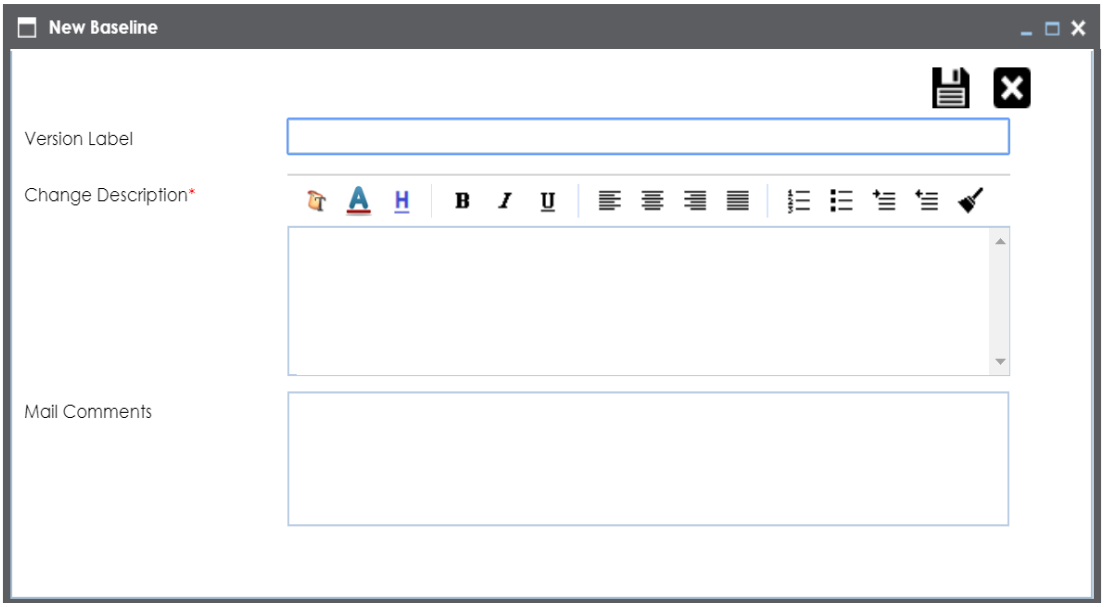
To base-line a project, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click a project.



3. Click **New Baseline**.

   The New Baseline page appears.



4. Enter **Version Label**, **Change Description**, and **Mail Comments**.

   For example:

- Version Label - Beta. For more information on version display, refer to the Configuring Version Display topic.
- Change Description - Business rule for all the source column was changed to ASCII.
- Mail Comments - The target update strategy needs to be updated. For more information on notifying project users, refer to the Configuring Notifications topic.

5. Click .

   The project is base-lined and all the maps in the project now have the same version. Project users receive email notifications about the base-lining and mail comments, if you enable notifications for it. For more information on configuring notifications, refer to the Configuring Notifications topic.

Comparing Two Different Mapping Versions

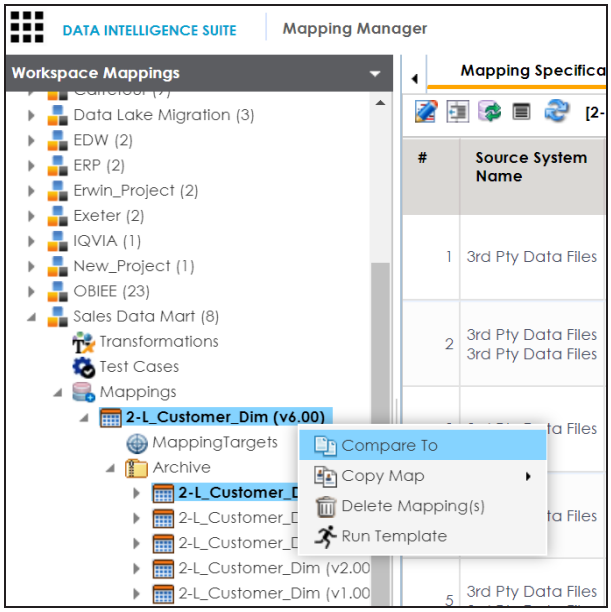
The advanced mapping comparison ability allows you to quickly and efficiently compare any two mappings. You can view the changes on a row by row basis.

To compare two different mapping versions, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, expand the desired project node.
3. Expand the **Mappings** node nested under the project.
4. Select the two mapping versions.

