

GUIDE

erwin Data Intelligence

Metadata Management Guide 15.0



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Metadata Manager

Metadata Manager enables you to scan metadata from datasources and store it in a central repository. You can view and manage your technical assets using Metadata Manager.

You can create, scan, and manage metadata for your organization and get insights into the assets using the Dashboard. It unlocks the ability to view lineage, mind map, configure asset sensitivity, and support the administrators and data owners in maximizing asset management capabilities. This module helps you locate and manage your systems, environments, tables, and columns in a hierarchy.

Apart from managing assets, you can preview data, profile it, generate pattern summary reports, and provide data quality score.

After performing source to target mappings in the Mapping Manager, you can run Forward or Reverse lineages and perform impact analysis in the Metadata Manager.

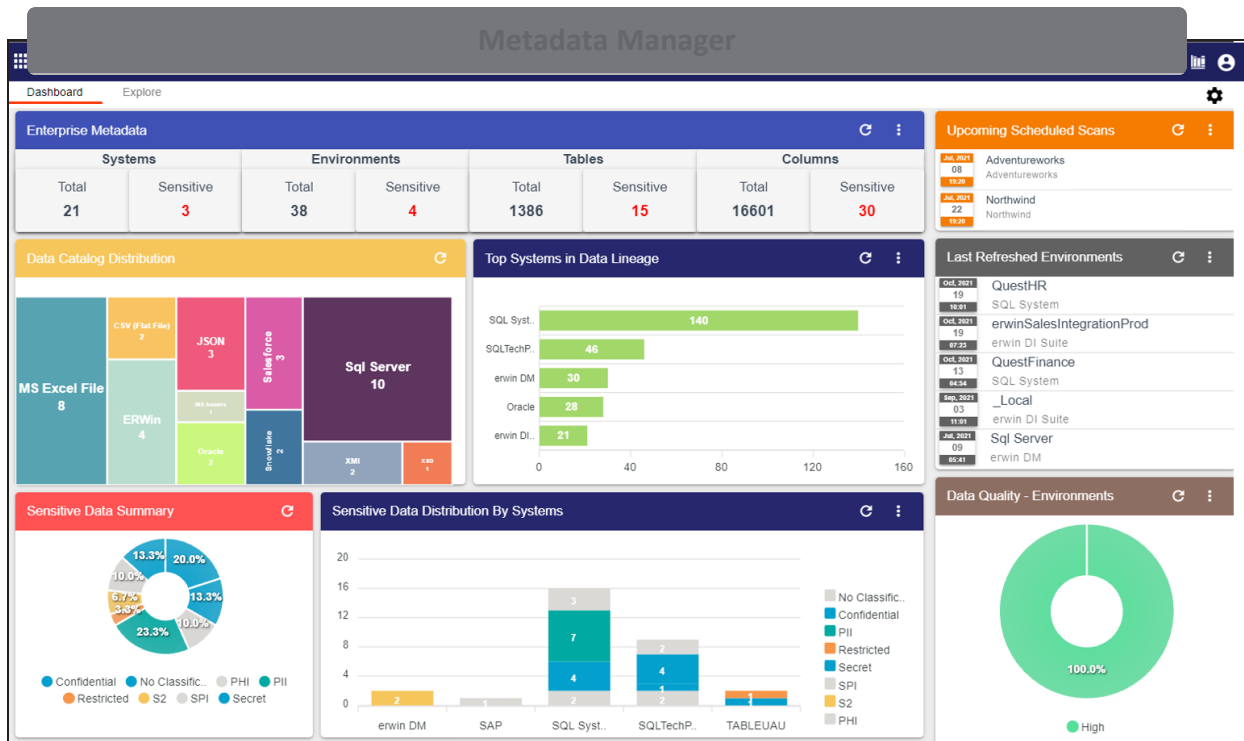
To access the Metadata Manager, go to **Application Menu > Data Catalog > Metadata Manager**.

Based on your configuration, either the Dashboard tab or the Explore tab opens. To configure the landing tab, click  on the top-right corner to set either of the following tabs as default:

- [Dashboard](#)
- [Explore](#)

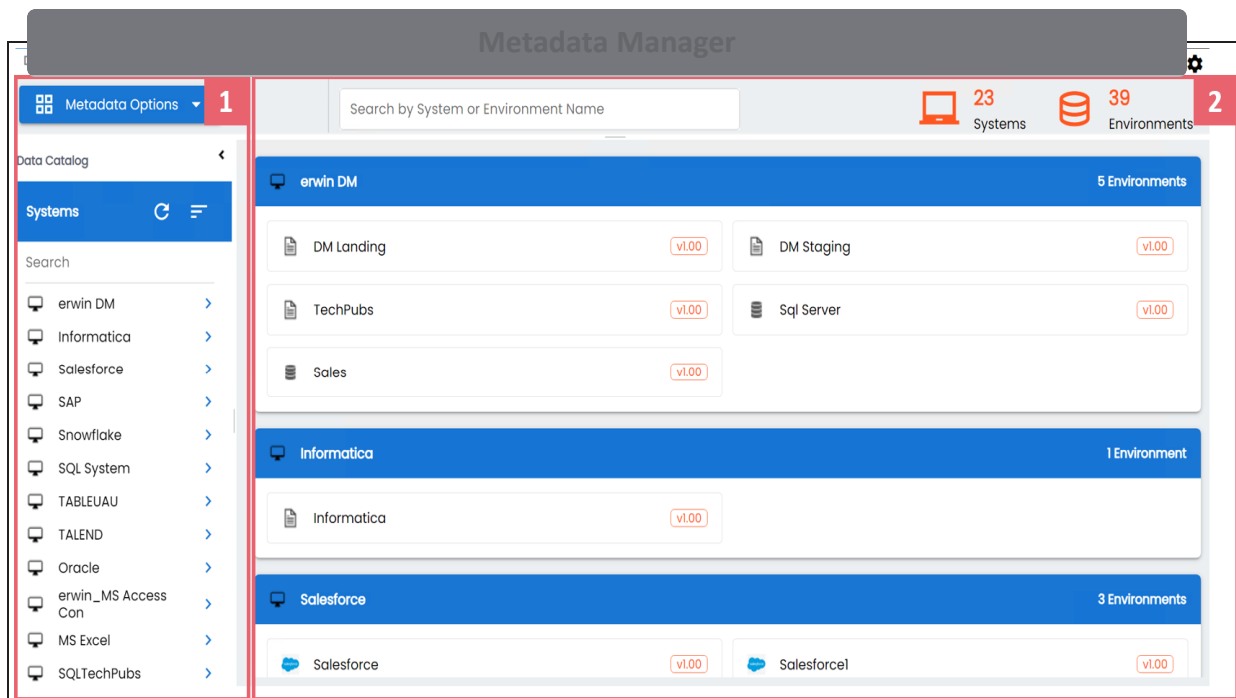
Dashboard

The Dashboard tab displays a snapshot of the underlying data in the Metadata Manager. This includes information about technical assets, their sensitivity, associations, and usage in mappings. For more details on the Dashboard tab, refer to the [Viewing Metadata Manager Dashboard](#) topic.



Explore

The Explore tab is the primary work area. It displays the scanned or imported metadata in a card format and lets you manage metadata. You can effortlessly search, view, and compare assets. Access systems and environment, filter assets based on database type, and use **Metadata Options** to perform system level configurations.



UI Section	Function
1-Data Catalog	Use this pane to browse through your metadata that are stored hierarchically: System > Environment > Table > Column.
2-Asset Catalog	Use this pane to view or work on systems and environments in your organization. You can drill down to access the asset's tables and columns. For more information about using this pane, refer to Using Asset Catalog .

The Metadata Manager's Explore tab enables you to manage your datasources and metadata. The following sections explain how to use the Explore tab and access assets.

- [Using Asset Catalog](#)
- [Accessing Assets](#)

Using Asset Catalog

view systems and environments in a card format, search for assets, and access system level options.

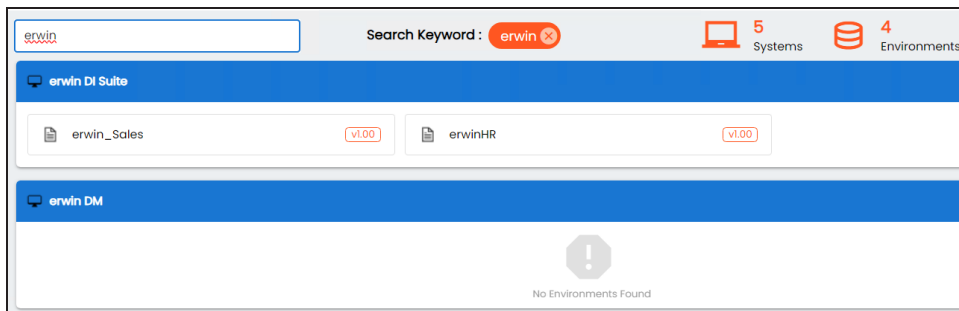
The following sections walks you through the key features of the Asset Catalog pane:

Search Assets

You can narrow down or filter assets using the search box. This will help you search for specific system or environment in your organization.

To search for systems and environments, enter a name of a system or environment in the Search box. The Asset Catalog pane displays the results based on the search keyword.

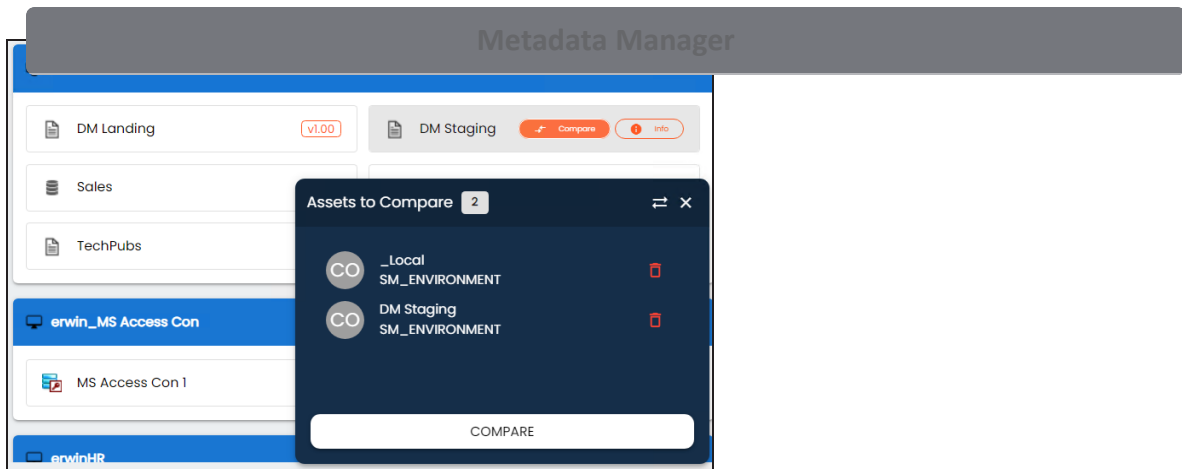
The below screenshot displays systems and environment based on the search keyword.



Compare Assets

You can compare 2 assets and see the its property differences.

To compare, hover over an environment tile to see the **Compare** option, and click to add it for comparison. Then, select one or more assets to add them to the Assets to Compare sheet and click **Compare**.



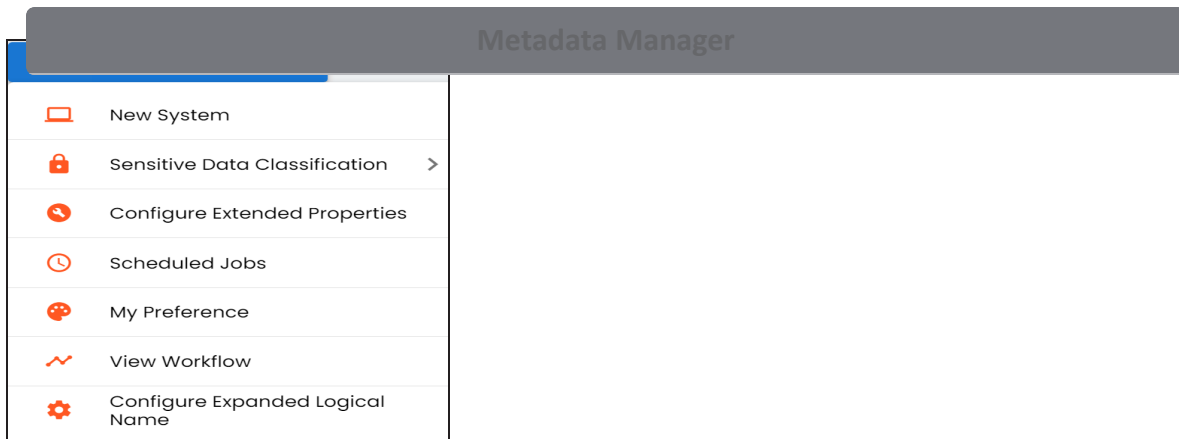
The Compare Environments page appears and displays the table and column level differences in separate tabs.

Table Level Changes		Column Level Changes						
#	Change Description	System Name	Environment	Table	Definition	Logical Name	Expanded Logical Name	Comments
1	Table Exists in one Environment and not the other	erwin DM	DM Staging(1.00)	Claim	A claim is a statement listing services rendered, the dates of services, and itemization of costs	Claim		
2	Table Exists in one Environment and not the other	erwin DM	DM Staging(1.00)	Claims Analysis	This information package analyzes claims by time, member, and claim.	Claims Analysis		
3	Table Exists in one Environment and not the other	erwin DI Suite	_Local(1.01)	customer_support.DimChannel	Use this Dim table for example of Diagramming	DimChannel		
4	Table Exists in one Environment and not the other	erwin DI Suite	_Local(1.01)	customer_support.DimCustomer	Good table for showing Profiling features	DimCustomer		
	Table Exists in one Environment and not the other				Topic providing analysis context			

Records from 1 to 50 Page 1 100 rows per page

Metadata Options

You can create, manage systems, view scheduled jobs, and set up other relevant configurations using the **Metadata Options** available on the top-left corner.



See the following list for understanding the functions of using these options:

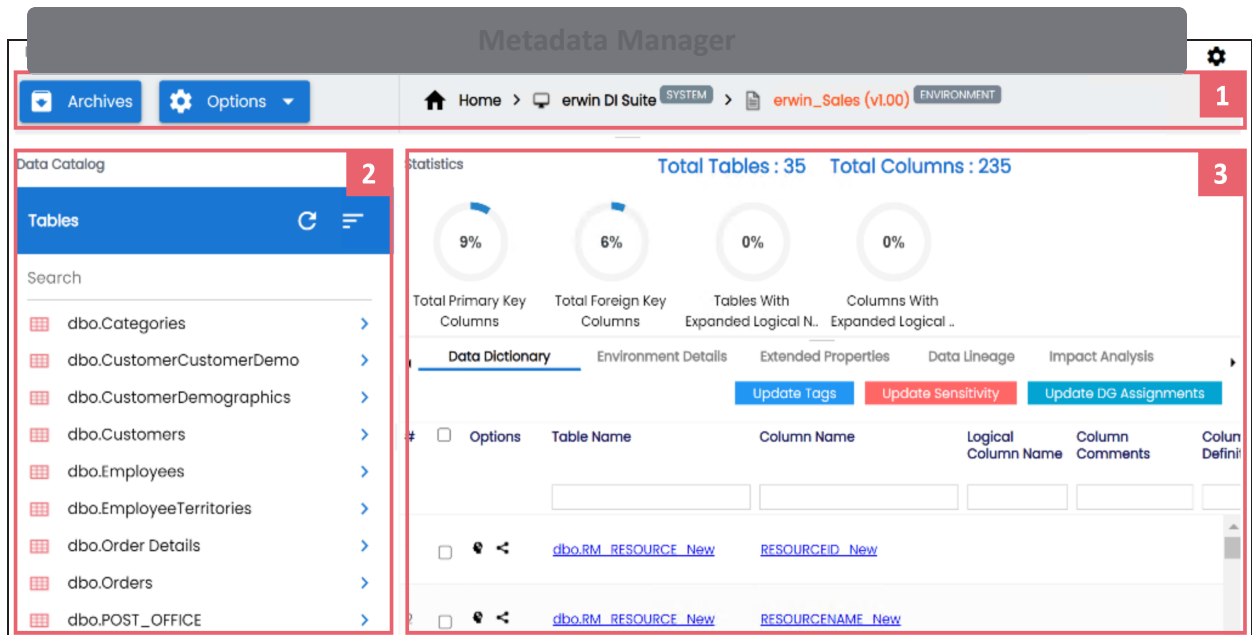
- [Creating and managing systems](#)
- [Exporting and Importing Sensitive Data Classification](#)
- [Configuring extended properties](#)
- [Viewing system workflow](#)
- [Configuring extended properties](#)

Accessing Assets

From the Asset Catalog pane, you can navigate to a system or an environment and view their details.

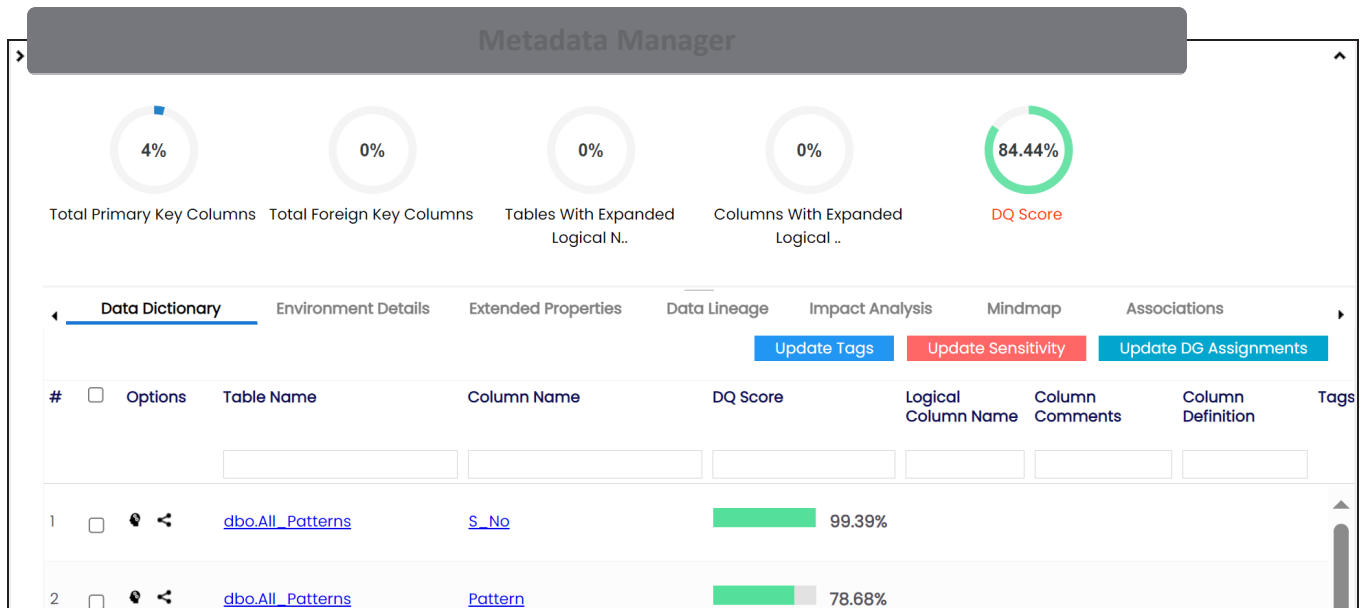
Hover over a system and click  to view system details, or click an environment tile to view environment details.

The screenshot below displays the metadata workspace and the UI sections. This workspace allows you to scan metadata from datasources, associate technical assets with other assets, view mind maps, analyze data lineage, and so on.



UI Section	Function
1-Asset Hierarchy	Use this section to view the drilled-down asset hierarchy indicating your navigation across the module. You can click the asset name to view that asset and access the asset options to manage metadata. For example, the image below displays the hierarchy of assets as bread-crumbs.
2-Data Catalog	Use this pane to browse through your stored metadata hierarchically, such as System > Environment > Table > Column.
3-Work-space Pane	Use this pane to view or work on the data based on your selection in the Data Catalog.

On the Explore tab, select an environment tile to view stats about environments in the Statistics section. This section displays environment's Total Primary Key Column, Total Foreign Key Columns, Tables and Columns with Expanded Logical Name, and DQ Score.



Apart from environment statistics, the Data Dictionary tab displays data quality analysis results, such as DQ Score from erwin Data Quality. You can drill down and view table or column level data quality analysis.

Managing metadata involves the following:

- [Creating and managing environments](#)
- [Scanning metadata from data sources](#)
- [Creating new versions of environments](#)
- [Downloading and updating data dictionary](#)
- [Running impact analysis](#)
- [Running lineage analysis](#)
- [Previewing and profiling data](#)
- [Creating and managing test cases for tables](#)
- [Updating data governance responsibilities](#)

Using erwinAI Inline Assist

erwinAI Inline Assist enables you to generate and enrich table and column details while creating and editing them. It provides AI-powered suggestions for the Logical Name, Definition,

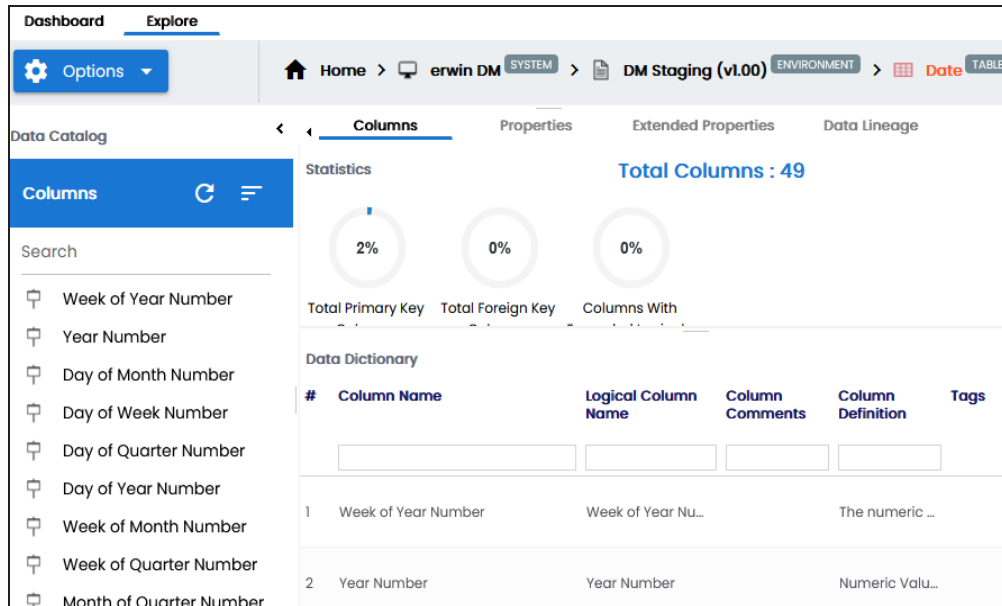
gestions before saving them.

For example, the following steps show how to use erwinAI Inline Assist for table properties. Similarly, you can use it for columns in Metadata Manager.

To generate table details, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a table.

By default, the Columns tab opens.



4. Click **Options**.
The available options appear.

	Edit Table
	Add Column/Field
	Add to Compare
	Share Link
	Data Dictionary
	Execute Connector
	Delete Table/Component
	Delete Column(s)/Field(s)

5. Click **Edit Table**.
- The Edit Table Form page appears.

erwin DM → DM Staging → (Date)

Details

File Location

Entity Type
TABLE

Business Details

Used In Gap Analysis

Logical Name
Date

Definition

Expanded Logical Name

Comments

JSON Physical Name

Class
Select

Sensitive Data Indicator(SDI...

Sensitive Data Indicator (SDI) Descripti...

