



erwin Data Intelligence

Reference Data Management Guide

Release v12.0

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Managing Reference Data

This section walks you through reference data and codeset management.

- Reference data management is done via Reference Data Manager. It involves creating database like structures to maintain all your reference data. You can add reference data in a reference table from a spreadsheet, manually or via a DB scan. To validate reference tables for data quality tests, you can use SQL queries. You can also version, publish (to environments like production, development, test etc.), and link the reference tables to relevant mappings.

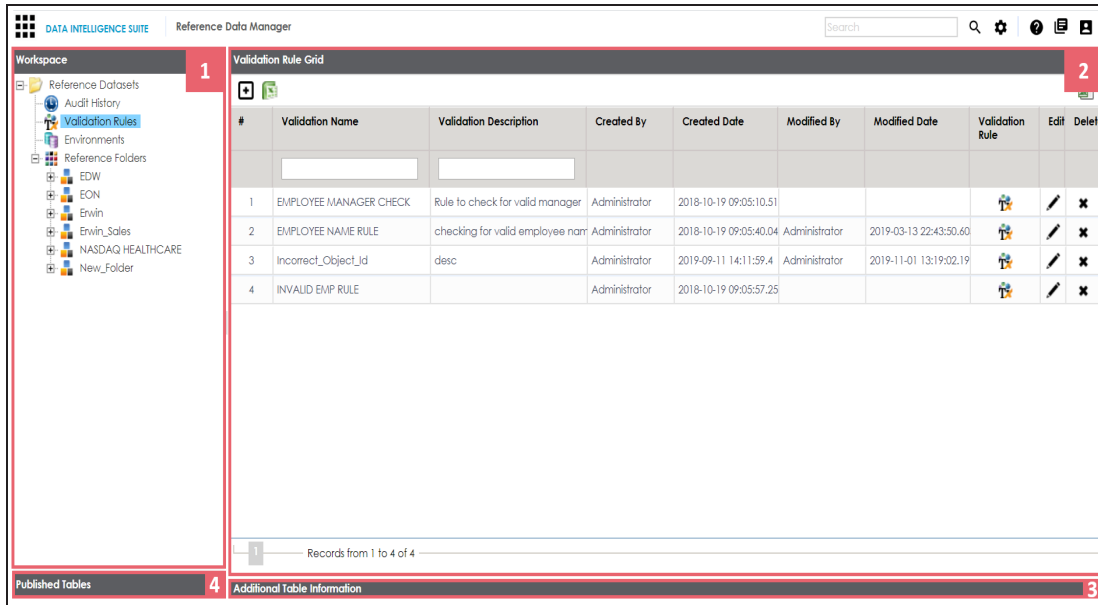
For further information on accessing and using the Reference Data Manager, refer to the [Using Reference Data Manager](#) topic.

- Codeset management is done via Codeset Manager. It involves creating, managing, and mapping codesets in the Codeset Manager. It has two sections:
 - **Enterprise Codesets:** Under the Enterprise Codesets section, you can create and manage codesets. It involves importing legacy codesets, categorizing codesets, defining code values, versioning codesets, and publishing codesets to various environments.
 - **Codeset Mappings:** Under the Codeset Mappings section, you can create and manage code crosswalks (mappings). It involves categorizing code mappings, defining code crosswalks, versioning code crosswalks, and publishing code crosswalks to various environments.

For further information on accessing and using the Codeset Manager, refer to the [Using Codeset Manager](#) topic.

Using Reference Data Manager

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



UI Section	Function
1-Workspace	Use this pane to browse and work on validation rules, environments, reference folders, and reference tables.
2-Right Pane	Use this pane to work on the data based on your selection in the Workspace pane.
3-Additional Table Information	Use this pane to view or work on additional information of a reference table selected in the Workspace pane.
4-Published Tables	Use this pane to browse, view, and export published reference tables.

Managing reference data involves the following:

- [Creating reference folders](#)
- [Creating reference tables](#)
- [Creating publish environments](#)

Using Reference Data Manager

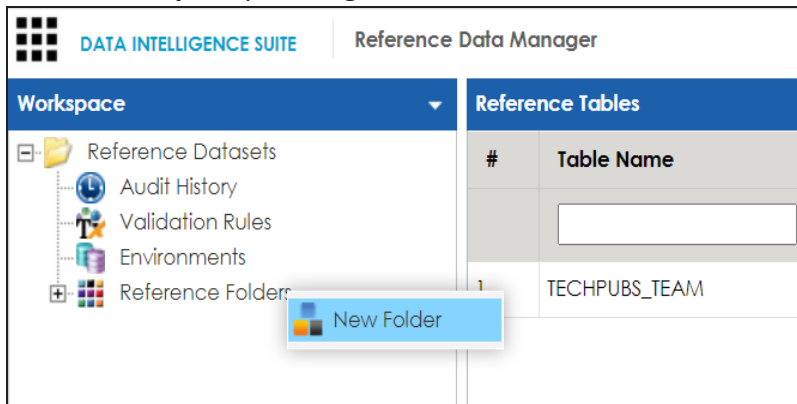
- [Adding validation rules](#)
- [Associating codesets with reference tables](#)
- [Versioning reference tables](#)
- [Publishing reference tables](#)
- [Associating reference tables with mappings](#)

Creating Reference Folders

Reference folders group reference tables based on your data integration project. Therefore, before creating reference tables, you need to create a reference folder. You can also create sub-folders to group reference tables further.

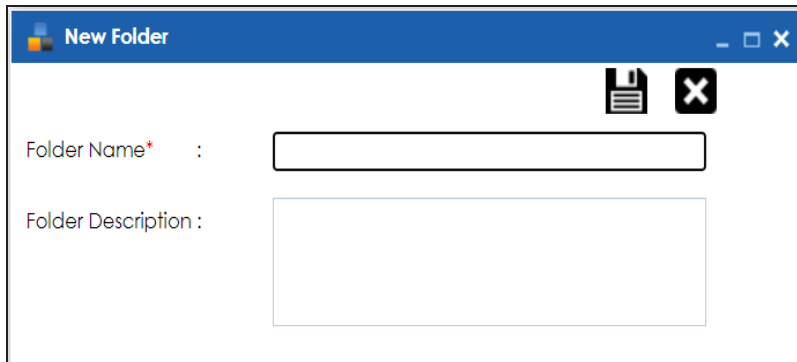
To create reference folders, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click the **Reference Folders** node.



3. Click **New Folder**.

The New Folder page appears.



4. Enter the **Folder Name** and **Folder Description**.

For example:

Creating Reference Folders

- **Folder Name:** City Names
- **Folder Description:** This folder contains reference tables for city names.

5. Click .

The folder is created and saved in the Reference Folders tree.

Once a reference folder is created, you can manage it using the options available on right-clicking the reference folder. [Managing reference folders](#) involves:

- Creating sub-folders
- Editing reference folders
- Assigning users
- Deleting reference folders

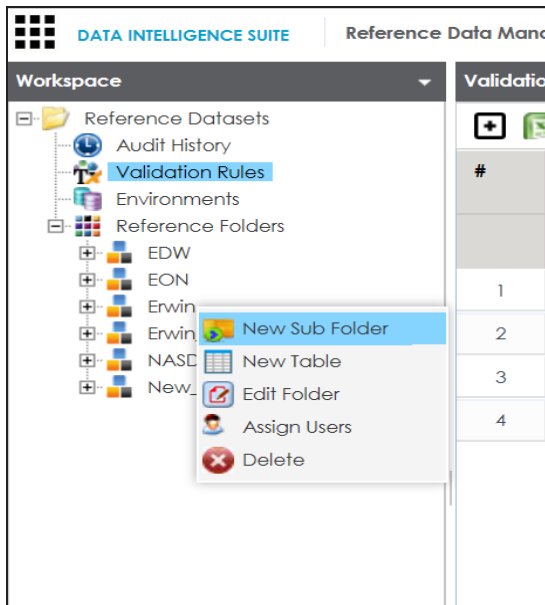
Managing Reference Folders

Managing reference folders involves:

- Creating sub-folders
- Editing reference folders
- Assigning users
- Deleting reference folders

To manage reference folders, follow these steps:

1. In the **Workspace** pane, right-click a reference folder.



2. Use the following options:

New Sub Folder





Use this option to create sub-folders and group reference tables further.

Edit Folder

Use this option to update reference folder's name and description.

Assign Users

Managing Reference Folders

Use this option to assign users to a reference folder based on project, departments, functions, and so on. On the Assign Users page, select user IDs under **User ID** list-box and move them to **Assigned Users** list-box using the arrows ( or ). Similarly, to change existing user assignment, select user IDs under **Assigned Users** list-box and move them back to **User ID** list-box using the arrows ( or .

Delete

Use this option to delete a reference folder that is no more required.

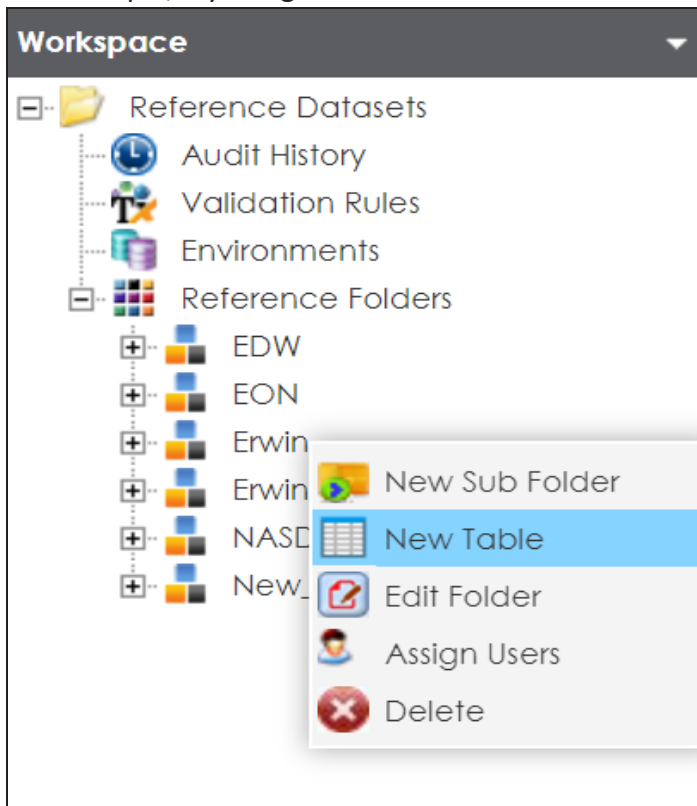
Creating Reference Tables

Reference tables store reference data. You can create reference tables in new or existing reference folders. You can also create reference tables under the reference sub-folders.

To create reference tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click a reference folder or sub-folder.

For example, if you right-click a reference folder the following options appear.



3. Click **New Table**.

The New Reference Table page appears.

Creating Reference Tables

The screenshot shows a 'New Reference Table' dialog box. It includes the following fields and controls:

- Folder Name :** Text input field containing 'Erwin'.
- Table Name* :** Text input field.
- Version :** Text input field containing '1.00'.
- Owner* :** Text input field.
- Data Steward :** Dropdown menu with '-Select Data Steward-'.
- Description :** Text area.
- Import Data from Spreadsheet :** Checkbox.
- Buttons:** 'Save' and 'Cancel' buttons in the top right corner.
- Table:** A table with two columns: 'Column Name' and 'Order'.

- 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
Folder Name	Specifies the name of the reference folder. For example, NASDAQ Healthcare. It is autopopulated and cannot be edited.
Table Name	Specifies the name of the reference table. For example, Data_Classifications_Levels.
Version	Specifies the version of the reference table. For example, 1.00. It is autopopulated and cannot be edited.
Owner	Specifies the reference table owner's name. For example, Talon Smith.

Creating Reference Tables

Field Name	Description
Data Steward	<p>Specifies the name of the data steward responsible for the reference table.</p> <p>For example, Jane Doe.</p> <p>Users assigned with the Legacy Data Steward role appear as drop down options. You can assign this role to a user in the Resource Manager.</p> <p>To assign data steward, select a data steward from the drop down options.</p>
Description	<p>Specifies the description about the reference table.</p> <p>For example: This reference table serves as domain for the data classification column.</p>
Import Data from Spreadsheet	<p>Use this check box to import reference data into the reference table from the XLSX file. For more information, refer to the Importing Data from Spreadsheets section below.</p>

5. Click .

A reference table is created and saved in the Reference Tables tree.

Importing Data from Spreadsheets

To import reference data from MS Excel files, follow these steps:

1. On the **New Reference Table** page, click the **Import Data from Spreadsheet** check box.

Creating Reference Tables

New Reference Table

Next Cancel

Folder Name : erwin Sales

Table Name* : HR_REF_TABLE

Version : 1.00


Owner* : Sojha

Data Steward : John Doe

Description : This is a reference table for HR Dept.

Import Data from Spreadsheet

Drag-n-Drop files here or click to select files for upload.

2. Drag and drop or use  to browse and select the XLSX file.
3. Click **Next**.

The Preview Screen page appears. To exclude a column from the import process, double-click the column header and click **NOT_IN_USE**.

Preview Screen

Table Name: HR_REF_TABLE

To exclude a column from the import process, double click on the column header and select 'NOT_IN_USE'

S.NO	TABLE_NAME	TABLE_DEF	TABLE_COMMENTS	LOGICAL_TABLE_NAME	COLUMN_NAME	COL_DEF	COLUMN_COMMENTS	LOGICAL_COLUMN_NAME
1	dbo.RM_RESOURCE_New				RESOURCEID_New			
2	dbo.RM_RESOURCE_New				RESOURCENAME_New			
3	dbo.RM_RESOURCE_New				RESOURCEDESC_New			
4	dbo.RM_RESOURCE_New				RESOURCECELLPHONE_Ne			
5	dbo.RM_RESOURCE_New				RESOURCEHOMEPHONE_N			
6	dbo.RM_RESOURCE_New				RESOURCEEMAIL_New			

Creating Reference Tables

4. Click .

The reference data is imported into the reference table.

If you do not click the Import Data from Spreadsheet check box, you need to [add columns](#) to the reference table and then add column values:

- [Manually](#)
- [From MS Excel files](#)
- [Through DB scans](#)

You can manage a reference table using the options available on right-clicking the reference table. [Managing reference tables](#) involves:

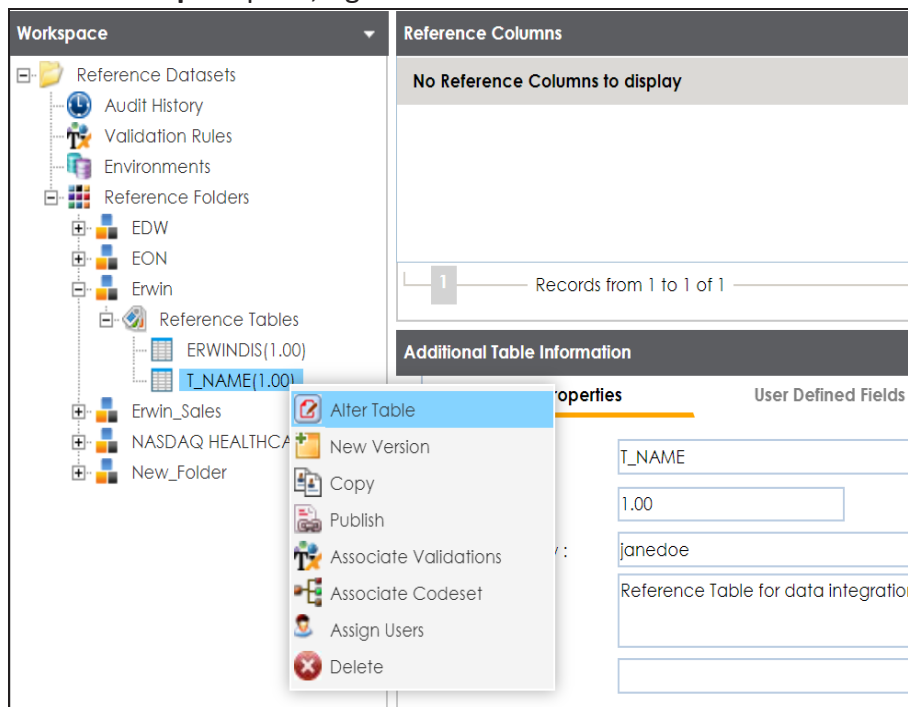
- Altering reference tables
- Copying reference tables
- Assigning users to reference tables
- Deleting reference tables

Adding Columns to Reference Tables

After creating a reference table, you can add columns to the reference table.

To add columns to reference tables, follow these steps:

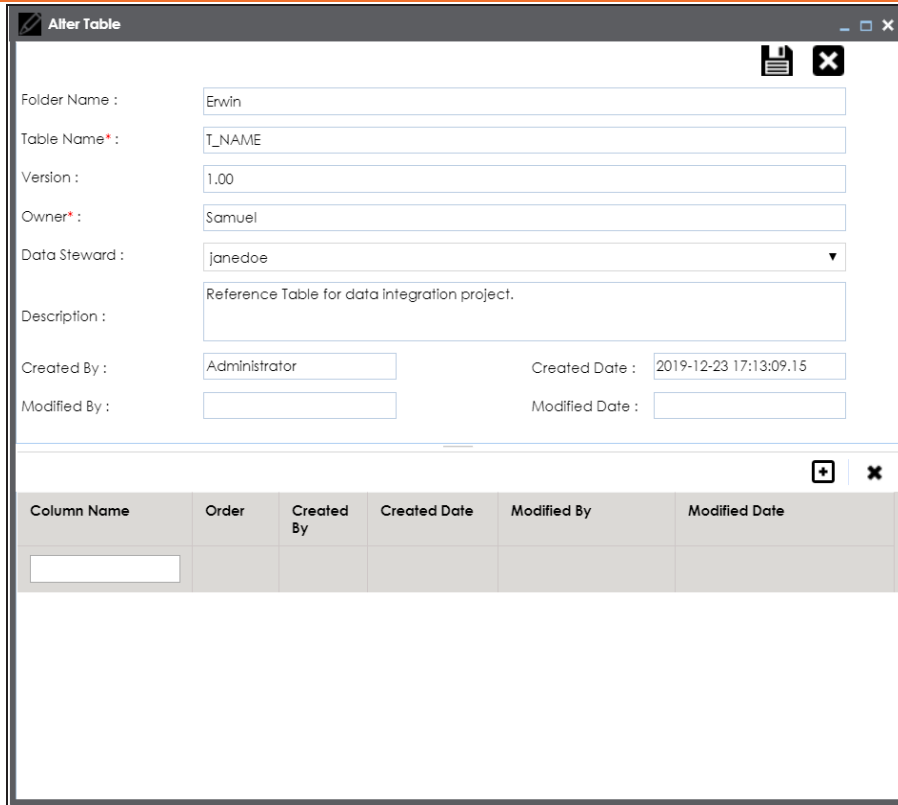
1. In the **Workspace** pane, right-click a reference table.



2. Click **Alter Table**.

The Alter Table page appears.

Adding Columns to Reference Tables



The screenshot shows the 'Alter Table' dialog box with the following fields:

- Folder Name : Erwin
- Table Name* : T_NAME
- Version : 1.00
- Owner* : Samuel
- Data Steward : janedoe
- Description : Reference Table for data integration project.
- Created By : Administrator
- Created Date : 2019-12-23 17:13:09.15
- Modified By :
- Modified Date :

Below the fields is a table grid with the following columns:

Column Name	Order	Created By	Created Date	Modified By	Modified Date

3. Click .

A new row is added to the grid.

4. Double-click the cell under the **Column Name** and enter the column name.

You can add multiple columns.

Adding Columns to Reference Tables

Alter Table

Folder Name : Erwin

Table Name* : T_NAME

Version : 1.00

Owner* : Samuel

Data Steward : janedoe

Description : Reference Table for data integration project.

Created By : Administrator Created Date : 2019-12-23 17:13:09.15

Modified By : Modified Date :

Column Name	Order	Created By	Created Date	Modified By	Modified Date
ID	1				

5. Click .

The columns are added to the reference table.

Workspace

Reference Columns

ID	NAME	CREATED BY	CREATED DATE	MODIFIED BY	MODIFIED DATE
----	------	------------	--------------	-------------	---------------

No Records Found

Once columns are added to a reference table, you can import column values:

- [Manually](#)
- [From MS Excel files](#)
- [Through DB scans](#)

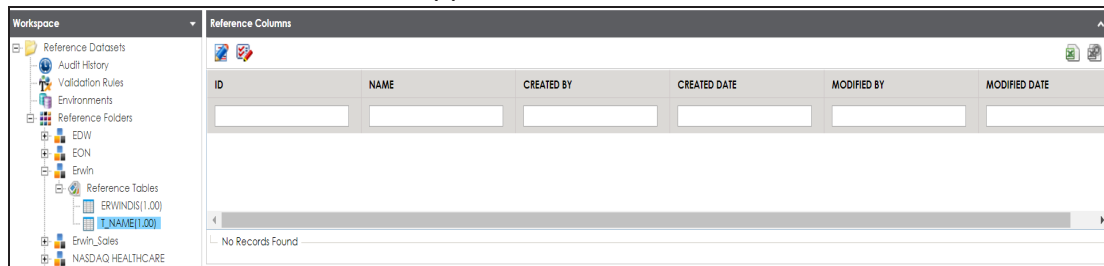
Adding Column Values Manually

You can add data to a reference table manually. It involves adding columns to the reference table and then adding column values. For more information on adding columns to reference tables, refer to the [Adding Columns to Reference Tables](#) topic.

To add column values manually, follow these steps:

1. In the **Workspace** pane, click a reference table.

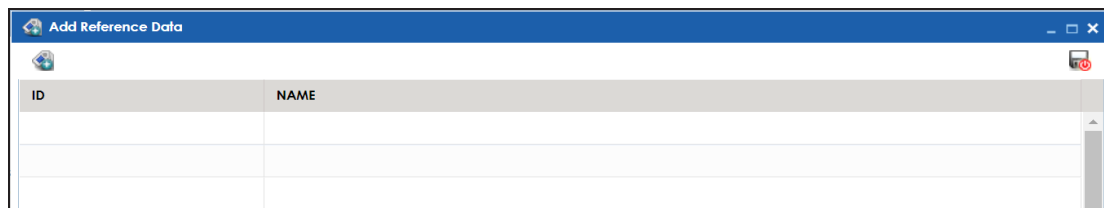
Columns in the reference table appears.