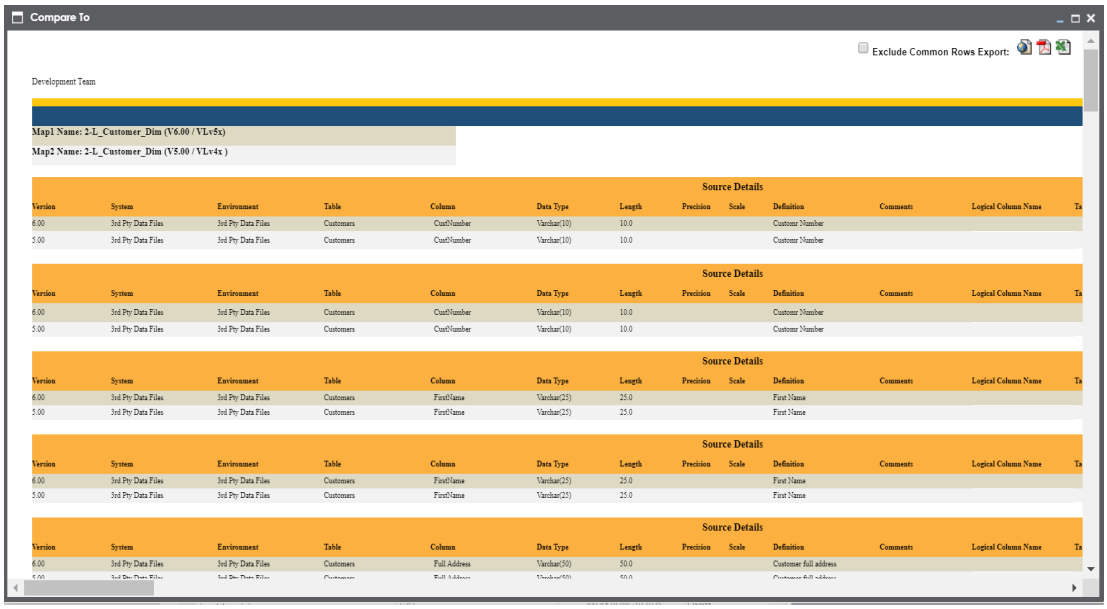
   Note: Use shift keys to select the two mapping versions.

5. Right-click the selection.



6. Click **Compare To**.

   The Compare To page appears.



   All the changes are highlighted in red color and the report can be exported in the desired format by clicking or or .

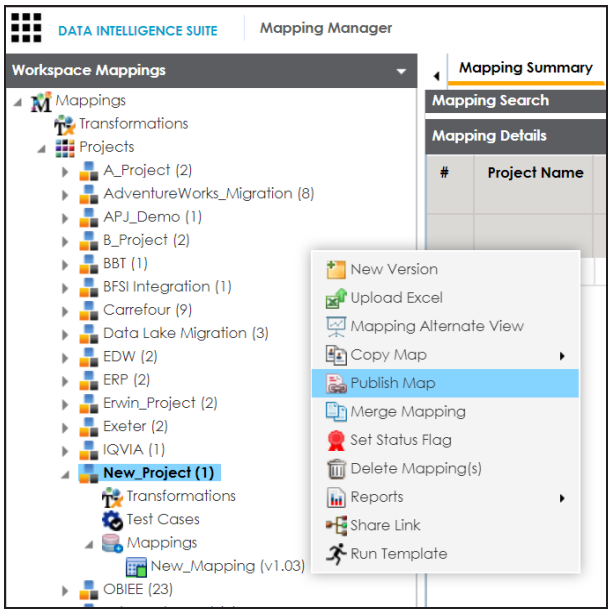
Publishing Mappings

Before publishing mappings, please make sure that the source environment and the target environment have their corresponding production environments.

You can publish a map on an effective date and enter publishing notes.

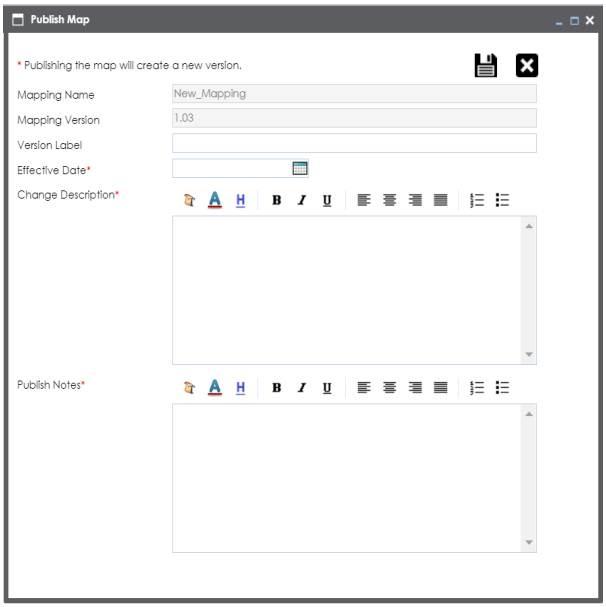
To publish mappings, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the required map.



3. Click **Publish Map**.

   The Publish Map page appears.



4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Mapping Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail. It is autopopulated and you cannot edit this field.
Mapping Version	Specifies the version of the mapping specification. For example, 1.00. It is autopopulated. For more information on configuring version display of maps, refer to the Configuring Version Display topic.
Version Label	Specifies the version label of the mapping specification. For example, EDW_PROD_IDS_Benefits_Detail (Alpha). For more information on configuring version display of maps, refer to the Configuring Version Display topic.
Effective Date	Use to enter the effective date of publishing. For example, 04/02/2020.