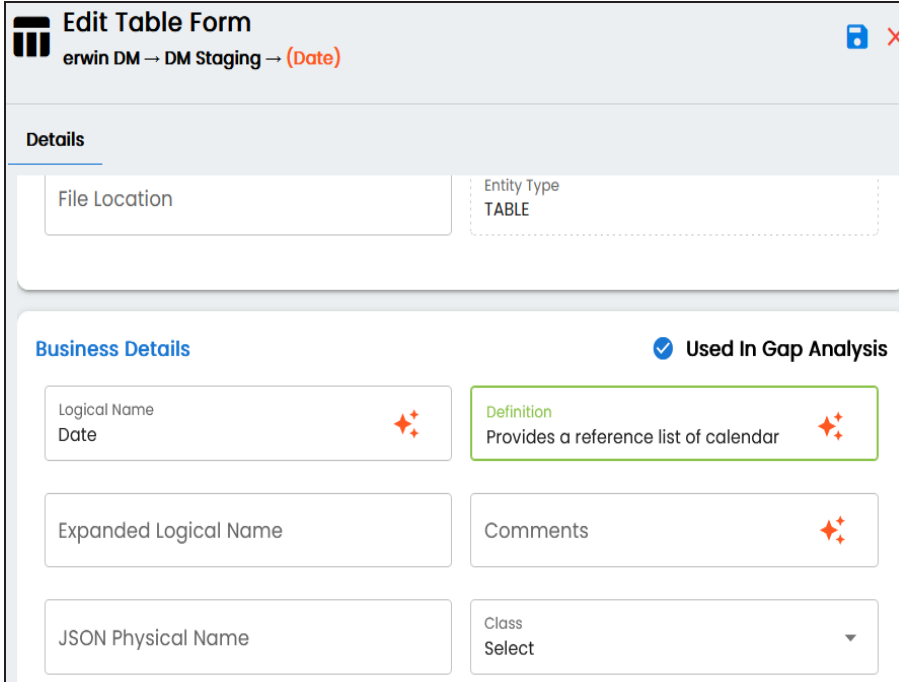
Miscellaneous

Business Entity Type
Table

Tags

6. Click  in a supported field to generate content. For example, Definition.

A definition is generated. You can review and edit it or click  again to regenerate it.



Edit Table Form
erwin DM → DM Staging → (Date)

Details

File Location Entity Type
TABLE

Business Details ☒ Used In Gap Analysis

Logical Name
Date 

Definition
Provides a reference list of calendar 

Expanded Logical Name Comments 

JSON Physical Name Class
Select

7. Click .

The table details are updated with AI-generated content.

Creating Systems

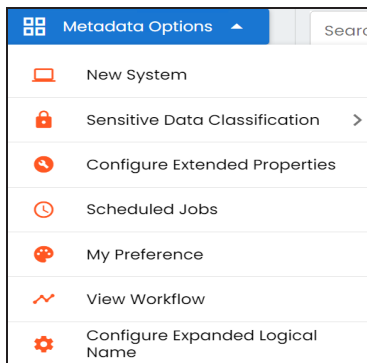
You can harvest (scan) metadata from data sources in the Metadata Manager. The scanned metadata is stored in a hierarchical manner (System > Environment > Table > Column) in the Data Catalog.

A System can contain multiple environments and in a typical data integration project a system can be a source or target type. You can create a system and specify data steward, system owner, and its business purpose etc.

Apart from creating systems, you can manage other system configurations using **Metadata Options** available in the top-right corner.

To create systems, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the Data Catalog pane, click **Metadata Options**.



3. Click **New System**.

Creating Systems

New System

Details **Miscellaneous**

System Name *
System

Primary Move Type(Source/Target)

Server Platform

Server OS Version

DBMS Platform

DBMS Version

File Management Type

File Location

Owner Name

Release

Telephone Number

Email Address

Classification

Sensitive Data Indicator(SDI) Classifi...

Sensitive Data Indicator Description

Miscellaneous

Data Steward

DQ Score

- 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
System Name	Specifies the physical name of the system. For example, Enterprise Data Warehouse. For more information on naming conventions, refer to the Best Practices section.
Server Platform	Specifies the server platform of the system. For example, Windows.
DBMS Platform	Specifies the DBMS platform of the system (if the system is an RDBMS source). For example, SQL Server.
File Management Type	Specifies the file management system (if the system is a file-based source). For example, MS Excel.

Creating Systems

Field Name	Description
Owner Name	Specifies the full name of the system owner. For example, Talon Smith.
Telephone Number	Specifies the telephone number of the system owner. For example, 1-800-783-7946.
Primary Move Type (Source/Target)	Specifies whether the system is source, target, or both. Valid values are: • Source • Target • Both
Server OS version	Specifies the OS version of the system's server. For example, Windows Server 2012 R2.
DBMS Version	Specifies the DBMS version of the system (if the system is an RDBMS source). For example, SQL Server 2017.
File Location	Specifies a file path (if the system is a file-based source). For example, C:\Users\Talon Smith\erwin\Mike - Target System
Release	Specifies the system release including the point release number. For example, Oracle 18c.
Email Address	Specifies the system owner's email address. For example, talon.smith@mauris.edu
Sensitive Data Indicator (SDI) Classification	Specifies the sensitivity classification of the system. Also, you can add multiple classifications to the system. For example, PHI, Confidential. For more information on configuring Sensitive Data Indicator (SDI) classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data	Specifies the description of the SDI classification.

Creating Systems

Field Name	Description
Indicator Description	
Data Steward	Specifies the name of the data steward responsible for the system. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options.
DQ Score	Specifies the overall data quality score of the system. For example, High (7-8). For more information on configuring DQ scores, refer to the Configuring Data Profiling and DQ Scores topic.

5. Click the **Miscellaneous** tab or click .

New System

Details

Miscellaneous

ESB Platform Type

ESB Q Manager Name

Total DBSize

Total Number Of Tables

Definition Of The Day

Batch Extract Window

Average User

Average Concurrent Users

Special Instructions

Align

B

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Business Purpose

Align

B

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CO

datory. Refer to the following table for field descriptions.

Field Name	Description
ESB Platform Type	Specifies the enterprise platform bus type (if the system is an ESB source). For example, Mule.
ESB Q Manager Name	Specifies the ESB queue manager's name of the system (if the source is an ESB). For example, John Doe.
Total DBSize	Specifies the total physical size of the database. For example, 198 GB.
Total Number of Tables	Specifies the total number of tables associated with the system. For example, 300.
Definition of the Day	Specifies the definition of the system at the end of the day. For example: Extraction of details from the source system is complete.
Batch Extract Window	Specifies the daily batch extract window of the system. For example: Batch extract from the source system is scheduled at 3:30 P.M. everyday.
Average User	Specifies the average number of system users. For example, 30.
Average Concurrent Users	Specifies the average number of concurrent system users. For example, 15.
Special Instructions	Specifies any special instructions or comments about the system. For example: The system acts as a source for creating the mapping specification.
Business Purpose	Specifies the business objective of the system. For example: This is a source system to store Sales metadata of the organization for a data integration project.

A new system is created.

Alternatively, before saving this system, you can add a new environment and configure the connections. To setup an environment, click  to view the New Environment page.

Once the system is created, you can [create environments](#) and scan metadata from different database types.

You can enrich the system further by:

- [Adding Documents](#)
- [Viewing Workflow Logs](#)
- [Associating Systems](#)
- [Configuring Expanded Logical Name of Tables/Columns](#)
- [Tagging Systems](#)

You can manage a system as per your requirements. [Managing systems](#) involves:

- Editing or deleting systems
- Exporting systems information

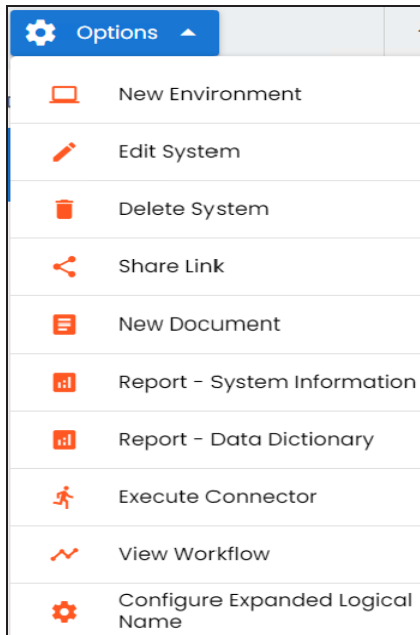
Adding Documents

You can add supporting documents, such as text files, audio files, video files, document links, and so on to a system.

To add documents to systems, follow these steps:

1. On the Explore tab, hover over a system card and click .
2. Click **Options**.

The available options appear.



3. Click **New Document**.

The Upload Document page appears.

Adding Documents

System Document Name*

System Document Object

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

Intended Use Description

Approval Required Flag ☐

System Document Owner

Document Link

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
System Document Name	Specifies the name of the physical document being attached to the system. For example, Source System Details.
System Document Object	Drag and drop document files or use to select and upload document files.
System Document Owner	Specifies the document owner's name. For example, John Doe.
Document Link	Specifies the URL of the document. For example, https://drive.google.com/file/d/2sC2_SZlYeFKI7OOn-b5YkMBq4ptA7jhg5/view
Intended Use Description	Specifies the intended use of the document. For example: The document is to keep a record of system description and its data dictionary.
Approval Required Flag	Specifies whether the document requires approval.

Adding Documents	
Field Name	Description
	Select the Approval Required Flag check box to select the document status.
Document Status	Specifies the status of the document. For example, In Progress.
	 This field is available only when the Approval Required Flag check box is selected.

5. Click .

The document is saved on the System Documents tab.

System Documents									
SNo	Document Name	Document Link	Document Status	Document Owner	Created By	Created Date	Modified By	Modified Date	Options
1	Tech Docs	https://erwin.com/bookshelf/	InProgress		Administrator	20-10-2020 13:11:04	Administrator	20-10-2020 13:11:04	  

Once a supporting document is added, use the following options:

Preview ()

Use this option to preview the document.

Edit ()

Use this option to update the document details.

Delete ()

Use this option to delete the document that is not required.

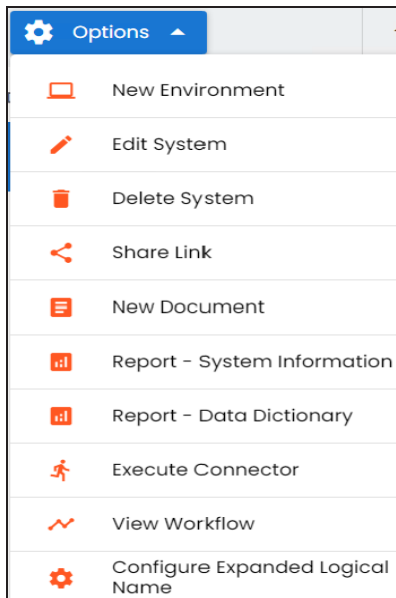
Viewing Workflow Logs

You can view workflow logs and know the current stage of systems. A workflow assigned to a system is applicable to all the environments under it. For more information on managing metadata manager workflows, refer to the [Managing Metadata Manager Workflows](#) section.

To view workflow logs of systems, follow these steps:

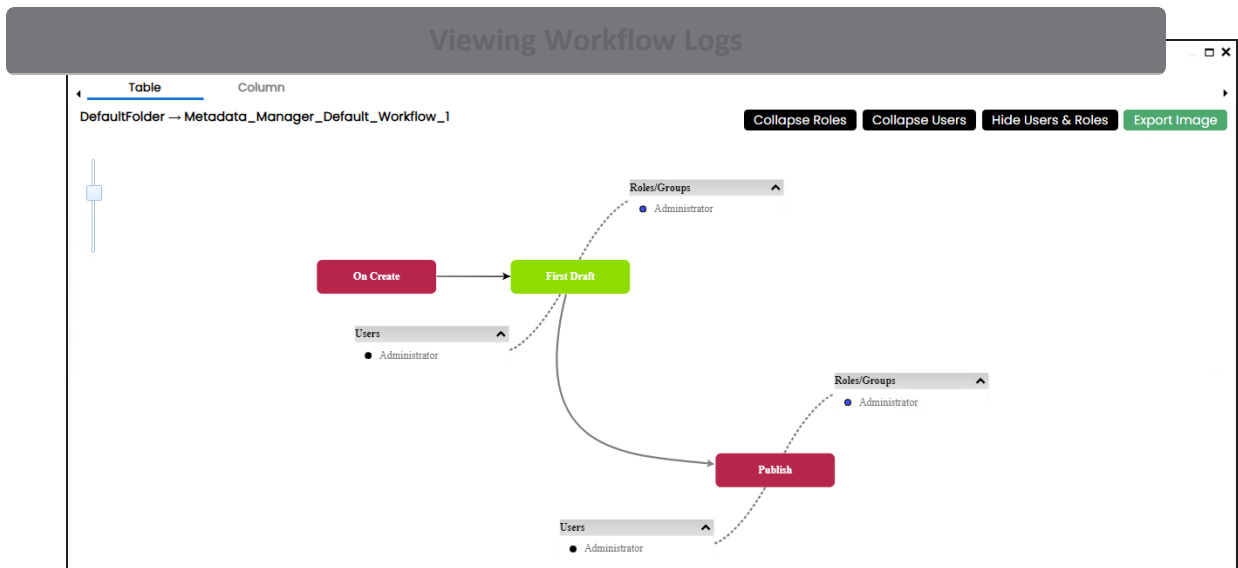
1. On the Explore tab, hover over a system card and click .
2. Click **Options**.

The available options appear.



3. Click **View Workflow**.

The View Workflow page appears. It displays the current stage of the system.



Use the following options to work on the workflow:

Collapse/Expand Roles

This option is enabled when you are in the Expand Users and Roles view. Use this to switch between the collapsed and expanded users view.

Collapse/Expand Users

This option is enabled when you are in the Expand Users and Roles view. Use this to switch between the collapsed and expanded users view.

Expand/Hide Users and Roles

Use this option to view or hide users and roles assigned to the stages of the workflow.

Export Image

Use this option to download the workflow in the JPG format.

Associating Systems

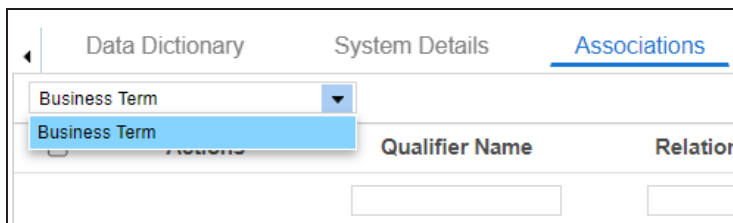
You can associate systems with business assets, systems, environments, tables, and columns. You can view these associations on mind maps and analyze association statistics.

Ensure that:

- Business assets are enabled. You can add custom business assets and enable them in the [Business Glossary Manager Settings](#).
- Relationship between system and the asset type is defined. You can define associations and relationships in the [Business Glossary Manager Settings](#).

To associate systems with asset types, follow these steps:

1. On the Explore tab, hover over a system card and click .
2. In the central pane, click the **Associations** tab.
3. In the asset type (business policies, business terms, columns, environments, and tables) list, select an asset type to associate with the system.



Asset Type	Qualifier Name	Relation
Business Term		

4. Click .
- The Relationship Association page appears. Based on the asset type that you select, it

Associating Systems

Relationship Associations

Save

Cancel

Current Context:

erwin DM

Current Context Type:

System

Relationship Name:

Golden Source for

Search (partial matches):

☐	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐	address				
☒	Address	LEN(D175)	To refer to a device or storage location by an identifying number, character, or group of characters	International Society for Pharmaceutical Engineering - ISPE	Pharmaceuticals → International Society for Pharmaceutical Engineering - ISPE
☐	Address			Customer Terms	Customer Terms
☐	Address		Specifies the address of the employee and customer.	Operations	Operations
☐			Get the customer		

1

Records from 1 to 9 of 9

5. Select **Relationship Name**, and the asset type.

If you know the term name, use the Search (partial matches) field to look up for it.

6. Click **Save**.

The asset is associated to the system and added to the list of associations.

You can define as many associations as required.

Business Term	Actions	Qualifier Name	Relationship Name	Term Name	Description	Definition	Catalog Name
	☐						
	☒		Golden Source for	Address	LEN(D175)	To refer to a device or storage location by an identifying number, character, or group of characters	International Society for Pharmaceutical Engineering - ISPE
	☒		Golden Source for	Agile Testing	Testing is NOT a Phase: Agile team tests continuously and continuous testing is the only way to ensure continuous progress. Testing Moves the project Forward. When following conventional methods, testing is considered as quality gate but agile testing provide feedback on an ongoing basis and the product meets the business demands.	software testing practice that follows the principles of agile software development is called Agile Testing. Agile is an iterative development methodology, where requirements evolve through collaboration between the customer and self-organizing teams and agile aligns development with customer needs.	Testing Techniques

Once you have created associations, you can use the following options under the **Actions** column:

Add Association ()

Use this option to add associations using a qualifier.

Edit Association ()

Use this option to edit the association.

Delete Association ()

Use this option to delete the association.

To view mind map, click the **Mindmap** tab. For more information on mind maps, refer to the [Viewing Mind Maps](#) topic.

You can associate multiple assets with a system, and view the associations based on a qualifier view in the mind map. For more information, refer to the [Setting Up Associations Using Qualifiers](#) topic.

Configuring Expanded Logical Name

You can update the expanded logical name for multiple tables/columns by scheduling a configuration job. The job updates the expanded logical name based on the table/column name, associated business term's name, and the associated business term's definition.



You should configure expanded logical name of tables and columns after scanning metadata.

You can run the job at both, system and environment levels:

- **System level:** The expanded logical name can be applied to all the tables and columns under the system. This includes all the environments under the system.
- **Environment level:** The expanded logical name can be applied to all the tables and columns under the environment.

For example, consider a scenario where you want to schedule a job to configure the expanded logical name of a table, RM_Resource and a column, Resource_ID. The parameters of the job are a business term catalog that has a business term, Resource, its definition, Sales Representative, and a splitter, Underscore (_). Refer to the following table to understand the parameters and their values:

Entity	Value	Comment
Splitter (specified while scheduling the job)	_(Underscore)	
Table Name	RM_Resource	Here, the part after the underscore (splitter), Resource, matches the Business Term. Therefore, it will be replaced with the business term definition and the part before the underscore, RM, will be retained in the expanded logical name.
Column Name	Resource_ID	Here, the part before the underscore, Resource, matches with the Business Term. Therefore, it will be replaced with

Configuring Expanded Logical Name		
Entity	Value	Comment
		the business term definition and the part after the underscore, ID will be retained in the expanded logical name.
Business Term	Resource	This should match with a part of the table and column names above.
Business Term Definition	Sales Representative	In the updated expanded logical name, this will replace the part of the table/column name that matches the business term name. That is: - For the table, RM will be retained and Resource will be replaced with Sales Representative. - For the column, ID will be retained and Resource will be replaced with Sales Representative.
Expanded Logical Name	<Blank>	Expanded logical name is formed from the business term definition and part of table or column names.

After the job runs successfully, the expanded logical name of the table and column is updated as mentioned in the following table:

Entity	Expanded Logical Name	Comment
Table	RM Sales Representative	Here, RM retained from the table name and Sales Representative is added from business term definition.
Column	Sales Representative ID	Here, ID is retained from the column name and Sales Representative is added from business term definition.

To configure expanded logical name, follow these steps:

1. On the Explore tab, hover over the system card and click , or click an environment tile to view the assets details.
2. Click **Options**.
The available options appear.

Configuring Expanded Logical Name

	New Environment
	Edit System
	Delete System
	Share Link
	New Document
	Report - System Information
	Report - Data Dictionary
	Execute Connector
	View Workflow
	Configure Expanded Logical Name

3. Click **Configure Expanded Logical Name**.

The Configure Expanded Logical Name page appears.

Configuring Expanded Logical Name

Configure Expanded Logical Name

Catalogs

- ▾ ☐  Business Terms
 - ☐  Company Benefits (3)
 - ☐  Customer Master Catalog (4)
 - ☐  Customer Terms (8)
 - ☐  Glossary Catlog 1 (3)
 - ☐  Monetary Terms (2)
 - ☐  Operations (0)
 - ☐  Pharmaceuticals (10207)

Splitter

ELN Scope

Job Name*

[1622004865999](#)

Interval

Schedule Job On* ☐ Local ☒ Server

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

Field Name	Description
Catalogs	Select the catalog containing the required business term.
Splitter	Select appropriate splitter based on the table name or column name.

Configuring Expanded Logical Name

Field Name	Description
ELN Scope	Select an appropriate scope of the job. ▪ Columns: Indicates that the expanded logical names of all the columns in this system are configured ▪ Tables: Indicates that the expanded logical name of all the tables in this system are configured ▪ Both: Indicates that the expanded logical names of all the tables and columns in this system are configured
Job Name	A default job name is autopopulated. You can modify it and enter a job name.
Interval	Select an interval of the job. Interval sets the frequency of the job. For example: If you set the interval every week then the job will be executed every week.
Local or Server	Select the machine whose clock decides the time of the scheduled scan. ▪ Local: Refers to your local machine. ▪ Server: Refers to the machine where erwin DI has been deployed.
Schedule Job On	Select date and time of the execution of the job.
Notify Me	Switch the Notify Me to ON to receive a notification email about the scheduled job.
Notification Email	This field is autopopulated with your email ID. You receive email notifications about the scheduled job from the Admin Email ID, configured in the Email Settings. For more information on configuring Admin Email ID, refer to the Configuring Email Settings topic.
CC List	Enter a comma-separated list of email IDs that should receive the job notification.

5. Click .

The job is scheduled and added to the Scheduled Jobs list on the **Scheduled Jobs** tab.

Configuring Expanded Logical Name

is

Extended Properties

Data Lineage

Mindmap

Associations

System Documents

Configure Extended Properties

Scheduled Jobs

Scheduled Jobs

Job Type	Environment Name	Scheduled Objects	Previous Fire Time	Next Fire Time	Job State	Created By	Created Date Time	Last Modified By	Last Modified Date Time	Edit
Metadata Expanded Logical Name	N/A	All Environments		05-26-2021 05:14	NORMAL	Administrator	2021-05-26 05:11:43.345	Administrator	2021-05-26 05:11:43.345	

Records from 1 to 1

Page 1

12 rows per page

You can edit the job using or delete it using .

The job is executed at the scheduled time and the expanded logical names of tables and columns are updated.

Columns	Properties	Extended Properties	Data Lineage	Impact Analysis	Mindmap	Associations
Technical Properties						
Name	dbo.RM_RESOURCE_New			Environment Name	erwin_Sales	
System Name	erwin DI Suite			No of Rows	100	
Synonym Reference				FileType		
Entity Type	TABLE					
Workflow Status	Preliminary Draft					
Business Properties						
Data Steward				Logical Name	RESOURCE	
Definition	Organization resource			Expanded Logical Name	RM RESOURCE Representative	
Comments				JSON Physical Name		
Sensitive Data Indicator (SDI) Flag				Used In Gap Analysis	☒	
Sensitive Data Indicator (SDI) Classification	Confidential			Sensitive Data Indicator (SDI) Description	Confidential	
Class	Table_Class			Alias		
DQ Score	High (7-8)					

Configuring Expanded Logical Name

Foreign Key Flag	☐	Primary Key Flag	☒
Foreign Key Column Name		Foreign Key Table Name	
Minimum Value		ETL Default Value	
File Starting Position		Maximum Value	
Attribute Type	ENTITY_ELEMENT		
Workflow Status	Preliminary Draft		
Business Properties			
Data Steward		Logical Name	Sales ID
Definition	Sales resource	Expanded Logical Name	Sale Representative ID
Comments		JSON Physical Column Name	
Sensitive Data Indicator (SDI) Flag		Used In Gap Analysis	☒
Sensitive Data Indicator (SDI) Classification	Confidential	Sensitive Data Indicator (SDI) Description	Confidential
Class	Column_Class	Alias	
DQ Score	Very High (9-10)	Business Key Flag	☐
User Defined Fields			



You can use this job to update the expanded logical name only once. Alternately, you can update expanded logical names under [table properties](#) and [column properties](#).

Managing Systems

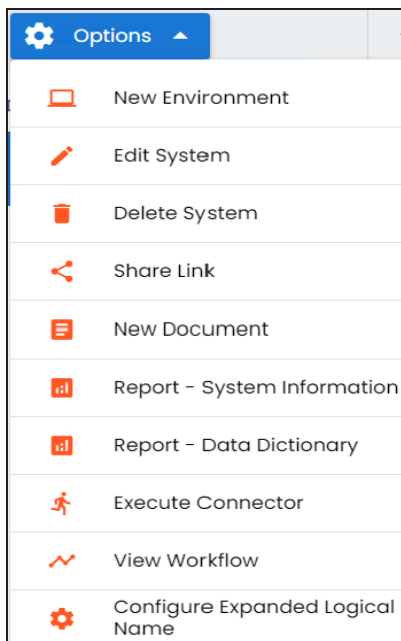
Managing systems involves:

- Editing or deleting systems
- Exporting systems information
- Exporting data dictionary report
- Sharing a shortcut link

To manage systems, follow these steps:

1. On the Explore tab, hover over a system card and click .
2. Click **Options**.

The available options appear.



3. Use the following options:

Edit System

Use this option to edit the system details.

Use this option to delete systems that are not required. Ensure that you delete all the environments under a system before deleting it.

Report - System Information

Use this option to view and export system information.

To view system information report, click **Report - System Information**.

The System Information Report page appears.