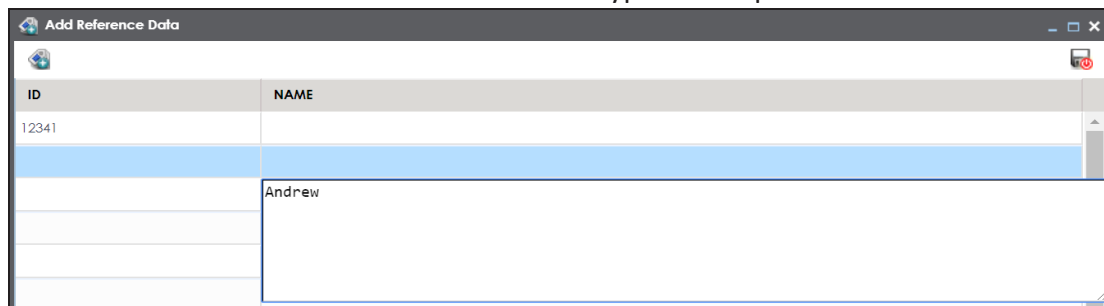
2. Click .

3. Click .

The Add Reference Data page appears.



4. Double-click the cells under the columns and type the respective column values.



Adding Column Values Manually

5. Click .

The column values are added to the reference table.

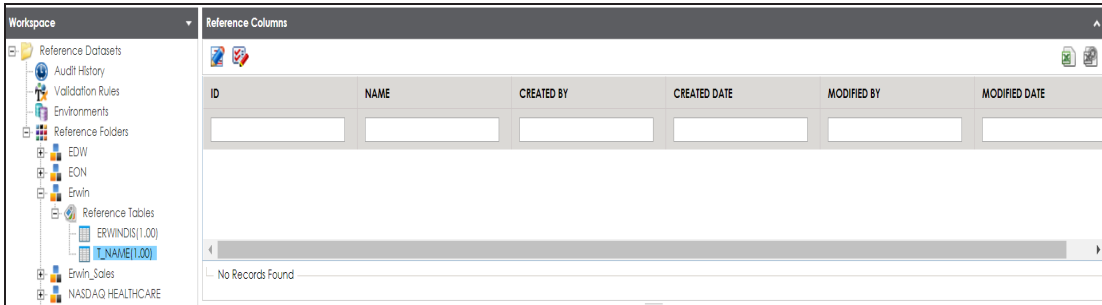
Importing Column Values from MS Excel Files



You can import reference data from MS Excel files into reference tables. First, you need to add columns to a reference table and then import column values from an MS Excel file. For more information on adding columns to reference tables, refer to the [Adding Columns to Reference Tables](#) topic.

To import column values from MS Excel files, follow these steps:

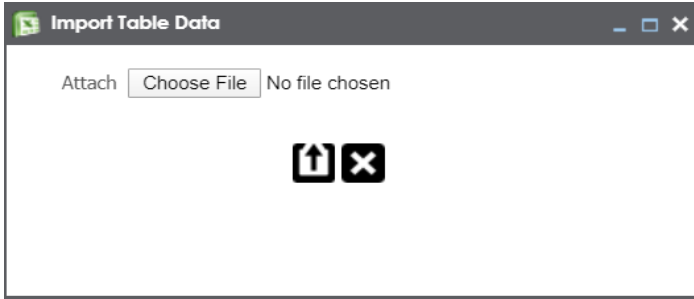
1. In the **Workspace** pane, click a reference table.


Columns in the reference table appear.



2. Click .
3. Click .

The Import Table Data page appears.



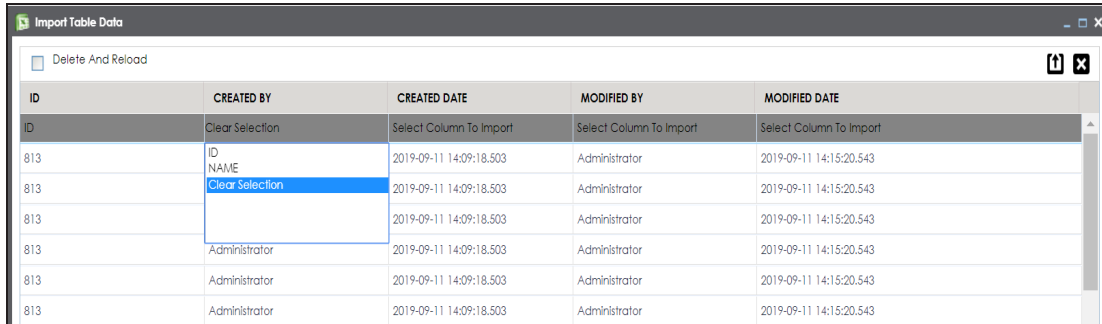
4. Click **Choose File** and browse and select the XLSX file.
5. Click .

The Import Table Data page appears.

Importing Column Values from MS Excel Files

6. Double-click the **Select Column to Import** cell of the required column.

Column names added by you in the previous steps appear as options.



ID	CREATED BY	CREATED DATE	MODIFIED BY	MODIFIED DATE
ID	Clear Selection	Select Column To Import	Select Column To Import	Select Column To Import
813	ID	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543
813	NAME	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543
813	Clear Selection	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543
813	Administrator	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543
813	Administrator	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543
813	Administrator	2019-09-11 14:09:18.503	Administrator	2019-09-11 14:15:20.543

7. Select the appropriate <Column_Name>.

You can select multiple columns.

8. Click .

The column values are imported from the XLSX file.

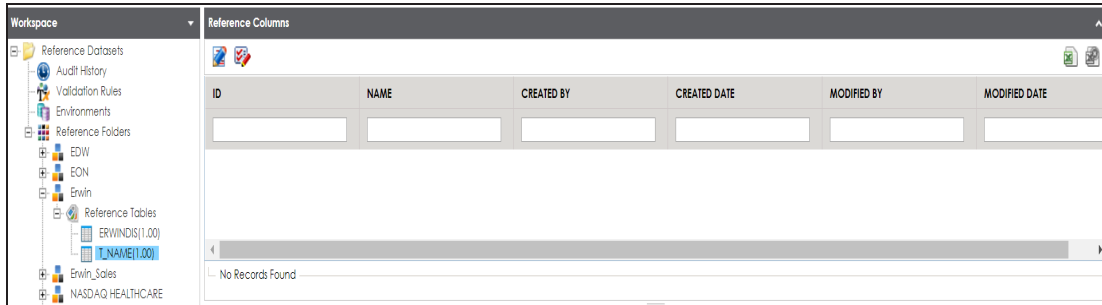
Importing Column Values Through DB Scans


You can import reference data from a database to a reference table by connecting the database to the application. It involves adding columns to reference table and then importing column values from the database. For more information on adding columns to reference tables, refer to the [Adding Columns to Reference Tables](#) topic.

To import column values from databases, follow these steps:

1. In the **Workspace** pane, click a reference table.

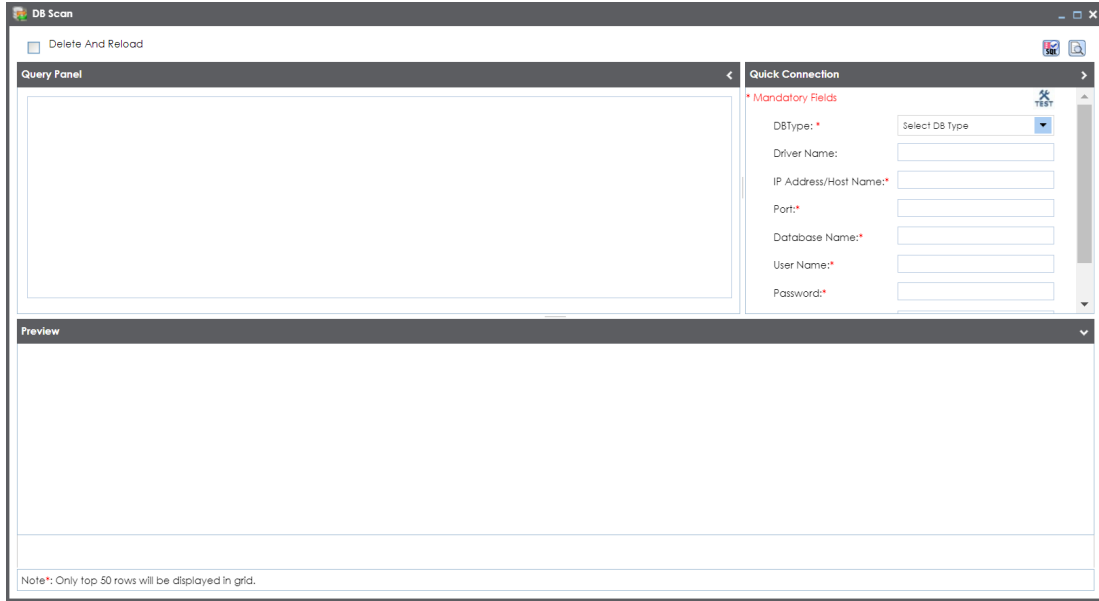
Columns in the reference table appear.



2. Click .
3. Click .

The DB Scan page appears.

Importing Column Values Through DB Scans



4. Enter appropriate values in the fields on the **Quick Connection** tab to establish a connection with a database. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.



Field Name	Description
DB Type	Specifies the database type. For example, Sql Server.
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.microsoft.sqlserver.jdbc.SQLServerDriver The field is autopopulated based on the DB Type.
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, localhost.
Port	Specifies the port to connect with the database. For example: 1433 is the default port for a Sql Server database type.
Database Name	Specifies the database name being used to connect to the reference table. For example, ErwinDIS931.

Importing Column Values Through DB Scans

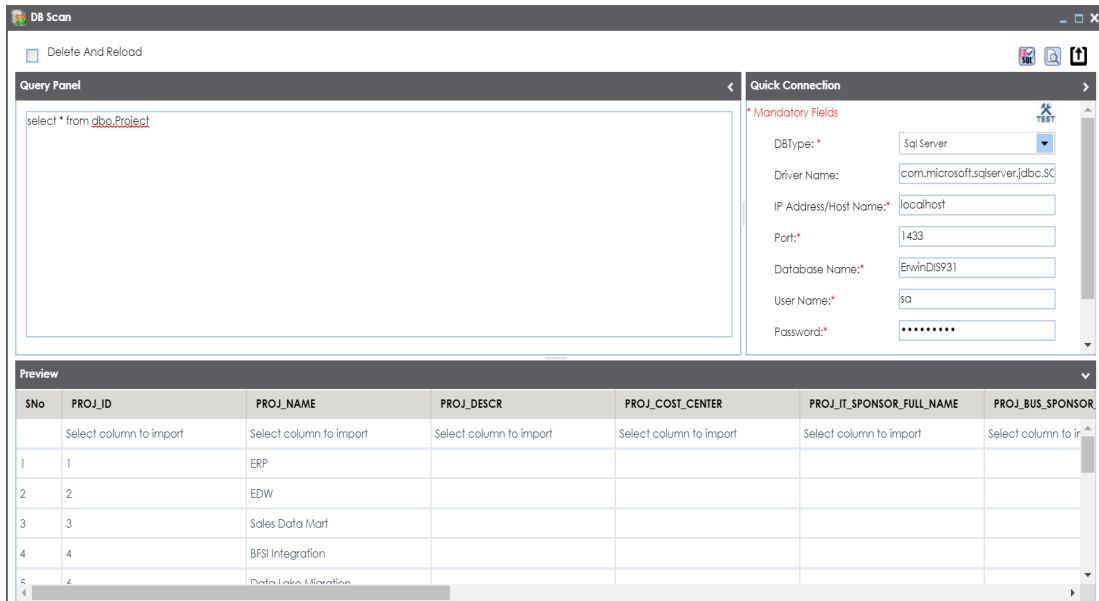
Field Name	Description
User Name	Specifies the user name to connect with the database. For example, sa.
Password	Specifies the password to connect with the database. For example, goerwin@1.

- Click  to test the connection.

If the connection is established, the success message appears.

- Write a query in the **Query Panel** to pull the data from the database.
- Click  to validate the query.
- Click  to preview the data.

The data is previewed.

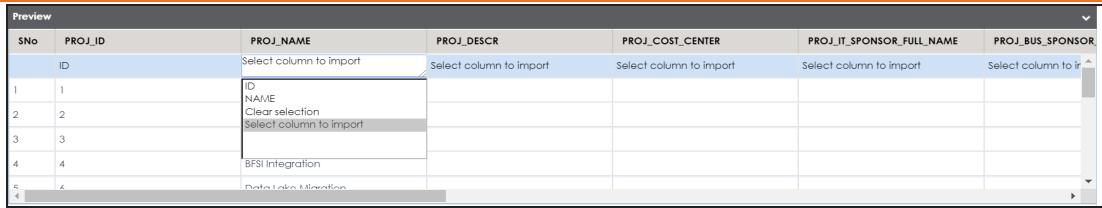


The screenshot shows the DB Scan application interface. It includes a 'Query Panel' with the query `select * from dbo.Project`, a 'Quick Connection' panel with fields for DBType (Sql Server), Driver Name (com.microsoft.sqlserver.jdbc.SQ), IP Address/Host Name (localhost), Port (1433), Database Name (ErwinDIS931), User Name (sa), and Password (masked). Below these is a 'Preview' table with the following data:

SNo	PROJ_ID	PROJ_NAME	PROJ_DESCR	PROJ_COST_CENTER	PROJ_IT_SPONSOR_FULL_NAME	PROJ_BUS_SPONSOR
	Select column to import	Select column to import	Select column to import	Select column to import	Select column to import	Select column to import
1	1	ERP				
2	2	EDW				
3	3	Sales Data Mart				
4	4	BFSI Integration				
5	4	Data Lake Migration				

- Double-click the **Select Column to Import** cell under the required column.
A drop-down option appears displaying the reference columns.

Importing Column Values Through DB Scans



SNo	PROJ_ID	PROJ_NAME	PROJ_DESCR	PROJ_COST_CENTER	PROJ_IT_SPONSOR_FULL_NAME	PROJ_BUS_SPONSOR
	ID	Select column to import	Select column to import	Select column to import	Select column to import	Select column to import
1	1	ID				
2	2	NAME				
3	3	Clear selection				
4	4	Select column to import				
5	5					
6	6	BFSI Integration				
7	7	Data Lake Migration				

10. Choose an appropriate <Reference_Column_Name> from the drop-down.

You can import multiple columns from the database.

11. Click .

The column values from the database are imported into the selected reference columns.

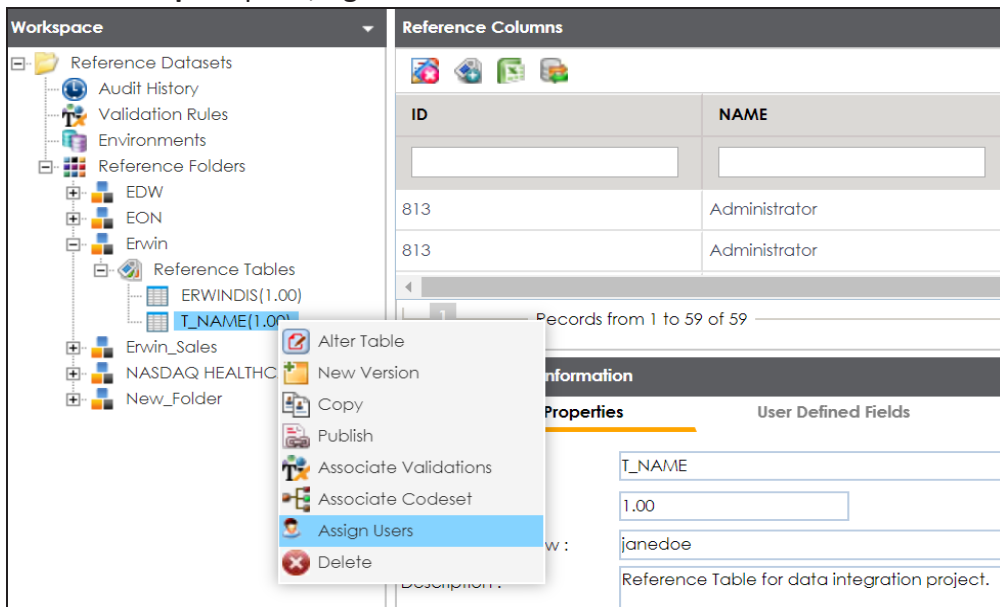
Managing Reference Tables

Managing reference tables involves:

- Altering
- Copying
- Assigning users
- Deleting

To manage reference tables, follow these steps:

1. In the **Workspace** pane, right-click a reference table.



2. Use the following options:

Alter Table

Use this option to update a reference table. You can edit table name, owner, data steward, and add or remove columns.





Copy

Managing Reference Tables

Use this option to copy a reference table. You can paste the copied reference table in a reference folder. To paste the reference table, right-click the reference folder and click **Paste**.

Assign Users

Use this option to assign users to reference tables. Before, you assign a user to a reference table, ensure that the user is assigned to the corresponding reference folder.

On the Assign Users page, select user IDs under **User ID** list-box and move them to **Assigned Users** list-box using the arrows ( or ). Similarly, to change existing user assignment, select user IDs under **Assigned Users** list-box and move them back to **User ID** list-box using the arrows ( or .

Delete

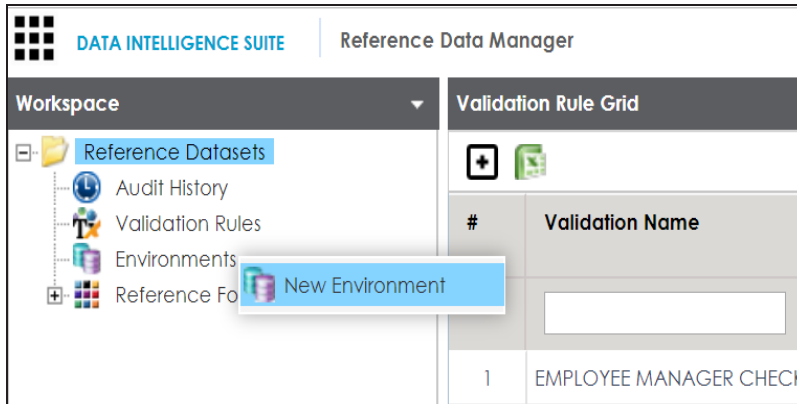
Use this option to delete a reference table that is no longer required.

Creating Publish Environments

You can publish reference tables to various environments like development, production, test etc. You can also specify the schema of the environment, for example, DBO.

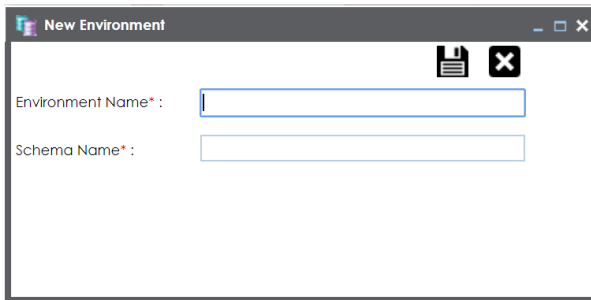
To create publish environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click the **Environments** node.



3. Click **New Environment**.

The New Environment page appears.



4. Enter the **Environment Name** and **Schema Name**.

For example:

- **Environment Name:** Production
- **Schema Name:** DBO

Creating Publish Environments

5. Click .

The publish environment is created and saved on the Publish Environments page.

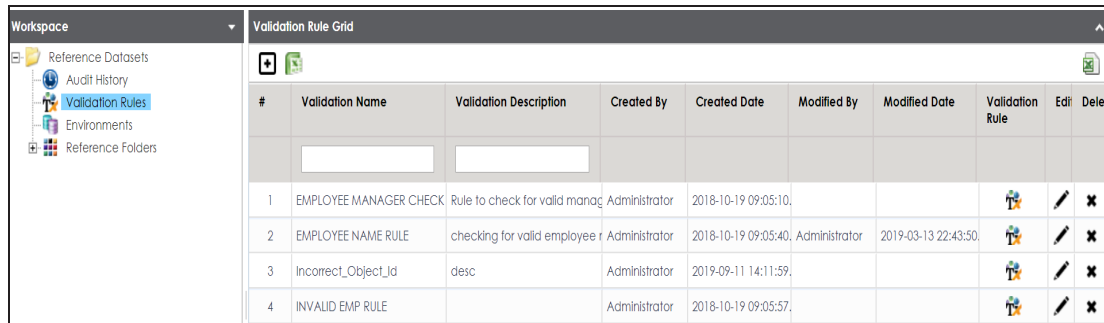
Adding Validation Rules

You can define a validation rule in the form of SQL queries and use it to validate reference tables.

To add validation rules, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, click the **Validation Rules** node.

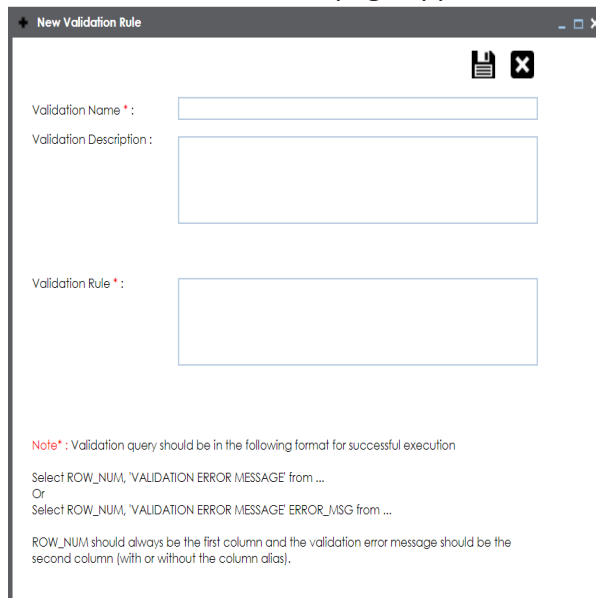
The Validation Rule Grid page appears.