Field Name	Description
Change Description	Specifies the description for changes made in the mapping specification. For example: Business rule was modified from ABORT to ASCII for the source column ID.
Publish Notes	Specifies the publish notes about the mapping specification. For example: The mapping specification is approved for publishing on 1 Feb 2020.

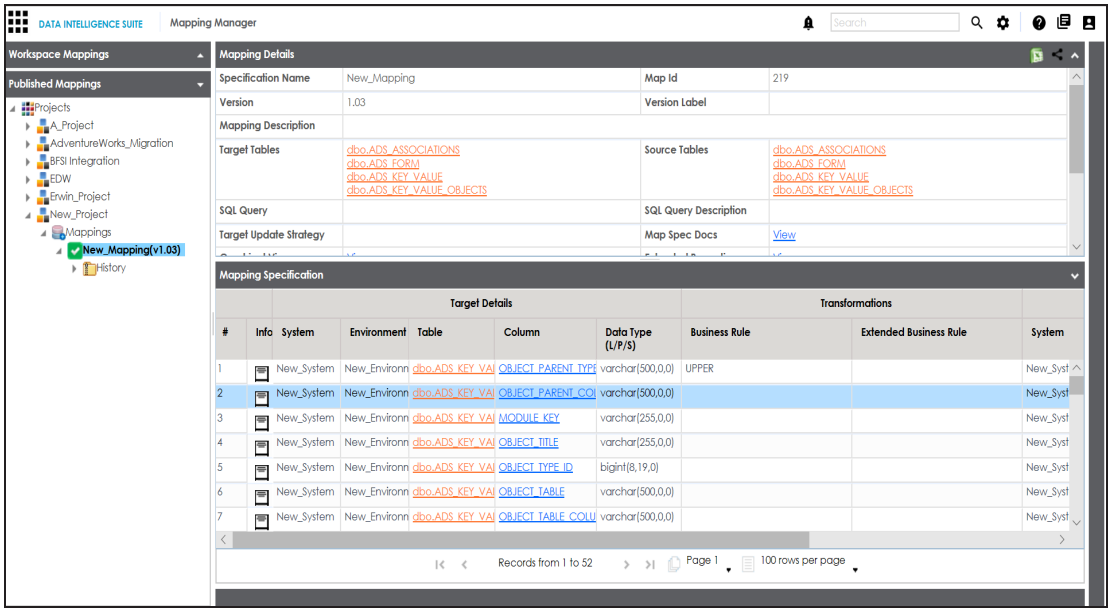
5. Click .

   The mapping is published on the effective date and saved in **Published Mappings**. The source and the target environments in the published mapping are updated to their corresponding production environment. All previously published versions of the same mapping are stored in the History folder. A published mapping cannot be edited.

   A new version of the mapping is automatically created in **Workspace Mappings** which can be edited.

6. Under the **Published Mappings** pane, click the published map to view Mapping Details and Mapping Specification.

   The business view of the mapping appears which can be used to run impact analysis, lineage analysis, and data quality etc.

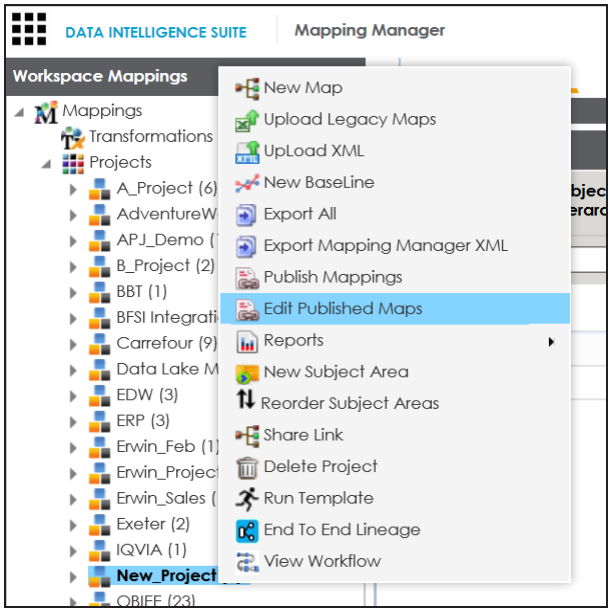


Note: In Mapping Specification, the target and source environment are updated to their corresponding production environment.

You can edit a published map before the effective date of publishing. It enables you to update the effective date of publishing and publishing notes.