System Information Report

Select System:

erwinDIS

▼

Export:

System Information Report

System Details

System Name:	erwinDIS	Primary Move Type (Source/Target):	Source
Data Steward:	jmedoe	Special Instructions:	
Business Purpose:	Source system for the Data integration project.	Server OS Version:	Ubuntu 18.04.1
Server Platform:	Linux	DBMS Version:	MS Sql Server 2018
DBMS Platform:	SQL server	File Location:	
File Management Type:		ESB Q Manager Name:	
ESB Platform Type:	Mule	Total Number Of Tables:	50
Release:		End of Day Definition:	
Total DB Size:	1100MB	Average Users:	
Batch Extract Window:		Owner Full Name:	
Average Concurrent Users:	2	Email Address:	
Telephone Number:			

System Environment Details

#	Environment Name	Environment Type	Data Steward	Database Name	Database Type	IP Address	Port	User Name
1	Data_Migration	Production	jmedoe	ErwinDIS931	SqlServer	localhost	1433	sa
2	erwinDIS	test		ErwinDIS931	SqlServer	localhost	1433	sa
3	erwinDIS1	test		erwinDG_v9_GA	SqlServer	localhost	1433	sa

In the **Select System** list, select a system to view its report.

- **Export to HTML** (

Metadata Management Guide 15.0

Export to HTML (📄): Use this option to export the report in the HTML format.

Report - Data Dictionary

Use this option to view and export system catalog and data dictionary report.

Share Link

Use this option to share a shortcut link of a system.

- **Copy Link:** Use this option to copy the shortcut link to the system. You can then share this link manually.
- **Email:** Use this option to share the shortcut link to the system via an email.

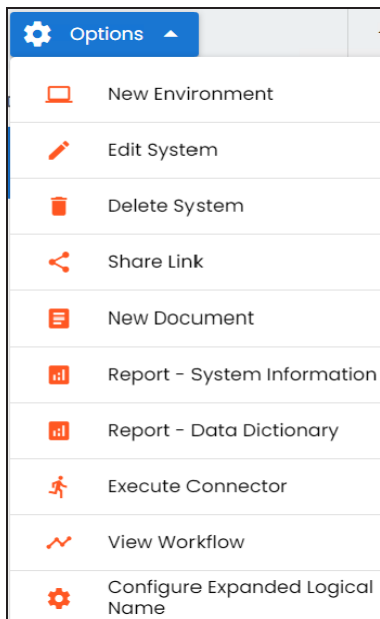
Tagging Systems

You can tag systems and group assets for better reporting, data traceability, and data discovery. After tagging, you can visualize associated assets with a tag on a mind map in Enterprise Tags.

To tag systems, follow these steps:

1. On the Explore tab, hover over a system card and click .
2. Click **Options**.

The available options appear.



3. Click **Edit System**.

The Edit System page appears.

Tagging Systems

Details
Miscellaneous

Classification

Sensitive Data Indicator(SDI) Classification

Restricted

Sensitive Data Indicator Description

Miscellaneous

Data Steward

DQ Score

Tags

4. Click **Tags** and select a tag from the suggestions that appear.



You can create a tag by typing a tag name in the Tags box and then pressing Enter.

For example, in the following image, a tag, Data Integration 2021, is created and assigned to a system.

HRData

HRData

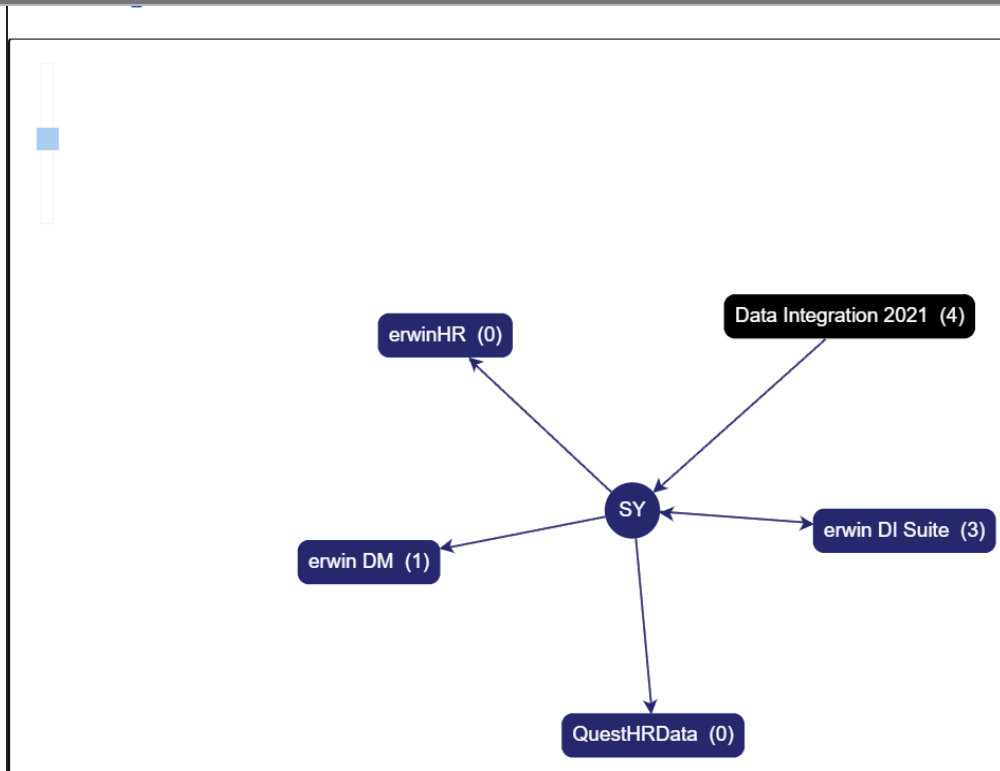
Data Integration 2021

No Tags Available

5. Click

The tag is assigned to a system.

Once a system is tagged, you can visualize its association with a tag on a mind map in Enterprise Tags.



Creating and Managing Environments

Metadata is stored and categorized into systems and environments. Multiple environments are contained in a system. Whereas environments can denote a database, flat file, data models, etc. Environments contain database objects like Tables, Columns, Views, Synonyms, etc.

You can create environments under a system and scan metadata from a data source by providing connection parameters in the environment.

Creating and managing environments involves:

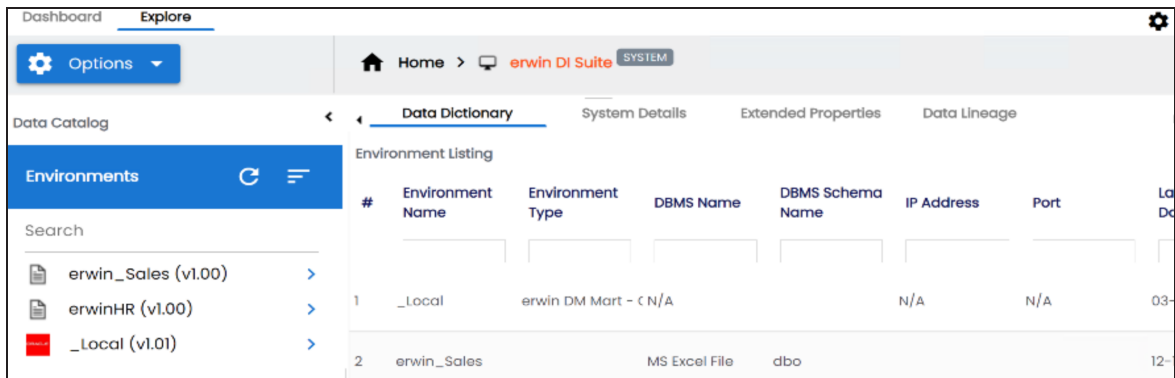
- [Creating environments](#)
- [Assigning roles and users](#)
- [Managing environments](#)
- [Updating Sensitivity](#)
- [Uploading documents](#)
- [Cloning environments](#)
- [Viewing ER diagrams](#)
- [Viewing workflow logs](#)
- [Associating Environments](#)
- [Configuring Business Properties](#)
- [Configuring Expanded Logical Name of Tables/Columns](#)
- [Tagging Environments](#)

Creating Environments

After creating a system in the Metadata Manager, you can create environments under the system. An environment can be created for different database types and flat files by fulfilling prerequisites and providing the connection parameters.

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the Asset Catalog pane, hover over the system card and click .

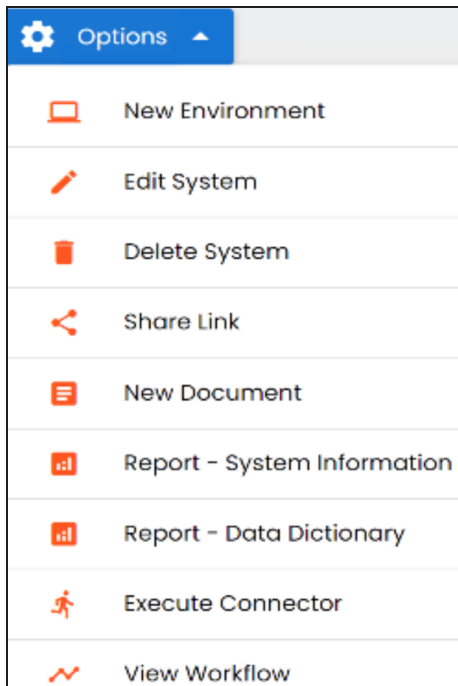
The system details page appears and displays available environments in the Data Catalog pane.



The screenshot displays the 'Explore' view in the Erwin Data Catalog. The left sidebar shows the 'Data Catalog' tree with 'Environments' selected. The main area shows the 'Environment Listing' table for the selected system.

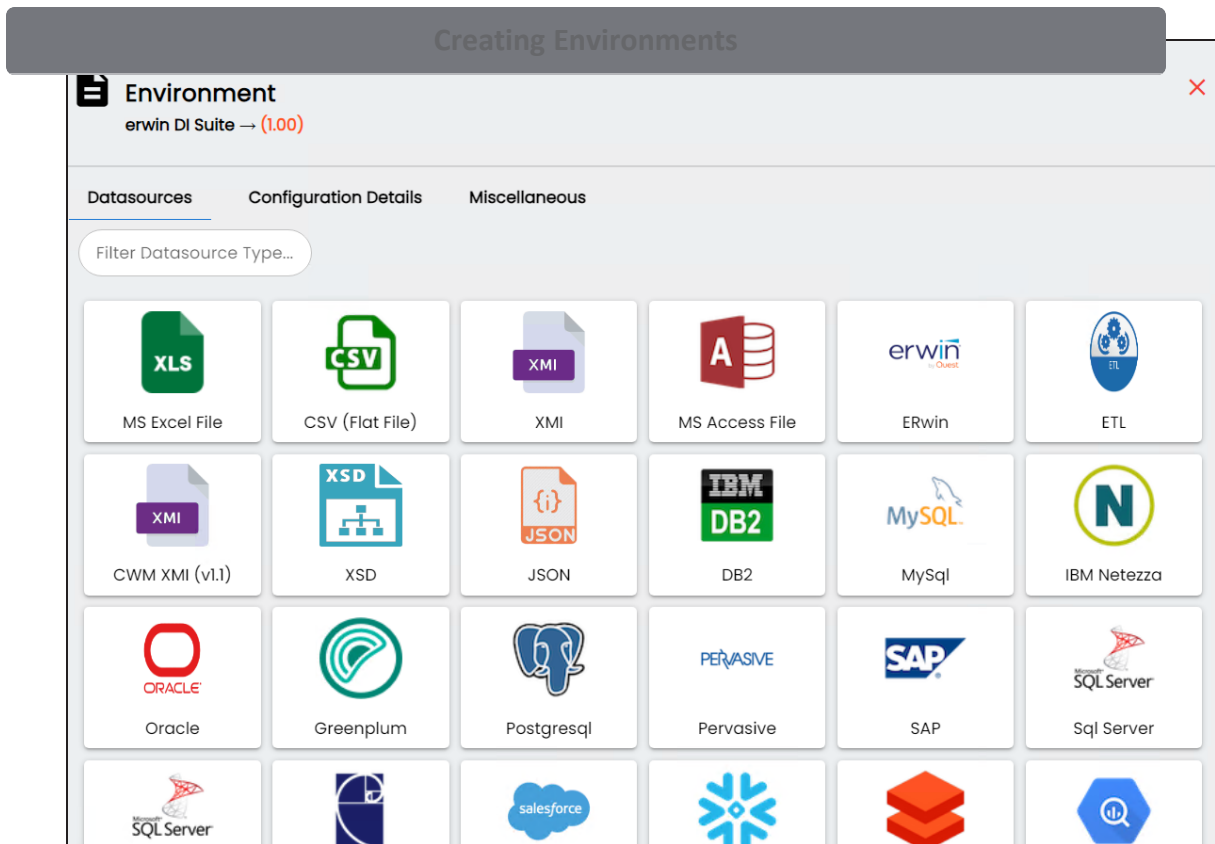
#	Environment Name	Environment Type	DBMS Name	DBMS Schema Name	IP Address	Port	Last Modified
1	_Local	erwin DM Mart - C	N/A		N/A	N/A	03-...
2	erwin_Sales	MS Excel File	dbo				12-...

The available options appear.



4. Click **New Environment**.

The New Environment page appears and displays supported database in the Data-sources tab.



5. Click a datasource, the Configuration Details tab appears.
The screenshot below displays connection details for Sql Server. The connection details vary based on database selection.

Creating Environments

Field Name	Description
	 There are no additional fields for XSD file.
System Environment Name	Specifies the unique name of the environment. For example, EDW-Test. The environment name supports - (hyphen), ((opening parenthesis),) (closing parenthesis), / (slash), # (hash), . (full stop), [] (left and right square brackets), ! (exclamation mark), + (plus), % (percentage), ~ (tilde), ; (semicolon), , (comma), = (equals sign), ^ (circumflex accent), and {} (left and right curly brackets) as special characters. For more information on naming conventions, refer to the Best Practices section.
System Environment Type	Specifies the type of the environment. For example, development, test, or production.
Server Platform	Specifies the server platform of the environment. For example, Windows.
Server OS Version	Specifies the OS version of the environment's server. For example, Windows Server 2012 R2.
File Management Type	Specifies the file management system (if the environment is a file-based source). For example, MS Excel.
File Location	Specifies a file path (if the environment is a file-based source). For example, C:\Users\Jane Doe\erwin\Mike - Target System
Production System Name	Specifies the system name being associated with the environment as the production system. For example, Enterprise Data Warehouse.
Production Environment Name	Specifies the environment name being associated with the environment as the production environment. For example, EDW-PRD.

Creating Environments	
Field Name	Description
Version Label	Specifies the version label of the environment to track change history. For example, Alpha. For more information on configuring version display, refer to the Configuring Version Display of the Environments topic.
Enable DQ Sync	Specifies whether to sync data quality analysis results from DQLabs. To view data quality analysis, ensure that you have configured DQLabs connection setting in erwin DI. For more information, refer to the Configuring Data Profiling topic.  Data quality analysis is available for environments using Oracle, Salesforce, Snowflake, MySQL, MSSQL, Hadoop, and PostgreSQL database types.
Sensitive Data Indicator (SDI) Classification	Specifies the sensitivity data indicator (SDI) classification of the environment. Also, you can add multiple classifications to the environment. For example, PHI, Confidential. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data (SDI) Indicator Description	Specifies the description of the SDI classification.
Business Entity Type	Specifies the database type of business entity.

- Click  to navigate to the Connection Properties tab.
Different datasource types have different prerequisites and connection parameters. See the list below for datasource type and its connection parameters:
 - [SQL Server - via SQL or Window authentication mode](#)
 - [Oracle and Oracle RAC](#)

- [Snowflake](#)
- [Google BigQuery](#)
- [MS Dynamics CRM \(and other datasources\)](#)
- [SAP ECC R/3 and IS-U Metadata via JCO Driver](#)
- [Databricks](#)
- [Salesforce](#)

7. Click  to test the connection.

If the connection with database is established successfully then a success message pops up.

8. Click  to save and continue to **Miscellaneous** tab.

Or, click  to save and exit.

9. On the Miscellaneous tab, 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
Intended Use Description	Specifies the description about the objective of the environment. For example: The environment contains the source metadata for the data integration project.
Environment Notes	Specifies relevant notes about the environment. For example: The environment uses Sql Server as database to scan the metadata.
Approval Instructions	Specifies any instructions for the environment's approval. For example: The environment must contain 50 tables from erwin DI database.

10. Click  to save and exit.

A new environment is created.

database type.

SQL Server

You can create two types of SQL Server environments:

- [SQL authentication](#)
- [Windows authentication](#)

Both the environments have same:

- Prerequisites
- Privileges
- JDBC driver details
- TLS connection details

There is a small difference between the two modes in JDBC connection parameters.

Prerequisites

Pre-requisite steps for establishing successful connection:

1. Creation of dedicated service account for erwin with Metadata Read-only privileges in SQL Server Database
2. Firewall connection open between SQL Server and erwin DI application server
3. Opening of SQL Server database port to accept connections from erwin DI application server

Privileges

Following are the privileges given to service account for:

- **Metadata scanning:** Grant view definition on Schema
- **Data preview:** Db_datareader

JDBC Driver Details

driver configuration is required from end user standpoint.

TLS Connection Details

- The SQL Server JDBC driver supports connection via TLS 1.2.
- The TLS protocol parameter needs to be added to JDBC URL string to ensure that the connection is via TLS. Otherwise, the source database will reject any incoming request in non-TLS mode.
- JDBC URL being used to connect via TLS:
`jdbc:sqlserver://SERVER_NAME:PORT#;data-baseName=AdventureWorks;sslProtocol=TLSv1.2`
- Additional parameters to configure (if needed):
`integratedSecurity=true;encrypt=true;trustServerCertificate=true;`

JDBC Connection Parameters

SQL Authentication

The Connection Properties tab displays the connection parameters to establish connection for SQL Server (SQL authentication) connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.microsoft.sqlserver.jdbc.SQLServerDriver
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, localhost.

SQL Server	
Field Name	Description
DBMS Name/DSN	Specifies the SQL Server database name being used to connect to the environment. For example, ErwinDIS931.
Port	Specifies the port to connect with the database. 1433 is the default port for a Sql Server database type. You can change it, if required.
User Name	Specifies the SQL Server (Service Account) user name. For example, sa.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. For example, jdbc:sqlserver://SERVER_NAME:PORT#;databaseName=DatabaseName It is autopopulated based on the other parameters.
Password	Specifies the SQL Server (Service Account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved
DBMS Instance Schema	Specifies the schema of the database. Use this option to select multiple or narrow down to single schema. For example, DBO.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 2.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.

SQL Server	
Field Name	Description
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Database Options	
	
Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Select keys and double-click the cells under the **Value** column to set the values of the keys.

Use  to save the database options.

SQL (Windows Authentication)

TI

for SQL Server (Window authentication) connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.microsoft.sqlserver.jdbc.SQLServerDriver
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, localhost.
DBMS Name/DSN	Specifies the SQL Server database name being used to connect to the environment. For example, ErwinDIS931.
Domain	Specifies the network domain name on which database resides. For example, U-DOM1.
User Name	Specifies the SQL Server (Service Account) user name. For example, sa.
URL	Specifies the full JDBC URL that is used to establish a connection to the database. It is autopopulated based on the other parameters. jdbc:jtds:sqlserver://SERVER_NAME:PORT#;data-baseName=DatabaseName;domain=DomainName;useNTLMv2=true;
Password	Specifies the SQL Server (Service Account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved

SQL Server	
Field Name	Description
DBMS Instance Schema	Specifies the schema for the database. Use this option to select multiple or narrow down to single schema. For example, DBO.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions for the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 2.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions for the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.
Maximum Connections Per Partitions	Specifies the maximum connections per partitions for the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

SQL Server

Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false



The TestConnectionQuery option is selected by default to validate the internal connection. The system displays exceptions if this option is not selected.

Select keys and double-click the cells under the **Value** column to set the values of the keys. Use  to save the database options.

Oracle

You can create Oracle environments using the following methods:

- [Oracle JDBC Parameters](#)
- [Oracle Wallet](#)

You can create Oracle environments and can also enable RAC/Service to:

- Use Oracle cluster database
- Capture Oracle Service name in DSN field

Before creating an Oracle environment, you should take a note of the following:

- Prerequisites
- JDBC driver details
- TLS connection details
- JDBC connection parameters

Prerequisites

Prerequisite steps for establishing successful connection:

- **Creation of dedicated service account** for erwin with Metadata read-only privileges in Oracle database
- **Firewall connection open** between Oracle and erwin DI application server
- **Oracle Database port** opened to accept connections from erwin DI application server

JDBC Driver Details

Oracle JDBC driver is out of box packaged with erwin DI application. Hence, no JDBC driver configuration is required from end user standpoint.

TLS Connection Details

8 will provide the necessary resolution.

- Once the product is upgraded to the oracle JDBC 8 driver, TLS connectivity can be ensured by setting a few system parameters and also adding TLS parameters to the JDBC URL string to support connectivity using TLS 1.2

URL Format: jdbc:oracle:thin:@<Ip Address>:<Port>/< service name>+TLS params

JDBC Connection Parameters

The Connection Properties tab displays the connection parameters to establish connection for SQL Server (SQL authentication) connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

You can select the **RAC/Service** check box in the Configuration Details tab to:



- Use Oracle cluster database
- Capture Oracle Service name in DSN field

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, oracle.jdbc.driver.OracleDriver
IP Address/Host Name	Enter the IP address or server host name. For example, 10.32.445.21
DBMS Name/DSN	Name of the Oracle Service - SID or TNS Service Name. For example, ErwinDIS931.
Port	Specifies the port to connect with the database. 1521 is the default port for the Oracle database. User can change it, if required.

Oracle	
Field Name	Description
User Name	Enter the Oracle (Service account) user name. For example, erwinuser.
URL	It is autopopulated based on the other parameters. For example, <code>jdbc:oracle:thin:@ <Ip Address>:<Port>/< service name></code>  When using the Oracle Wallet, ensure that you use the URL provided by the Oracle administrator. For more information about Oracle Wallet, refer to Oracle Wallet section.
Password	Enter the Oracle (Service account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved
DBMS Instant Schema	Specifies the name of the database schema. For example, DBO. Use this option to select multiple or narrow down to single schema.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP. Select the appropriate connection pool type.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 2.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click **Options**.

The Database Options page appears. It displays the available database options.

Database Options	
Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

To use the database options, select keys and double-click the cells under the **Value** column to set the values of the keys. Use  to save the database options.

Oracle Wallet

The Oracle Wallet allows you to connect to a Oracle database with enhanced security by enabling secure, password-less access.



Before using this method, contact the Oracle administrator for enabling Oracle Wallet for your database and place the wallet files on your machine.

To connect to Oracle databases using the Oracle Wallet, follow these steps:

The screenshot below displays the files available in Oracle Wallet placed in a location.

  Sort ▾  View ▾ 				
☐	Name	Date modified	Type	Size
	cwallet.sso	22-09-2023 08:29	SSO File	6 KB
	ewallet.p12	22-09-2023 08:29	Personal Informati...	6 KB
	ewallet.pem	22-09-2023 08:29	PEM File	6 KB
	keystore.jks	22-09-2023 08:29	JKS File	4 KB
	ojdbc.properties	22-09-2023 08:29	PROPERTIES File	1 KB
	sqlnet.ora	22-09-2023 08:29	ORA File	1 KB
	tnsnames.ora	22-09-2023 08:29	ORA File	2 KB
	truststore.jks	22-09-2023 08:29	JKS File	3 KB

2. Enter the database details in the Configuration Details tab.
3. On the Connection Properties tab, enter appropriate values in the fields. The fields marked with a red asterisk are mandatory.

Ensure that you use the URL provided by the Oracle administrator in the URL field. For example, **`jdbc:oracle:thin:@testdb_medium?TNS_ADMIN=D:\OracleWallet`**.

4. Click  (Options) to view the database options.
5. On the Database Options page, select the following options for Oracle Wallet based authentication:
 - Oracle Enable SSL Connection
 - Oracle Wallet Location
 - Oracle PKI Provider Positions
 - Oracle SSL Server DN Match

Oracle



Key	Value
☐ Auto Commit	true
☐ Test Connection Query	
☐ Query Batch Limit	999
☒ Oracle Enable SSL Connection	true
☒ Oracle Wallet Location	
☒ Oracle PKI Provider Position	3
☒ Oracle SSL Server DN Match	false
☐ Beeline Redirect Error	false

- Set the Oracle Enable SSL Connection to **true**.
- Specify the wallet file path in the Oracle Wallet Location option.
- Click  to save the database options.

MySQL

You can create MySQL environments by providing the necessary connection parameters.