#	Validation Name	Validation Description	Created By	Created Date	Modified By	Modified Date	Validation Rule	Edit	Delete
1	EMPLOYEE MANAGER CHECK	Rule to check for valid manag	Administrator	2018-10-19 09:05:10					
2	EMPLOYEE NAME RULE	checking for valid employee r	Administrator	2018-10-19 09:05:40	Administrator	2019-03-13 22:43:50			
3	Incorrect_Object_Id	desc	Administrator	2019-09-11 14:11:59					
4	INVALID EMP RULE		Administrator	2018-10-19 09:05:57					

3. Click .

The New Validation Rule page appears.



Validation Name * :

Validation Description :

Validation Rule * :

Note* : Validation query should be in the following format for successful execution

Select ROW_NUM, 'VALIDATION ERROR MESSAGE' from ...
Or
Select ROW_NUM, 'VALIDATION ERROR MESSAGE' ERROR_MSG from ...

ROW_NUM should always be the first column and the validation error message should be the second column (with or without the column alias).









Adding Validation Rules

- 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
Validation Name	Specifies the name of the validation rule. For example, Incorrect_Object_ID.
Validation Description	Specifies the description about the validation rule. For example: This validation rule validates the ERWIN_SALES reference table.
Validation Rule	Specifies the SQL query of the validation rule. For example: select * from ERWIN_SALES where ID = 1000000.

- Click .

The validation rule is created and saved in the Validation Rule Grid.

#	Validation Name	Validation Description	Created By	Created Date	Modified By	Modified Date	Validation Rule	Edit	Delete
	<input type="text"/>	<input type="text"/>							
1	EMPLOYEE MANAGER CHECK	Rule to check for valid manager	Administrator	2018-10-19 09:05:10.51					
2	EMPLOYEE NAME RULE	checking for valid employee nam	Administrator	2018-10-19 09:05:40.04	Administrator	2019-03-13 22:43:50.60			
3	Incorrect_Object_Id	desc	Administrator	2019-09-11 14:11:59.4					
4	INVALID EMP RULE		Administrator	2018-10-19 09:05:57.25					

Use the following options to work on the Validation Rule Grid page:

Validation Rule

Use this option to view validation rule queries.

Edit

Use this option to update validation rules.

Delete

Use this option to delete validation rules that are no longer required.

Once a validation rule is added, you can:

Adding Validation Rules

1. [Associate it with a reference table](#)
2. [Run validation against the reference table](#)

Associating Validation Rules with Reference Tables

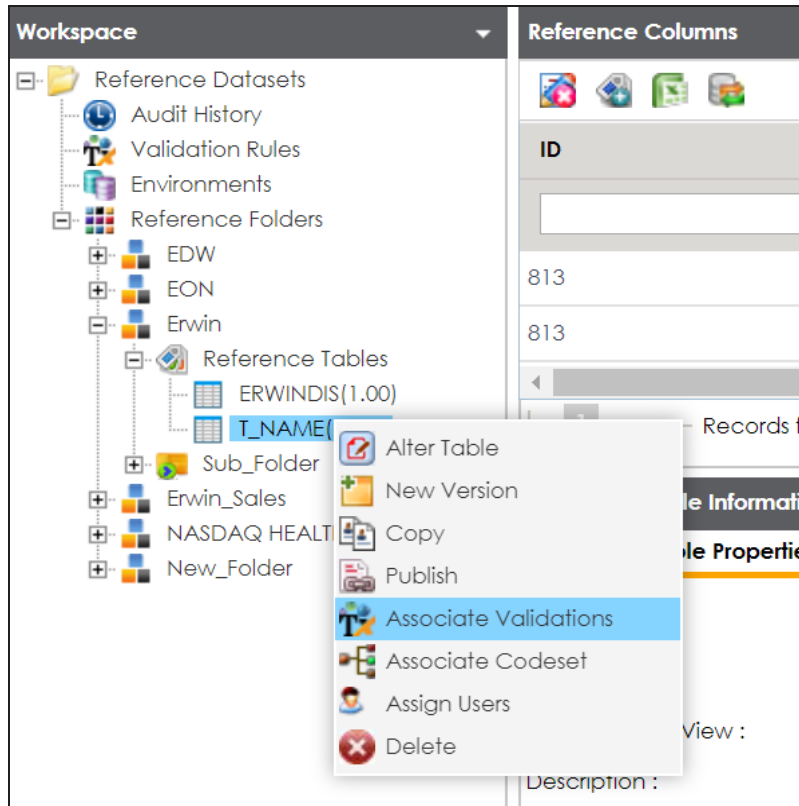
After creating a validation rule, you need to associate the validation rule with a reference table.

This allows you to execute the validation rule to validate data in the reference table.

To associate validation rules with reference tables, follow these steps:

1. In the **Workspace** pane, right-click a reference table.

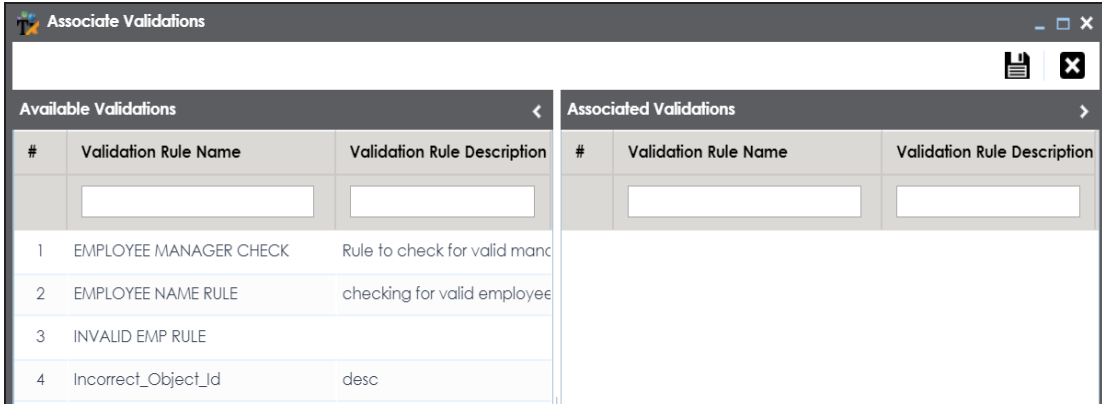
The available options appear.



2. Click **Associate Validations**.

The Associate Validation page appears.

Associating Validation Rules with Reference Tables

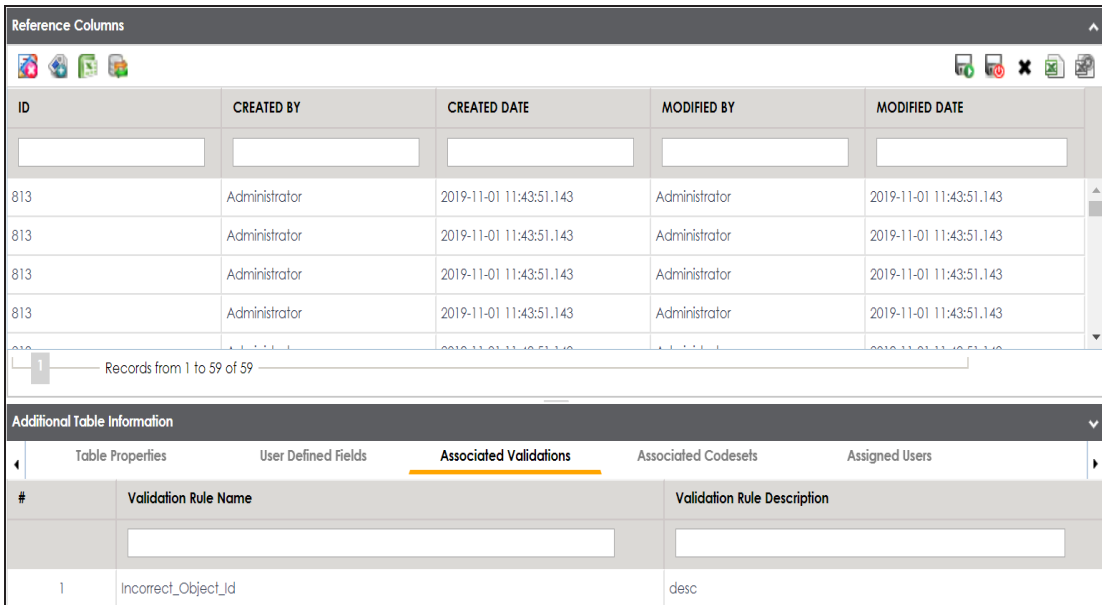


3. Drag and drop the required validation rule from the **Available Validation** pane to the **Associated Validation** pane.

For more information on adding validation rules, refer to the [Adding Validation Rules](#) topic.

4. Click .

The associated validation rules appear on the Associated Validations tab.




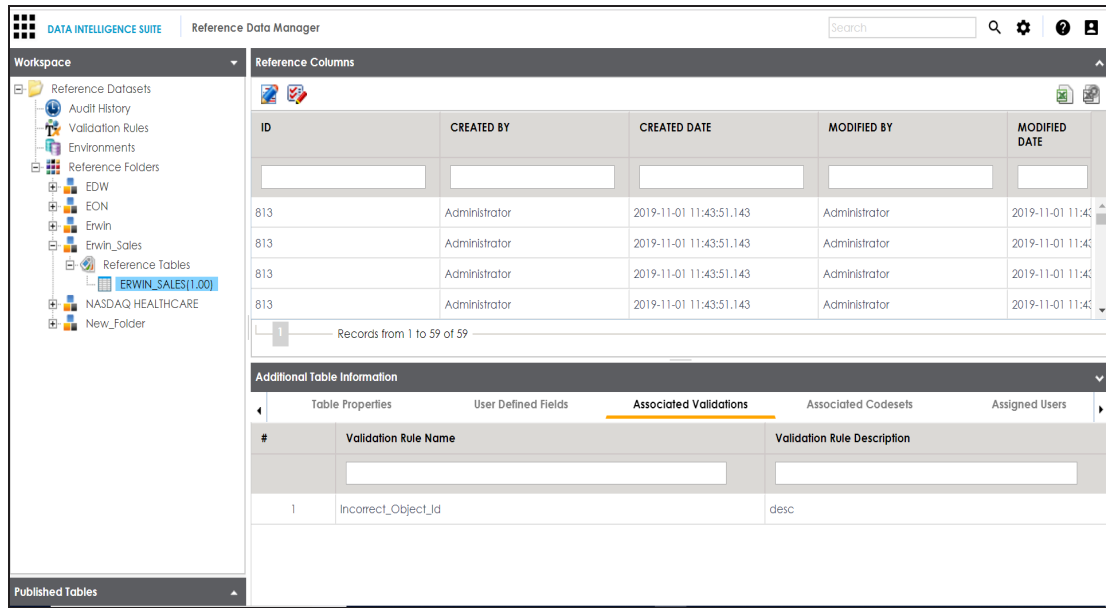
Running Validations Against Reference Tables

You can run a validation rule query against a reference table after associating the table with the validation rule. Executing validation rule validates the data in the reference table.

To run validation rules against reference tables, follow these steps:

1. In the **Workspaces** pane, click a reference table.

The following page appears. Ensure that you are not in edit mode. If you are in edit mode, click  to cancel edit.



The screenshot shows the 'Reference Data Manager' interface. On the left is a 'Workspace' pane with a tree view containing 'Reference Datasets', 'Audit History', 'Validation Rules', 'Environments', 'Reference Folders', 'ERWIN_SALES(1.00)', 'NASDAQ HEALTHCARE', and 'New_Folder'. The main area displays a table with columns: ID, CREATED BY, CREATED DATE, MODIFIED BY, and MODIFIED DATE. Below the table is a section for 'Additional Table Information' with tabs for 'Table Properties', 'User Defined Fields', 'Associated Validations', 'Associated Codesets', and 'Assigned Users'. The 'Associated Validations' tab is active, showing a table with columns: #, Validation Rule Name, and Validation Rule Description.

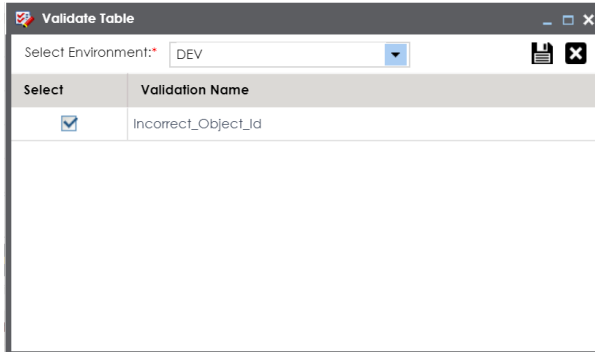
ID	CREATED BY	CREATED DATE	MODIFIED BY	MODIFIED DATE
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143

#	Validation Rule Name	Validation Rule Description
1	Incorrect_Object_Id	desc

2. Click .

The Validate Table page appears.

Running Validations Against Reference Tables



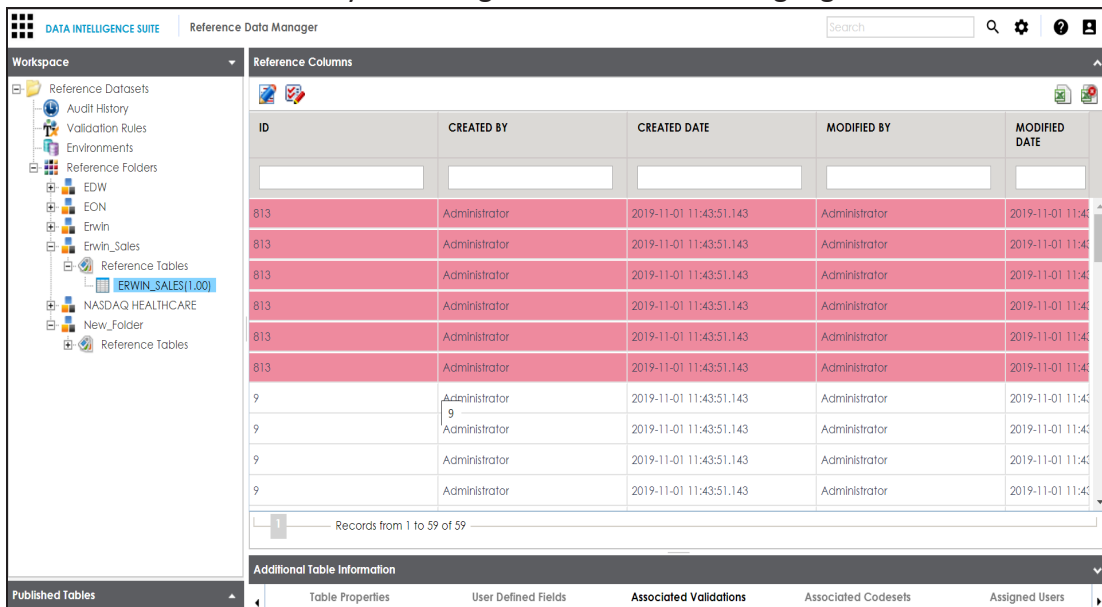
3. Select an environment and a validation rule.

For more information on creating environments, refer to the [Creating Publish Environments](#) topic.

4. Click .

Validation is successfully executed.

The error rows returned by executing the validations are highlighted in red color.



ID	CREATED BY	CREATED DATE	MODIFIED BY	MODIFIED DATE
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
813	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
9	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
9	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
9	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143
9	Administrator	2019-11-01 11:43:51.143	Administrator	2019-11-01 11:43:51.143

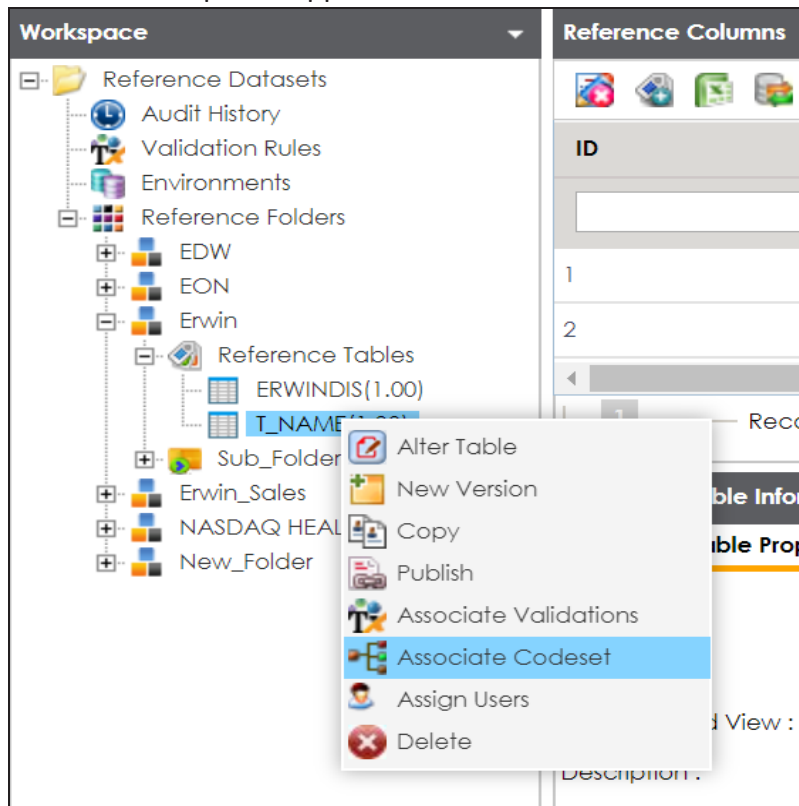
Associating Codesets With Reference Tables

You can associate codesets with columns of a reference table. Codesets can be used as configurable pick lists so that data can be selected from the drop-down.

To associate codesets with columns of reference tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click a reference table.

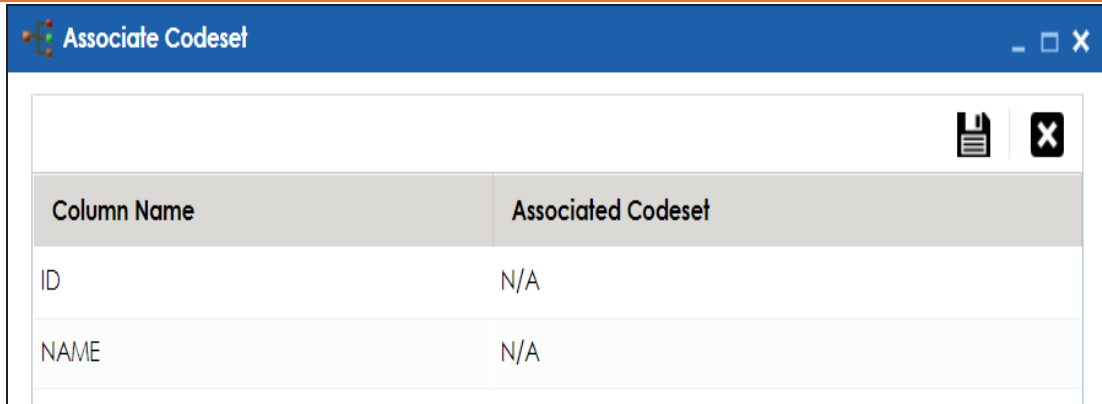
The available options appear.



3. Click **Associate Codesets**.

The Associate Codeset page appears.

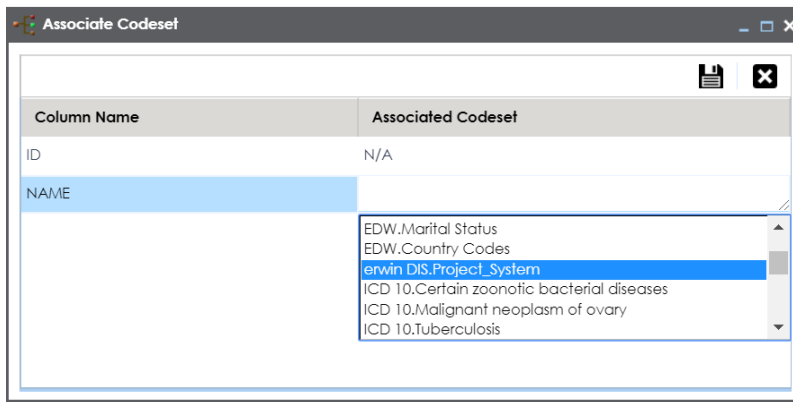
Associating Codesets With Reference Tables



Column Name	Associated Codeset
ID	N/A
NAME	N/A

4. Double-click the cell for the required column and select an appropriate codeset.

For more information on codesets, refer to the [Maintaining Enterprise Codesets](#) section.



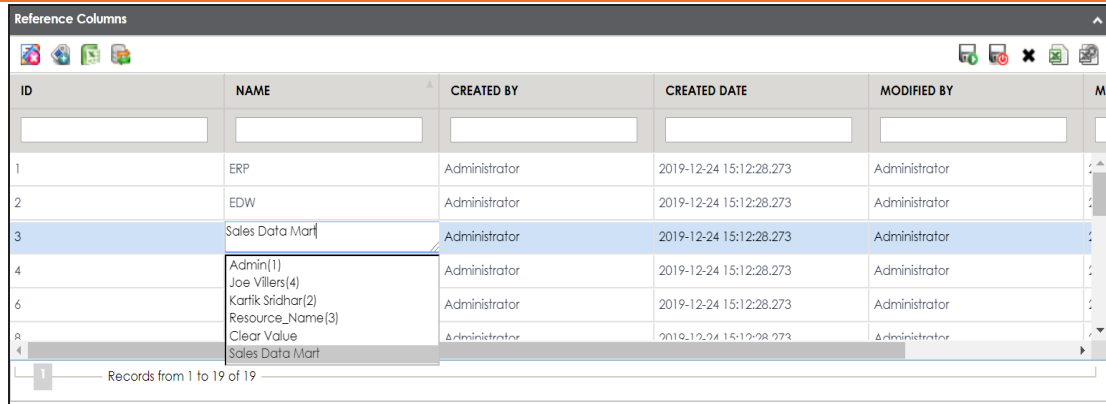
Column Name	Associated Codeset
ID	N/A
NAME	<ul style="list-style-type: none">EDW.Marital StatusEDW.Country Codeserwin DIS.Project_SystemICD 10.Certain zoonotic bacterial diseasesICD 10.Malignant neoplasm of ovaryICD 10.Tuberculosis

5. Click .

The codeset is associated with the column of the reference table.

The corresponding column in the reference table is now configured as a drop-down and populated with values from the selected codeset.