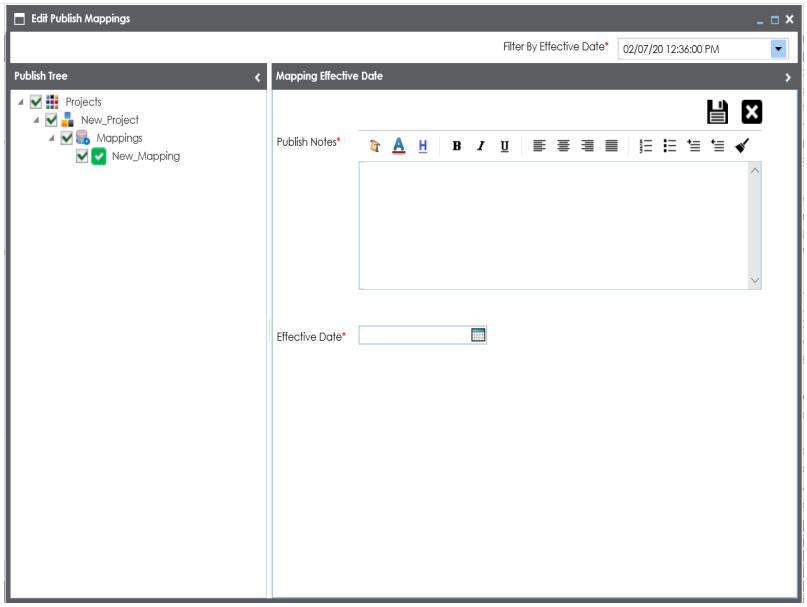
To edit published maps, follow these steps:

1. Under the **Workspace Mappings** pane, right-click a project containing the published map.



2. Click **Edit Published Maps**.

   The Edit Publish Mappings page appears. You can filter the mappings using **Filter by Effective Date** option.



3. Under the **Publish Tree** pane, select the published map.
4. Update the Publish Notes and Effective Date.

5. Click .

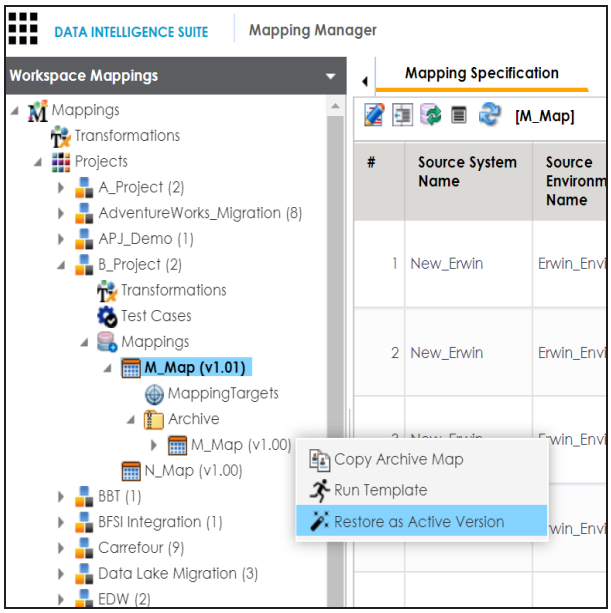
   The published map is updated.

Restoring Archived Maps As Active

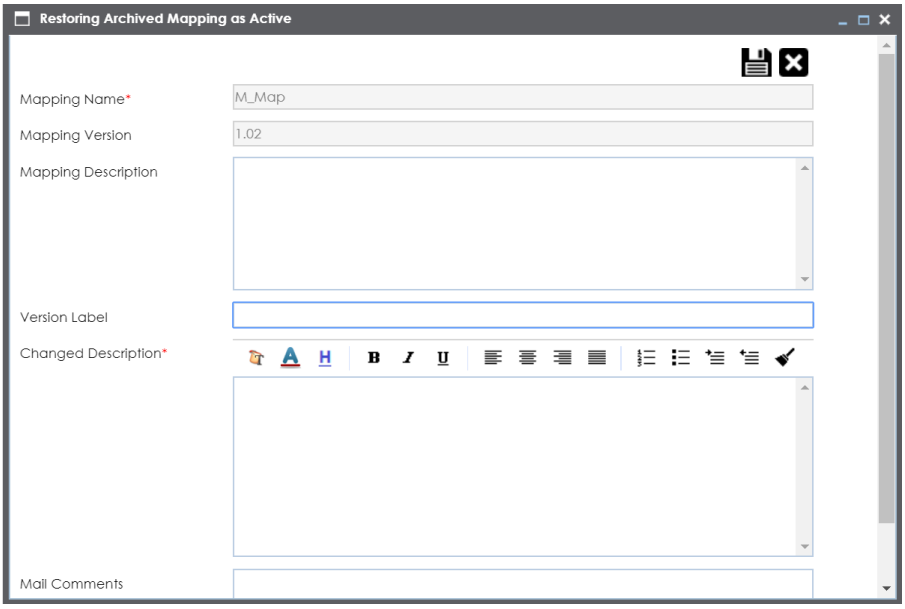
When you create a new version of a map, the older version is archived. The archived map is in read-only mode and cannot be edited. You can restore an archived map as an active map and work on the map.

To restore archived maps as active, follow these steps:

1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the required archived map.



   The Restoring Archived Mapping as Active page appears.