Before creating a MySQL environment, you should take a note of the following:

- Prerequisites
- JDBC driver details
- TLS connection details
- JDBC connection parameters

Prerequisites

Prerequisite steps for establishing successful connection:

- **Creation of dedicated service account** for erwin with Metadata read-only privileges in MySQL database
- **Firewall connection open** between MySQL and erwin DI application server
- **MySQL Database port** opened to accept connections from erwin DI application server

JDBC Driver Details

MySQL JDBC driver is out of box packaged with erwin DI application. Hence, no JDBC driver configuration is required from end user standpoint.

TLS Connection Details

- The MySQL JDBC driver supports connection via TLS 1.2. The TLS protocol parameter needs to be added to JDBC URL string to ensure that the connection is via TLS.
- JDBC URL being used to connect via TLS: `jdbc:mysql://IPADDRESS:3306/DATABASENAME ?useSSL=true &enabledTLSProtocols=TLSv1.2`

JDBC Connection Parameters

for MySQL connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.mysql.jdbc.Driver
IP Address/Host Name	Enter the IP address or server host name. For example, 10.32.445.21
DBMS Name/DSN	Enter the MySQL database name. For example, ErwinDIS931.
Port	Specifies the port to connect with the database. 3306 is the default port for the MySQL database. You can change it, if required.
User Name	Enter the MySQL (Service account) user name. For example, erwinuser.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is autopopulated based on the other parameters. For example, jdbc:mysql://IPADDRESS:3306/DATABASENAME
Password	Enter the MySQL (Service account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Par-	Specifies the number of partitions of the database.

MySQL	
Field Name	Description
titions	It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Database Options	
	
Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Save **MySQL**

Use  to save the database options.

Snowflake

You can create a Snowflake environment by providing the necessary connection parameters.

Before creating a Snowflake environment, ensure that you have the following:

- Prerequisites
- JDBC driver configuration
- TLS connection configuration
- JDBC connection parameters

Prerequisites

To establish a connection, ensure that you have:

- **Created a dedicated service account** for erwin with Metadata read-only privileges in the Snowflake database
- **Snowflake Database ports, 443 and 80**, available via firewall to accept connections from erwin Data Intelligence (erwin DI) application server

JDBC Driver Configuration

Currently, the Snowflake JDBC driver is not packaged with the erwin DI application. You can download it [here](#).

Once downloaded, copy the Snowflake drivers to the following location on the erwin DI application server:

`\Apache Software Foundation\<Tomcat X.X>\webapps\erwinDISuite\WEB-INF\lib`

TLS Connection Configuration

The Snowflake JDBC driver version 3.1.x and above implements TLS v1.2 and provides the latest security patches on the protocol. Once configured, the connection uses TLS 1.2 encryption by default.

If

```
jdbc:snowflake://<accountname>.snowflakecomputing.com/
?warehouse=DataWarehouseName&db=DatabaseName&schema=
SchemaName&ssl=on
```

JDBC Connection Parameters

UserId & Password and Key Pair Authentication

The Connection Properties tab displays the connection parameters to establish a connection for the Snowflake database.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.snowflake.client.jdbc.SnowflakeDriver
IP Address/Host Name	Enter <accountname>.snowflakecomputing.com For example, analytixds.us-east-3.snowflakecomputing.com
DBMS Name/DSN	Enter the Snowflake database name. For example, AW2012_DV.
Port	Specifies the port to connect to the database. 443 is the default port for the Snowflake database. You can change it if required.
Authentication Type	Specifies the type of authentication. • UserId & Password: Specifies authentication using standard Snowflake credentials. • Key Pair: Specifies authentication using a public/private key pair registered with your Snowflake account.
User Name	Enter the Snowflake (Service account) username.

Snowflake	
Field Name	Description
	For example, shawn.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is autopopulated based on the other parameters. For example, <pre>jdbc:snowflake://<accountname>.snowflakecomputing.com/ ?warehouse=DataWarehouseName&db=DatabaseName& schema=SchemaName</pre>
Password	Enter the Snowflake (Service account) password. This field is available only when Authentication Type is set to UserId & Password.
Save Password	Specifies whether the password is saved
Configure Key Pair	Use this option to configure key pair. This option is available only when the Authentication Type is set to Key Pair. For more information, refer to the Configuring Key Pairs topic.
DBMS Instance Schema	Specifies the schema of the database. Use this option to select multiple or narrow down to single schema.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP. Thus field is available only when Authentication Type is set to UserId & Password.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.

Snowflake	
Field Name	Description
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Database Options	
	
Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Select keys and double-click the cells under the Value column to set the values of the keys.

Click  to save the database options.

Once the connection parameters are entered, use these options     to go to the next tab, test the connections, save and continue, or save and exit.

OAuth Authentication

The Connection Properties tab displays the connection parameters to establish a connection for the Snowflake database.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.snowflake.client.jdbc.SnowflakeDriver
IP Address/Host Name	Enter <accountname>.snowflakecomputing.com For example, analytixds.us-east-3.snowflakecomputing.com
DBMS Name/DSN	Enter the Snowflake database name. For example, AW2012_DV.
Port	Specifies the port to connect with the database. 443 is the default port for the Snowflake database. You can change it, if required.
Authentication Type	Specifies the type of authentication. • OAuth: Specifies authentication using an OAuth client.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is autopopulated based on the other parameters. For example, <pre>jdbc:snowflake://<accountname>.snowflakecomputing.com/ ?warehouse=DataWarehouseName&db=DatabaseName& schema=SchemaName</pre>
Client ID	Enter the OAuth client ID registered with Snowflake. This option is available only when the Authentication Type is set to OAuth.
DBMS Instance	Specifies the schema of the database.

Snowflake	
Field Name	Description
Schema	Use this option to select multiple or narrow down to single schema.
Client Secret	Enter the corresponding client secret associated with the client ID. This option is available only when the Authentication Type is set to OAuth.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Snowflake



Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Select keys and double-click the cells under the Value column to set the values of the keys.

Click  to save the database options.

Additionally, you can click  to go to the next tab.

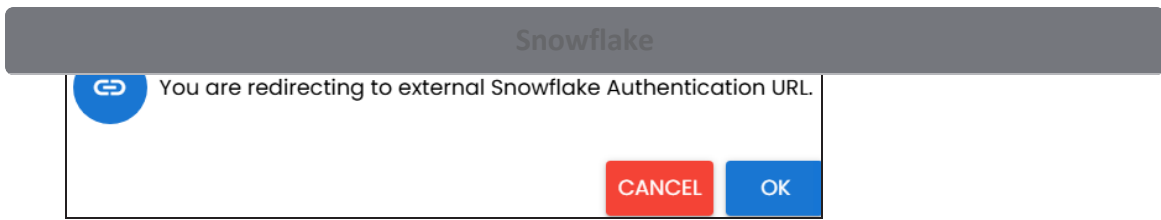


To get the client ID and client secret, you first need to create OAuth security integration. Snowflake's OAuth integration now supports a single redirect URL for user redirection after authorization. For more information, refer to [Snowflake documentation](#).

Once the connection parameters are entered, follow these steps:

1. Click **Save**.
2. Click **Login With Snowflake**.

A redirect pop-up appears.



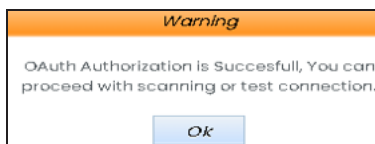
3. Click **Ok**.

Clicking this option takes you to the Snowflake login page.

The login page features the Snowflake logo at the top center. Below the logo, the text "Sign in to Snowflake to continue to MY_SNOWSQL_CLIENT_DEV" is displayed. Underneath, there is a button labeled "Sign in using OKTASingleSignOn". Below this button are two input fields: "Username" and "Password". A blue "Sign in" button is positioned below the password field. At the bottom, a small line of text states "We process your personal information according to our [Privacy Notice](#)".

4. Enter the Snowflake username and password, and then click **Sign in**.

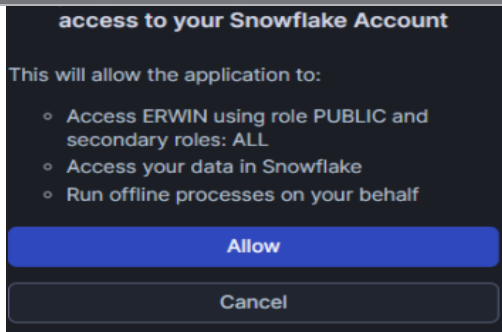
A Warning pop-up appears.



5. Click **Ok**.

A Snowflake OAuth Authorization pop-up appears.

Snowflake



6. Click **Allow**.

Clicking this option takes you to the particular environment from which the authentication process started.

	Datasource Type Snowflake	Authorized Datasource 
System Environment Type	Server Platform	Server OS Version
Production System Name	File Location	Business Entity Type Snowflake
Production Environment Name	File Management Type	
Version 1.00	Version Label	
Driver Name net.snowflake.client.jdbc.SnowflakeDriver	DBMS Name/DSN SAMPLE_DEMO	Number of Partitions 1
User Name MMALLICK2	Authentication Type OAuth	Maximum Connections Per Partitions 5
IP Address/Host Name https://erwin.us-east-1.snowflakecomputing.com	Client ID 0peA9XcMGxkQelygVM04TvqQs5Q=	Minimum Connections Per Partitions 3
Port 443	Client Secret *****	Options
DBMS Instance Schema	Token Validity Wed Jul 16 2025 13:38:30 GMT+0530 (India Standard Time)	
	Url *****	
	Connection Pool Type HIKARI	

Once an environment is created, you can test the connection and scan metadata.

Configuring Key Pairs

erwin Data Intelligence (erwin DI) supports key pair authentication for Snowflake. To use this authentication, ensure that you do the following:

1. Generate a private and public key pair using OpenSSL. You can generate encrypted or unencrypted keys.
2. Configure public and private keys to your Snowflake user account.

You can configure a key pair using an encrypted or unencrypted private key.

Encrypted Keys

To configure a key pair using an encrypted private key in erwin DI, follow these steps:

1. Ensure that **Encrypted Private File** is switched ON.
By default, **Encrypted Private File** and **Upload Key Pair File** are switched ON.
2. In the **Passphrase** box, enter the passphrase.
3. Under **Key Pair File**, click  to browse and select the encrypted private key file.
4. Click **Upload**.

The private key is uploaded and the key pair is configured.

Unencrypted Keys

To configure a key pair using an unencrypted private key in erwin DI, follow these steps:

1. Switch **Encrypted Private File** to OFF.
2. Under **Key Pair File**, click  to browse and select the unencrypted private key file.
3. Click **Upload**.

Alternatively, you can switch **Upload Key Pair File** to OFF and paste the unencrypted private key in the Private Key text box. Then, click Upload.

The private key is uploaded and the key pair is configured.

Google BigQuery

You can connect to a Google BigQuery datasource via JDBC to harvest metadata. Before creating a Google BigQuery environment, ensure that you have the following:

- Prerequisites
- JDBC driver configuration
- JDBC connection parameters

Prerequisites

To establish a connection, ensure that you have:

- A dedicated service account for erwin Data Intelligence (erwin DI) with Big Query Data Viewer privilege in Google BigQuery database
- Firewall connection open for port 443 between Google BigQuery datasource and erwin DI application server
- A Google Cloud trusted certificate. Import it into the JDK cacerts file. For more information on the steps to import the certificate, refer to the [Importing Certificates](#) section.

JDBC Driver Configuration

The Google BigQuery JDBC driver is not packaged with erwin DI application. You can download it [here](#).

Once downloaded, copy the drivers to the following location on the erwin DI application server:

`\Apache Software Foundation\<Tomcat X.X>\webapps\erwinDISuite\WEB-INF\lib`

JDBC Connection Parameters

While creating an environment, the Configuration Details tab displays the connection parameters to establish connection to Google BigQuery database.

Configuring Key Pairs

Configuration Details

Miscellaneous

System Environment Name*

BigQuery

System Environment Type

Data Steward

-Select Data Steward-

▼

☐

Apply To All Tables & Columns

Server Platform

Server OS Version

File Management Type

File Location

Production System Name

Choose Production System

▼

Production Environment Name

▼

Version

1.00

Version Label

DQ Score

-Select DQ Score-

▼

Datasource Type*

Other

▼

Driver Name*

com.simba.googlebigquery.jdbc42.Dr

DBMS Name/DSN*

turing-audio-321406

IP Address/Host Name*

turing-audio-321406.iam.gserviceacc

Port*

443

User Name*

srinivas.bommaraboina@quest.com

Password*

☒

Save Password

Url*

jdbc:bigquery://https://www.googleap

DBMS Instance Schema

Connection Pool Type*

HIKARICP

▼

Number of Partitions*

1

Minimum Connections Per Partitions*

3

Maximum Connections Per Partitions

5

Options

SupportAutoCommit=false

⚙

Save & Continue

Save & Exit

Cancel

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.simba.googlebigquery.jdbc42.Driver
IP Address/- Host Name	Enter <accountname>.gserviceaccount.com For example, turing-audio-321406.iam.gserviceaccount.com
DBMS Name/D-SN	Enter the Google BigQuery database name. For example, turing-audio-321406.
Port	Specifies the port to connect with the database.

Configuring Key Pairs	
Field Name	Description
	443 is the default port for the Snowflake database. You can change it, if required.
User Name	Enter the Google BigQuery (Service account) username. For example, shawn.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is auto-populated based on the other parameters. For example, <code>jdbc:bigquery://https://www.googleapis.com/bigquery/v2:443;ProjectId=turing-audio-321406;OAuthType=0;OAuthServiceAcctEmail=googlebigqueryserviceaccount@turing-audio-321406.iam.gserviceaccount.com;OAuthPvtKeyPath=D:\APIs\bigquery\turing-audio-321406-1ba3e1e94fa0.json;</code>
Password	Enter a dummy password as service account does not need a password
Save Password	Specifies whether the password is saved
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.

Configuring Key Pairs	
Field Name	Description
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

Next, click  (Options) to open Database Options and set the Support Auto Commit key to false.

Then, click  to save the database options.

Once the connection parameters are entered, use these options     to go to the next tab, test the connections, save and continue, or save and exit.

Importing Certificates to Java Certs

To import a certificate into the JDK 17 cacerts file, you can use the keytool utility, which is included with JDK.

Prerequisites:

- Ensure you have the certificate file (in .cer, .crt, or .pem format).
- Locate the cacerts file in your JDK. The default location of the cacerts file is:
 - On Windows: C:\Program Files\AdoptOpenJDK\jdk-17\lib\security\cacerts
 - On Linux/Mac: /path/to/jdk/lib/security/cacerts

To import certificates into the cacerts file, follow these steps:

1. Locate the certificate file: Make sure you have the certificate (for example, server.crt) on your local machine.
2. Identify the keytool location.
The keytool utility comes with the JDK and is typically located in the bin folder of your JDK installation.

- On Windows: C:\Program Files\AdoptOpenJDK\jdk-17\bin\keytool.exe
- On Linux/Mac: /path/to/jdk/bin/keytool

3. Open the command prompt on Windows or terminal on Linux/macOS.

4. Run the following keytool command:

```
keytool -import -alias bigquerycertificate -file <path_to_certificate> -keystore <path_to_jdk_cacerts> -storepass changeit
```

Replace <path_to_certificate> with the path to your certificate file, and <path_to_jdk_cacerts> with the path to the cacerts file. The password for the keystore (By default, it is changeit).

For example,

- **Windows:** keytool -import -alias <any-name> -file C:\path\to\your\server.crt -keystore "C:\Program Files\AdoptOpenJDK\jdk-17\lib\security\cacerts" -storepass changeit
- **Linux:** keytool -import -alias <any-name> -file /path/to/your/server.crt -keystore /path/to/jdk/lib/security/cacerts -storepass changeit

Here,

- o -import tells keytool to import a certificate.
- o -alias <any-name> is the alias name for the certificate. For example, <data-basename-server>.
- o -file specifies the certificate file.
- o -keystore is the path to the cacerts file.
- o -storepass is the password for the cacerts keystore (By default, it is changeit).

5. Type yes to confirm and proceed.

6. Verify whether the certificate has been successfully added to the keystore using the following command:

```
keytool -list -keystore <path_to_jdk_cacerts> -storepass changeit
```

This command displays a list of aliases. Verify whether your server is in the list.

applications running on the JDK will trust the server certificate.

Tips:

- If you're using a custom password for the cacerts keystore, replace changeit with your actual password.
- Make sure you have the necessary permissions to modify the cacerts file (administrator/root privileges may be required).
- If you're using a different version of the JDK, ensure the path to cacerts is accurate.

MS Dynamics CRM

You can create MS Dynamics CRM environment by providing the necessary connection parameters.

Before creating a MS Dynamics CRM environment, you should take a note of the following:

- Prerequisites
- JDBC driver details
- TLS connection details
- JDBC connection parameters

Prerequisites

Prerequisite steps for establishing successful connection:

- **Creation of dedicated service account** for erwin with Metadata read-only privileges in MS Dynamics CRM database
- CRM Server **IP Address should be mapped with Host Names** in the file called “Hosts” which is available in the location - C:\Windows\System32\drivers\etc
- Generate CRM Domain trusted Certificate in erwin application server using InstallCert.java and place the generated “jssecacerts” file in the location - C:\Program Files\AdoptOpenJDK\jdk-XXX\jre\lib\security

Reference: <https://www.mkyong.com/webservices/jax-ws/sun-certpathbuilderexception-unable-to-find-valid-certification-path-to-requested-target/>

JDBC Driver Details

The MS Dynamics CRM JDBC driver is not packaged with erwin DI application. Hence, customers need to use the jdbc driver available at their end for MS Dynamics CRM (CDATA, Progress etc.)

You can download CDATA driver from the URL mentioned below.

Download URL: <https://www.cdata.com/drivers/dynamicscrm/download/>

should be placed in the following path in erwin application server: \Apache Software Foundation\<Tomcat X.X>\webapps\erwinDISuite\WEB-INF\lib and restart the Tomcat.

TLS Connection Details

The CDATA MS Dynamics CRM driver uses SSL by default, so you will not need to set any additional properties. The connection will use TLS 1.2 encryption.

JDBC Connection Parameters

The Connection Properties tab displays the connection parameters to establish connection for MS Dynamics CRM connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

To enter MS Dynamics CRM connection parameters, follow these steps:

1. Select **Database Type** as **Other** while creating the environment.
2. Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, cdata.jdbc.dynamicscrm.DynamicsCRMDriver
IP Address/Host Name	Enter the IP Address or Host Names of MS Dynamics CRM server. For example, 10.45.21.123
DBMS Name/DSN	Enter the MS Dynamics CRM Database Name. For example, CRM.
Port	Specifies the port to connect with the database. 443 is the default port for MS Dynamics CRM. You can change it, if required.

MS Dynamics CRM

Field Name	Description
User Name	Enter the MS Dynamics CRM (Service account) user name. For example, domain\erwinuser.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is autopopulated based on the other parameters. For example, jdbc-c:dynamicscrm:User=UserName;Password=XXX;URL=<MS Dynamics CRM URL>;  If user trying to connect CRM online version, then append the following value to above mentioned connection string CRM Version=CRM Online;
Password	Enter the MS Dynamics CRM (Service account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved
DBMS Instance Schema	Specifies the schema of the database. For example, DynamicsCRM.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions of the database. It is autopopulated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is autopopulated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.

MS Dynamics CRM

Field Name	Description
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is autopopulated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears displaying the different options available.

Database Options


Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Select keys and double-click the cells under the **Value** column to set the values of the keys. Use  to save the database options.

SAP

You can create SAP environments by providing the necessary connection parameters.

Before creating a SAP environment, you should take a note of the following:

- Privileges
- Prerequisites
- JDBC driver details
- TLS connection details
- JDBC connection parameters

Privileges

Privileges given to service account:

- User type = System
- User group = SUPER
- Authorization profile = S_DDIC

Prerequisites

Prerequisite steps for establishing successful connection:

- **Creation of dedicated service account** for erwin with Metadata read-only privileges in SAP system
- Open Firewall connection between SAP and erwin DI application server
- Get the SAP System Number and Client details

JDBC Driver Details

The SAP JCO driver is not packaged with erwin DI application. Hence, customer must get the JCO driver from their respective SAP team and deploy the same in erwin application server.

The following sapjco files are required:

- Sapjco3.dll

Location to place these files

- Copy sapjco.jar into webinf/lib folder
- Copy sapjco3.dll copy into windows/system32 folder



The tool connects to the SAP system directly using SAP JCO drivers and not to SAP backend database.

TLS Connection Details

In order to use SSL with the JCO, we will need to:

- Set up the SAP system for SSL (SNC setup)
- Create a certificate (X509) for the user
- Pass the user as \$X509CERT\$ (check JCO doc)
- Pass some key from the cert as passwd in the JCO

JCO Connection Parameters

The Connection Properties tab displays the connection parameters to establish connection for SAP connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, 192.168.100.200
User Name	Specifies the SAP (Service account) username.

SAP	
Field Name	Description
	For example, sapuser.
Password	Specifies the SAP (Service account) password. For example, goerwin@1.
Save Password	Specifies whether the password is saved
System Number	Specifies the SAP System Instance Number (range 0-99). For example, 24.
Client	Specifies the SAP Client number (range 000-999). For example, 800.
Field Delimiter	Select the required delimiter. For example: , [Comma].
CSV File Upload	Browse the CSV file which contains name of SAP tables to be harvested.

Databricks

You can create Databricks environment by providing the necessary connection parameters.

Before creating a Databricks environment, ensure that you have the following:

- Prerequisites
- JDBC driver configuration
- TLS connection configuration
- JDBC connection parameters

Prerequisites

To establish a connection, ensure that you have:

- **Created a dedicated service account** for erwin with Metadata read-only privileges in Databricks database
- **Databricks Database ports, 443 and 80**, available via firewall to accept connections from erwin Data Intelligence (erwin DI) application server

JDBC Driver Configuration

Currently Databricks JDBC driver is not packaged with erwin DI application. Hence, you can download it [here](#).

Once downloaded, copy the Databricks drivers to the following location on the erwin DI application server:

\Apache Software Foundation\<Tomcat X.X>\webapps\erwinDISuite\WEB-INF\lib

TLS Connection Configuration

Databricks JDBC driver version 3.1.x and above implement TLS v1.2 and provide the latest security patches on the protocol. Once configured, the connection uses TLS 1.2 encryption by default.

If

```
jdbc:spark://<accountname>.databrickscomputing.com/
?warehouse=DataWarehouseName&db=DatabaseName&schema=
SchemaName&ssl=on
```

JDBC Connection Parameters

The Connection Properties tab displays the connection parameters to establish connection for Databricks connection.

Once the connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.simba.spark.jdbc.Driver
IP Address/Host Name	Enter <accountname>.databrickscomputing.com For example, analytixds.us-east-3.databrickscomputing.com
DBMS Name/DSN	Enter the Databricks database name. For example, AW2012_DV.
Port	Specifies the port to connect with the database. 443 is the default port for the Databricks database. You can change it, if required.
User Name	Enter the Databricks (Service account) username. For example, shawn.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. It is autopopulated based on the other parameters.

Databricks	
Field Name	Description
	For example, <pre>jdbc:spark://<accountname>.databrickscomputing.com/warehouse=DataWarehouseName&db=DatabaseName&schema=SchemaNameAuthMech=3;UserAgentEntry=erwinDI;</pre>
Password	Enter the Databricks (Service account) password. This field is available only when Use KeyPair is not selected.
Save Password	Specifies whether the password is saved.
DBMS Instance Schema	Specifies the schema of the database. Use this option to select multiple or narrow down to single schema.
Connection Pool Type	Specifies the connection pool type being used to connect via JDBC. For example, HIKARICP and BONECP.
Number of Partitions	Specifies the number of partitions of the database. It is auto-populated with default number of partitions. You can edit and provide the number of partitions as required. For example, 1.
Minimum Connections Per Partitions	Specifies the minimum connections per partitions of the database. It is auto-populated with default minimum connections per partitions. You can edit and provide the minimum connections per partitions as required. For example, 3.
Maximum Connections Per Partitions	Specifies the maximum connections per partitions of the database. It is auto-populated with default maximum connections per partitions. You can edit and provide the maximum connections per partitions as required. For example, 5.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Salesforce

You can create two types of Salesforce environments:

- [JDBC authentication](#)
- [RestAPI authentication](#)

Before creating a Salesforce environment, ensure that you have the following:

- [Prerequisites](#)
- [Privileges](#)
- [JDBC driver details](#)

Prerequisites

To establish a connection, ensure that you have:

1. Created a dedicated service account for erwin with Metadata Read-only privileges in the Salesforce Database.
2. Generated and stored the Salesforce OAuth REST API Client ID and Client Secret parameters in advance.
3. Network connectivity between erwin Data Intelligence and your Salesforce database.