Associating Codesets With Reference Tables



The screenshot shows a window titled "Reference Columns" with a table containing the following data:

ID	NAME	CREATED BY	CREATED DATE	MODIFIED BY	MO
1	ERP	Administrator	2019-12-24 15:12:28.273	Administrator	
2	EDW	Administrator	2019-12-24 15:12:28.273	Administrator	
3	Sales Data Mart	Administrator	2019-12-24 15:12:28.273	Administrator	
4	Admin(1)	Administrator	2019-12-24 15:12:28.273	Administrator	
	Joe Villers(4)				
6	Kartik Sridhar(2)	Administrator	2019-12-24 15:12:28.273	Administrator	
	Resource_Name(3)				
8	Clear Value	Administrator	2019-12-24 15:12:28.273	Administrator	
	Sales Data Mart				



The table shows records from 1 to 19 of 19. A dropdown menu is open for the NAME column of row 3, listing: Admin(1), Joe Villers(4), Kartik Sridhar(2), Resource_Name(3), Clear Value, and Sales Data Mart.

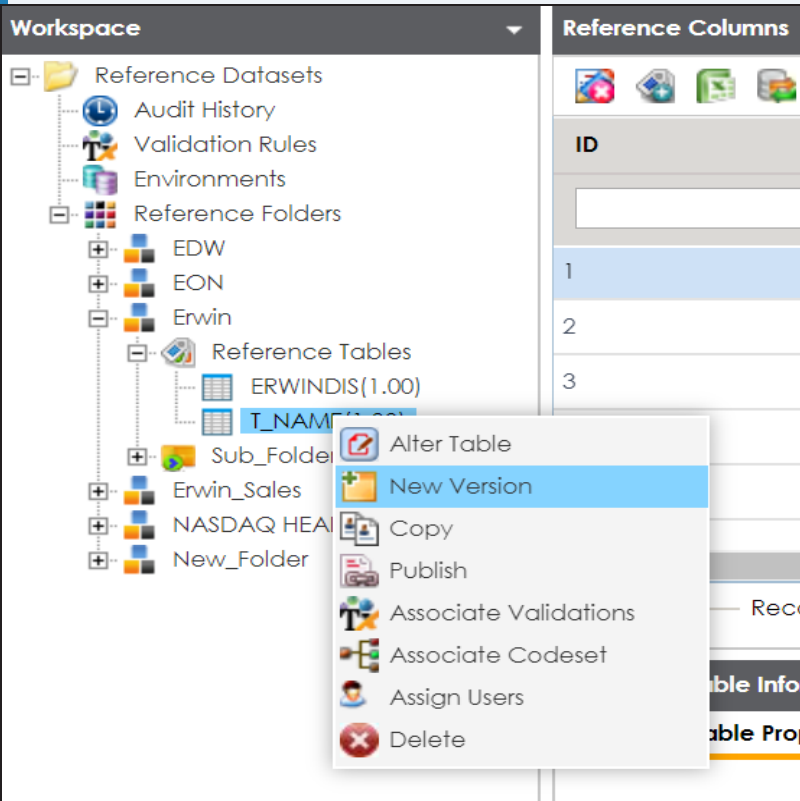
Versioning Reference Tables

You can create versions of reference tables and track the legacy of reference tables. The old version is archived and new version is added to the Reference Table tree in the Workspace pane.

To create versions of the reference tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click a reference table.

 Ensure that the reference table is not in edit mode (locked condition). If it is in edit mode, click  to cancel edit.



The screenshot shows the Reference Data Manager interface. The 'Workspace' pane on the left displays a tree view of reference tables. The 'Reference Tables' folder is expanded, showing 'ERWINDIS(1.00)' and 'T_NAM'. A context menu is open over 'T_NAM', with 'New Version' highlighted. The 'Reference Columns' pane on the right shows a table with columns 'ID' and rows 1, 2, 3.

3. Click **New Version**.

The New Version page appears.

Versioning Reference Tables

The screenshot shows a 'New Version' dialog box with the following fields and values:

- Table Name*: T_NAME
- Version: 1.01
- Description: Reference Table for data integration project.
- Version Label: (empty)
- Changed Description*: (empty)

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

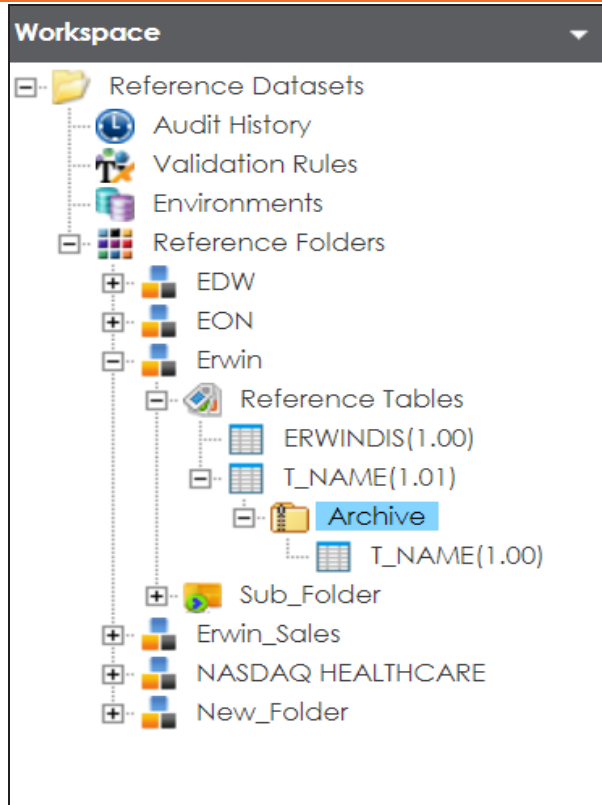
Field Name	Description
Table Name	Specifies the name of the reference table. For example, Data_Classifications_Levels.
Version	Specifies the new version of the reference table. For example, 1.02.
Description	Specifies the description about the reference table. For example: This reference table serves as domain for the data classification column.
Version Label	Specifies the version label of the reference table. For example, Beta.
Changed Description	Specifies the description of the changes made in the reference table. For example: A new column, Object_ID was added in the reference table.

5. Click .

The new version of the reference table is created and saved under the Reference Table tree.

The previous version of the reference table is archived.

Versioning Reference Tables

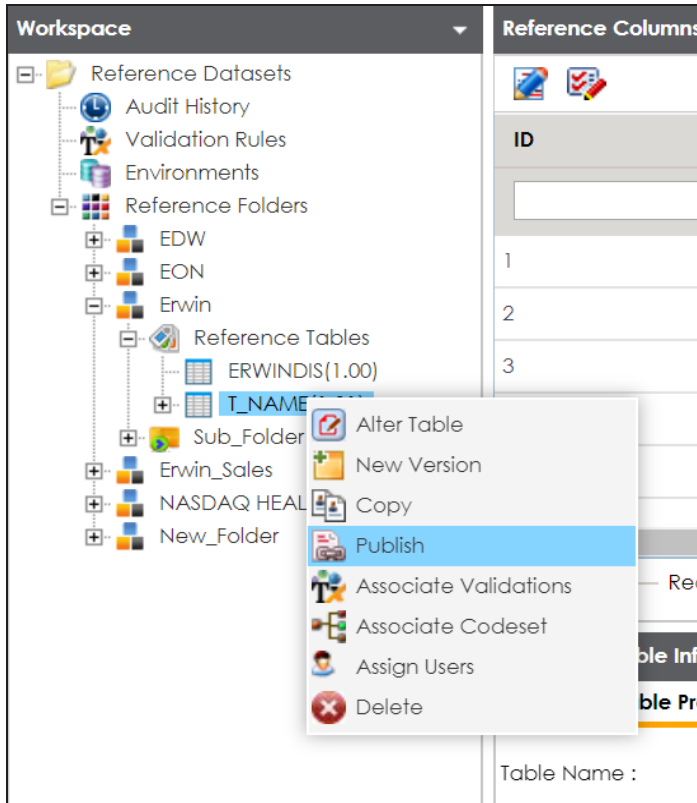


Publishing Reference Tables

You can publish a reference table to a publish environment. Before publishing a reference table, you must ensure that the table has passed all validations successfully.

To publish reference tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Reference Data Manager**.
2. In the **Workspace** pane, right-click a reference table.



3. Click **Publish**.

A warning message appears.

4. Click **Yes**.

The Publish Table page appears.

Publishing Reference Tables

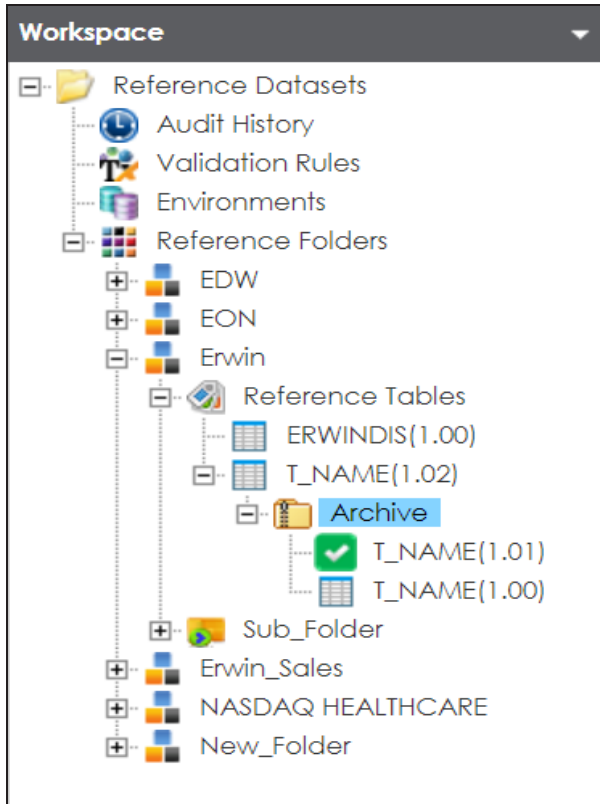
5. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Table Name	Specifies the name of the reference table. For example, Data_Classifications_Levels. It is autopopulated and cannot be edited.
Version	Specifies the current version of the reference table. For example, 1.00. It is autopopulated and cannot be edited.
Version Label	Specifies the version label of the reference table. For example, Beta.
Change Description	Specifies the description about the changes made in the reference table. For example: A new column, Object_ID was added in the reference table.
Publish Environment	Specifies the environment to which the reference table would be published. For example, Production. For more information on creating publish environment, refer to the Creating Publish Environments topic.

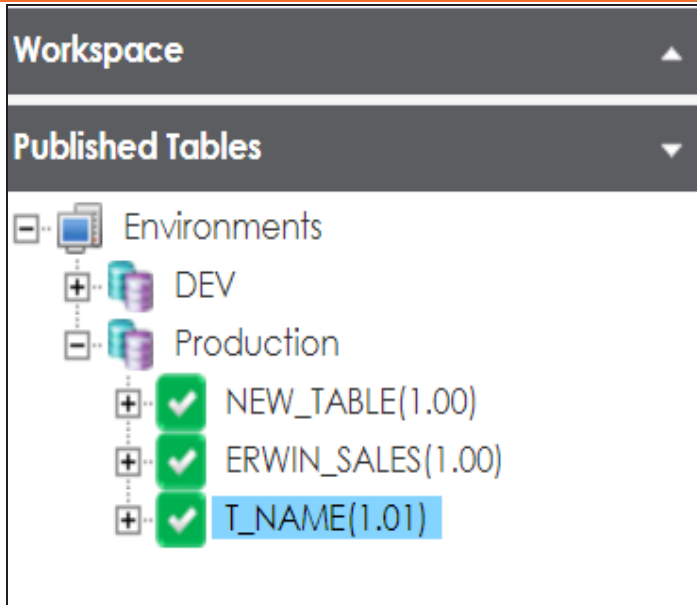
6. Click .

Publishing Reference Tables

The reference table is published. The published version is archived and a new version of the reference table is created in the Workspace pane.



The published version is also saved in the Published Tables pane.



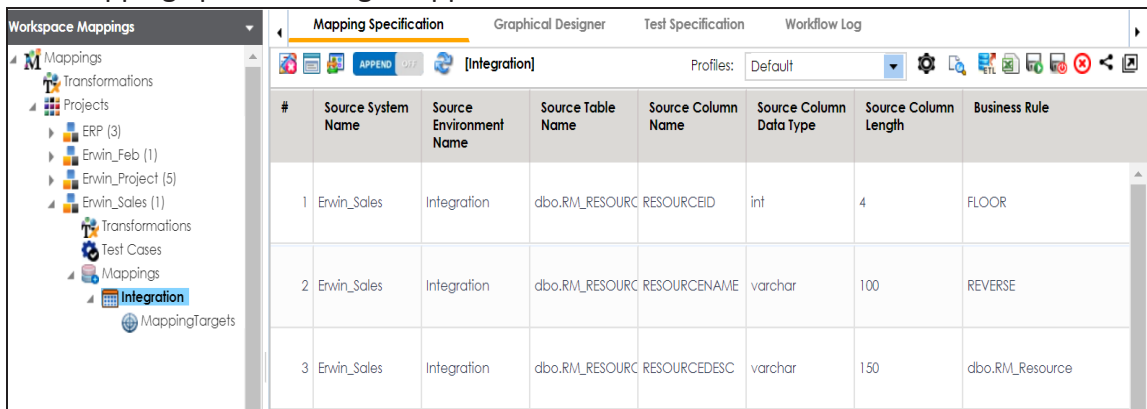
Associating Reference Tables with Mappings

Reference data sets the permissible values for other data fields. To standardize your data, you can associate a reference table with mappings. Ensure that you publish the required reference table before associating it with mappings.

To associate reference tables with Mappings, follow these steps:

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

The Mapping Specification grid appears.

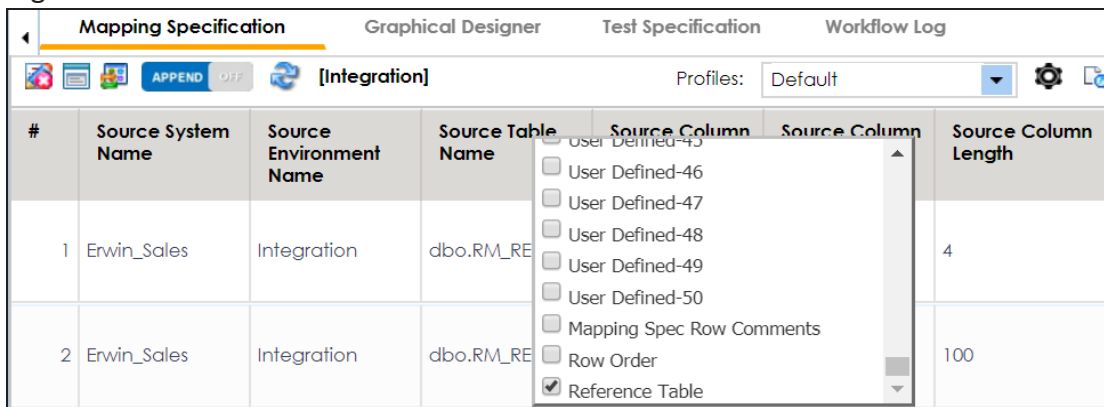


The screenshot shows the 'Mapping Specification' grid with the following data:

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	Erwin_Sales	Integration	dbo.RM_RESOURCEID	RESOURCEID	int	4	FLOOR
2	Erwin_Sales	Integration	dbo.RM_RESOURCENAME	RESOURCENAME	varchar	100	REVERSE
3	Erwin_Sales	Integration	dbo.RM_RESOURCEDESC	RESOURCEDESC	varchar	150	dbo.RM_Resource

3. Click .

4. Right-click the header menu.



The screenshot shows the 'Mapping Specification' grid with a context menu open over the header. The menu items are:


- User Defined-45
- User Defined-46
- User Defined-47
- User Defined-48
- User Defined-49
- User Defined-50
- Mapping Spec Row Comments
- Row Order
- Reference Table

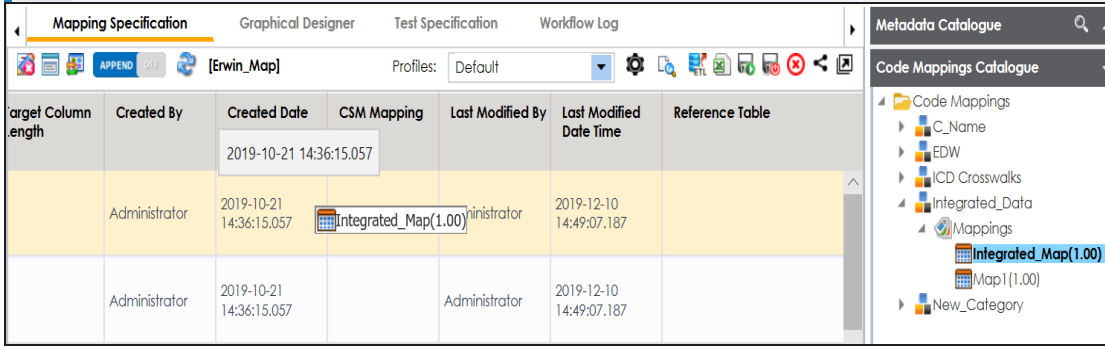
5. Select the **Reference Table** check box.

Associating Reference Tables with Mappings

The Reference Table column appears in the Mapping Specification grid.

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

 You can associate multiple source columns with the reference tables.



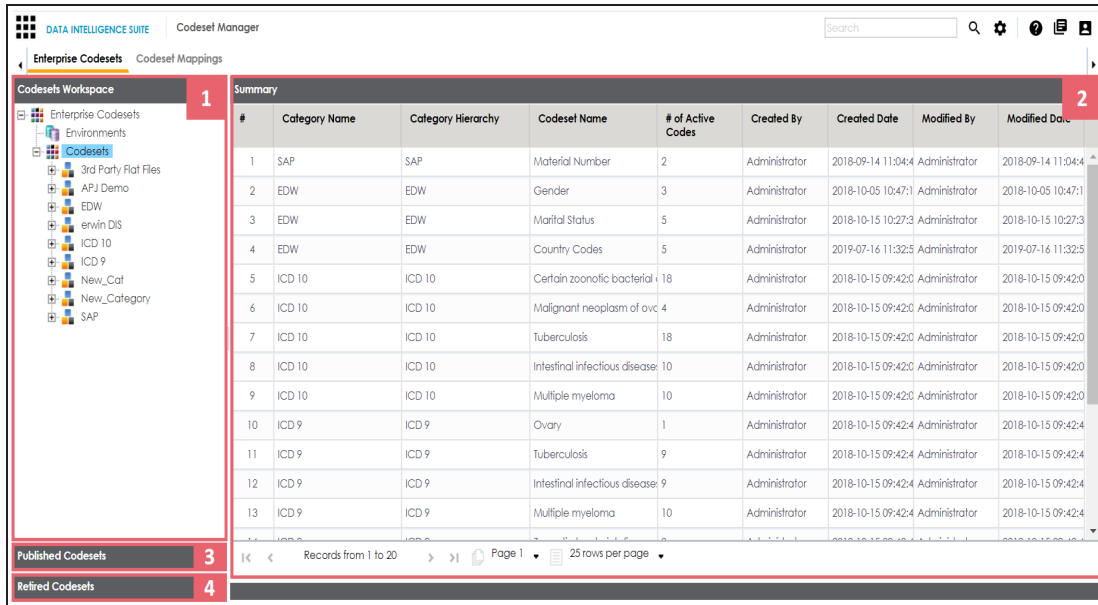
Target Column	Created By	Created Date	CSM Mapping	Last Modified By	Last Modified Date Time	Reference Table
englh	Administrator	2019-10-21 14:36:15.057		Administrator	2019-12-10 14:49:07.187	
	Administrator	2019-10-21 14:36:15.057	Integrated_Map(1.00)	Administrator	2019-12-10 14:49:07.187	
	Administrator	2019-10-21 14:36:15.057		Administrator	2019-12-10 14:49:07.187	

7. Click .

The reference table is associated with the mappings.

Using Codeset Manager

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



UI Section	Function
1-Work-space	Use this pane to browse through Codesets Workspace and Code Mappings Workspace panes. Codesets Workspace enables you to create and categorize codesets. Code Mappings Workspace enables you to create and categorize code mappings.
2-Right Pane	Use this pane to work on the data based on your selection in the Workspace pane.
3-Published Codesets	Use this pane to browse, view, and export published codesets.
4-Retired Codesets	Use this pane to browse, view, and export retired codesets.

Managing codesets involves the following:

Using Codeset Manager

- [Maintaining enterprise codesets](#)
- [Maintaining code mappings](#)

Maintaining Enterprise Codesets

You can create and maintain codesets using the Enterprise section of the Codeset Manager. Under the Enterprise section, you can create codesets, add code name and code value pairs, and version them. You can also publish the codesets to various environments such as development, test, or production and used it create code crosswalks (mappings).

Maintaining enterprise codeset involves:

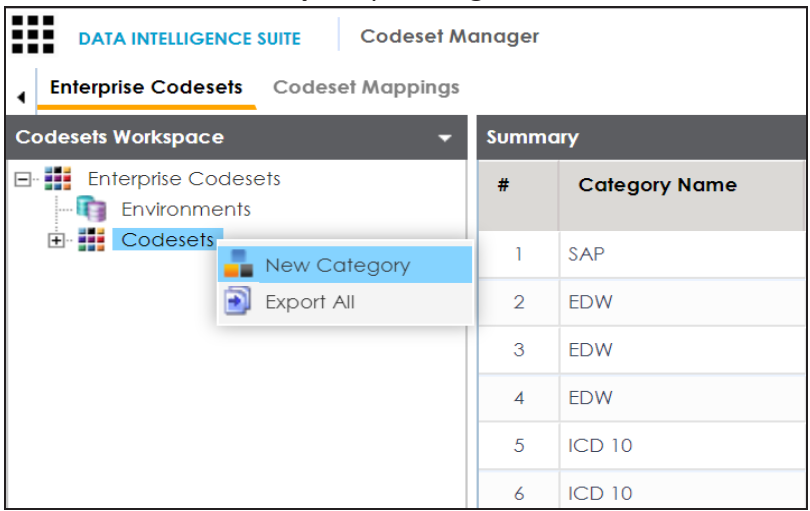
- [Creating categories](#)
- [Adding codesets](#)
- [Versioning codesets](#)
- [Deleting codes and codesets](#)
- [Publishing codesets](#)

Creating Categories

Codes are stored in a hierarchical manner Categories > Codesets. You can group codesets into categories based on your organization’s projects, departments, or functions. Therefore, before creating codesets, you need to create a category. You can also create sub-categories to group codesets further.