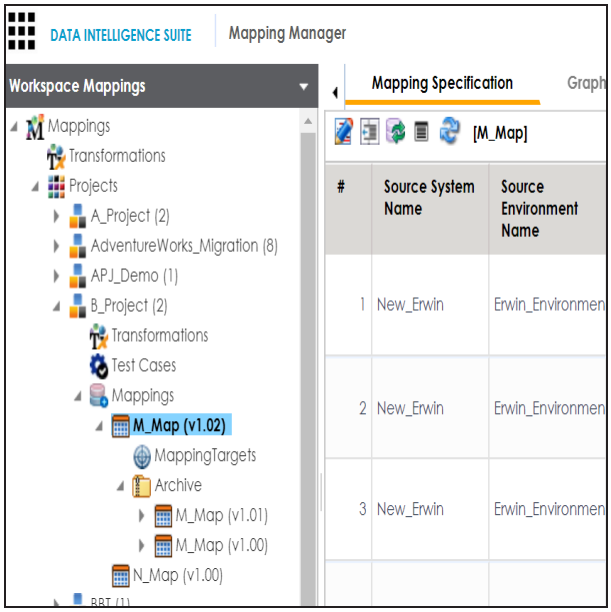
3. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Mapping Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail.
Mapping Version	Specifies the new version of the mapping specification. For example, 1.02.
Mapping Description	Specifies the description of the mapping. For example: This is a map between EDW source and IDS target systems.
Version Label	Specifies the version label of the mapping specification. For example, Beta. For more information on configuring version display of mapping specifications, refer to the Configuring Version Display topic.
Changed Description	Specifies the description of the changes made in the mapping specification. For example: A business rule for a source column was added.
Mail Com-	Specifies the mail comments which can be sent to the project users

Field Name	Description
ments	through an email notification. For example: Target update strategy is not updated. For more information on configuring notifications, refer to the Configuring Notifications topic.

4. Click .

   The archived map is restored as a new version and the existing active map is archived.



Exporting Mapping Specifications

This section walks you through the process of exporting mapping specifications. Once the mappings are approved for coding requirements like ETL Jobs, SQL Scripts, Python Code, Spark Code, DDL Scripts, or Stored Procedures then you can export them.

Exporting mapping specifications involves:

- Exporting mapping specifications into proprietary XML format
- Exporting mapping specifications ETL tools

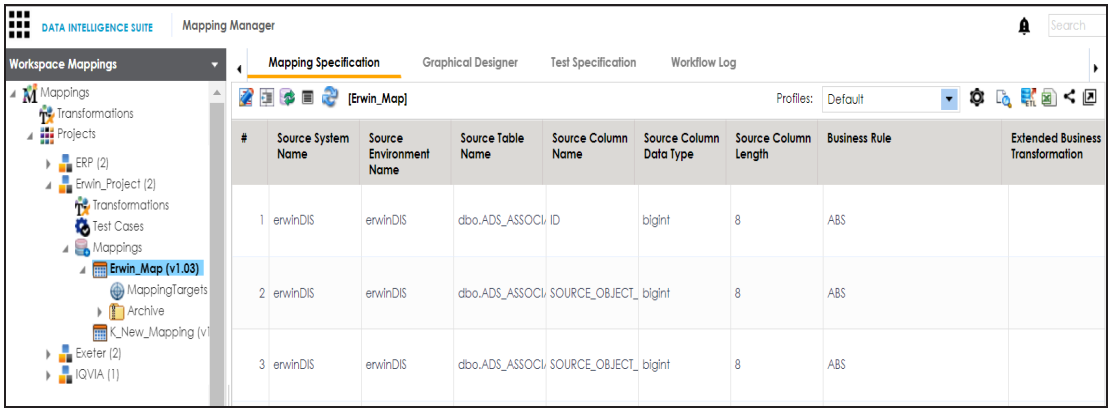
Exporting Mapping Specifications into Proprietary XML Format

Once the mappings are approved for coding, you can export the mappings as coding requirements in the XML format.

To export mapping specifications into proprietary XML format, follow these steps:

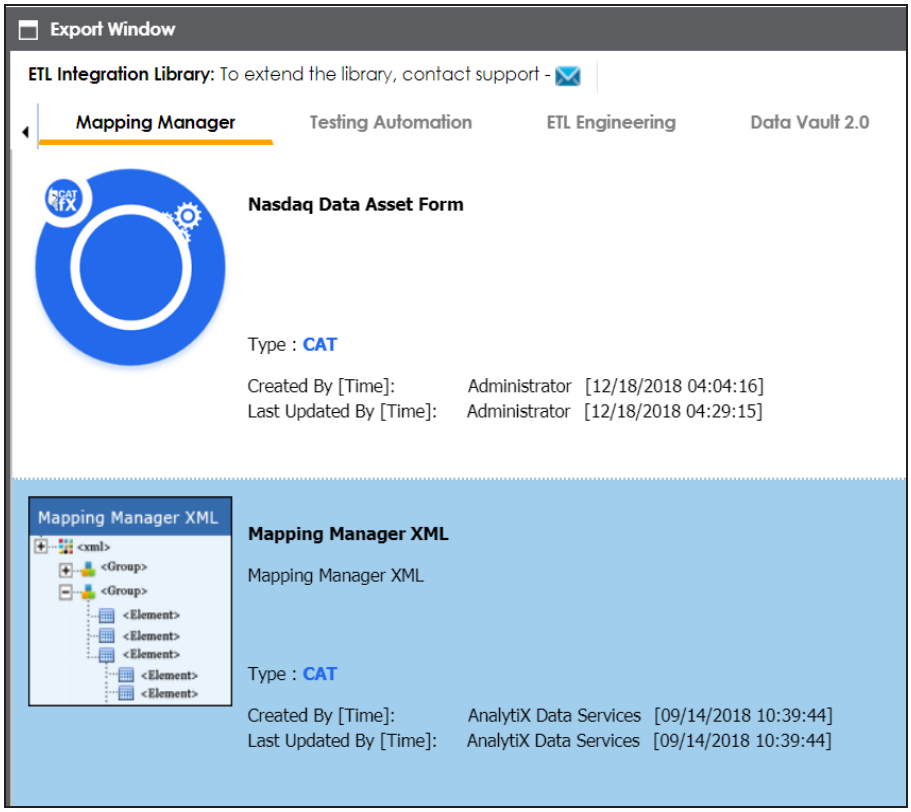
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager**.
2. Under the **Workspace Mappings** pane, click the required map.

   The Mapping Specification grid appears.

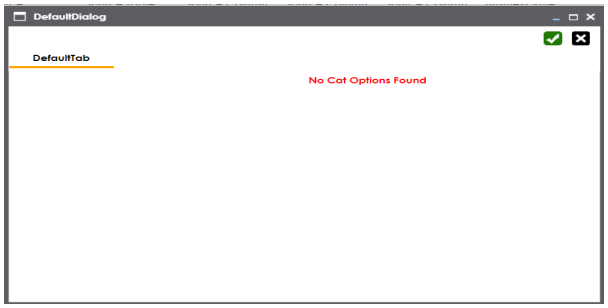


3. Click ETL.

   The Export Window page appears.



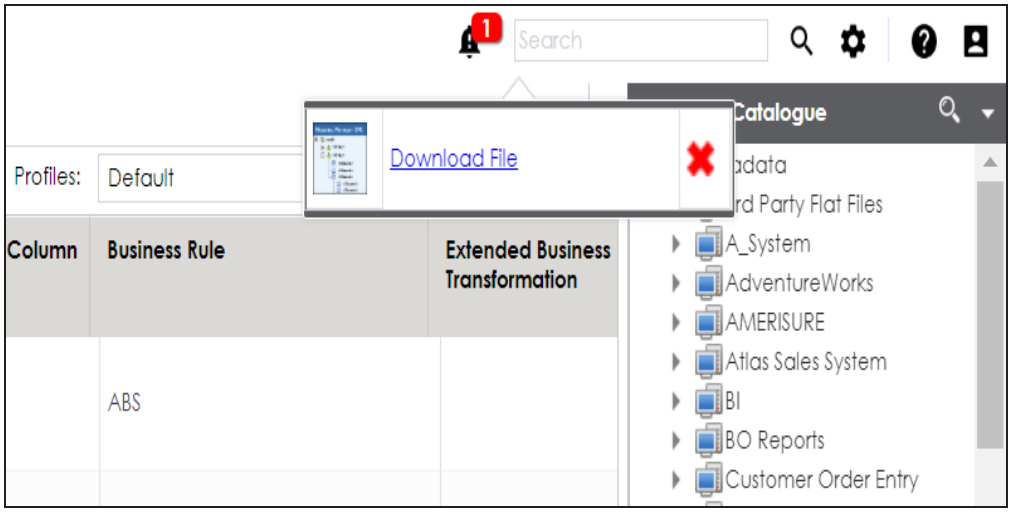
4. Select **Mapping Manager XML** and click .



5. Click .

6. Select the required mappings and click .

   The following notification appears.