Privileges

Following permissions are required to scan metadata in Salesforce:

- **System Permissions**
 - API Enabled
 - View Setup and Configuration
- **Object Permissions**
 - **Read Only:**
 - EntityDefinition
 - FieldDefinition

FieldPermissions

JDBC Driver Details

Salesforce JDBC driver is packaged out of box with the erwin DI application. Hence, no JDBC driver configuration is required at your end.

JDBC Connection Parameters

The Connection Properties tab displays the connection parameters to configure a connection to Salesforce.

Once connection parameters are entered, use these options  to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Authentication Type	Specifies the type of authentication Enter "JDBC".
Driver Name	Specifies the JDBC driver name for connecting to the database For example, com.ascendix.jdbc.salesforce.ForceDriver
User Name	Specifies the Salesforce user name For example, SF.
Password	Specifies the Salesforce(Service Account) password
URL	Specifies the full JDBC URL that is used to establish a connection with the database For example, jdbc:ascendix:salesforce://login.salesforce.com/xxxx It is automatically populated based on the other parameters.
DBMS Instance Schema	Specifies the schema of the database Use this option to select one or more schemas or leave it blank to

Salesforce	
Field Name	Description
	retrieve all available schemas.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Database Options


Key	Value
☐	
☐ Snowflake CaseSensitive/Non-English DBName	☒
☐ Read Only	false
☐ Snowflake Query Type	SELECT
☐ Snowflake fetch Metadata by	SCHEMA
☐ Auto Commit	true
☐ Test Connection Query	
☐ Include Synonyms (Only Oracle)	false
☐ Scan Nested Synonyms	false

Select keys and double-click the cells under the **Value** column to set the values of the keys.

Use  to save the database options.

Rest API

The Connection Properties tab displays the connection parameters to establish a connection for the Salesforce connection. You can authenticate the connection via Rest APIs.

Salesforce

Once the connection parameters are entered, use these options to go to the next tab, test the connections, save and continue, or save and exit.

Enter appropriate values in the fields (connection parameters). The fields marked with a red asterisk are mandatory.

Field Name	Description
Authentication Type	Specifies the type of authentication Enter "RestAPI".
Client ID	Specifies the client ID registered with Salesforce. This option is available only when the Authentication Type is set to RestAPI.
Client Secret	Specifies the corresponding client secret associated with the client ID. This option is available only when the Authentication Type is set to RestAPI.
Instance URL	Specifies the Salesforce instance URL that is used to establish a connection with the database For example, https://yourinstance.salesforce.com/
DBMS Instance Schema	Specifies the schema of the database Use this option to select one or more schemas or leave it blank to retrieve all available schemas.

To use database options, click  (Options).

The Database Options page appears. It displays the available database options.

Salesforce

Key

Value

Snowflake CaseSensitive/Non-English DBName

☒

Read Only

false

Snowflake Query Type

SELECT

Snowflake fetch Metadata by

SCHEMA

Auto Commit

true

Test Connection Query

Include Synonyms (Only Oracle)

false

Scan Nested Synonyms

false

The TestConnectionQuery option is selected by default to validate the internal connection. The system displays exceptions if this option is not selected.

Select keys and double-click the cells under the **Value** column to set the values of the keys. Use  to save the database options.

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Enhanced Unstructured Data Support

erwin Data Intelligence provides support for unstructured data, enabling your organization to ingest, analyze, and govern files that do not follow a predefined schema. This capability extends metadata management to documents and media files, allowing previously unmanaged content to be brought into the erwin DI governance framework.

It supports a wide range of unstructured file formats, including the following:

- **Document Formats:**

PDF, Word (DOC/DOCX), Excel (XLS/XLSX), Text (TXT), RDF, PPT, HTML, and Mark-down.

- **Media/Binary Formats:**

PNG, JPG/JPEG, GIF, BMP, and TIFF.

The extracted information is then transformed into governed metadata assets, represented as tables, columns, and attributes within the catalog. Additionally, Sensitive Data Identification (SDI) is applied automatically to detect and tag sensitive information.



Files up to 1 GB can be processed directly through the UI, while larger files can be best handled using Scheduled Scans to minimize performance impact.

Once published, the metadata is available for search, governance, and analysis.

Prerequisite

Before profiling unstructured data, you must [install and configure Tesseract](#). Tesseract OCR is required on Windows, Red Hat and Ubuntu servers to process image-based files.

Installing and Configuring Tesseract

This section walks you through the steps to install and configure Tesseract for Windows, Red Hat and Ubuntu. This process involves:

- [Installing Tesseract for Red Hat](#)
- [Installing Tesseract for Ubuntu](#)

Installing Tesseract for Windows

To install and configure Tesseract installer, follow these steps:

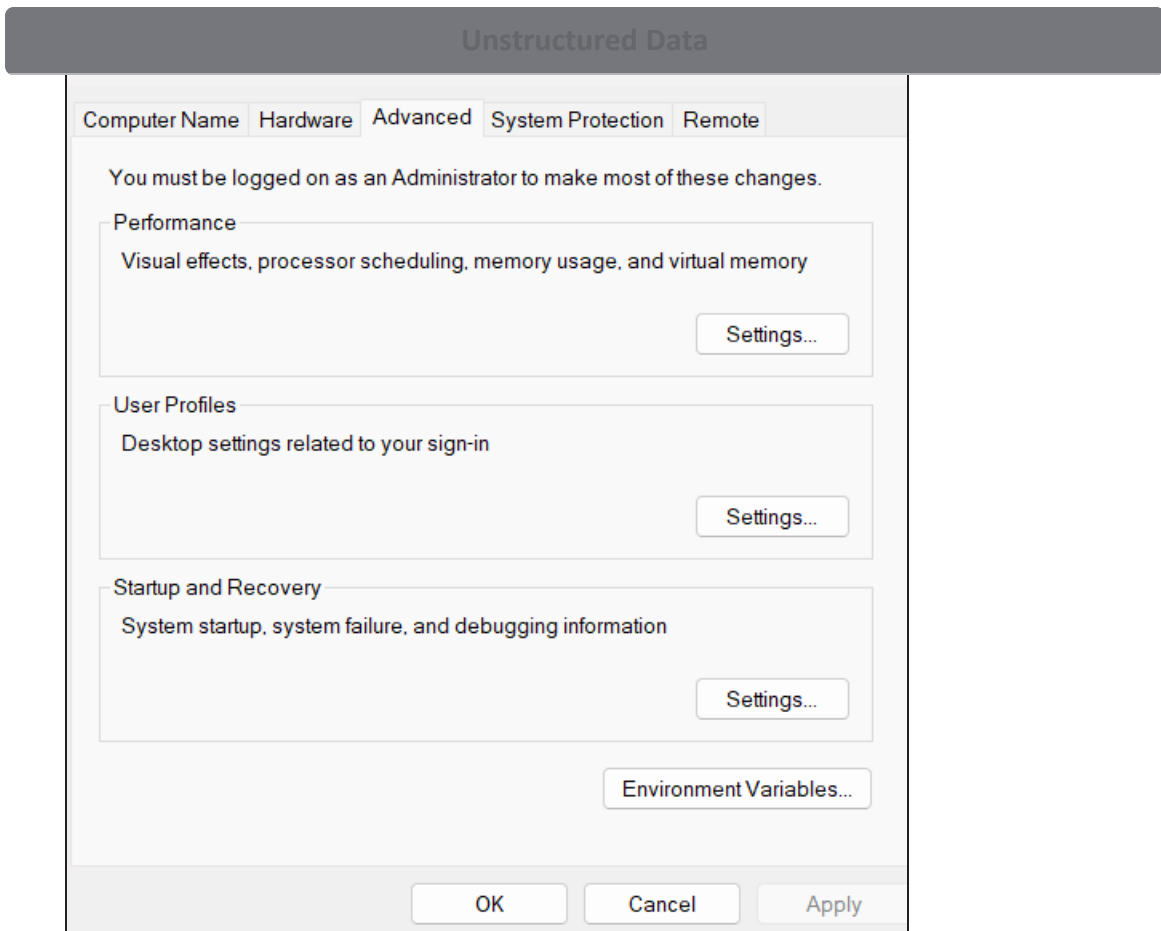
1. Visit the <https://github.com/UB-Mannheim/tesseract/wiki> page, and download the [Windows 64-bit Tesseract](#) installer.

The latest installers can be downloaded here:

- [tesseract-ocr-w64-setup-5.5.0.20241111.exe](#) (64 bit)

2. Run the installer and complete the installation using default settings.
3. Click the Windows Start icon.
4. In the search bar, type Edit the system environment variables and press **Enter**.

The System Properties window opens, and the **Advanced** tab opens by default .



5. Click **Environment Variables**.

The Environment Variables window opens.

Unstructured Data

User variables for MSatpute

Variable	Value
OneDrive	C:\Users\MSatpute\OneDrive - Quest
OneDriveCommercial	C:\Users\MSatpute\OneDrive - Quest
Path	C:\Users\MSatpute\AppData\Local\Microsoft\WindowsApps;...
TEMP	C:\Users\MSatpute\AppData\Local\Temp
TMP	C:\Users\MSatpute\AppData\Local\Temp

New...

Edit...

Delete

System variables

Variable	Value
_PSLockDownPolicy	0
APACHE_HOME	C:\Program Files\erwin\Mart Portal\Apache\bin
ComSpec	C:\Windows\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
JRE_HOME	C:\Program Files\erwin\Mart Portal\OpenJRE64
NUMBER_OF_PROCESSORS	14
OS	Windows_NT

New...

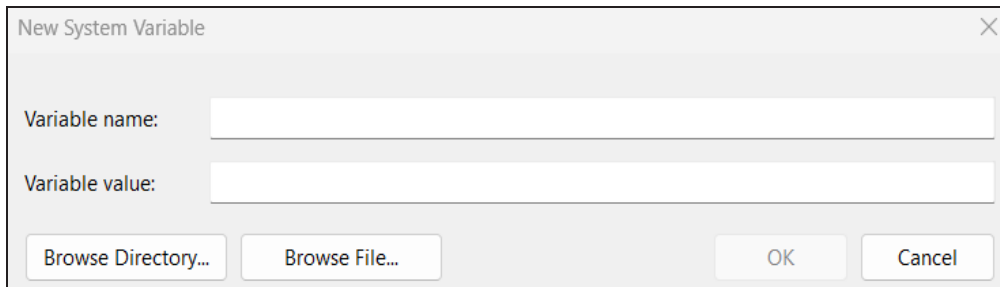
Edit...

Delete

OK

Cancel

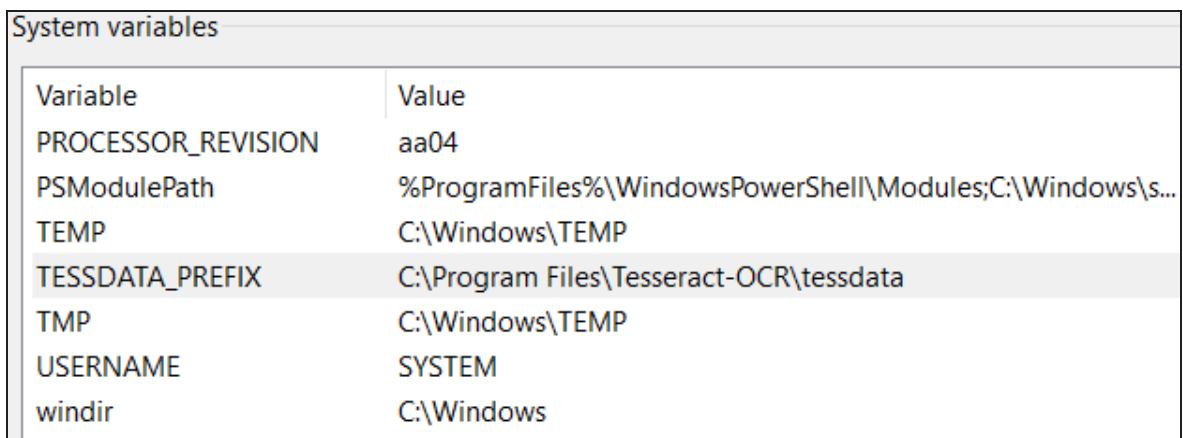
The New System Variable window opens.



The 'New System Variable' dialog box has a title bar with a close button. It contains two text input fields: 'Variable name:' and 'Variable value:'. Below these fields are four buttons: 'Browse Directory...', 'Browse File...', 'OK', and 'Cancel'.

7. In the Variable name field, enter TESSDATA_PREFIX.
8. In the Variable value field, enter C:\Program Files\Tesseract-OCR\tessdata.
9. Click **Ok**.

The variable and its value are added under System variables section.

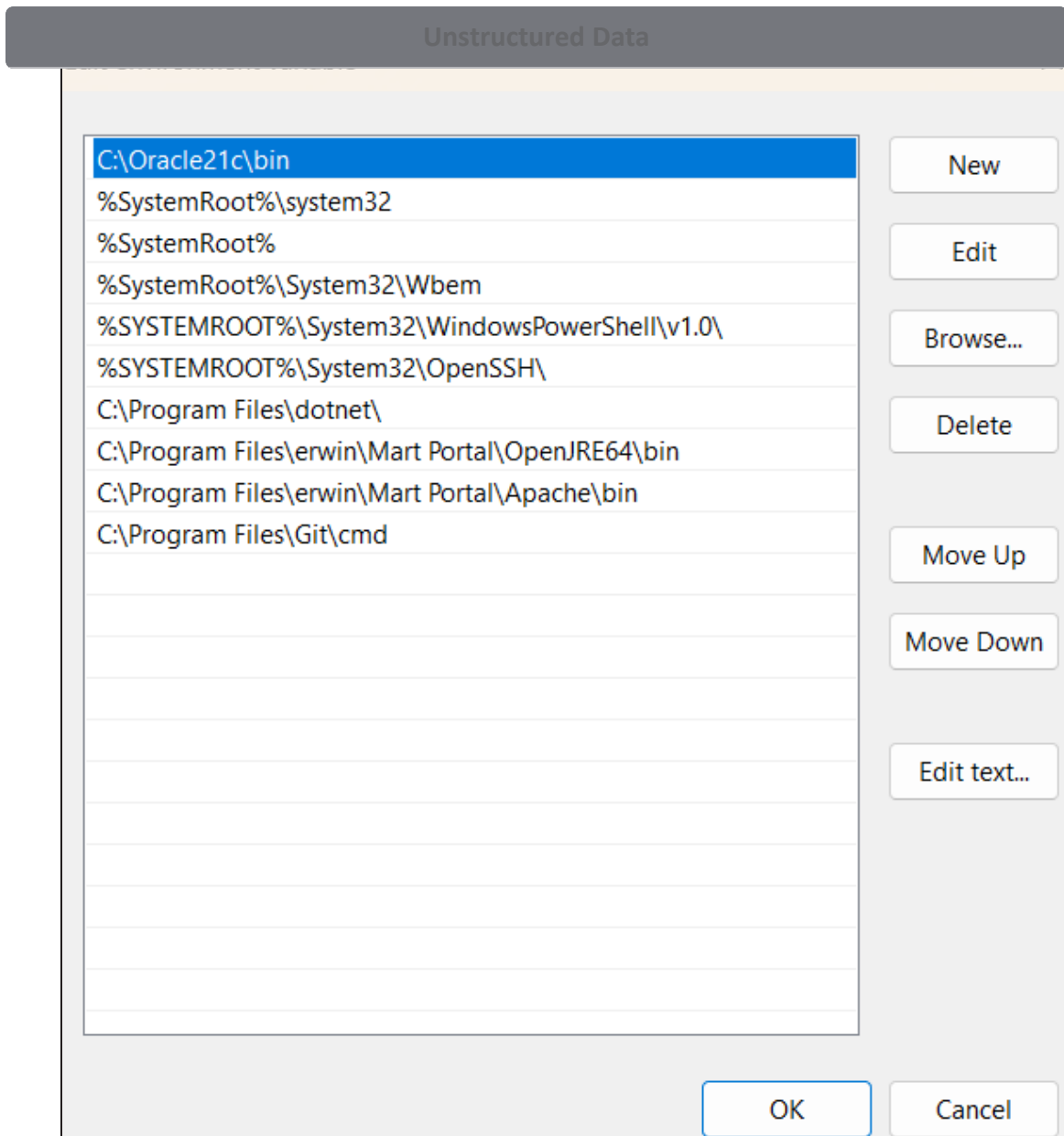


The 'System variables' window displays a list of system variables in a table. The 'TESSDATA_PREFIX' variable is highlighted.

Variable	Value
PROCESSOR_REVISION	aa04
PSModulePath	%ProgramFiles%\WindowsPowerShell\Modules;C:\Windows\s...
TEMP	C:\Windows\TEMP
TESSDATA_PREFIX	C:\Program Files\Tesseract-OCR\tessdata
TMP	C:\Windows\TEMP
USERNAME	SYSTEM
windir	C:\Windows

10. Under System variables, search for Path and then double-click on it.

The Edit environment variable window opens.



11. Click **New** and enter C:\Program Files\Tesseract-OCR\tessdata.

The environment variable is added.

Unstructured Data

C:\Oracle21c\bin
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
%SYSTEMROOT%\System32\OpenSSH\
C:\Program Files\dotnet\
C:\Program Files\erwin\Mart Portal\OpenJRE64\bin
C:\Program Files\erwin\Mart Portal\Apache\bin
C:\Program Files\Git\cmd
C:\Program Files\Tesseract-OCR\tessdata

12. Click **Ok**.
13. On the Environment Variables window, click **Ok**.
14. Restart the Tomcat service.

Installing Tesseract for Red Hat

Open a terminal window and run the following commands:

1. Enable EPEL Repository

```
sudo dnf install -y https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
```

2. Install Tesseract 4

```
sudo dnf install -y tesseract
```

3. Install English language data

```
sudo dnf install -y tesseract-langpack-eng
```

4. Verify installation

```
tesseract --version
```



Tesseract 4 supports only for RHEL 8.5.

5. Restart the Tomcat service.

Installing Tesseract for Ubuntu

Open a terminal window and run the following commands:

1. Install Tesseract 4

```
sudo apt install tesseract-ocr
```

2. Install Tesseract libraries

```
sudo apt install libtesseract-dev
```

3. Install English language data

```
sudo apt install tesseract-ocr-eng
```

4. Verify installation

```
tesseract --version
```

The environment variable is set.

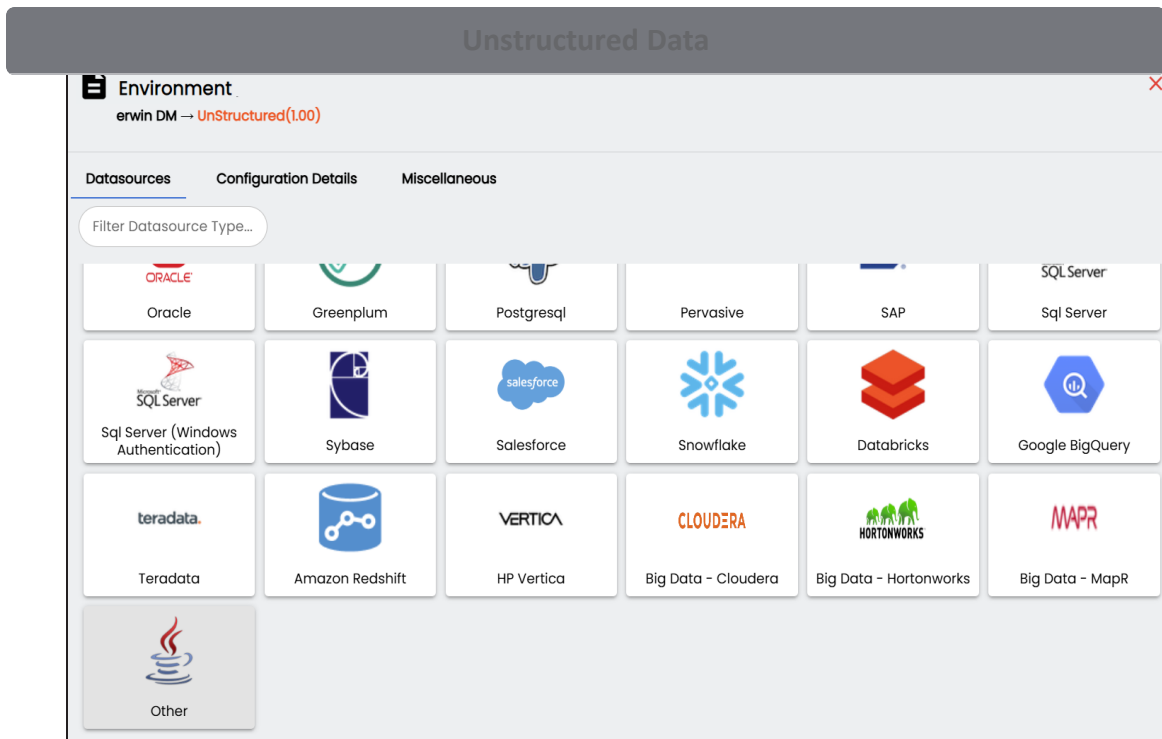
5. Restart the Tomcat service.

Profiling Unstructured Data

To profile unstructured data for automated ingestion, follow these steps:

1. Click **New Environment**.

The New Environment page appears and displays supported database in the Data-sources tab.



2. Select **Other**.

The Configuration Details tab appears and displays connection details for Other data-sources. The connection details vary based on database selection.

Unstructured Data

Environment
erwin DM → UnStructured(1.00)

Datasources **Configuration Details** **Connection Properties** **Miscellaneous**

Datasource Type *
Other

Authorized Datasource

▲ If you change datasource type your data(tables) will be considered as changed datasource type.

System Environment Name *
UnStructured

System Environment Type
UnStructured

Server Platform

Server OS Version

File Management Type

File Location

Production System Name
Choose Production System

Production Environment Name

Version Label

Enable DQ Sync

Governance Responsibilities
No Assignments Found

Classification
Sensitive Data Indicator(SDI) CL...
Sensitive Data Indicator (SDI) Descri...

Miscellaneous
Business Entity Type
Other
Tags

Alternatively, enter a keyword in the search bar to search for datasources. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory.

3. Switch to the **Connection Properties** tab.

Unstructured Data

Environment
erwin DM → UnStructured(1.00)

→ ↗ 🔒 ✕

Datasources

Configuration Details

Connection Properties

Miscellaneous

Driver Name *
com.quest.erwin.jdbc.OpenJDBCDriver

IP Address/Host Name *
NA

DBMS Name/DSN *
NA

Port *
NA

User Name *
NA

Url*
jdbc:openjdb:c:\

Password

DBMS Instance Schema
[No Schema]

Options

Connection Pool Type
HIKARICP

Number of Partitions *
1

Minimum Connections Per Partitions *
3

Maximum Connections Per Partitions *
5

4. Enter appropriate values in the fields. Refer to the following table for field descriptions.

Field Name	Description
Driver Name	Specifies the JDBC driver name for connecting to the database. Set this field to com.quest.erwin.jdbc.OpenJDBCDriver.
Url	Specifies the full JDBC URL that represents the location from which unstructured data files are read. All files located within this path and its subfolders are considered for scanning. This field requires a network drive path that the Tomcat service has access to. Set this field to jdbc:openjdbc:<path accessible to Tomcat>. For example, jdbc:openjdbc:C:\XYZ.
IP Address/Host	Specifies the IP address or server host name of the database. Set these fields to NA.

Unstructured Data	
Field Name	Description
Name	
DBMS Name/DSN	Specifies the database name being used to connect to the environment. Set this field to NA.
Port	Specifies the port to connect with the database. Set this field to NA.
User Name	Specifies the database user name. Set this field to NA.

5. Click  to save connection.

This allows erwin DI to ingest and scan all the files.

Assigning Roles and Users

You can give users the write access to an environment in the following two ways:

- Assign roles to the environment and the users assigned to these roles get write access to the environment
- Assign users directly to an environment

Ensure that you provide necessary permissions to the roles assigned to the users.

Assigning Roles

To assign roles, follow these steps:

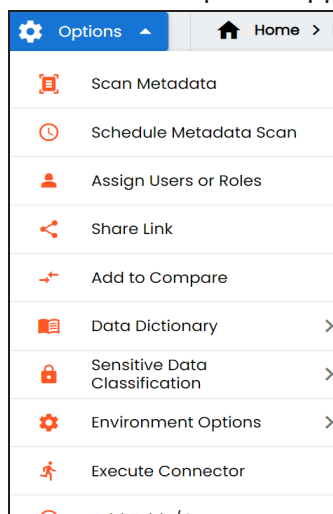
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.

The environment details appear.