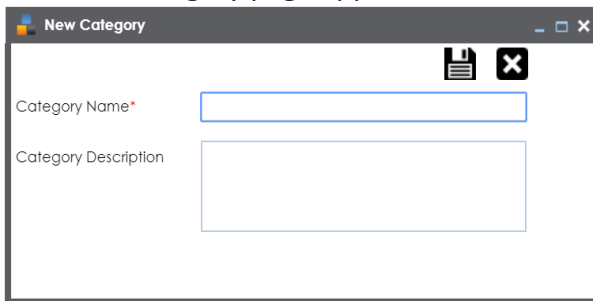
To create categories, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, right-click the **Codesets** node.



3. Click **New Category**.

The New Category page appears.



4. Enter the **Category Name** and **Category Description**.

Creating Categories

For example:

- **Category Name** - EDW
- **Category Description** - This category contains three codesets, Country Codes, Gender, and Marital Status.

5. Click .

A category is created and saved in the category tree.

Once a category is created, you can:

- [Assign users to the category](#)
- [Add codesets to the category](#)

You can also manage it using the options available on the right-clicking category. [Managing categories](#) involves:

- Updating categories
- Creating sub categories
- Deleting categories
- Creating new codesets
- Exporting codesets
- Deleting codesets
- Exporting category codesets
- Importing codesets
- Assigning users

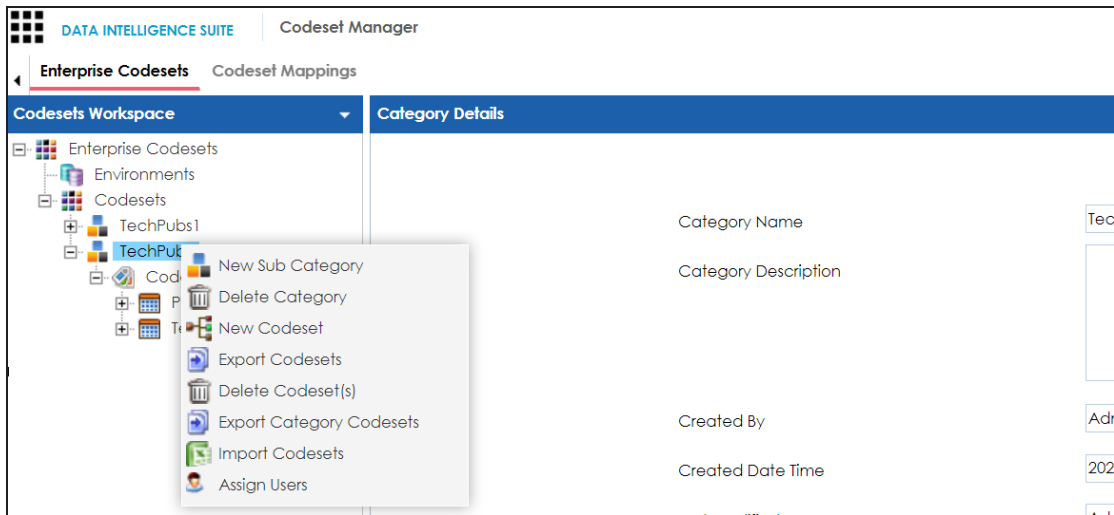
Managing Categories

Managing categories involves:

- Updating categories
- Creating sub categories
- Deleting categories
- Creating new codesets
- Exporting codesets
- Deleting codesets
- Exporting category codesets
- Importing codesets
- Assigning users

To manage categories, follow these steps:

1. In the **Codesets Workspace** pane, right-click a category.



2. Use the following options:

New Sub Category

Use this option to create a sub-category and group codesets further.

Delete Category

Use this option to delete a category that is no longer required. Deleting a category also deletes codesets in it.

New Codesets

Use this option to create new codesets. For more information on creating new codesets, refer to the [Adding Codesets](#) topic.

Export Codesets

Use this option to export codesets to an XLSX file.

Delete Codeset(s)

Use this option to delete one or multiple codesets in a category. On the Delete Codesets page select a codeset(s) and delete them.


Export Category Codesets

Use this option to export the category codesets to an XLSX file.

Import Codesets

Use this option to import codesets from another category. On the Import Codesets page you can browse and upload files.

Assign Users

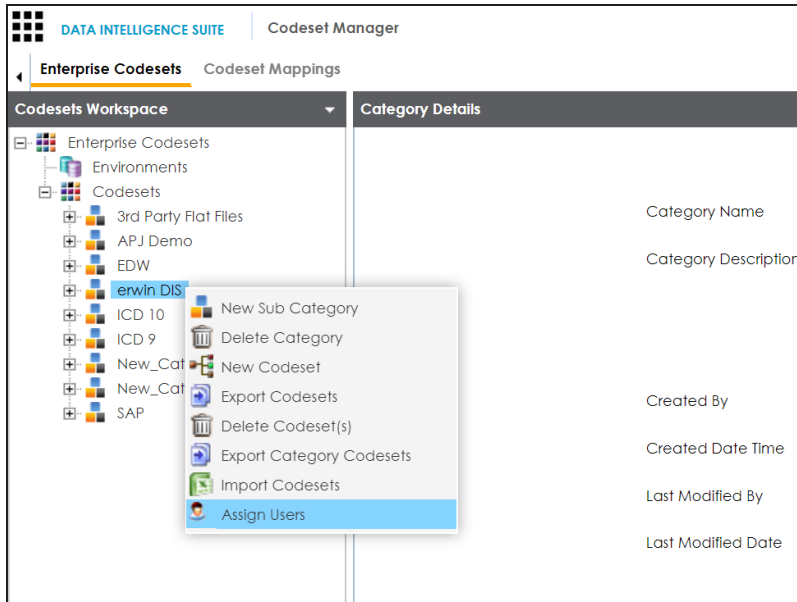
Use this option to assign users to a category based on your organization's projects, departments, functions, and so on. On the Assign/Unassign Users page, select or remove users and click . For more information on assigning users, refer to [Assigning Users](#) topic.

Assigning Users

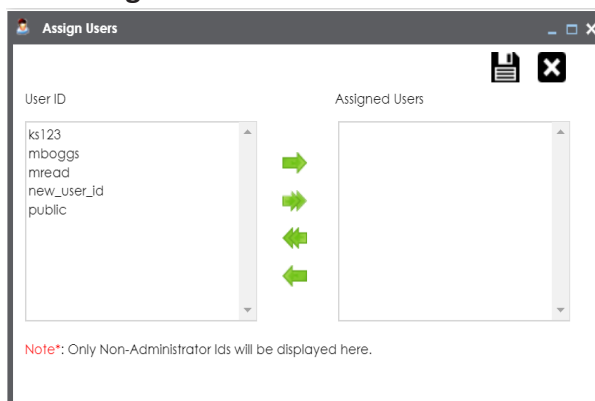
You can assign users to a category and enable write access to all sub-folders and codesets within the category.

To assign users, follow these steps:

1. In the **Codesets Workspace** pane, right-click a category.



2. Click **Assign Users**.



3. Use (➡ or ➡➡) to move users from **User ID** box to **Assigned Users** box and use (⬅ or ⬅➡) to move users from **Assigned Users** box to **User ID** box.

Assigning Users

4. Click .

The users are assigned to the category.



Follow the same procedure to add/remove users to/from the category.

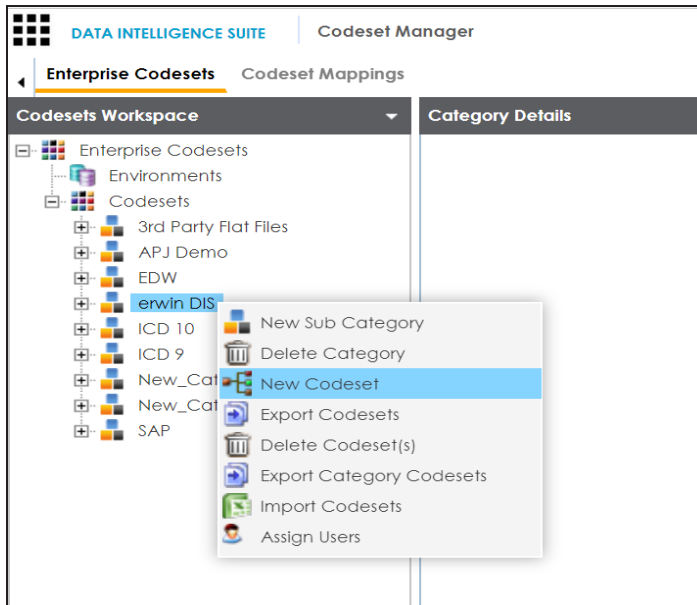
Adding Codesets

After creating a category, you can add codesets to enter codes.

Codesets store codes in a code value grid.

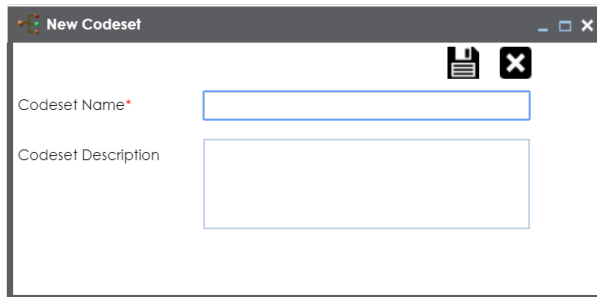
To add new codesets, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, right-click a category.



3. Click **New Codeset**.

The New Codeset page appears.



4. Enter **Codeset Name** and **Codeset Description**.

Adding Codesets

For example:

- **Codeset Name:** Country Codes
- **Codeset Description:** This codeset has code names and code values for four countries.

5. Click .

A new codeset is created and saved under the Codesets tree.

Once a codeset is created you can add codes to the code value grid in the following ways:

- [Entering codes manually](#)
- [Importing codesets from a MS Excel file](#)
- [Importing codesets through a DB scan](#)

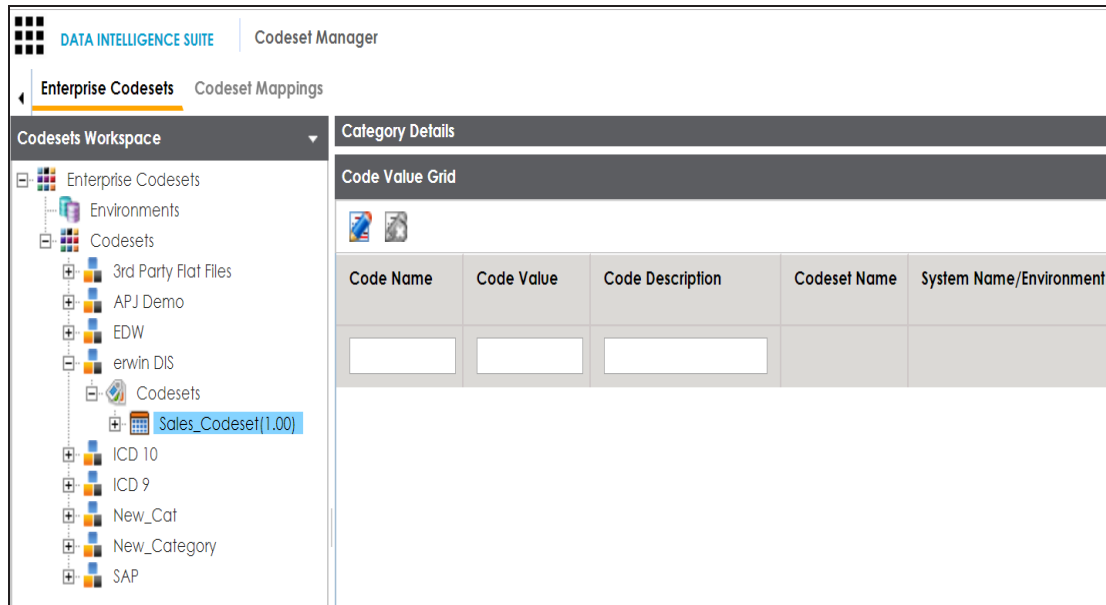
Entering Codes Manually

After creating codesets, you can add codes manually in the code value grid.

To enter codes manually, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, click a required.

The Code Value Grid appears.



3. Click .

4. Click .

The New Code page appears.


Entering Codes Manually

The screenshot shows a 'New Code' form with the following fields:


- Code Name* (text input)
- Code Value* (text input)
- Code Description (text area)
- System/Environment Name (dropdown menu with 'Please select System/Environment' text)
- Start Date (date picker)
- End Date (date picker)
- Activate User Defined Fields (toggle switch, currently ON)
- User Defined Field 1 through 10 (text input boxes)

Note* : Date Format = MM/DD/YYYY

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

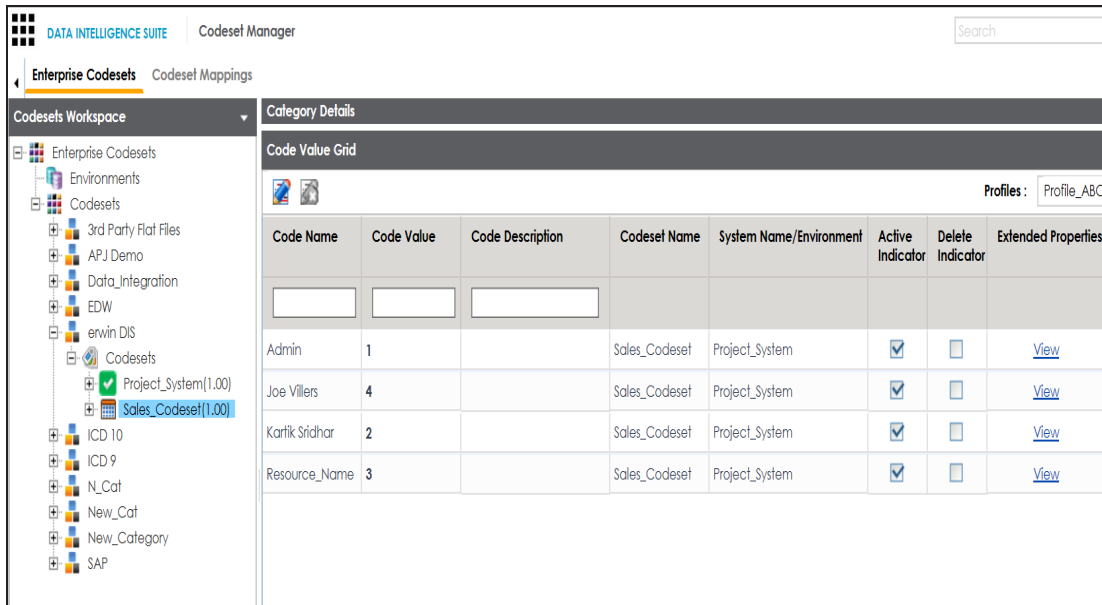
Field Name	Description
Code Name	Specifies the code name. For example, Admin.
Code Value	Specifies the code value of the code name. For example, 1.
Code Description	Specifies the description about the code. For example: The code value for Admin is 1.
System/Environment Name	Specifies the system and environment related with the code. For example, EDW.EDW-DEV. Select the System/Environment name.
Start Date	Specifies the start date of the code validity. For example, 02/24/2020. Enter the start date using  .
End Date	Specifies the end date of the code validity. For example, 03/22/2021.

Entering Codes Manually

Field Name	Description
	Enter the end date using  .
Activate User Defined Fields	Turn Activate User Defined Fields to ON to use the user defined fields in the Code Value Grid.
User Defined Field 1-10	You can use your own UI labels for user defined fields. For more information on using UI labels for user defined fields, refer to the Configuring Language Settings topic.

6. Click .

The codes are entered into the Code Value Grid.




Code Name	Code Value	Code Description	Codeset Name	System Name/Environment	Active Indicator	Delete Indicator	Extended Properties
Admin	1		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Joe Villers	4		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Kartik Sridhar	2		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Resource_Name	3		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View

7. Use the following options:

Maximize

To maximise the Code Value Grid view, click .

Export to Excel

To download the codeset, click .

[Managing codesets](#) involves:

Entering Codes Manually

- Editing Codesets
- Copying Codesets
- Editing Code Value Grid
- Retiring Codesets

Importing Codes using MS Excel Files

You can import codes into Code Value Grid using .xlsx files. The .xlsx file template must be compatible with the Code Value Grid. To ensure the compatibility, download the template and enter the codes and upload it to the Code Value Grid.

To import codes using MS Excel Files, follow these steps:

1. In the **Codesets Workspace** pane, click a codeset.

The Code Value Grid appears.

2. Click  to download the template file.

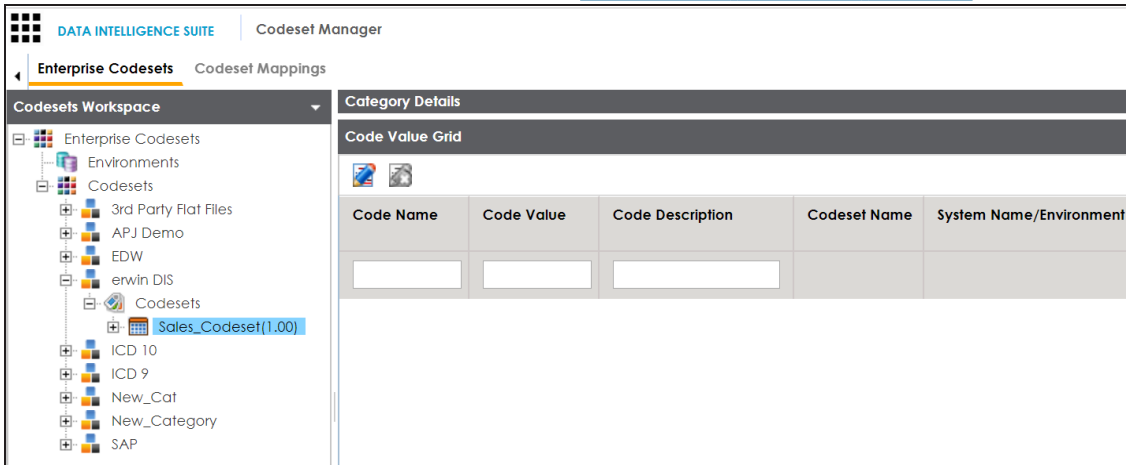
The template in .xlsx format is downloaded.

3. Enter relevant data in the template.



Set the ACTIVE_FLAG column values to Y, and set the DELETE_FLAG column values to N.

You can use your own UI labels for user defined fields. For more information on using UI labels for user defined fields, refer to the [Configuring Language Settings](#) topic.



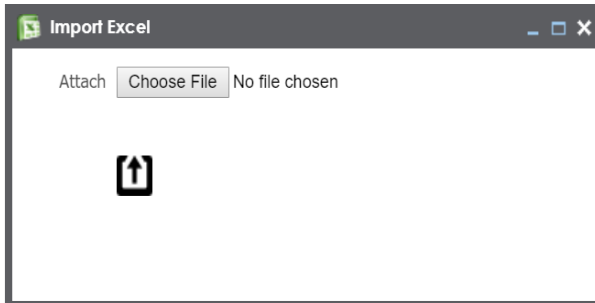
The screenshot shows the 'Codeset Manager' interface. On the left, the 'Codesets Workspace' pane displays a tree view of codesets, with 'Sales_Codeset(1.00)' selected. The main area shows the 'Code Value Grid' for this codeset. The grid has the following columns: Code Name, Code Value, Code Description, Codeset Name, and System Name/Environment. The grid is currently empty, with only the headers visible.


4. Click  to enable the edit mode.

5. Click .

Importing Codes using MS Excel Files

The Import Excel page appears.



6. Browse the updated .xlsx file using **Choose File**.
7. Click .

The codes are uploaded into the Code Value Grid.

Once you upload the codes in the Code Value Grid, you can manage the codesets.

[Managing codesets](#) involves:

- Editing Codesets
- Copying Codesets
- Editing Code Value Grid
- Retiring Codesets

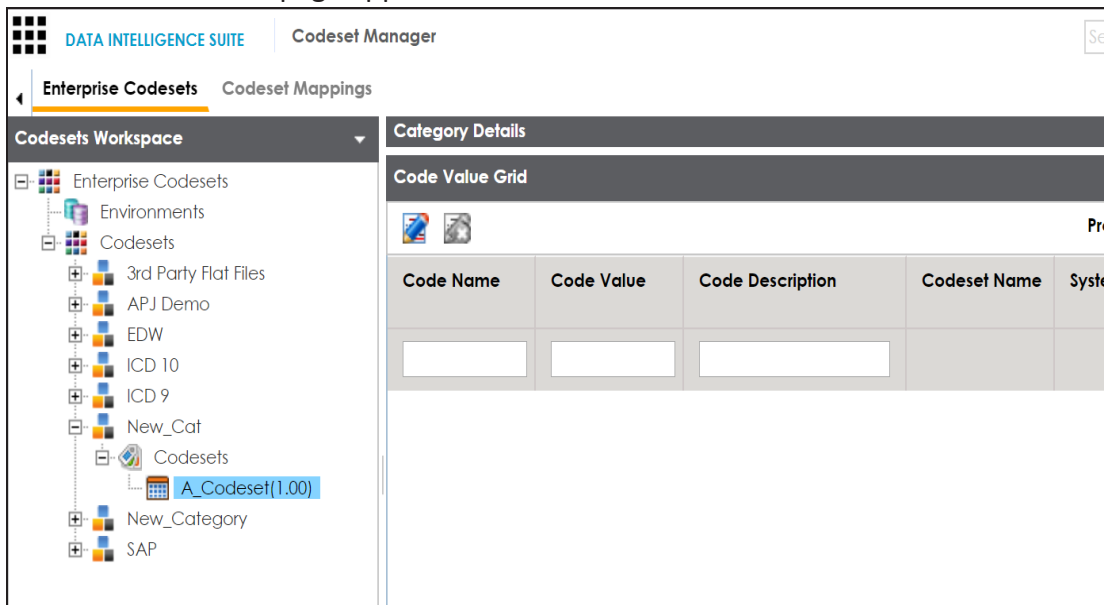
Importing Codes into Code Value Grid using DB Scan

You can import codes into Code Value Grid by scanning a database. Enter connection parameters and establish a connection between the database and erwin DI. Once the connection is established, write an SQL query to preview the required data. You can select the required columns and import them as codes into the Code Value Grid.