7. Click the **Download file** hyperlink.

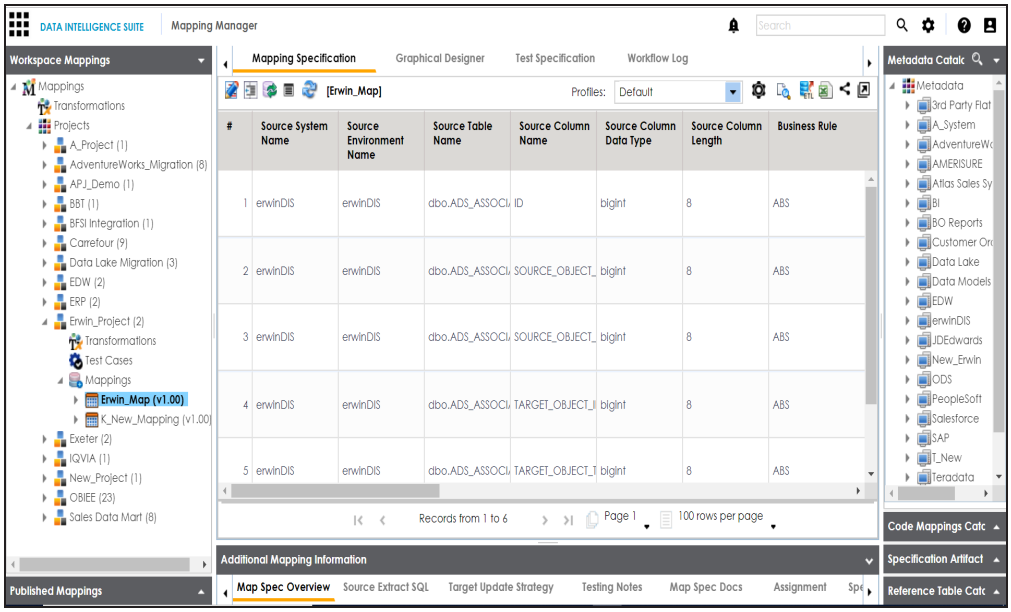
   A ZIP file is downloaded. Unzip this file to use the mapping specification in the XML format.

Exporting Mapping Specifications to ETL Tools

Once the mappings are considered 'approved for coding', you can export the mappings as coding requirements to automatically generate ETL/ELT jobs for industry leading ETL tools like Informatica PowerCenter, IBM DataStage, Microsoft SQL Server SSIS, and Talend.

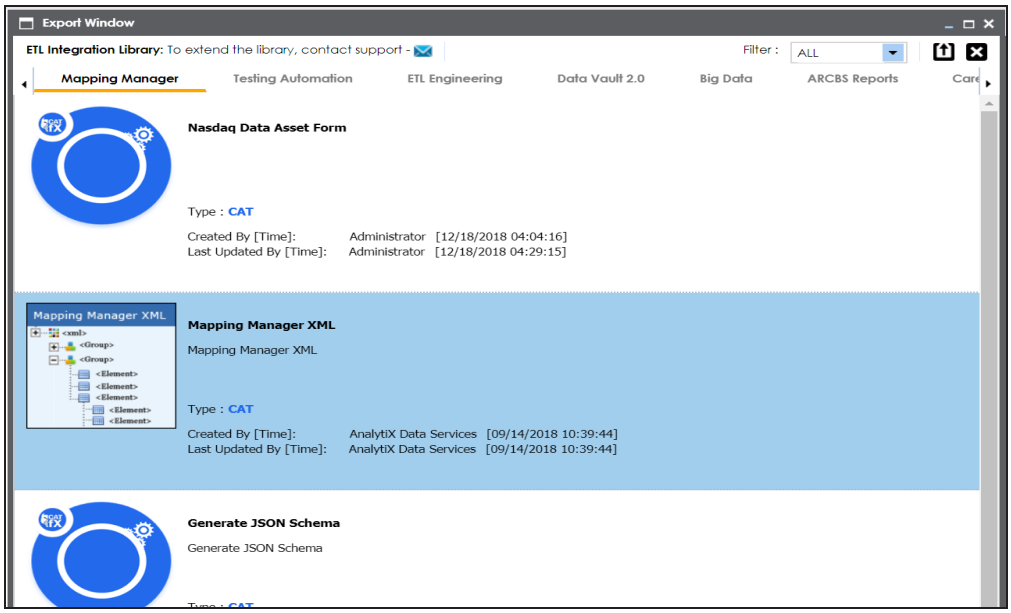
1. Go to **Application Menu** > **Data Catalog** > **Mapping Manager** > **Workspace Mappings**.
2. Expand the desired project node and click the desired mapping.

   The **Mapping Specification** tab appears on the center pane.