The screenshot shows the 'Explore' tab in the Data Catalog. The breadcrumb navigation is 'Home > erwin DM > SYSTEM > DM Landing (v1.00) ENVIRONMENT'. The left sidebar shows 'Data Catalog' with 'Tables' selected. The main area displays statistics for the environment: 'Total Tables : 2' and 'Total Columns : 5'. Below the statistics are four circular progress indicators: 'Total Primary Key Columns' (60%), 'Total Foreign Key Columns' (40%), 'Tables With Expanded Logical Models' (0%), and 'Columns With Expanded Logical Models' (0%). The 'Data Dictionary' tab is active, showing a table with columns: '#', 'Options', 'Table Name', 'Column Name', 'Logical Column Name', 'Column Comments', and 'Column Definition'. The table lists two tables: 'Employees' and 'Employees'.

#	Options	Table Name	Column Name	Logical Column Name	Column Comments	Column Definition
1	☐	Employees	EmployeeName	EmployeeNa...		
2	☐	Employees	EmployeeID	EmployeeID		

The available options appear.



4. Click **Assign Users or Roles**.

The **Assign/Unassign Users or Roles** page appears. By default, the Roles tab appears.

Assigning Roles and Users

Assign/Unassign Users or Roles

Roles Users

#	Select Role	Role Name	Role Description	Role Users
	☐			
1	☒	Data Owner_GER	This role is accountable for who has access to information assets within their functional areas for Germany area. It may decide to review and authorize each access request individually or may define a set of rules that determine who is eligible for access based on business function, support role, etc.	View
2	☒	Data Owner_RO	This role is accountable for who has access to information assets within their functional areas for Romania. It may decide to review and authorize each access request individually or may define a set of rules that determine who is eligible for access based on business function, support role, etc.	View
3	☒	Data Owner_UK	This role is accountable for who has access to information assets within their functional areas for UK. A Data Owner may decide to review and authorize each access request individually or may define a set of rules that determine who is eligible for access based on business function, support role, etc.	View
4	☐			View
5	☐	Data Steward_GER	This role is responsible for utilizing Germany's data governance processes to ensure fitness of data elements - both the content and metadata.	View
6	☐	Data Steward_Hung	This role is responsible for utilizing Hungary's data governance processes to ensure fitness of data elements - both the content and metadata.	View
7	☐	Data Steward_RO	This role is responsible for utilizing Romania's data governance processes to ensure fitness of data elements - both the content and metadata.	View
			This role is responsible for utilizing UK's data governance	

Note: Only Non-Administrator Roles are displayed here

5. Select the required roles.

6. Click .

The selected roles are assigned to the environment.

Assigning Users

To assign users, on the **Assign/Unassign Users or Roles** page, click the **Users** tab.

Assigning Roles and Users

Roles

Users *

#

Select User

User ID

User Full Name

Assigned Roles

	☐			
1	☒	jadams	Joey Adams	Tech Data Steward_GER
2	☒	John Doe	John Doe	Old_DataSteward,System Admin,Transformation Admin
3	☒	mjones	Mike Jones	Data Owner_UK
4	☒	dvaghani	Daya Vaghani	Mapping Admin
5	☒	esimpson	Erica Simpson	Data Owner_GER,Data Steward_RO
6	☐	janedoe	Jane Doe	Mapping Designer
7	☐	jwilson	Joey Wilson	Tech Data Steward_RO
8	☒	ksridhar	Kartik Sridhar	Data Owner_RO
9	☐	lmichal	Luqman Michal	ETL Developer
10	☐	mstoke	Michal Stoke	Mapping_Tester
11	☐	madams	Mike Adams	Data Owner_GER

Note: Only Non-Administrator Id's are displayed here

Select the required users and click .

The users are assigned to the environment.

Managing Environments

Managing Environments involves:

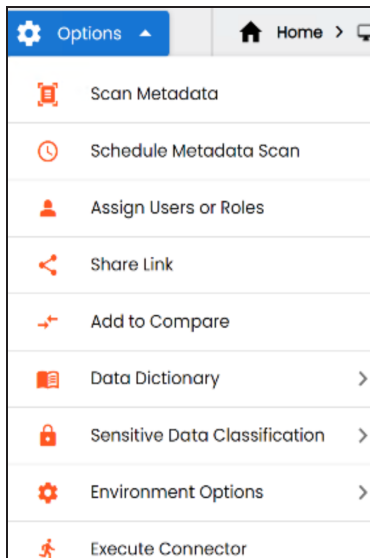
- [Editing or deleting environments](#)
- [Enable DQ Sync for environments](#)
- [Importing metadata from environments](#)
- [Exporting metadata from environments](#)

Editing and Deleting Environments

To edit or delete environments, follow these steps:

1. On the Explore tab, click an environment tile.
2. Click **Options**.

The available options appear.



3. Click **Environment Options**.

The available options appear.

Managing Environments

	New Document
	Export Environment
	Import Environment
	Edit Environment
	Clone Environment
	Delete Environment

4. Use the following options:

Edit Environment

Use this option to update the environment details.



The status of an environment is displayed according to the workflow assigned to the environment. For more information on assigning workflows to environments, refer to the [Managing Metadata Manager Workflows](#) section.

Delete Environment

Use this option to delete the environment.

Enabling DQ Sync

You can view data quality analysis for environments, tables, and columns when you enable DQ Sync on your environments.

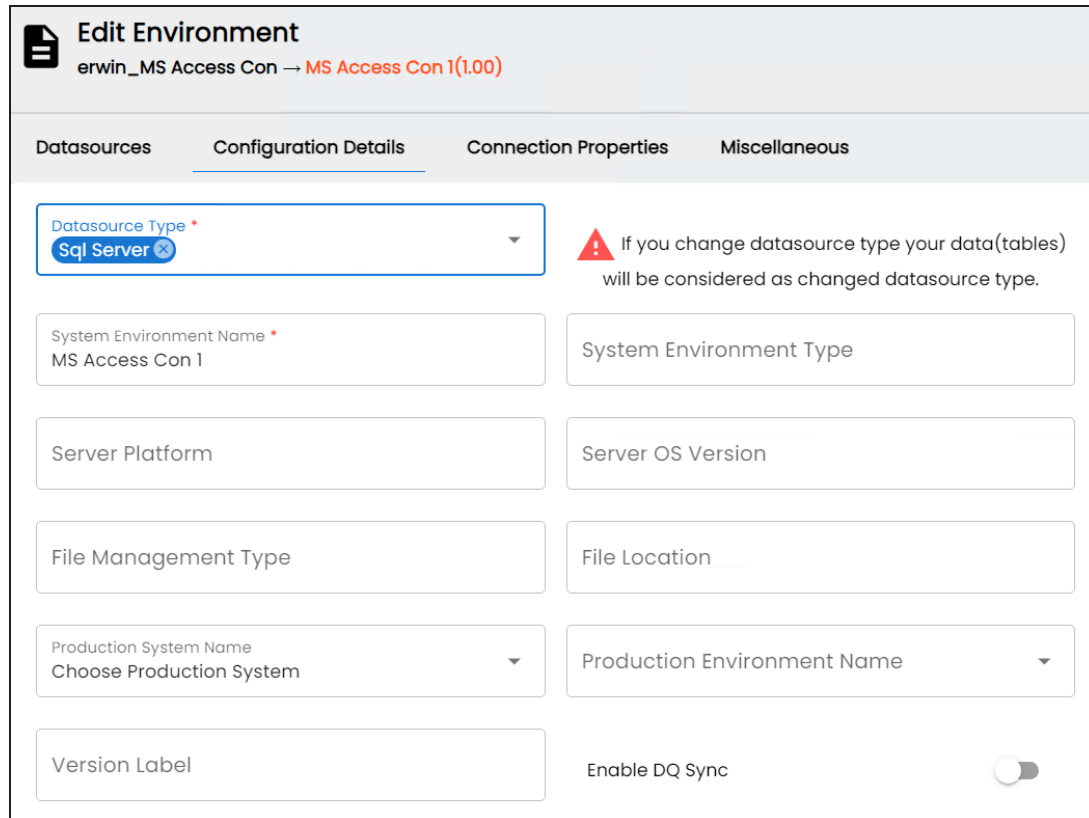


DQ Sync is available for Oracle, Salesforce, Snowflake, MySQL, MSSQL, Hadoop, and PostgreSQL database types.

To enable DQ sync, follow these steps:

- Click **Options > Edit Environment**.

The Edit Environment page appears.



- Switch the **Enable DQ Sync** option On.

This displays the data quality analysis from erwin Data Quality for an environment in the Metadata Manager.



Ensure that you configure erwin Data Quality in the erwin DI to view the **Enable DQ Sync** option. For more information, refer to the [Configuring Data Profiling](#) topic.

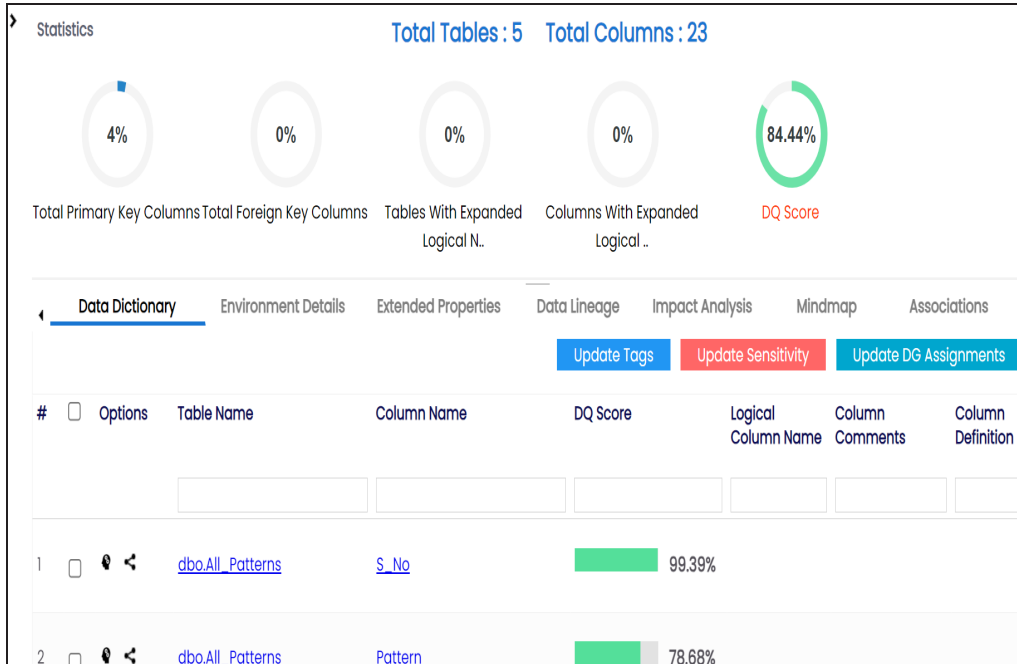
Once you have enabled DQ Sync for an environment, for data quality analysis results in Metadata Manager, ensure that you do the following:

Managing Environments

and run data profiling. For more information, refer to [Run Data Profiling](#) topic.

- Then, [schedule a job](#) in erwin DI to sync the data quality analysis results from erwin Data Quality.

Once the data from erwin Data Quality is synced, DQ Score for the environment is displayed.

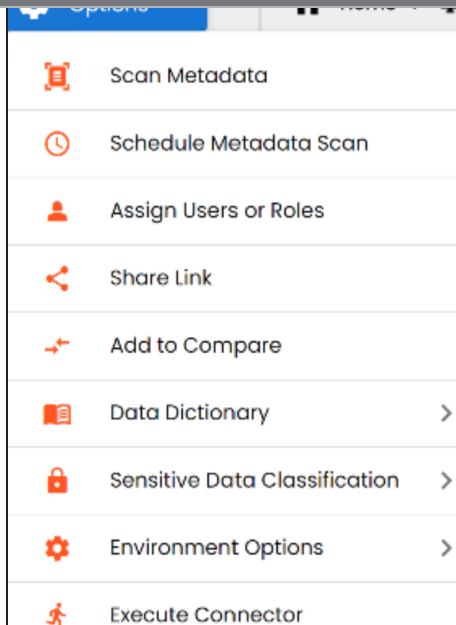


Importing Metadata from an Environment

To import metadata from an environment, follow these steps:

1. On the Explore tab, click an environment tile.
2. Click **Options**.

The available options appear.

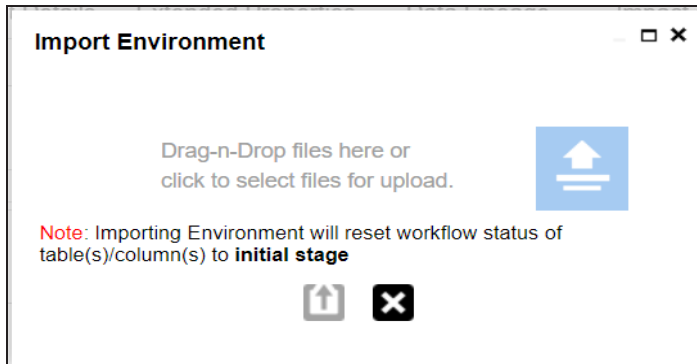


3. Click **Environment Options**.

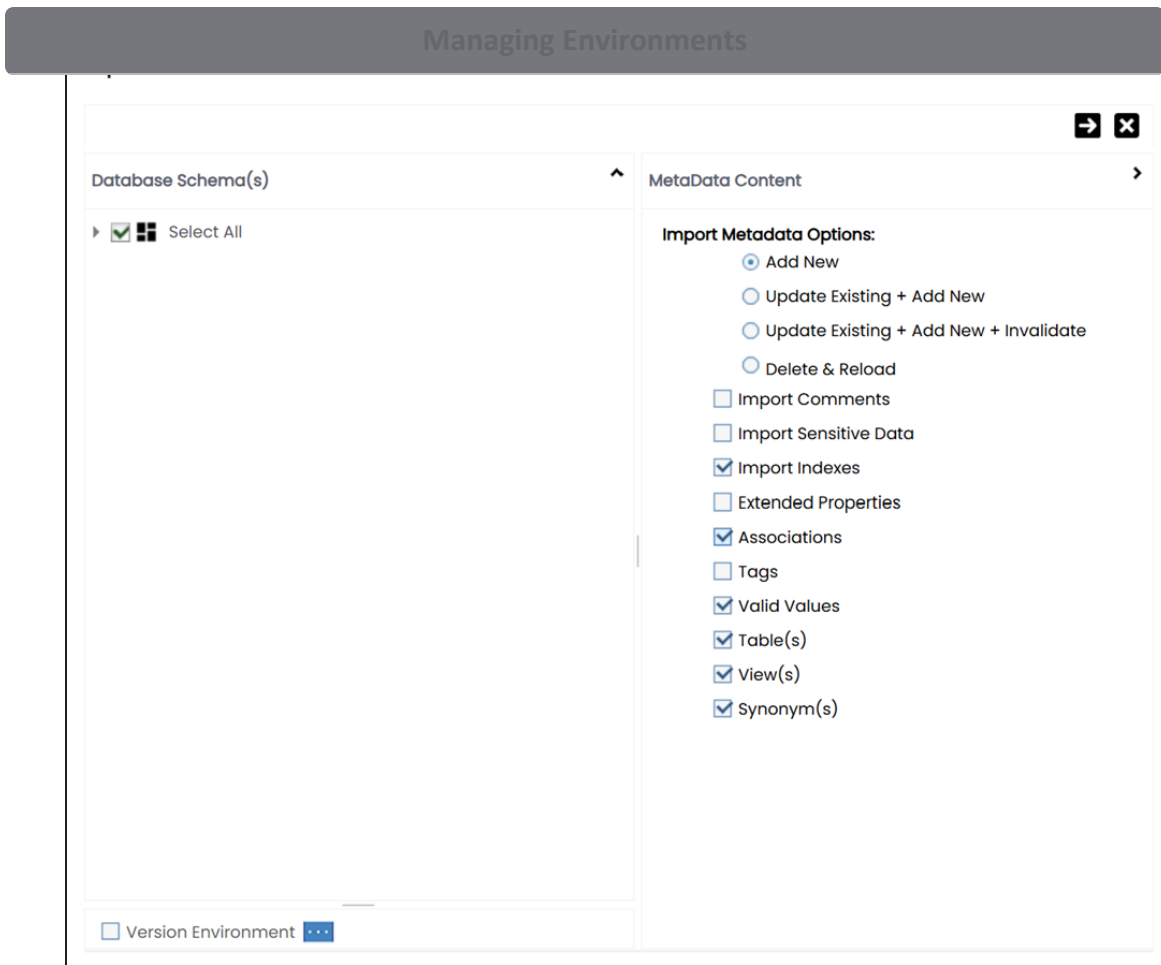
The available options appear.



The Import Environment page appears.



5. Drag and drop or use  to browse the AMP file.
6. Click .



7. Select Schemas and appropriate import metadata options.

Refer to the following table for the descriptions of the Import Metadata Options.

Import Metadata Options	Description
Add New	This option adds new objects to the existing object list. The existing metadata is not updated.
Update Existing + Add New	This option adds new objects to the existing list and updates the existing metadata at the same time.

Managing Environments

Import Metadata Options	Description
Update Existing + Add New + Invalidate	This option adds new objects to the existing list, updates existing ones, and invalidates the table/column during the importing process.
Delete & Reload	This option deletes all existing metadata and imports only the new objects that have been selected.
Import Comments	Select the checkbox to import comments.
Import Sensitive Data	Select the checkbox to import sensitivity classification of the metadata from the data source.  This option is available for SQL, Oracle, and Snowflake environments.
Import Indexes	Select the checkbox to import indexes of the metadata from the data source. In addition to the listed datasources, this option is available when the datasource is set to Others.  This option is available for SQL, Oracle, and MySQL environments.
Extended Properties	Select the checkbox to import extended properties.
Associations	Select the checkbox to import associated assets.
Tags	Select the checkbox to import Tags.
Valid Values	Select the checkbox to import Valid Values.
Table(s)	Select the checkbox to import Tables.
View(s)	Select the checkbox to import Views.

Managing Environments	
Import Metadata Options	Description
Synonym(s)	Select the checkbox to import Synonyms.
Version Environment	Select the checkbox to create a version of the environment.
Skip Empty Cells	Select the checkbox to skip blank cells during import and retain existing metadata values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.



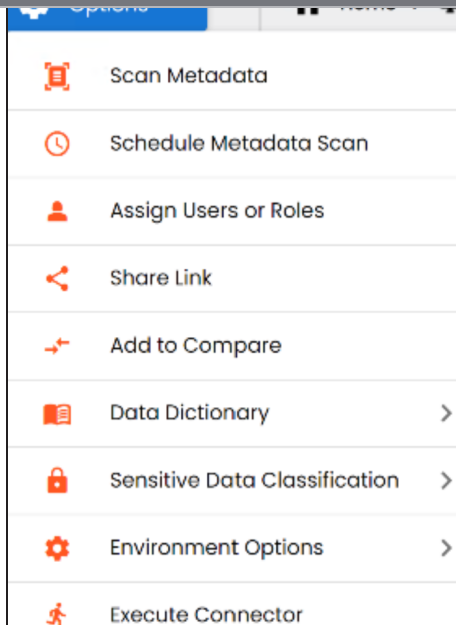
Select the **Version Environment** checkbox to create a version of the environment.

8. Click .
 9. Select the tables and click .
- The environment is imported.

Exporting Metadata from an Environment

To export metadata from an environment, follow these steps:

1. On the Explore tab, click an environment tile.
 2. Click **Options**.
- The available options appear.



3. Click **Environment Options**.

The available options appear.



The Export Environment page appears.

Refer to the following table for descriptions of the update options.

Update Options	Description
Extended Properties	Switch this option on to include extended properties of the assets.
Associations	Switch this option on to include associated assets.
Sensitive Data Indicator	Switch this option on to include sensitive data indicators associated with the asset.
Tags	Switch this option on to include tags associated with the asset.
Valid Values	Switch this option on to include valid values associated with the asset.
Indexes	Switch this option on to include index metadata associated with tables and columns.

- Switch on or off the Update Options as required.
- Click **Export**.

Updating Sensitivity

Marking your technical and business assets as sensitive is an important aspect of metadata management. It is possible to update sensitivity of technical and business assets in bulk.

You can select multiple columns or tables in the Data Dictionary grid and update their sensitivity. For more information on updating sensitivity in bulk at column or table level, refer to the [Data Dictionary](#) topic.

Sometimes a column and its associated assets are required to be marked sensitive. You can update sensitivity of the column and its associated assets in a mind map. For more information on updating sensitivity of assets in a mind map, refer to the [Mind Map](#) topic.

You can also update sensitivity of columns in a lineage report. For more information on updating sensitivity of columns in a lineage report, refer to the [Lineage](#) topic.

Updating Sensitivity-Data Dictionary

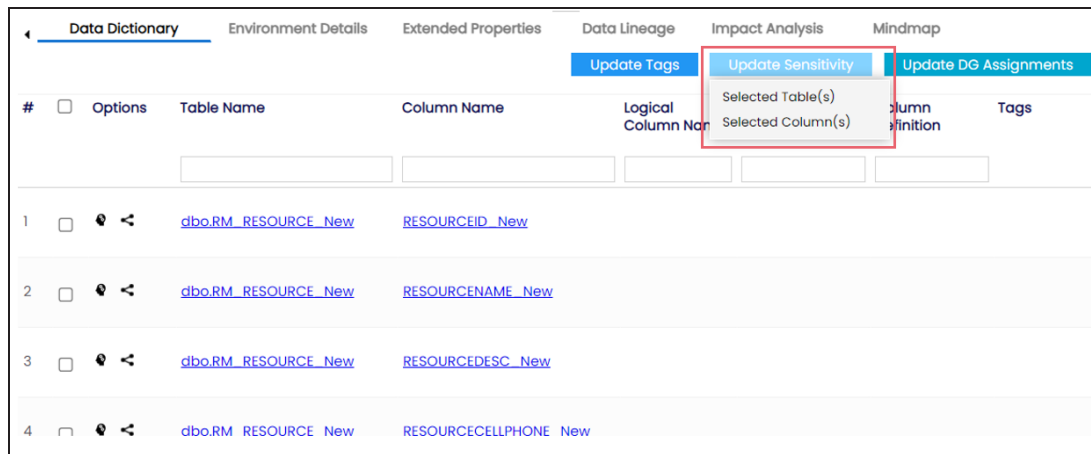
You can update the sensitivity of tables and columns in an environment in bulk. You can also update the sensitivity of the system and environment containing these tables and columns. Updating sensitivity involves marking, tables and columns as sensitive with an appropriate sensitive data indicator (SDI) classification.

You can configure email notifications to be sent whenever sensitivity is updated in bulk. For more information on configuring email notifications, refer to the [Configuring Sensitivity Update Notifications](#) topic.

To update sensitivity of tables or columns from the Data Dictionary tab, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **Data Catalog** pane, click an environment.

By default, the Data Dictionary tab opens.



The Data Dictionary tab displays tables and columns in an environment along with the sensitive data indicator. In the grid, sensitive assets are indicated using , and non sensitive assets are indicated using .

On the Data Dictionary tab, you can update sensitivity of the asset(s) as per the following:

- [Bulk](#)
- [Individual](#)

Bulk Asset Update

You can update the sensitivity in bulk at [table](#) and [column](#) levels.

Table Level

To update sensitivity of tables in bulk, follow these steps:

1. On the **Data Dictionary** tab, select the required rows.
You can use the check box at top to select all the rows.
2. Hover over **Update Sensitivity**.

The screenshot shows the 'Data Dictionary' tab in a software interface. At the top, there are several tabs: 'Data Dictionary', 'Environment Details', 'Extended Properties', 'Data Lineage', 'Impact Analysis', and 'Mindmap'. Below these, there are three buttons: 'Update Tags', 'Update Sensitivity', and 'Update DG Assignments'. The 'Update Sensitivity' button is highlighted with a red box, and a dropdown menu is visible below it with two options: 'Selected Table(s)' and 'Selected Column(s)'. Below the buttons is a table with columns: '#', 'Options', 'Table Name', 'Column Name', 'Logical Column Name', 'Column Definition', and 'Tags'. The table contains four rows of data, all with the 'Table Name' 'dbo.RM_RESOURCE_New'. The first three rows have their 'Options' checkboxes checked, and the fourth row has its checkbox unchecked.

#	Options	Table Name	Column Name	Logical Column Name	Column Definition	Tags
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_New			

3. Click **Selected Table(s)**.

The Update Sensitivity For Table(s) page appears.