To import codes using DB scan, follow these steps:

1. In the **Codesets Workspace** pane, click the required codeset.

The Code Value Grid page appears.

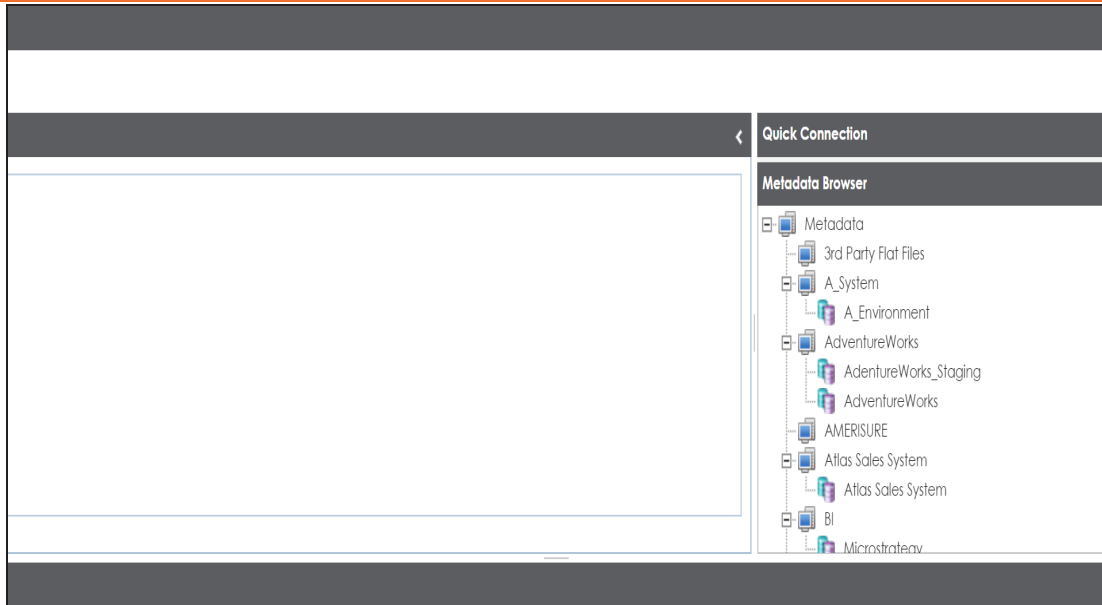


2. Click , to enable edit mode.

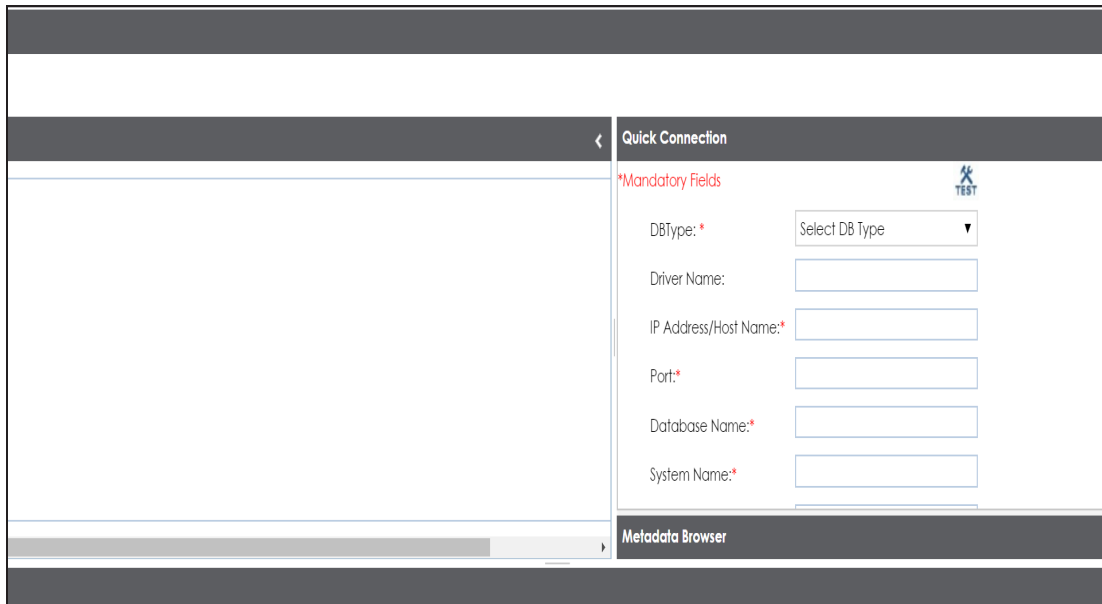
3. Click  .

The Following page appears.

Importing Codes into Code Value Grid using DB Scan



4. Expand the **Quick Connection** pane.






5. Enter appropriate values in the fields (connecting parameters). Fields marked with a red asterisk are mandatory. Refer to the following table for field description.

Importing Codes into Code Value Grid using DB Scan

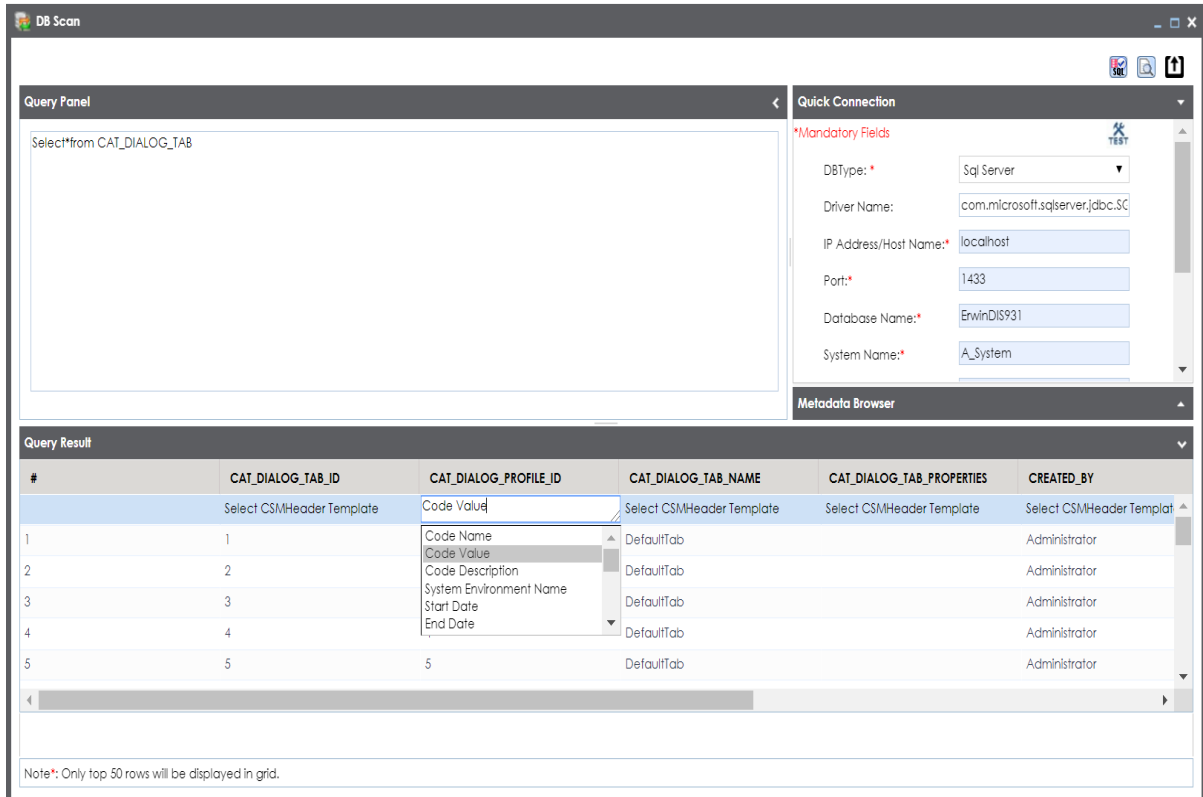
Field Name	Description
DBType	Specifies the database type. For example, Sql Server. Select the database type from which you wish to scan codes.
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.microsoft.sqlserver.jdbc.SQLServerDriver It is autopopulated depending on the DB type. You can also update the driver name.
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, localhost.
Port	Specifies the port to connect with the database. For example: 1433 is the default port for a Sql Server database type.
Database Name	Specifies the database name being used to connect to the codeset. For example, ErwinDIS931.
System Name	Specifies the name of the system related with the codeset. For example, EDW. The name of the system should be same as provided in Metadata Manager.
System Environment Name	Specifies the name of the environment related with the codeset. For example, EDW-DEV. The name of the environment should be same as provided in Metadata Manager.
User Name	Specifies the user name to connect with database. For example, sa.
Password	Specifies the password to connect with database. For example, goerwin@1.
URL	Specifies the full JDBC URL that is used to establish a connection with the database.

Importing Codes into Code Value Grid using DB Scan

Field Name	Description
	For example, jdbc:sqlserver://SERVER_NAME:PORT#;data-baseName=DatabaseName It is autopopulated based on the other parameters.

- Click  to test the connection.
On a successful connection, Connection Successful pop-up appears.
- Write an SQL query in the **Query Panel** to fetch the required data from the database.
- Click  to validate the query.
- Click  to preview the data.
- Double-click the **Select CSMHeader Template** cell of the required column.

The columns of the Code Value Grid appears as an option list.



The screenshot shows the DB Scan application interface. The Query Panel contains the SQL query: `Select*from CAT_DIALOG_TAB`. The Quick Connection panel shows the following settings:

- DBType: * Sql Server
- Driver Name: com.microsoft.sqlserver.jdbc.S
- IP Address/Host Name:* localhost
- Port:* 1433
- Database Name:* ErwinDIS931
- System Name:* A_System

The Query Result table displays the following data:

#	CAT_DIALOG_TAB_ID	CAT_DIALOG_PROFILE_ID	CAT_DIALOG_TAB_NAME	CAT_DIALOG_TAB_PROPERTIES	CREATED_BY
	Select CSMHeader Template	Code Value	Select CSMHeader Template	Select CSMHeader Template	Select CSMHeader Templat
1	1	Code Name	DefaultTab		Administrator
2	2	Code Value	DefaultTab		Administrator
3	3	Code Description	DefaultTab		Administrator
4	4	System Environment Name	DefaultTab		Administrator
5	5	Start Date	DefaultTab		Administrator
6	5	End Date	DefaultTab		Administrator


Note*: Only top 50 rows will be displayed in grid.

Importing Codes into Code Value Grid using DB Scan

11. Select the required Code Value Grid column.



You can select multiple columns from the database.

12. Click  to import the selected columns into the **Code Value Grid**.

The selected columns are imported in the **Code Value Grid**.

Once you import the codes in the Code Value Grid, you can manage codesets.

[Managing codesets](#) involves:

- Editing Codesets
- Copying Codesets
- Editing Code Value Grid
- Retiring Codesets

Managing Codesets

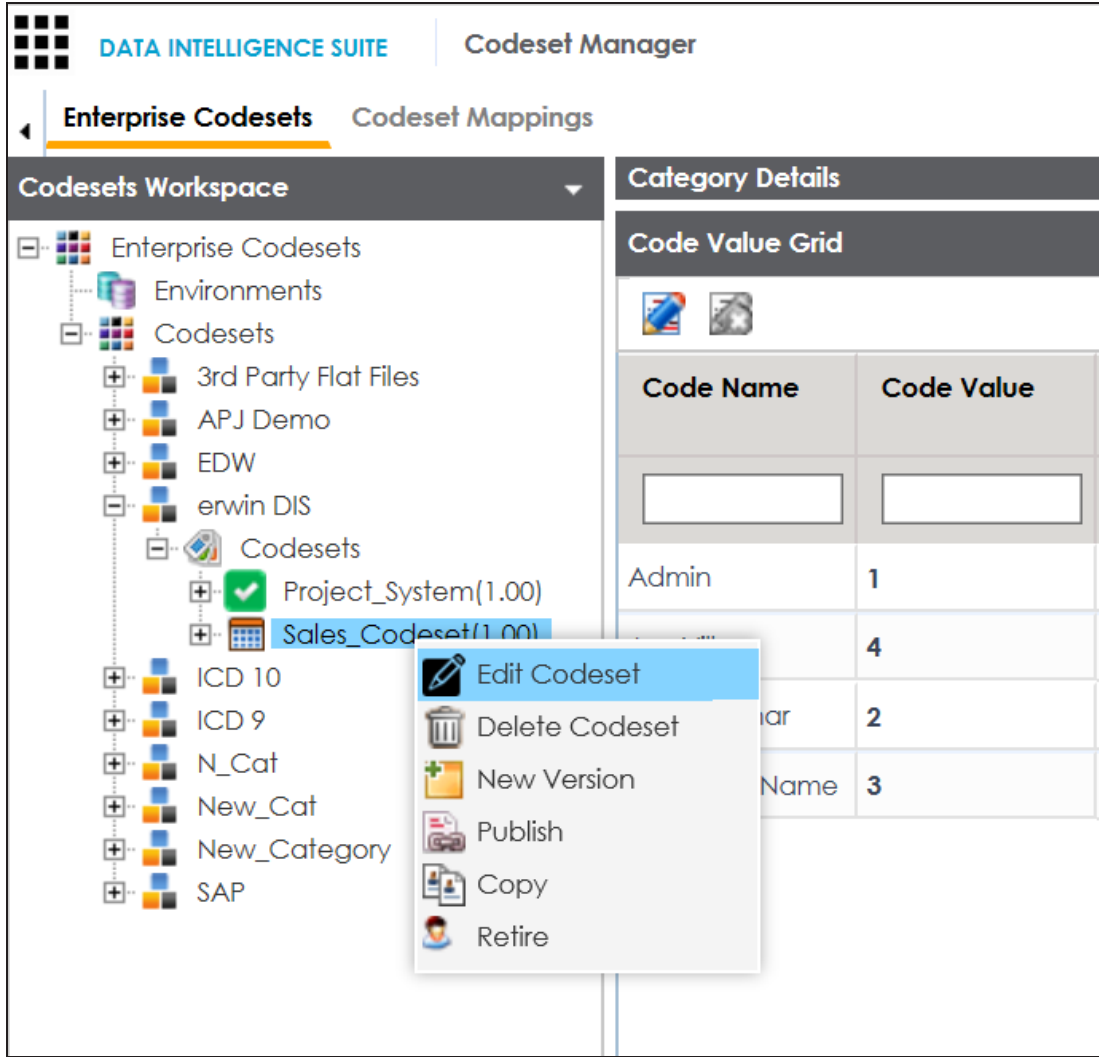
Managing Codesets involves the following:

- Editing codesets
- Deleting codesets
- Creating new codeset version
- Publishing codesets
- Copying codesets
- Retiring codesets

You can manage the codesets and update its details.

To manage codesets, follow these steps:

1. In the **Codesets Workspace** pane, expand a category.
2. Expand the **Codesets** node, and right-click a codeset.



3. Use the following options:

Edit Codeset

Use this option to update codeset's details.

Delete Codeset

Use this option to delete a codeset.

New Version

Use this option to create a new codeset version. For more information on creating new codeset version, refer to [Versioning Codesets](#) topic.

Managing Codesets

Publish

Use this option to publish the codesets. For more information on publishing codesets, refer to [Publishing Codesets](#) topic.

Copy

Use this option to copy the selected codeset and paste it in a different category.

Retire



Use this option to retire a codeset and it is moved to the Retired Codesets pane. After you retire a codeset, you cannot retrieve that codeset.

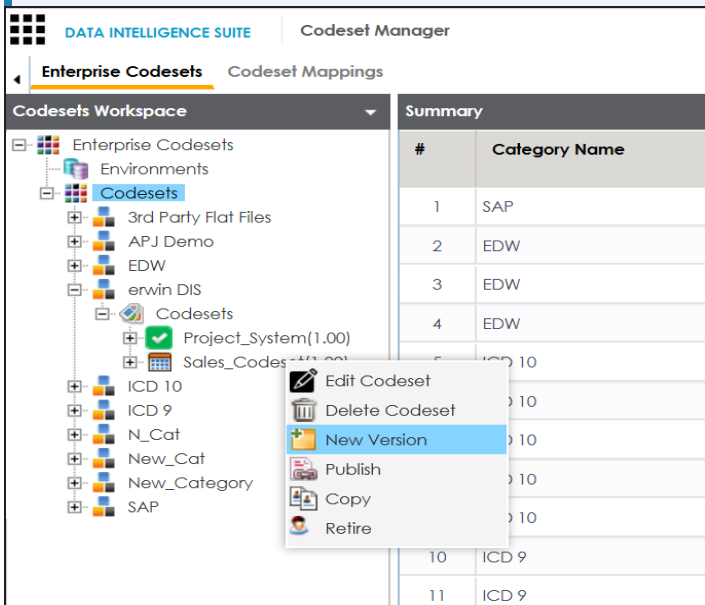
Versioning Codesets

You can version codesets and maintain the legacy of codesets with a record of changed description.

To create new versions of codesets, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, right-click a codeset.

 Ensure the codeset is in edit mode. Click  to cancel edit mode.



The screenshot shows the 'Codeset Manager' interface. On the left is the 'Codesets Workspace' tree view, and on the right is a 'Summary' table. A context menu is open over the 'New Version' option in the tree view.

#	Category Name
1	SAP
2	EDW
3	EDW
4	EDW
5	ICD 10
6	ICD 10
7	ICD 10
8	ICD 10
9	ICD 10
10	ICD 9
11	ICD 9

3. Click **New Version**.

The New Codeset Version page appears.

Versioning Codesets

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

Field Name	Description
Codeset Name	Specifies the name of the codeset whose version is being created. For example, Country Codes. It is autopopulated with the codeset name and cannot be edited.
Codeset Version	Specifies the new version of the codeset. For example, 1.03.
Codeset Description	Specifies the description about the codeset. For example: This codeset has code names and code values for four countries. It is autopopulated with the codeset description and cannot be edited.
Codeset Version Label	Specifies the version label of the codeset. For example, Beta.
Codeset Changed Description	Specifies the description about the changes in the codeset. For example: Code Value for CANADA was changed to CAN.

5. Click .

The new version is created and the older version is archived.

Deleting Codes and Codesets

You can logically delete and restore the codes, and also permanently delete the codesets.

To delete codesets, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, expand a category.
3. Expand a **Codesets** node and click a codeset.

The Code Value Grid appears

The screenshot shows the 'Codeset Manager' interface. On the left is the 'Codesets Workspace' tree view with 'Enterprise Codesets' expanded to show 'Codesets' and 'Sales_Codeset(1.00)'. The main area is the 'Code Value Grid' for 'Sales_Codeset(1.00)'. The grid has columns: Code Name, Code Value, Code Description, Codeset Name, System Name/Environment, Active Indicator, Delete Indicator, and Extended Properties. The 'Delete Indicator' column contains checkboxes for each row.

Code Name	Code Value	Code Description	Codeset Name	System Name/Environment	Active Indicator	Delete Indicator	Extended Properties
Admin	1		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Joe Villers	4		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Kartik Sridhar	2		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View
Resource_Name	3		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	View

4. Select **Delete Indicator** check box for relevant Codeset Name from the Codeset Value Grid.

A warning message appears.

5. Click **Yes**.

The code is logically deleted and can be restored or purged.

To restore or purge logically deleted codes, follow these steps:

1. Click .

The Logically Deleted Codes page appears.

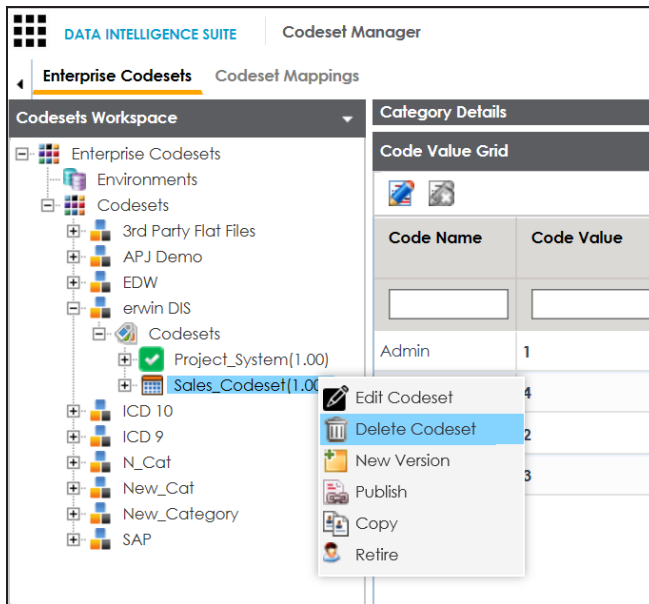
Deleting Codes and Codesets

Select Rows	Code Name	Code Value	Code Description	Codeset Name	System Name/Environment	Active Indicator	Start Date	End Date
<input type="checkbox"/>	Admin	1		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	Joe Villers	4		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	Kartik Sridhar	2		Sales_Codeset	Project_System	<input checked="" type="checkbox"/>		

2. Select required rows.
3. Click , to delete the selected rows.
4. Click , to restore the selected rows.

To permanently delete codesets, follow these steps:

1. Right-click a codeset.



To delete a codeset, ensure the codeset is in edit mode. Click to cancel edit mode.

2. Click **Delete Codesets**.

A warning message appears.

Deleting Codes and Codesets

3. Click **Yes**.

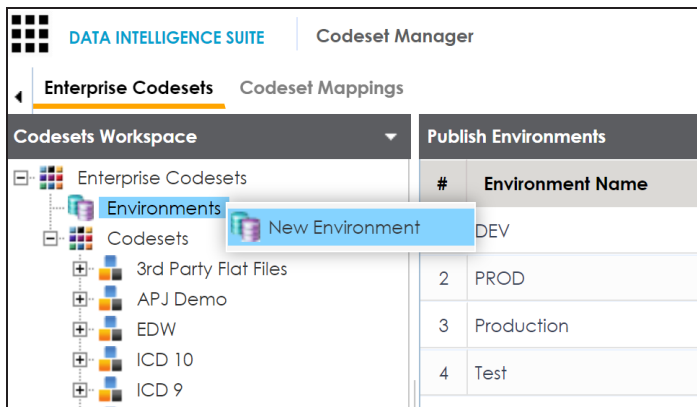
The codeset is deleted.