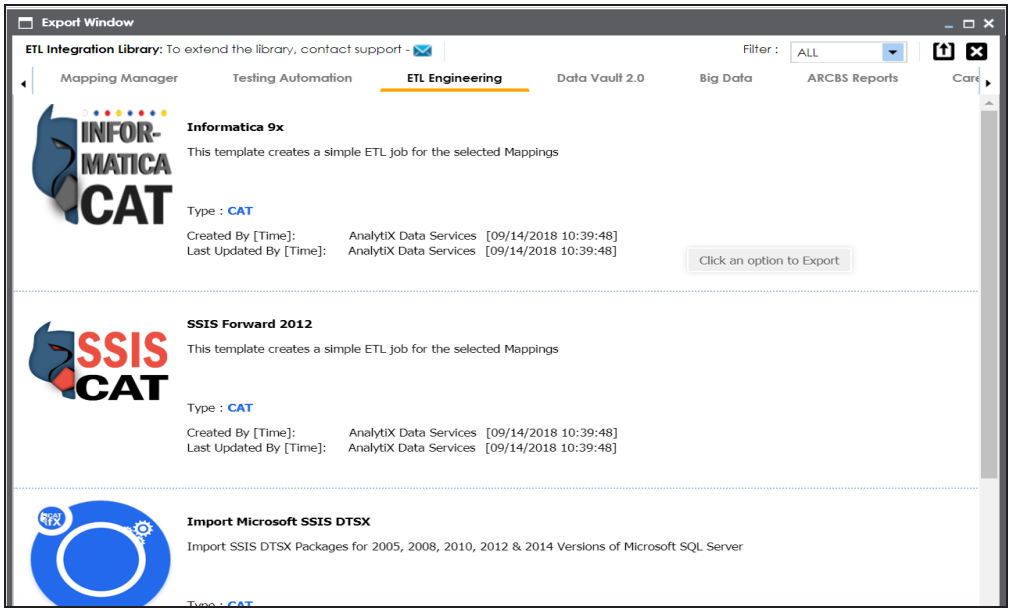


3. Click .

   The **Export Window** appears.

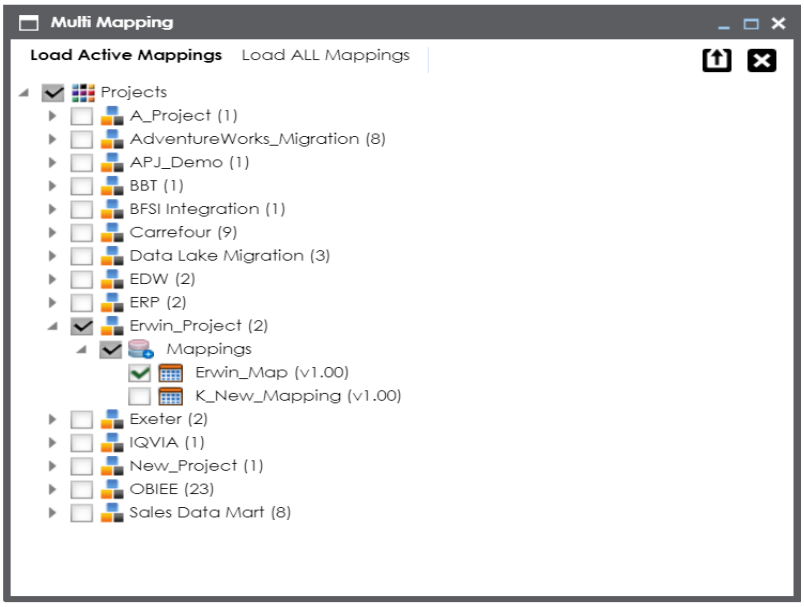


4. Click **ETL Engineering** tab.

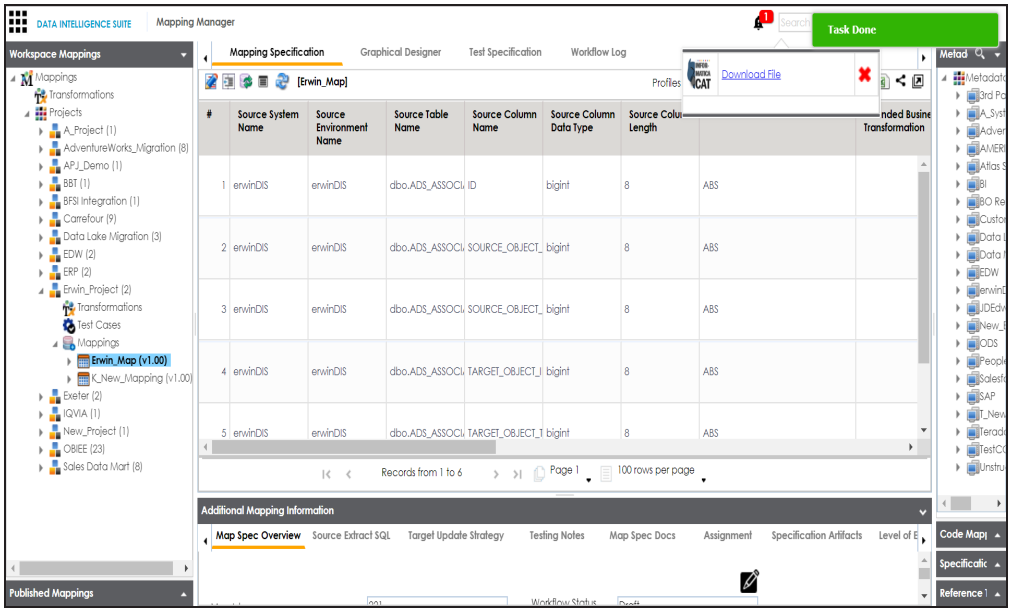


5. Select the desired ETL tool and click .

   Multi Mapping page appears.



6. Select the mapping to be exported from the tree and click .
7. Download the XML / DTSX file by clicking the **Download File** hyperlink.



The mapping specification is exported.