Updating Sensitivity-Data Dictionary

Sensitive Data Indicator(SDI) ▼

Sensitive Data Indicator Description

Update Sensitivity For

Column(s) ☒

Environment ☒

System ☒

Metadata Update Options

Non-Sensitive Only ☒

Sensitive Only ☐

Sensitive and Non-Sensitive ☐

UPDATE CANCEL

4. Enter or select appropriate values in the fields. Refer to the following table for field descriptions.

Field Name	Description
Sensitive Data Indicator (SDI)	Specifies the sensitivity data indicator (SDI) classification of the selected tables. Also, you can add multiple classifications to the selected tables. For example, PHI, Confidential. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.

Updating Sensitivity-Data Dictionary

Field Name	Description
Sensitive Data Indicator Description	Specifies the description of the SDI classification. For example, This classification indicates that the data contains personal identifiable information. Use this for data such as, address or social security number.
Update Sensitivity For	Specifies whether sensitivity is applicable to: - Column(s): Switch Column(s) to YES to apply the sensitivity to all the columns in the selected tables. - Environment: Switch Environment to YES to apply sensitivity to the environment containing the tables. - System: Switch System to Yes to apply sensitivity to the system containing the tables.
Metadata Update Options	Specifies whether sensitivity is applicable to: - Unclassified only: Click Unclassified Only to apply sensitivity to assets that are not marked sensitive. - All Classified Only: Click All Classified Only to apply sensitivity to assets that are marked sensitive. - All Classified And Unclassified: Click All Classified And Unclassified to apply sensitivity to both the types of assets, sensitive or not sensitive.

5. Click **Update**.

The sensitivity of the metadata is updated based on the options you selected.

Column Level

To update sensitivity of columns in bulk, follow these steps:

1. On the **Data Dictionary** tab, select the required rows.
You can use the check box at top to select all the rows.
2. Hover over **Update Sensitivity**.

Updating Sensitivity-Data Dictionary

Update Tags

Update Sensitivity

Update DG Assignments

#	☐ Options	Table Name	Column Name	Logical Column Name	Selected Table(s)	Selected Column(s)	Column Definition	Tags
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_New					

3. Click **Selected Column(s)**.

Updating Sensitivity-Data Dictionary

Update Sensitivity For Column(s) ×

Sensitive Data Indicator(SDI) ▼

Sensitive Data Indicator Description

Update Sensitivity For

Table(s) ☒

Environment ☒

System ☒

Metadata Update Options

Non-Sensitive Only ☒

Sensitive Only ☐

Sensitive and Non-Sensitive ☐

UPDATE

CANCEL

- Enter or select appropriate values in the fields. Refer to the following table for field descriptions.

Field Name	Description
Sensitive Data Indicator (SDI)	Specifies the sensitivity data indicator (SDI) classification of the selected columns. Also, you can add multiple classifications to the selected columns. For example, PHI, Confidential. For more information on configuring SDI classifications, refer to the

Updating Sensitivity-Data Dictionary

Field Name	Description
	Configuring Sensitivity Classifications topic.
Sensitive Data Indicator Description	Specifies the description of the SDI classification. For example, This classification indicates that the data contains personal identifiable information. Use this for data such as, address or social security number.
Update Sensitivity For	Specifies whether sensitivity is applicable to: - Table(s): Switch Table(s) to YES to apply sensitivity to the tables containing the columns. - Environment: Switch Environment to YES to apply sensitivity to the environment containing the columns. - System: Switch System to Yes to apply sensitivity to the system containing the columns.
Metadata Update Options	Specifies whether sensitivity is applicable to: - Unclassified only: Click Unclassified Only to apply sensitivity to assets that are not marked sensitive. - All Classified Only: Click All Classified Only to apply sensitivity to assets that are marked sensitive. - All Classified And Unclassified: Click All Classified And Unclassified to apply sensitivity to both the types of assets, sensitive or not sensitive.

5. Click **Update**.

The sensitivity of the metadata is updated based on the options you selected.

Individual Asset Update

You can view and update the sensitivity of technical assets (systems, environments, tables, and columns) individually.

To view and update the sensitivity of technical assets individually, follow these steps:

- **Table and Column:**

In the Data Dictionary tab, you can click <Column_Name> and <Table_Name> to view

Updating Sensitivity-Data Dictionary

Environment:

Sensitivity of an environment can be viewed under the Environment Details tab. You can [edit an environment](#), and update its sensitivity under the Miscellaneous tab.

The screenshot shows the 'Environment Details' tab for an environment named 'erwin_Sales'. The interface includes a top navigation bar with tabs: Data Dictionary, Environment Details (selected), Extended Properties, Data Lineage, Impact Analysis, Mindmap, Associations, Workflow Log, and Documents. A blue 'Add to Compare' button is in the top right. The main content area is divided into several sections: a 'Datasource Type' section showing 'MS Excel File'; a 'Workflow Status' section showing 'No Data Found'; a 'Classification' section showing 'Sensitive Data Indicator Classification' as 'Restricted' (in an orange box) and 'SDI Description'; and a 'Tags' section. A central grid displays various system properties, most of which are marked 'No Data Found': System Environment Type, Production System Name, Production Environment Name, Version (1.00), Server Platform, File Location, File Management Type, Version Label, Server OS Version, Business Entity Type (MS Excel File), and Data Source Type (MS Excel File).

System:

The sensitivity of the system can be viewed under the System Details tab. You can [edit a system](#), and update its sensitivity.

The screenshot shows the 'System Details' tab for a system named 'erwin DI Suite'. The top navigation bar includes tabs: Data Dictionary, System Details (selected), Extended Properties, Data Lineage, Impact Analysis, Mindmap, Associations, System Documents, and Configure Extended Properties. The main content area features a 'DQ Score' section with a 0% gauge, a 'Data Steward' section with 'No Data Found', and a 'Classification' section showing 'SDI Classification' as 'Restricted' (in an orange box) and 'Sensitive Data Indicator (SDI) Description'. A 'Tags' section shows 'Data Quality' and 'Sales' tags. An 'Audit Details' section lists 'Created By Administrator', 'Last Modified By Administrator', 'Created Date Time 29-07-2020 11:06:40', and 'Last Modified Date Time 12-12-2023 06:06:09'. A central grid displays various system properties, most marked 'No Data Found': Primary Move Type (Source/Target) Source, Server Platform, DBMS Platform, File Management Type, Total DBSize, Definition Of The Day, Average User, Server OS Version, File Location, ESB Q Manager Name, Total Number Of Tables (0), Batch Extract Window, ESB Platform Type, DBMS Version, Average Concurrent Users, Owner Name, Telephone Number, and Release.

Updating Sensitivity-Lineage

You can update the sensitivity of columns in a lineage report. You can also update the sensitivity of tables, environments, and systems containing these columns.

You can configure email notifications to be sent whenever sensitivity is updated in bulk. For more information on configuring email notifications, refer to the [Configuring Sensitivity Update Notifications](#) topic.

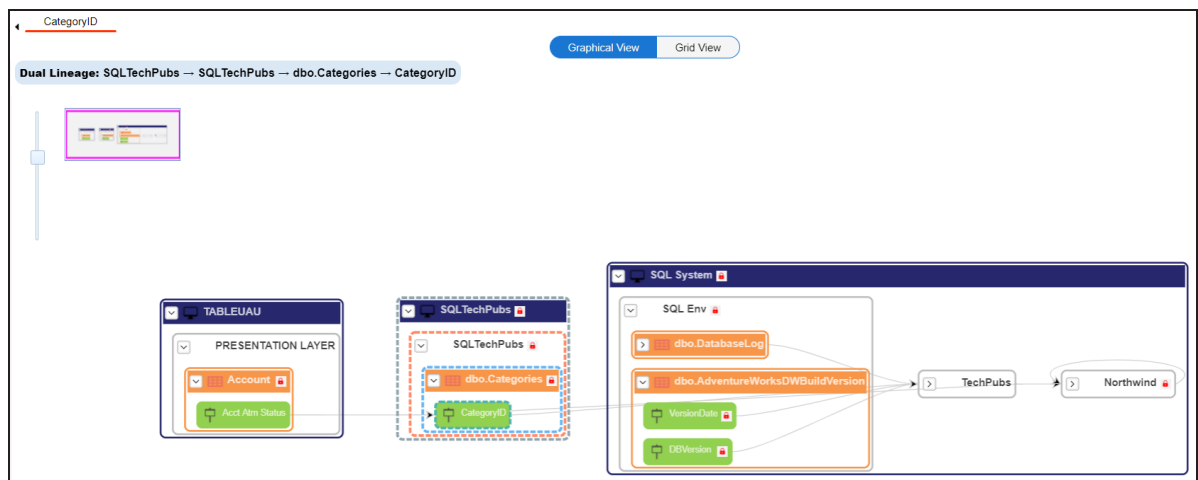
To update sensitivity of columns in lineage reports, follow these steps:

1. In the **Data Catalog** pane, click an environment.

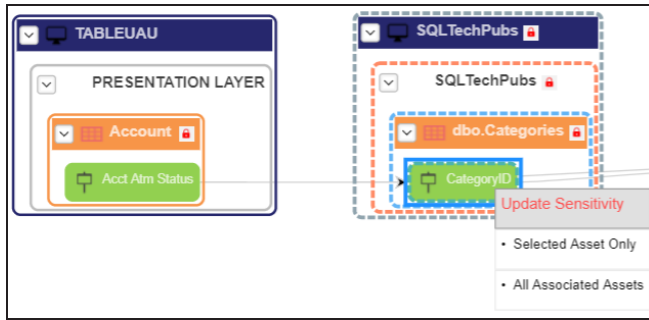
By default, the Data Dictionary tab opens.

2. On the **Data Dictionary** tab, click  for the required column.

By default, dual lineage of the selected table page appears in Graphical View.



Updating Sensitivity-Lineage



4. Use the following options:

Selected Asset Only

Use this option to update sensitivity of the column. You can also update sensitivity of the table, environment, and system containing the column.

All Associated Assets

Use this option to update sensitivity of multiple columns in the lineage report. You can also update sensitivity of the tables, environments, and systems containing these columns.

Refer to the following table for field descriptions when you use above options.

Field Name	Description
Sensitive Data Indicator (SDI)	Specifies the sensitivity data indicator (SDI) classification of the selected columns. Also, you can add multiple classifications to the selected columns. For example, PHI, Confidential. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data Indicator Description	Specifies the description of the SDI classification. For example, This classification indicates that the data contains personal identifiable information. Use this for data such as, address or social security number.
Auto Update	Specifies whether the sensitivity is applicable to:

Updating Sensitivity-Lineage

Field Name	Description
Sensitivity For	- System: Switch System option on to apply sensitivity to all the systems containing the columns. - Environment: Switch Environment option on to apply sensitivity to all the environments containing the columns. - Table: Switch Table option on to apply sensitivity to the tables containing the columns.
Asset Update Options	Specifies whether sensitivity is applicable to: Unclassified Only: Click Unclassified Only to apply sensitivity to assets that are not marked sensitive. All Classified Only: Click All Classified Only to apply sensitivity to assets that are marked sensitive. All Classified And Unclassified: Click All Classified And Unclassified to apply sensitivity to both the types of assets, sensitive or not sensitive.

5. Click **Update**.

The sensitivity of the assets is updated based on the options you selected.

To update sensitivity of multiple columns in lineage reports, follow these steps:

1. In the lineage report, right-click the column.
2. Click **All Associated Assets**.

The Sensitive Data Classification - Lineage page appears.

Updating Sensitivity-Lineage

All Associated Assets

3
System

5
Environment

7
Tables

15
Columns

Next
Cancel

#	Sele	System Name	Environment Name	Table Name	Column Name	Sensitive Data Indicator (Y/N)	Sensitive Data Indicator Classification	Logical Column Name	Expanded Logical Name
	☐								
1	☒	SQL System	Northwind	dbo.Categories	CategoryID	🔒	Confidential		
2	☒	SQL System	Northwind	dbo.CustomerCustomerDemo	CustomerID	🔒			
3	☒	SQL System	SQL Env	dbo.AdventureWorksDWBuildVersion	DBVersion	🔒	PHI		
4	☐	SQL System	SQL Env	dbo.AdventureWorksDWBuildVersion	VersionDate	🔒	PHI		
5	☐	SQL System	SQL Env	dbo.DatabaseLog	DatabaseLogID	🔒			

3. Select the required rows and click **Next**.

You can filter the rows using the filter box.

The Selected Records page appears. It displays the selected rows for verification. You can clear the check box to remove a row from the selected records.

Sensitive Data Classification - Lineage

Previous
Next
Cancel

All Associated Assets

1
System

2
Environment

3
Tables

3
Columns

Selected Records

#	Sele	System Name	Environment Name	Table Name	Column Name	Sensitive Data Indicator (Y/N)	Sensitive Data Indicator Classification	Logical Column Name	Expanded Logical Name	Column Commer
	☐									
1	☒	SQL System	Northwind	dbo.Categories	CategoryID	🔒	Confidential			
2	☒	SQL System	Northwind	dbo.CustomerCustomerDemo	CustomerID	🔒				
3	☒	SQL System	SQL Env	dbo.AdventureWorksDWBuildVersion	DBVersion	🔒	PHI			

4. Click **Next**.

The following page appears.

Updating Sensitivity-Lineage

All Associated Assets

3 System 5 Environment 8 Tables 26 Columns

System:3

Previous Update Cancel

Sensitive Data Indicator(SDI)

Sensitive Data Indicator Description

Auto Update Sensitivity For

Table ☒

Environment ☒

System ☒

5. Enter or select appropriate values in the fields. Refer to the [table above](#) for field descriptions.
6. Click **Update**.

The sensitivity of the metadata is updated based on the options you selected.

Updating Sensitivity-Mind Map

You can update the sensitivity of an asset and its associated technical and business assets through a mind map.

Business assets refer to business terms, business policies, business rules, and other business assets defined in the Business Glossary Manager Settings. Technical assets refer to columns, tables, environments, and systems. A column can be associated with business and technical assets. For more information on associating columns, refer to the [Associating Columns](#) topic.

You can configure email notifications to be sent whenever sensitivity is updated in bulk. For more information on configuring email notifications, refer to the [Configuring Sensitivity Update Notifications](#) topic.

Selected Asset

You can update sensitivity of an asset individually through a mind map.

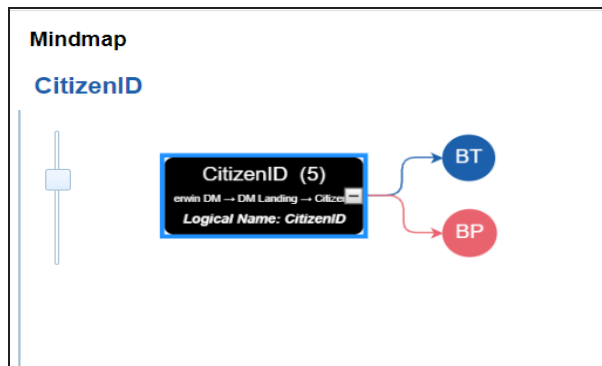
To update sensitivity of assets individually through mind maps, follow these steps:

1. In the **Data Catalog** pane, click an environment.

By default, the Data Dictionary tab opens.

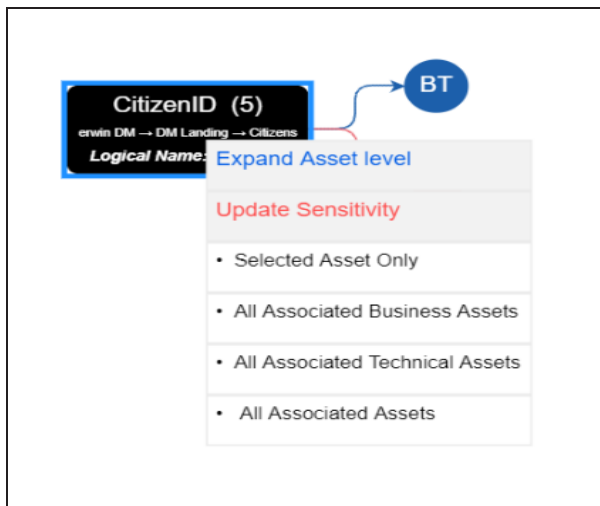
2. On the **Data Dictionary** tab, click  for the required column.

The Mind Map page appears.



3. On the mind map, right-click the required asset.

Updating Sensitivity-Mind Map



4. Click **Selected Asset Only**.

The Sensitive Data Classification - Mindmap page appears.



The Auto Update Sensitivity For field does not appear for business assets.

The screenshot shows the 'Sensitive Data Classification - Mindmap' dialog box. It features a dropdown menu for 'Sensitive Data Indicator(SDI)' and a text input field for 'Sensitive Data Indicator Description'. Below these is a section titled 'Update Sensitivity For' containing three toggle switches for 'Table', 'Environment', and 'System'. At the bottom of the dialog are two buttons: 'UPDATE' (blue) and 'CANCEL' (red).

descriptions:

Field Name	Description
Sensitive Data Indicator (SDI)	Specifies the sensitivity data indicator (SDI) classification of the selected asset. Also, you can add multiple classifications to the selected asset. For example, PHI. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data Indicator Description	Specifies the description of the SDI classification. For example, This classification indicates that the data contains personal identifiable information. Use this for data such as, address or social security number.
Update Sensitivity For	Specifies whether sensitivity is applicable to: - System: Switch the System option on to apply sensitivity to all the systems containing the assets. - Environment: Switch the Environment option on to apply sensitivity to all the environments containing the assets. - Table: Switch the Table option on to apply sensitivity to the tables containing the assets.

6. Click **Update**.

The sensitivity of the asset and metadata is updated based on the options you selected.

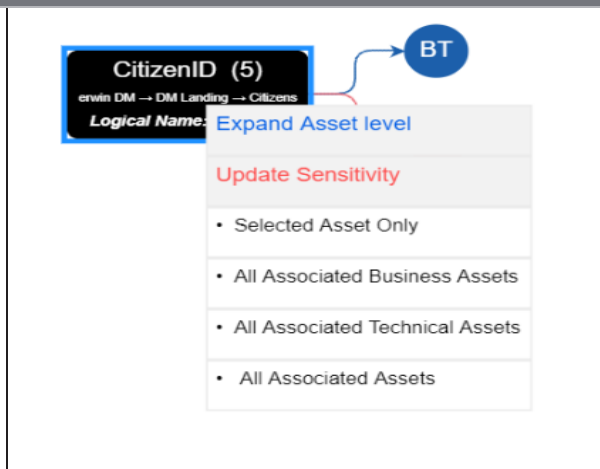
Associated Assets

You can update sensitivity of associated assets in bulk through a mind map.

To update sensitivity of associated assets through mind maps, follow these steps:

1. On the mind map, right-click an asset.

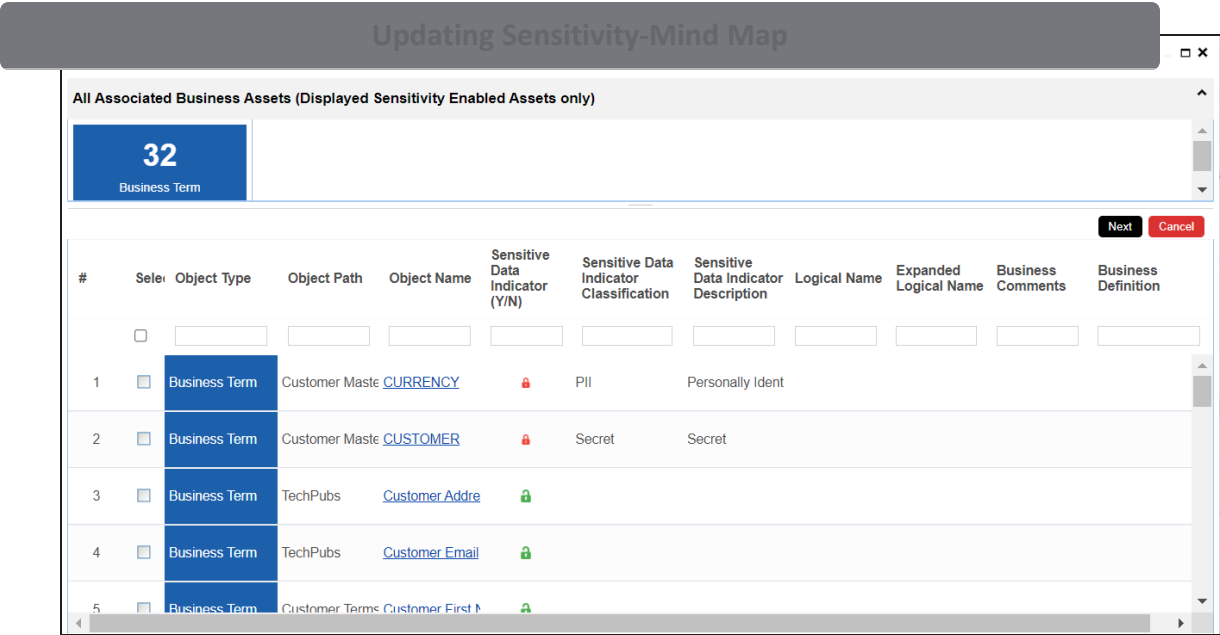
The options available for the asset appear.



2. Click any one of the following:

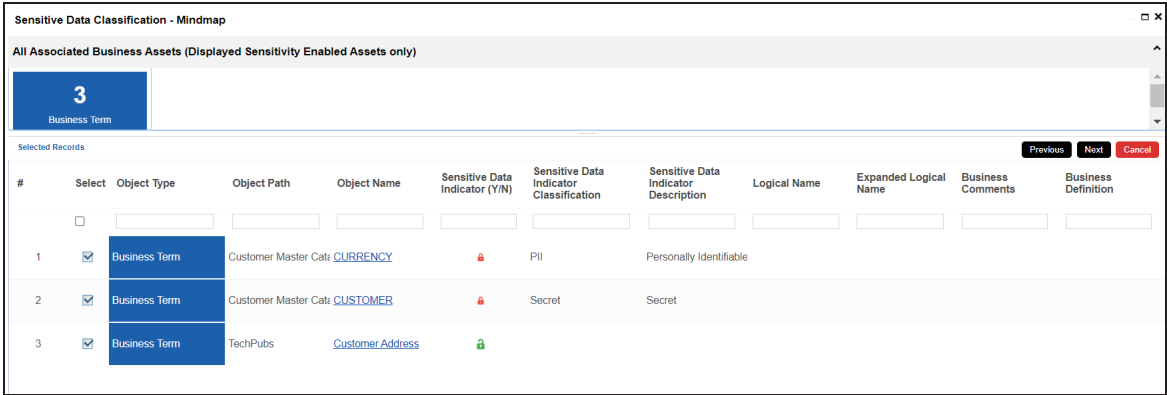
- **All Associated Business Assets:**
Click this option to update sensitivity of associated business assets.
- **All Associated Technical Assets:**
Click this option to update sensitivity of associated technical assets.
- **All Associated Assets:**
Click this option to update sensitivity of associated business and technical assets.

For example, if you click All Associated Business Assets then a list of all associated business assets appear. You can filter the assets by entering text in the filter box.



3. Select the required assets and click **Next**.

The Selected Records page appears. You can verify the selected assets and clear the check box if required.



4. Click **Next**.

The following page appears.

Updating Sensitivity-Mind Map



The Update Sensitivity For field does not appear if you are updating sensitivity of associated business assets.

Sensitive Data Classification - Mindmap

All Associated Business Assets (Displayed Sensitivity Enabled Assets only)

211

Business Term

Previous

Update

Cancel

Sensitive Data Indicator(SDI)

Sensitive Data Indicator Description

Metadata Update Options

Non-Sensitive Only ☒

Sensitive Only ☐

Sensitive and Non-Sensitive ☐

- Enter or select appropriate values in the fields. Refer to the following table for field descriptions.

Field Name	Description
Sensitive Data Indicator (SDI)	Specifies the sensitivity data indicator (SDI) classification of the selected asset. Also, you can add multiple classifications to the selected asset. For example, PHI. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data	Specifies the description of the SDI classification.

Updating Sensitivity-Mind Map	
Field Name	Description
Indicator Description	For example, This classification indicates that the data contains personal identifiable information. Use this for data such as, address or social security number.
Metadata Update Options	Specifies whether sensitivity is updated for: - Non-Sensitive Only: Use this option on to update sensitivity only for currently non-sensitive assets. - Sensitive Only: Use this option on to update sensitivity only for currently sensitive assets. - Sensitive and Non-Sensitive: Use this option on to update sensitivity for both, currently sensitive and non-sensitive assets.

6. Click **Update**.

The sensitivity of the selected assets and metadata is updated based on the options you selected.