Publishing Codesets

You can publish your codesets to an environment. To publish the codesets, ensure that you have created and setup an environment.

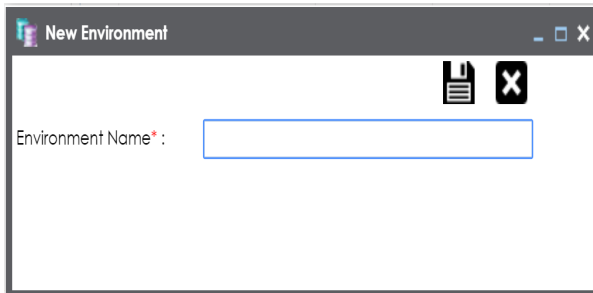
To create publish environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, right-click the **Environments** node.



3. Click **New Environment**.

The New Environment page appears.



4. Enter **Environment Name**.

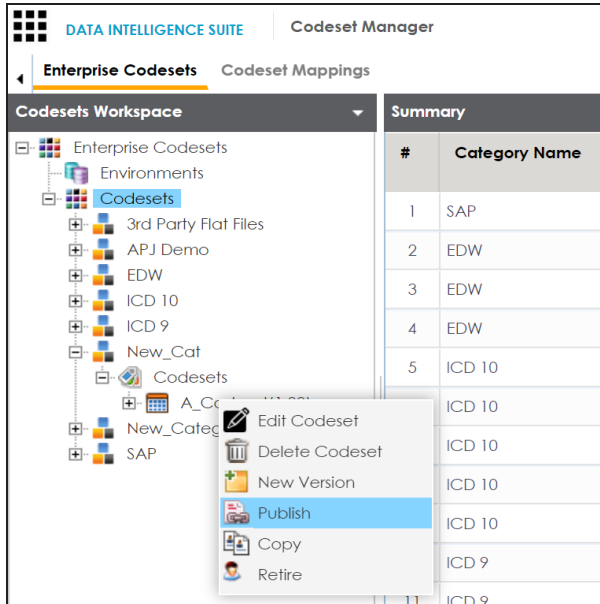
5. Click .

A new publish environment is created and saved in the Publish Environments pane.

Publishing Codesets

To publish codesets, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager>**.
2. In the **Codesets Workspace** pane, right-click a codeset.



3. Click **Publish**.

The Publish Codesets page appears.

Publishing Codesets

* Publishing the Codeset will create a new version.

Codeset Name: A_Codeset

Codeset Version: 1.01

Codeset Version Label:

Codeset Changed Description*

Publish Environment*: DEV, PROD, Production, Test

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

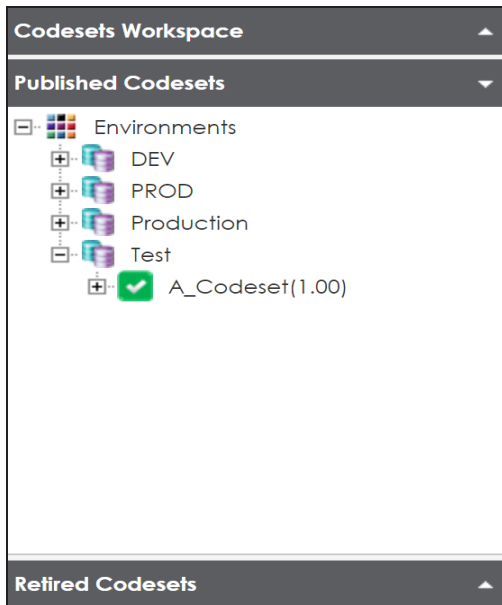
Field Name	Description
Codeset Name	Specifies the name of the codeset which is being published. For example, Country Codes. It autopopulates with the codeset name and cannot be edited.
Codeset Version	Specifies the new version of the codeset. For example, 1.03. It autopopulates with the new version and cannot be edited.
Codeset Version Label	Specifies the version label of the codeset. For example, Beta.
Codeset Changed Description	Specifies the description about the changes in the codeset. For example: Code Value for CANADA was changed to CAN.
Publish Environment	Specifies the publish environment to which the codeset is

Publishing Codesets

Field Name	Description
	being published. For example, Production.

5. Click .

The codeset is published successfully and the published codesets move under Published Codesets pane.



Once the source and target codesets are published, you can [create code mappings](#).



You can create code mappings without publishing source or target codesets, but it is recommended that you create code mappings after publishing the codesets.

Maintaining Code Mappings

The Codeset Mappings section in Codeset Manager allows you to define and categorize code mappings. The process is standardized with ability to version and publish code mappings to various environments. Further, these published code mappings can be associated with data item mappings in the Mapping Manager.

Maintaining Code Mapping involves:

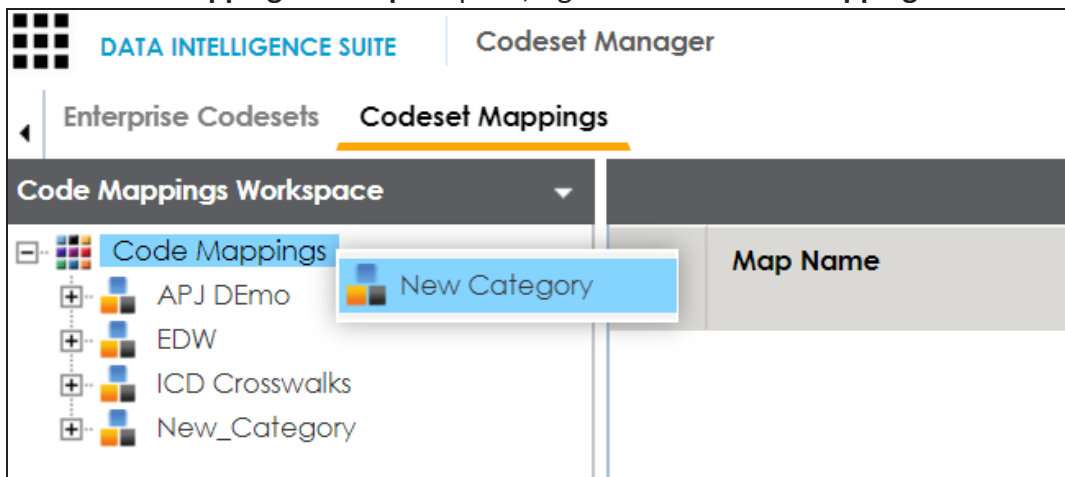
- [Creating Categories](#)
- [Creating code maps](#)
- [Versioning codemaps](#)
- [Publishing and association codemaps](#)

Creating Categories

Code maps are stored in a hierarchical manner Categories > Mappings. You can also create sub-categories under a category to provide one more level of categorization to mappings.

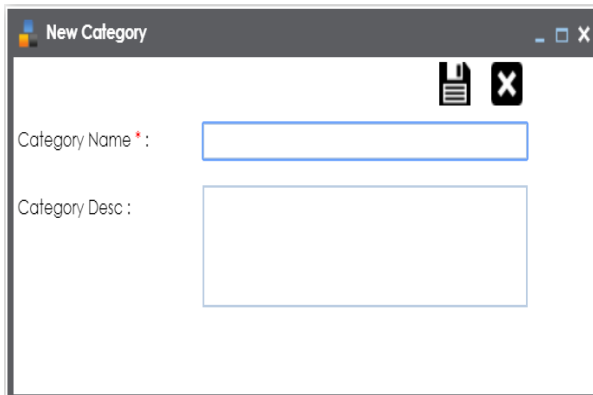
To create a category, follow these steps:

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



3. Click **New Category**.

The New Category page appears.

A screenshot of a 'New Category' dialog box. The title bar says 'New Category'. There are two input fields: 'Category Name *:' with a red asterisk indicating a required field, and 'Category Desc:'. There are also icons for a document and a close button (X) in the top right corner.

4. Enter **Category Name** and **Category Description**.

For example:

Creating Categories

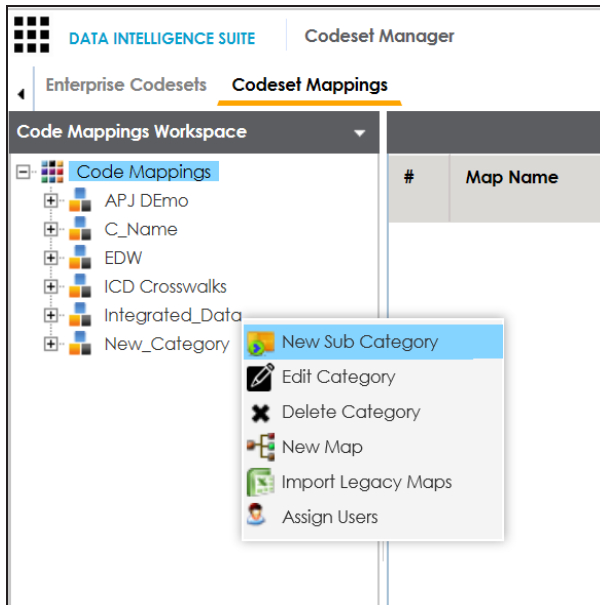
- **Category Name:** EDW
- **Category Description:** This category contains two code mappings, Gender Crosswalk and Marital Status Crosswalk.

5. Click .

A new category is created and saved under the category tree.

To create sub-categories under a category, follow these steps:

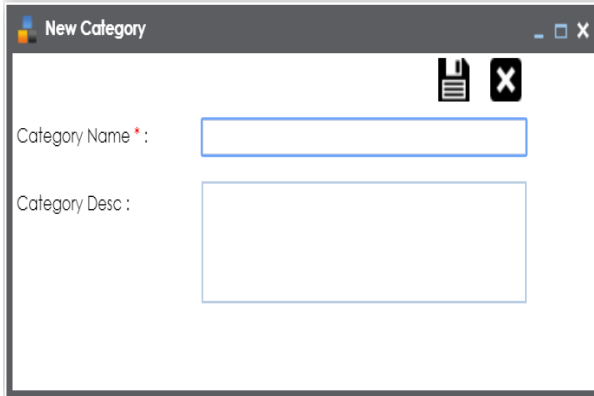
1. Under the **Code Mappings Workspace** pane, right-click the required category.



2. Click **New Sub Category**.

The New Category page appears.

Creating Categories



3. Enter **Category Name** and **Category Description**.

For example:

- **Category Name:** EDW-Finance
- **Category Description:** This sub-category contains two code mappings, Gender Crosswalk and Marital Status Crosswalk.

4. Click .

A new sub-category is created and saved under the sub-category tree.

Once a category is created, you can:

- [Creating code crosswalks for mappings](#)
- [Verisoning code maps](#)
- [Associating code maps with data item mappings](#)

You can also manage it using the options available on the right-clicking category. [Managing categories](#) involves:

- Updating categories
- Deleting categories
- Importing legacy maps
- Assigning users

Managing Categories

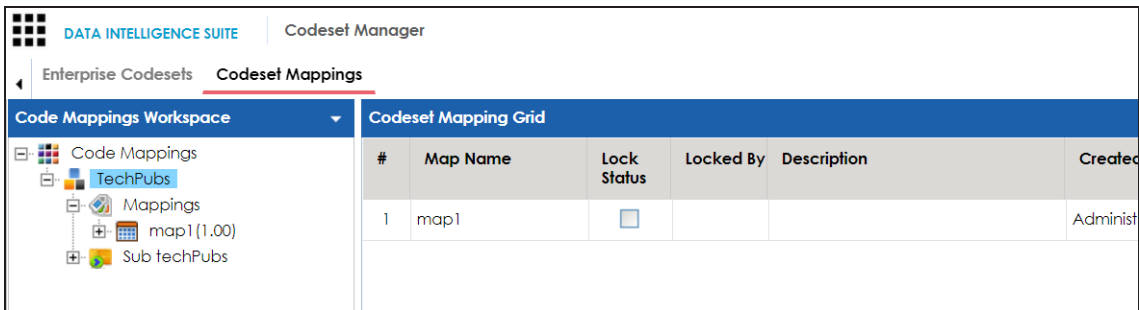
Managing categories involves:

- Updating categories
- Deleting categories
- Importing legacy maps
- Assigning users

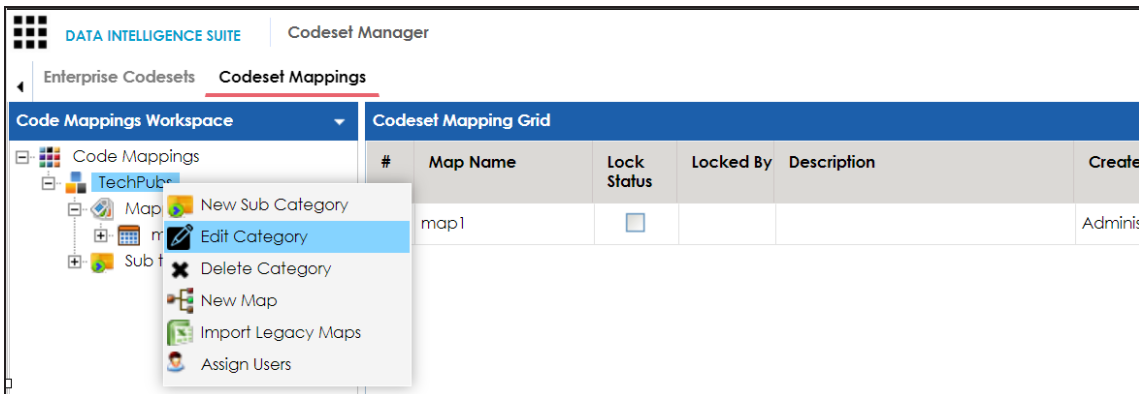
To manage categories, follow these steps:

1. In the **Codesets Mappings** pane, click a category.

The Category Mapping Grid appears.



2. Right-click a category.



3. Use the following options:

Edit Category

Managing Categories

Use this option to update the category's details.

Delete Category

Use this option to delete a category. Deleting a category also deletes the maps in it.

Import Legacy Maps

Use this option to import old maps to the catalog.

Assign Users

Use this option to assign users to a category based on your organization's projects, departments, functions, and so on.

Creating Code Crosswalks (Mappings)

You can create code crosswalks (mappings) for the source and target codesets in the Code-set Manager. These codesets can have the same or different code values. Using the Auto-Map functionality, you can map source and target codesets with:

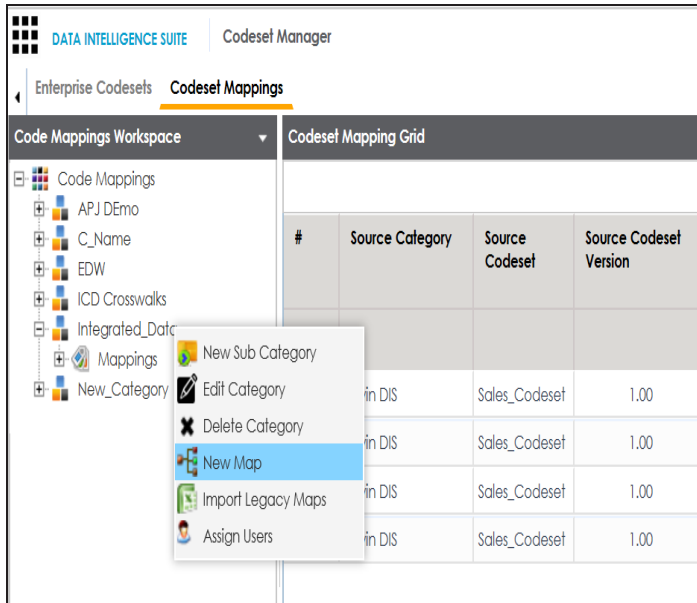
- Same code values
- Different code values

Creating Code Crosswalks - Source and Target Codesets with Same Code Value

You can use Auto-Map functionality to map source and target codesets having same code values.

To create code mappings when source and target codesets have same code values, follow these steps:

1. Right-click the required category.



2. Click **New Map**.

Creating Code Crosswalks (Mappings)

The New Codeset Map page appears.

3. Enter the **Codeset Map Name** and **Codeset Map Description**.

For example:

- **Codeset Map Name:** Gender Crosswalk
- **Codeset Map Description:** The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.

4. Select the **Source Codeset/System** and **Target Codeset/System**.

5. Select the Auto Map check box and click .

A new code mapping is created and source and target codesets are mapped in the Codeset Mapping Grid.

Creating Code Crosswalks (Mappings)

The screenshot displays the 'Codeset Manager' application. The main window is titled 'Codeset Mappings' and contains a 'Codeset Mapping Grid' with the following data:

#	Source Category	Source Codeset	Source Codeset Version	Source System/Environment	Source Code Description	Source Code ID
1	erwin DIS	Sales_Codeset	1.00	Project_System		710
2	erwin DIS	Sales_Codeset	1.00	Project_System		711
3	erwin DIS	Sales_Codeset	1.00	Project_System		712
4	erwin DIS	Sales_Codeset	1.00	Project_System		713

Below the grid is a 'CSM MapSpec Overview' section with the following fields:

- Codeset Map Name:
- Codeset Map Version:

The interface also includes a 'Code Mappings Workspace' on the left and a 'Codeset Tree' on the right.

6. Click  to validate the code mapping.

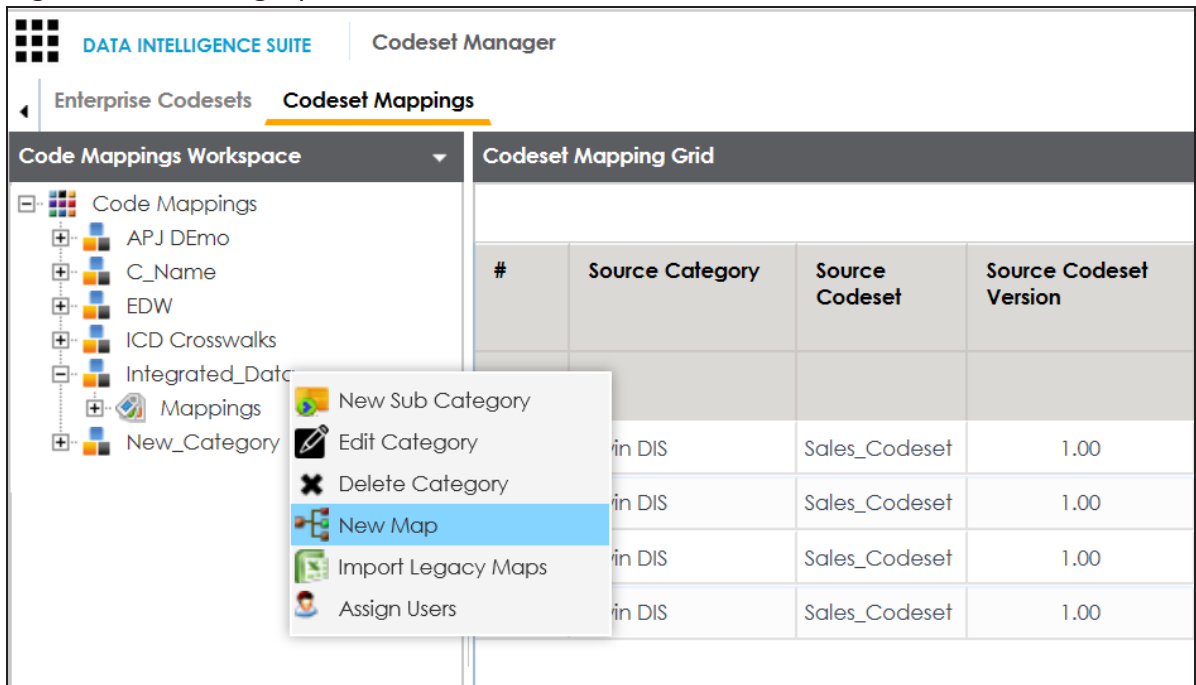
Creating Code Crosswalks - Source and Target Codesets with Different Code Value

Codesets having different code values can be mapped using the drag and drop method.

To create code mappings when source codesets and target codesets have different code values, follow these steps:

Creating Code Crosswalks (Mappings)

1. Right-click the category.



The screenshot shows the 'Codaset Manager' interface. On the left, the 'Code Mappings Workspace' displays a tree view with 'Mappings' selected. A context menu is open over 'Mappings', with 'New Map' highlighted. The 'Codaset Mapping Grid' on the right shows a table with columns: '#', 'Source Category', 'Source Codeset', and 'Source Codeset Version'. The table contains four rows of data.

#	Source Category	Source Codeset	Source Codeset Version
	in DIS	Sales_Codeset	1.00
	in DIS	Sales_Codeset	1.00
	in DIS	Sales_Codeset	1.00
	in DIS	Sales_Codeset	1.00

2. Click **New Map**.

The New Codeset Map page appears.

Creating Code Crosswalks (Mappings)

New Codeset Map

Codeset Map Name*

Codeset Map Version

Codeset Map Description

Source Codeset

- 3rd Party Flat Files.Misc Marital Status Codes
- 3rd Party Flat Files.Misc Gender Codes
- APJ Demo.Gender Codes
- EDW.Gender
- EDW.Marital Status
- EDW.Country Codes

Source

- 3rd Party Flat Files
- 3rd Party Flat Files.3rd Party Flat Files
- A_System
- A_System.A_Environment
- AdventureWorks
- AdventureWorks.AdentureWorks_Staging

Target Codeset

- 3rd Party Flat Files.Misc Marital Status Codes
- 3rd Party Flat Files.Misc Gender Codes
- APJ Demo.Gender Codes
- EDW.Gender
- EDW.Marital Status
- EDW.Country Codes

Target

- 3rd Party Flat Files
- 3rd Party Flat Files.3rd Party Flat Files
- A_System
- A_System.A_Environment
- AdventureWorks
- AdventureWorks.AdentureWorks_Staging

Auto Map

*Auto mapping occurs for source and target codes having the same values.

3. Enter the **Codeset Map Name** and **Codeset Map Description**.

For example:

- **Codeset Map Name:** Gender Crosswalk
- **Codeset Map Description:** The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.

4. Select the Source Codeset/System.

5. Click .


The source codesets details are updated in the Codeset Mapping Grid.

Creating Code Crosswalks (Mappings)

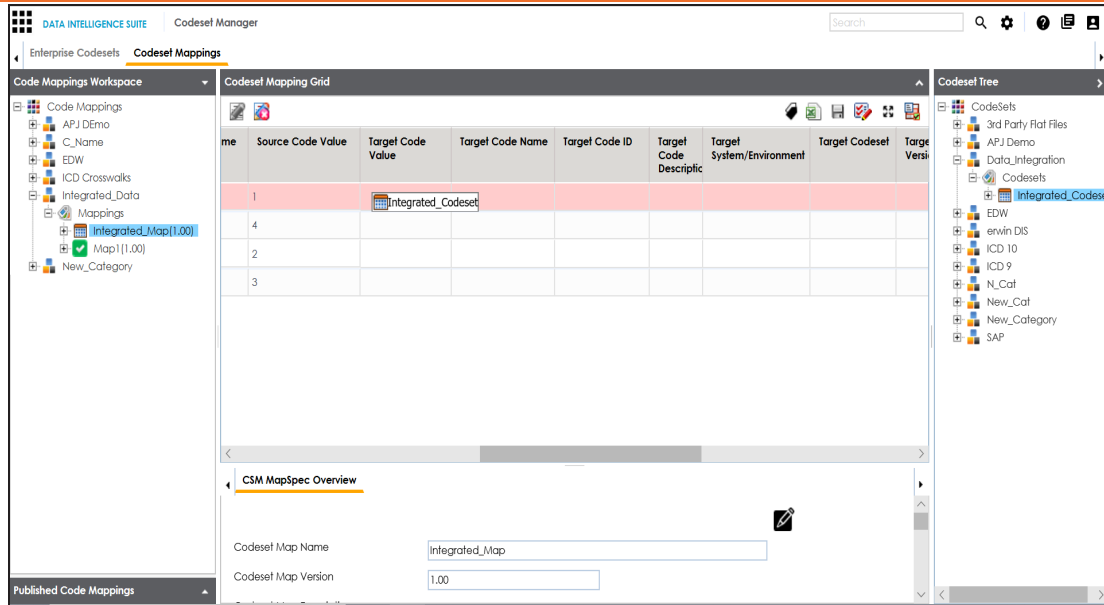
The screenshot displays the 'Codeset Manager' application interface. The main window is titled 'Codeset Manager' and contains several panes:

- Code Mappings Workspace:** A tree view on the left showing a hierarchy of code mappings, including 'Integrated_Map (1.00)' which is currently selected.
- Codeset Mapping Grid:** A central table with the following columns: '#', 'Source Category', 'Source Codeset', 'Source Codeset Version', 'Source System/Environment', 'Source Code Description', and 'Source Code ID'. It contains four rows of data:

#	Source Category	Source Codeset	Source Codeset Version	Source System/Environment	Source Code Description	Source Code ID
1	erwin DIS	Sales_Codeset	1.00	Project_System		710
2	erwin DIS	Sales_Codeset	1.00	Project_System		711
3	erwin DIS	Sales_Codeset	1.00	Project_System		712
4	erwin DIS	Sales_Codeset	1.00	Project_System		713
- Codeset Tree:** A tree view on the right showing the structure of codesets, including 'erwin DIS', 'Codesets', 'Project_System', and 'Sales_Codeset'.
- CSM MapSpec Overview:** A pane at the bottom showing the 'Codeset Map Name' as 'Integrated_Map' and the 'Codeset Map Version' as '1.00'.

6. Click .
7. Scroll to right of the Codeset Mapping Grid to see the Target Code Value column.
8. In **Codeset Tree**, expand the target category and the Codesets node.
9. Drag and drop the target codeset into the Code Set Mapping Grid under the Target Code Value column.

Creating Code Crosswalks (Mappings)



10. Click .


The code mappings are successfully saved.

11. Click  to validate the code mapping.


The code map is validated. Ensure that all the required codes are mapped.

Use the following options:

Export

To download the code map details in .xlsx format, click .

Extend Mapping Grid

To extend the Codeseal Mapping Grid, click .

Once the code map is created, you can:

- [Edit Code Mappings](#)
- [Create new version of the code map](#)
- [Publish and associate the code map with data item mappings](#)

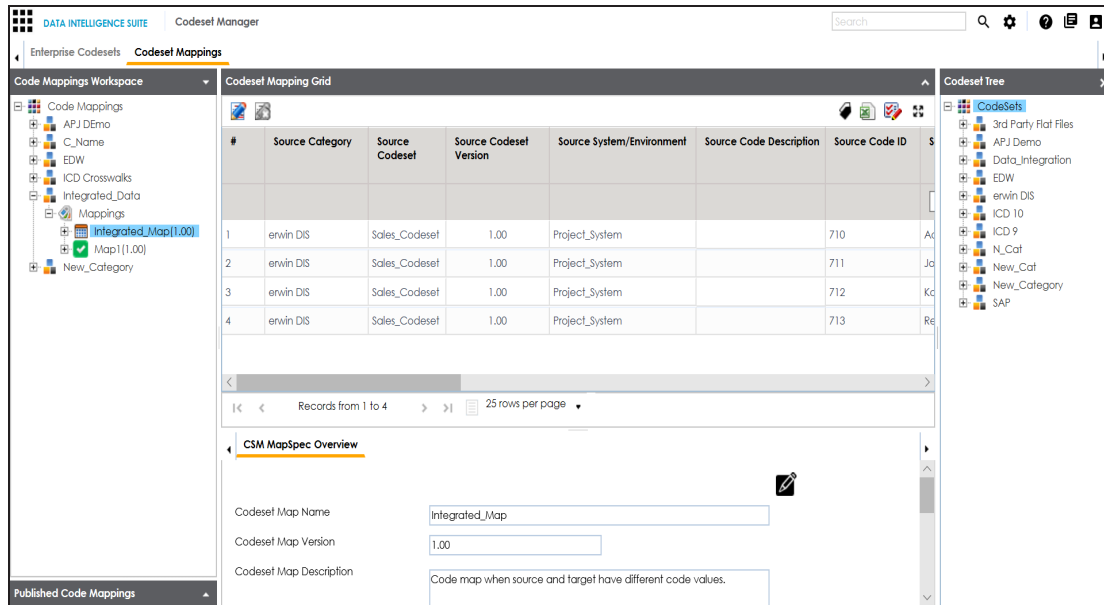
Editing Code Mappings

You can update source codesets and target codesets in the Codeset Mapping Grid.

To update source codesets, follow these steps:


1. Go to **Application Menu > Data Catalog > Codeset Manager > Codeset Mappings**.
2. In the **Code Mappings Workspace** pane, expand a category and click a codemap.


The Codeset Mapping Grid and CSMMMapSpec Overview pane appears.



3. In **CSM Mapping Overview** pane, click .

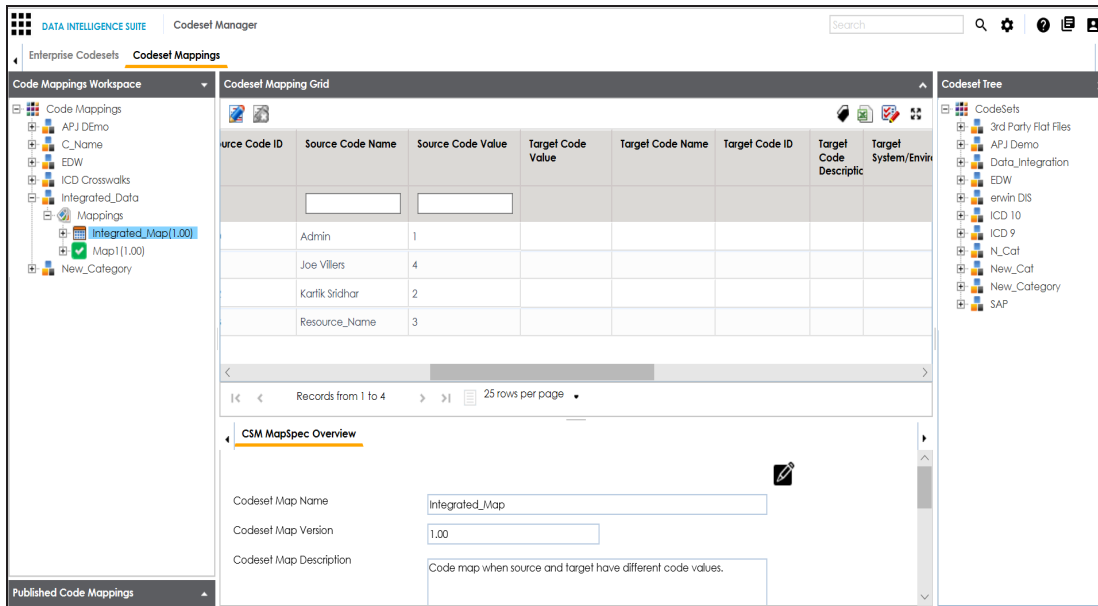
You can update Codeset Map Name and Codeset Map Description.

 You cannot edit Codeset Map Version.

4. Select a new Source Codeset and Source System/Environment.
5. Select a Target Codeset and Target System/Environment.
6. Click .

Editing Code Mappings

The Codeset Mapping Grid is updated with the new source codeset. But, the target codeset doesn't update in the Codeset Mapping Grid. You need to drag and drop target codeset from the Codeset Tree to Codeset Mapping Grid.




To update target codeset in the Codeset Mapping Grid, follow these steps:

1. In the Codeset Mapping Grid, click .




The Codeset is locked and other users cannot make changes.

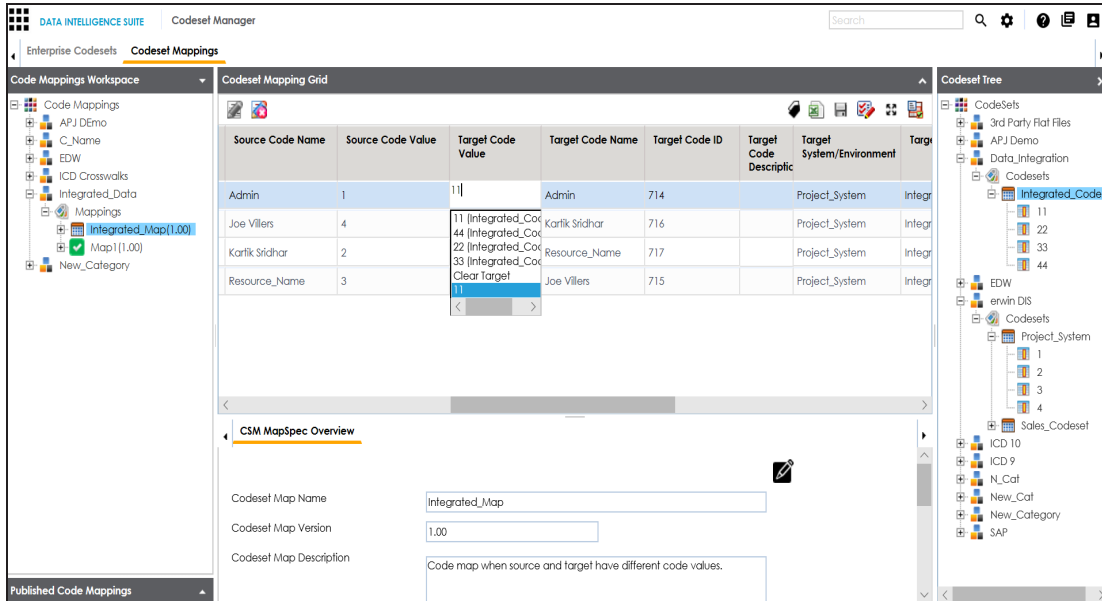
2. In the Codeset Tree, expand the target category and the **Codesets** node.
3. Drag and drop the target codeset into the Code Set Mapping Grid under the Target Code Value column.
4. Click .

The target codeset is updated in the Codeset Mapping Grid.

To update target code values in the Codeset Mapping Grid, follow these steps:

Editing Code Mappings

1. In the Codeset Mapping Grid, click .
2. Double-click a cell under the Target Code Value column and update it with the one of the options available.



The screenshot displays the 'Codeset Manager' application. The main window is titled 'Codeset Manager' and contains several panes:

- Code Mappings Workspace:** A tree view on the left showing a hierarchy of code mappings, with 'Integrated_Map(1.00)' selected.
- Codeset Mapping Grid:** A table with columns: Source Code Name, Source Code Value, Target Code Value, Target Code Name, Target Code ID, Target Code Descrip, Target System/Environment, and Target. The table contains several rows, including 'Admin', 'Joe Villers', 'Kartik Sridhar', and 'Resource_Name'. The 'Target Code Value' column for 'Admin' is currently '11'. A pencil icon is visible in the top right of the grid.
- CSM MapSpec Overview:** A form below the grid with fields for 'Codeset Map Name' (value: 'Integrated_Map'), 'Codeset Map Version' (value: '1.00'), and 'Codeset Map Description' (value: 'Code map when source and target have different code values.').
- Codeset Tree:** A tree view on the right showing the overall structure of codesets, with 'Integrated_Codes' selected.

3. Click .

The target code values are updated.

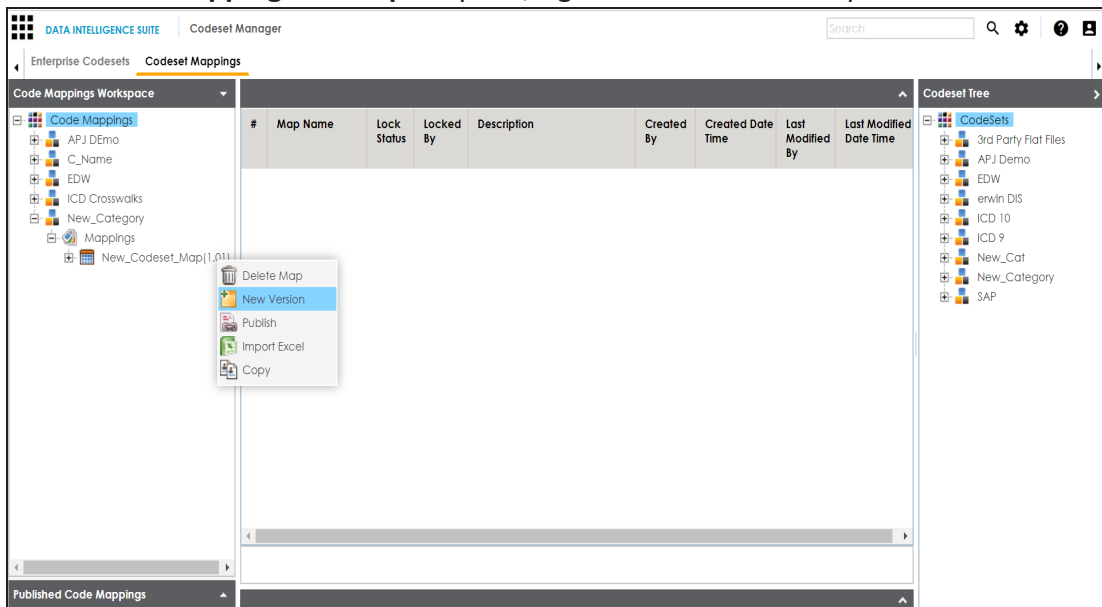
Versioning Code Mappings

You can create versions of code mappings and track legacy of a code map.

The new version is available in the Code Mappings Workspace under the Mappings tree.

To create new versions of code mappings, follow these steps:

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



3. Click **New Version**.
4. The New Codeset Map Version page appears.

Versioning Code Mappings

The screenshot shows a window titled "New Codeset Map Version". It contains the following fields:

- Codeset Map Name*: New_Codeset_Map
- Codeset Map Version: 1.02
- Codeset Map Description: (empty text area)
- Map Version Label: (empty text field)
- Map Changed Description*: (empty text area)

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
Codeset Map Name	Specifies the name of the codeset map. For example, Gender Crosswalk.
Codeset Map Version	Specifies the new version of the codeset map. For example, 1.02.
Codeset Map Description	Specifies the description about the codeset 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 codeset map. For example, Beta.

6. Click .

The new version is created and saved in the Mappings tree while the older version is archived.

Associating Code Maps with Data Item Mappings

A code map can be associated with a data item mapping to standardize data across the organization. These code maps are maintained in Codesets Manager. For more information on codesets and code mappings, refer to the [Using Codesets Manager](#) section.

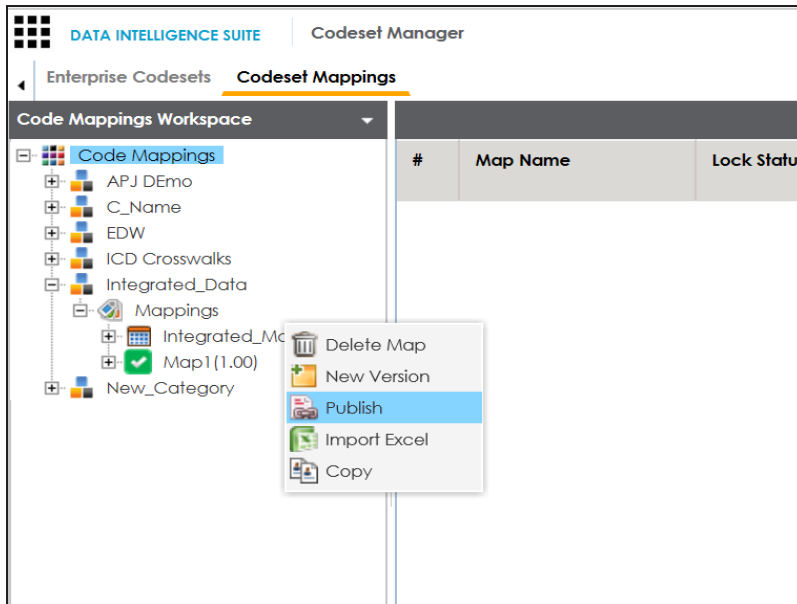
Before associating a code map with data item mappings, ensure that you publish the code map.

Publishing Code Maps

To publish code maps, follow these steps:

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

The available options appear.



3. Click **Publish**.

The Publish Codeset Map page appears.

Associating Code Maps with Data Item Mappings

The screenshot shows a 'Publish Codeset Map' dialog box with the following fields and values:

- Codeset Map Name***: Integrated_Map
- Codeset Map Version**: 1.01
- Codeset Map Description**: Code map when source and target have different code values.
- Map Version Label**: (empty)
- Map Changed Description***: Updated Code Values.
- Publish Environment***: DEV, PROD, Production, Test

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
Codeset Map Name	Specifies the name of the code map. 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.

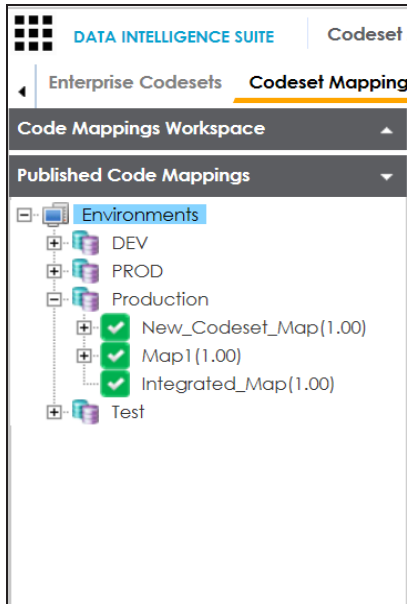
Associating Code Maps with Data Item Mappings

Field Name	Description
	For more information on creating publish environments, refer to the Publishing Codesets topic.

5. Click .

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

A new version of the code 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.

Associating Code Maps

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

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

The Mapping Specification grid appears.

Associating Code Maps with Data Item Mappings

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_TAB	int	5	TRUNC
2	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	ID	bigint	80	TRUNC
3	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	SOURCE_OBJECT	bigint	8	ABS
4	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_PRC	int	4	

3. Click .

4. In the **Mapping Specification** grid, right-click the header menu.

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG			TRUNC
2	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	ID			TRUNC
3	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	SOURCE_OBJECT	bigint	8	ABS

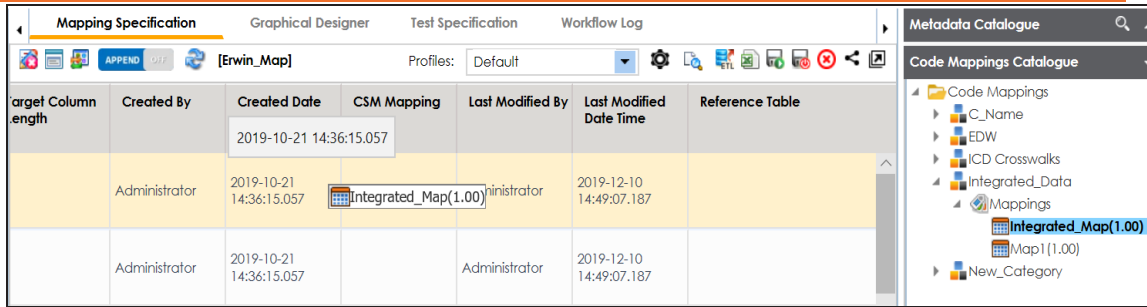
5. Select the **CSM Mapping** check box.

The CSM Mapping Column appears in the Mapping Specification grid.

6. In the right pane, expand **Code Mapping Catalogue**.

7. Drag the code map into the **Mapping Specification** grid and drop it under the **CSM Mapping** column for the required row.

Associating Code Maps with Data Item Mappings



The screenshot shows the 'Mapping Specification' tool interface. The main window displays a table with columns: 'Target Column', 'Created By', 'Created Date', 'CSM Mapping', 'Last Modified By', 'Last Modified Date Time', and 'Reference Table'. The table contains three rows of data. The second row is highlighted in yellow and shows 'Integrated_Map(1.00)' in the 'CSM Mapping' column. To the right, the 'Metadata Catalogue' pane is visible, showing a tree structure of code mappings, with 'Integrated_Map(1.00)' selected under the 'Mappings' folder.

Target Column	Created By	Created Date	CSM Mapping	Last Modified By	Last Modified Date Time	Reference Table
length	Administrator	2019-10-21 14:36:15.057	Integrated_Map(1.00)	Administrator	2019-12-10 14:49:07.187	
	Administrator	2019-10-21 14:36:15.057		Administrator	2019-12-10 14:49:07.187	

8. Click .

The code map is associated with the data item mappings.