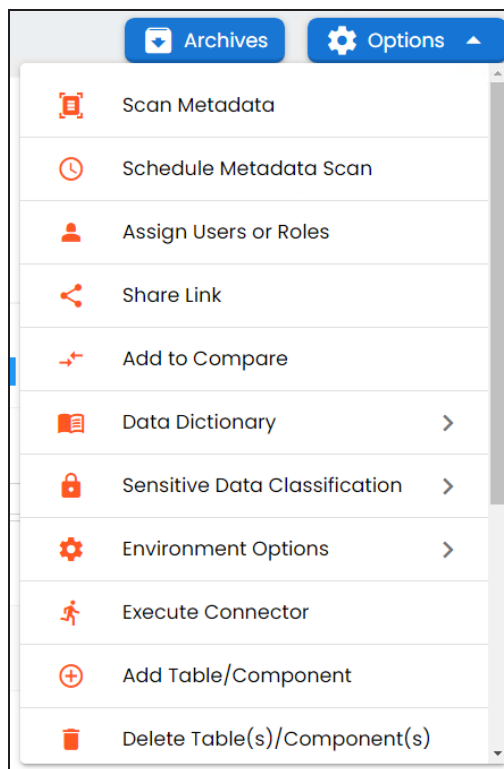
Adding Documents

You can add supporting documents, such as text files, audio files, video files, document links, and so on to an environment.

To add documents to environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.
3. Click **Options**.

The available options appear.



4. Click **Environment Options > New document**.

The Environment Documents page appears.

Adding Documents

Document Name*

Document Owner

Document Object

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



Document Link

Description



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
Document Name	Specifies the name of the physical document being attached to the environment. For example, Source Environment Details.
Document Object	Drag and drop document files or use  to select and upload document files.
Document Owner	Specifies the document owner's name. For example, John Doe.
Document Link	Specifies the URL of the document. For example, https://drive.google.com/file/d/2sC2_SZlyeFKI7OOn-b5YkMBq4ptA7jhg5/view
Description	Specifies the description about the document. For example: The document has information about the environment details.
Approval Required Flag	Specifies whether the document requires approval. Select the Approval Required Flag check box to select the doc-

Adding Documents	
Field Name	Description
	Document status.
Document Status	Specifies the status of the document. For example, In Progress. This field is available only when the Approval Required Flag check box is selected.

6. Click .

The document is saved in the Environment Documents grid.

Statistics										Total Tables : 2	Total Columns : 5
60%		20%		0%		0%		0%			
Total Primary Key Columns		Total Foreign Key Columns		Tables With Expanded Logical N...		Columns With Expanded Logical ...		DQ Score			
Data Dictionary	Environment Details	Extended Properties	Data Lineage	Impact as Source	Impact as Target	Mindmap	Associations	Workflow Log	Documents	Data Quality	Configure Extended Propert
Environment Documents											
#	Document Name	Document Link	Document Status	Document Owner	Intended Use Description	Created By	Created Date	Modified By	Modified Date	Options	
1	SqDM		In Progress			Administrator	2021-11-15 09:01:38.023	Administrator	2021-11-15 09:01:38.023		
2	CSV File		In Progress			Administrator	2021-11-15 09:03:47.83	Administrator	2021-11-15 09:03:47.83		

Once a supporting document is added, use the following options:

Preview ()

Use this option to preview the document for your information.

Edit ()

Use this option to update the document details.

Delete ()

Use this option to delete the document that is not required.

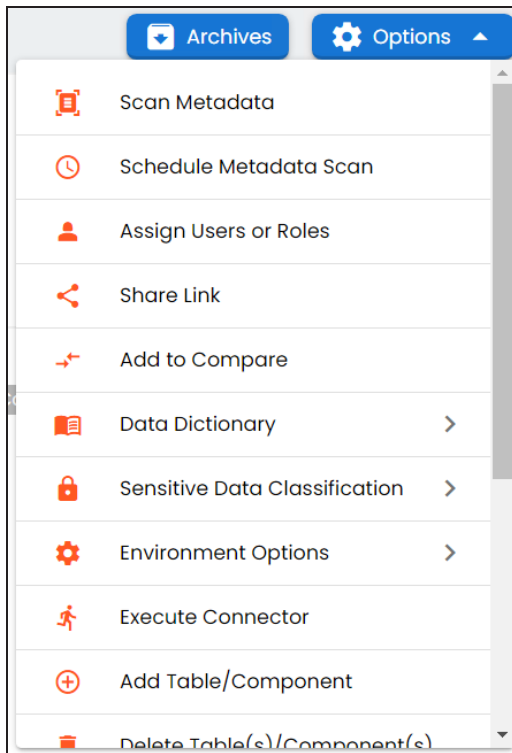
Cloning Environments

You can clone an environment under a system and use the same or different connection parameters in the cloned environment. The cloned environment is saved under the system.

To clone environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile and click **Options**.

The available options appear.



3. Click **Environment Options > Clone Environment**.

The New Environment Cloning page appears.

Cloning Environments

Environment

erwin DI Suite → _Local1(1.00)

Datasources

Configuration Details

Connection Properties

Miscellaneous

Datasource Type *

Oracle

System Environment Name *

_Local1

System Environment Type

erwin DM Mart - Oracle

Server Platform

Server OS Version

File Management Type

File Location

Production System Name

Choose Production System

Production Environment Name

Version Label

Enable DQ Sync

RAC / Service Name

Classification

Sensitive Data Indicator(SDI) Classifi...

Sensitive Data Indicator (SDI) Description

Miscellaneous

Business Entity Type

Oracle

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
Datasource Type	Specifies the datasource (database) type from where you wish to scan metadata. You can change the datasource type using the drop down list. For example, Sql Server. Depending upon the database type, you need to provide additional fields in the Connection Properties tab. For SQL Server (Windows Authentication), Sybase, HP Vertica, and Netezza databases, the TestConnectionQuery option is selected by default to validate the internal connection. The system displays exceptions if this option is not selected. There are no additional fields for MS Excel File, and XSD.

Cloning Environments

Field Name	Description
System Environment Name	Specifies the unique name of the environment. For example, EDW-Test. For more information on naming conventions, refer to the Best Practices section.
System Environment Type	Specifies the type of the environment. For example, development, test, or production.
Server Platform	Specifies the server platform of the environment. For example, Windows.
Server OS Version	Specifies the OS version of the environment's server.
File Management Type	Specifies the file management system (if the environment is a file-based source). For example, MS Excel.
File Location	Specifies a file path (if the environment is a file-based source). For example, C:\Users\Jane Doe\erwin\Mike - Target System
Production System Name	Specifies the system name being associated with the environment as the production system. For example, Enterprise Data Warehouse.
Production Environment Name	Specifies the environment name being associated with the environment as the production environment. For example, EDW-PRD.
Data Steward	Specifies the name of the data steward responsible for the environment. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options.

Cloning Environments

Field Name	Description
Version Label	Specifies the version label of the environment to track change history. For example, Alpha. For more information on configuring version display, refer to the Configuring Version Display of the Environments topic.
Enable DQ Sync	Specifies whether to sync data quality analysis results from erwin Data Quality. To view data quality analysis, ensure that you have configured erwin Data Quality connection setting in erwin DI. For more information, refer to the Configuring Data Profiling topic.  Data quality analysis is available for environments using Oracle, Salesforce, Snowflake, MySQL, MSSQL, Hadoop, and PostgreSQL database types.
RAC/Service Name	
Sensitive Data Indicator (SDI) Classification	Specifies the sensitivity data indicator (SDI) classification of the environment. Also, you can add multiple classifications to the environment. For example, PHI, Confidential. For more information on configuring SDI classifications, refer to the Configuring Sensitivity Classifications topic.
Sensitive Data Indicator Description	Specifies the description of the SDI classification.
Business Entity Type	Specifies the database type of business entity.

- Click  to test the connection.

If the connection with database is established successfully then a success message pops up.

or check [here](#).

The environment is cloned and the cloned environment is saved under the system.

Different database types have different prerequisites and connection parameters:

- [SQL Server - via SQL or Window authentication mode](#)
- [Oracle and Oracle RAC](#)
- [MySQL](#)
- [Snowflake](#)
- [MS Dynamics CRM](#)
- [SAP ECC R/3 and IS-U Metadata via JCO Driver](#)

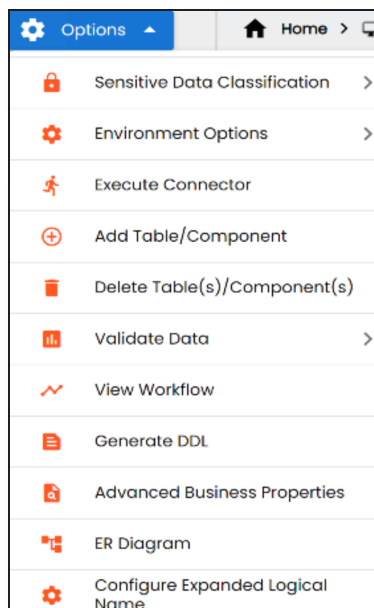
Viewing ER Diagram

You can view Entity Relationship (ER) diagram after scanning or importing metadata in an environment. You can view ER diagrams at environment level and export it in the JPG format.

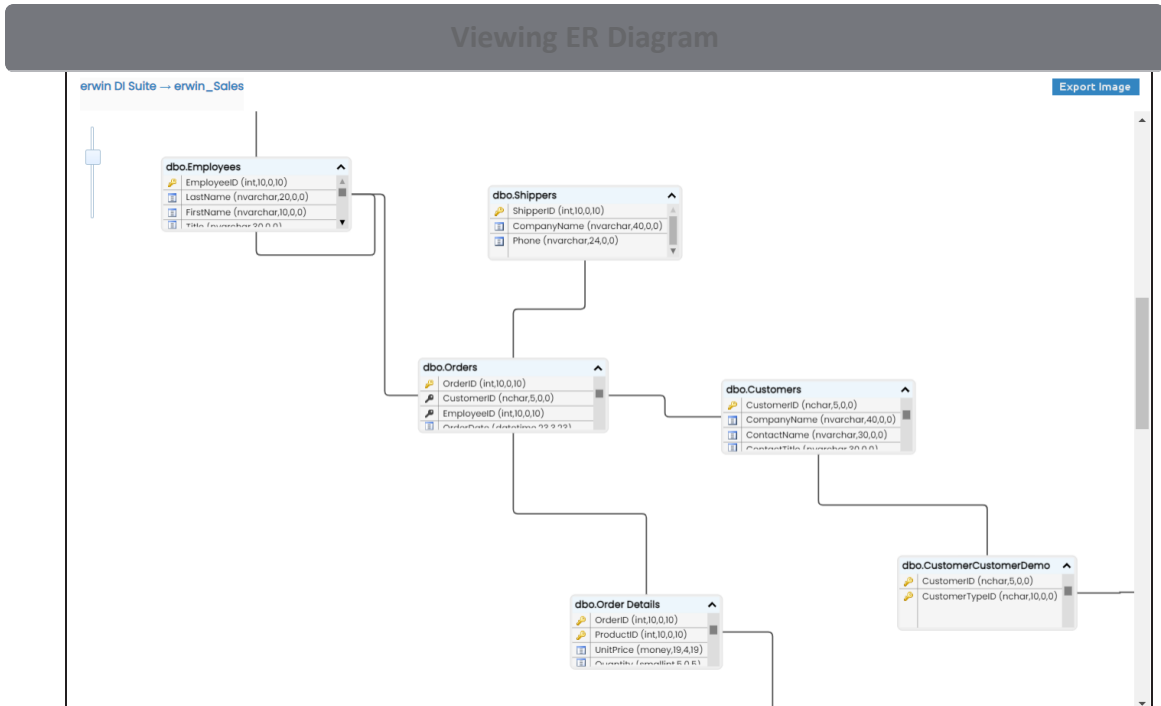
To view entity relationship diagram, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, select an environment and click **Options**.

The available options appear.



3. Click **ER Diagram**.



You can download the ER diagram. To download the ER diagram, click **Export Image**.

Viewing Workflow Logs

You can create your own workflow and assign it to a system. A workflow assigned to a system is applicable to all the environments under it. For more information on assigning workflows to environments, refer to the [Managing Metadata Manager Workflows](#) section. You can view workflow logs of environments to know the current stage of environments.

To view workflow logs of environments, follow these steps:

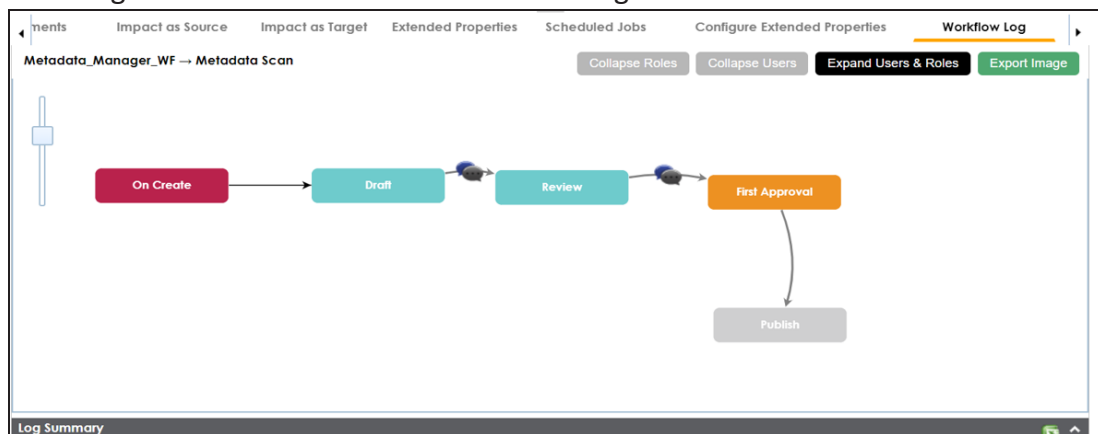
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.

The environment details appears.

The screenshot shows the 'Explore' tab in the Metadata Manager interface. The breadcrumb trail is 'Home > erwin DI Suite > SYSTEM > Local (v1.0) > ENVIRONMENT'. The 'Data Catalog' section on the left shows a search bar and a list of schemas: 'customer_s', 'support', 'dbo', and 'SCOTT'. The main area displays statistics for the selected environment: 'Total Tables : 46' and 'Total Columns : 573'. Below the statistics are four circular progress indicators for 'Total Primary Key Columns' (7%), 'Total Foreign Key Columns' (9%), 'Tables With Expanded Logical N...' (0%), and 'Columns With Expanded Logical ..' (0%). The 'Data Dictionary' tab is active, showing a table with columns: '#', 'Options', 'Table Name', 'Column Name', 'Logical Column Name', 'Column Comments', 'Column Definition', 'Tags', and 'Sensitive Data (Y/N)'. Two rows are visible, both for the table 'SCOTT.T_CUSTOMER_RATING' with columns 'title' and 'director'.

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

The workflow log of the environment appears. You can observe that the current workflow stage of the environment blinks in the diagram.



User Comments

Use this option to view users and the comments entered by the users in each stage.

Expand/Hide Users and Roles

Use this option to view or hide users and roles assigned to the stages of the workflow.

Collapse/Expand Roles

This option is enabled when you are in the Expand Users and Roles view. Use this to switch between the collapsed and expanded roles view.

Collapse/Expand Users

This option is enabled when you are in the Expand Users and Roles view. Use this to switch between the collapsed and expanded users view.

Export Image

Use this option to download the workflow in the JPG format.

Associating Environments

You can associate environments with business assets, systems, environments, tables, and columns. You can view these associations on mind maps and analyze associations.

Ensure that:

- Business assets are enabled. You can add custom business assets and enable them in [Business Glossary Manager Settings](#).
- Relationship between environment and the asset type is defined. You can define associations and relationships in [Business Glossary Manager Settings](#).

To associate environments with asset types, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.
The Data Dictionary tab for the selected environment appears by default.
3. Click the **Associations** tab.
4. In the asset type (business policies, business terms, columns, environments, and tables) list, select an asset type to associate with the environment.

Source	Impact as Target	Mindmap	Associations
Business Term			
Business Term			
Environment			

5. Click **+**.
The Relationship Associations page appears. Based on the asset type that you select, it

Associating Environments

Relationship Associations

Save

Cancel

Current Context:

CDM_Model_CommonR

Current Context Type:

Environment

Relationship Name:

Golden Source for

Search (partial matches):

☐	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
			3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association representing equipment manufacturers, processors, regulatory sanitarians and other		

1 2 3 4 5

Records from 1 to 200 of 10237

6. Select **Relationship Name**, and the asset type.

If you know the term name, use the Search (partial matches) field to look up for it.

7. Click **Save**.

The selected terms are associated with the environment and added to the list of associations.

You can define as many associations as required.

is Source

Impact as Target

Mindmap

Associations

Workflow Log

Documents

Data Quality

Configure Extended Properties

Scheduled Jobs

Business Term

☐	Actions	Qualifier Name	Relationship Name	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐								
☒	+ ✎ 🗑		Golden Source for	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
						3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association		

Once you have created associations, you can use the following options under the **Actions** column:

Add Association (+)

Use this option to add associations using a qualifier.

Edit Association ()

Use this option to edit the association.

Delete Association ()

Use this option to delete the association.

To view mind map, click the **Mindmap** tab. For more information on mind maps, refer to the [Viewing Mind Maps](#) topic.

You can associate multiple assets with an environment and view the associations based on a qualifier view in the mind map. For more information, refer to the [Setting Up Associations Using Qualifiers](#) topic.

Configuring Business Properties

You can configure business properties of all the tables and columns under an environment.

You can also configure business properties at table level and update business properties of a table and business properties of its columns.

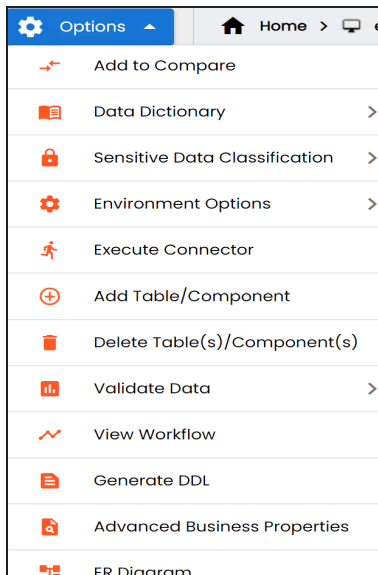


You can configure business properties only after importing/scanning metadata into an environment.

To configure business properties at environment level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

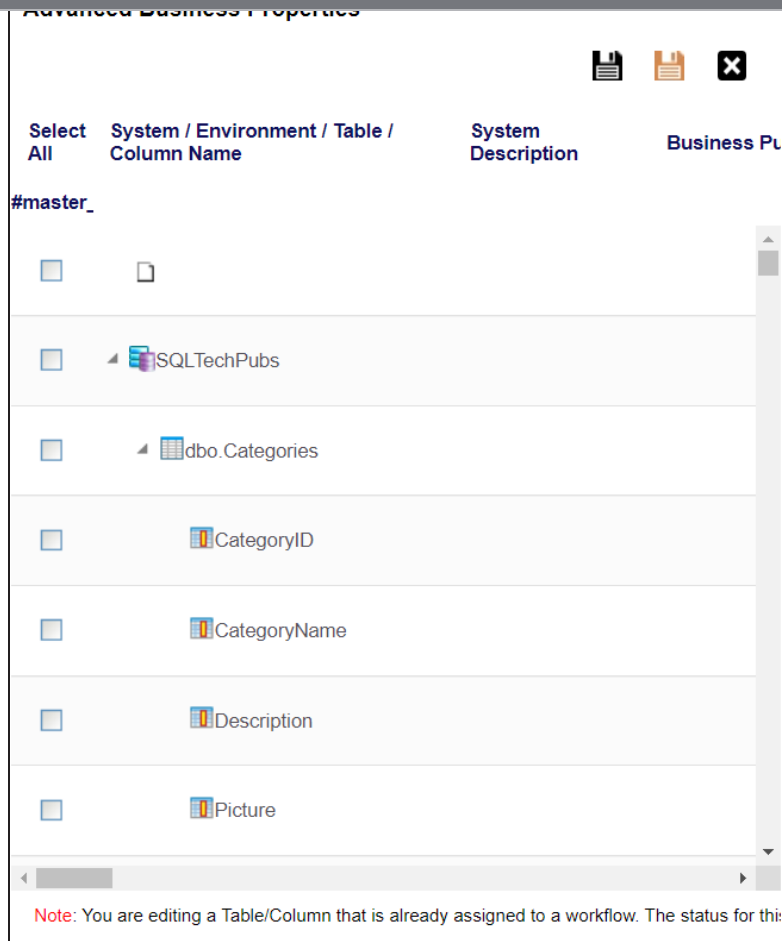
The available options appear.



4. Scroll down the list and click **Advanced Business Properties**.

The Advanced Business Properties page appears.

Configuring Business Properties



5. Double-click cells to enter business properties of tables and columns.

6. Click  to apply changes.

7. Click .

The business properties of all the tables and columns under the environment are updated.

To configure business properties at table level, follow these steps:

1. In the **Data Catalog** pane, select a table to view its details.

2. Click **Options**.

The available options appear.

Configuring Business Properties

	Add Column/Field
	Add to Compare
	Share Link
	Data Dictionary >
	Execute Connector
	Delete Table/Component
	Delete Column(s)/Field(s)
	View Workflow
	Generate DDL
	Advanced Business Properties

3. Scroll down the list and click **Advanced Business Properties**.

The Advanced Business Properties page appears.

Configuring Business Properties

Advanced Business Properties





Select	System / Environment / Table / Column Name	System Description	Business Properties
All			
☐	#master_		
☐	SQLTechPubs		
☐	dbo.Categories		
☐	CategoryID		
☐	CategoryName		
☐	Description		
☐	Picture		

Note: You are editing a Table/Column that is already assigned to a workflow. The status for this

- Double-click cells to enter table and column properties.
- Click  to apply changes.
- Click .

The business properties of the table and its columns are updated.

Configuring Expanded Logical Name

You can update the expanded logical name for multiple tables/columns by scheduling a configuration job. The job updates the expanded logical name based on the table/column name, associated business term's name, and the associated business term's definition.



You should configure expanded logical name of tables and columns after scanning metadata.

You can run the job at both, system and environment levels:

- **System level:** The expanded logical name can be applied to all the tables and columns under the system. This includes all the environments under the system.
- **Environment level:** The expanded logical name can be applied to all the tables and columns under the environment.

For example, consider a scenario where you want to schedule a job to configure the expanded logical name of a table, RM_Resource and a column, Resource_ID. The parameters of the job are a business term catalog that has a business term, Resource, its definition, Sales Representative, and a splitter, Underscore (_). Refer to the following table to understand the parameters and their values:

Entity	Value	Comment
Splitter (specified while scheduling the job)	_(Underscore)	
Table Name	RM_Resource	Here, the part after the underscore (splitter), Resource, matches the Business Term. Therefore, it will be replaced with the business term definition and the part before the underscore, RM, will be retained in the expanded logical name.
Column Name	Resource_ID	Here, the part before the underscore, Resource, matches with the Business Term. Therefore, it will be replaced with

Configuring Expanded Logical Name		
Entity	Value	Comment
		the business term definition and the part after the underscore, ID will be retained in the expanded logical name.
Business Term	Resource	This should match with a part of the table and column names above.
Business Term Definition	Sales Representative	In the updated expanded logical name, this will replace the part of the table/column name that matches the business term name. That is: - For the table, RM will be retained and Resource will be replaced with Sales Representative. - For the column, ID will be retained and Resource will be replaced with Sales Representative.
Expanded Logical Name	<Blank>	Expanded logical name is formed from the business term definition and part of table or column names.

After the job runs successfully, the expanded logical name of the table and column is updated as mentioned in the following table:

Entity	Expanded Logical Name	Comment
Table	RM Sales Representative	Here, RM retained from the table name and Sales Representative is added from business term definition.
Column	Sales Representative ID	Here, ID is retained from the column name and Sales Representative is added from business term definition.

To configure expanded logical name, follow these steps:

1. On the Explore tab, hover over the system card and click , or click an environment tile to view the assets details.
2. Click **Options**.
The available options appear.

Configuring Expanded Logical Name

	New Environment
	Edit System
	Delete System
	Share Link
	New Document
	Report - System Information
	Report - Data Dictionary
	Execute Connector
	View Workflow
	Configure Expanded Logical Name

3. Click **Configure Expanded Logical Name**.

The Configure Expanded Logical Name page appears.

Configuring Expanded Logical Name

Configure Expanded Logical Name

Catalogs

- ▾ ☐  Business Terms
 - ☐  Company Benefits (3)
 - ☐  Customer Master Catalog (4)
 - ☐  Customer Terms (8)
 - ☐  Glossary Catlog 1 (3)
 - ☐  Monetary Terms (2)
 - ☐  Operations (0)
 - ☐  Pharmaceuticals (10207)

Splitter

ELN Scope

Job Name*

[1622004865999](#)

Interval

Schedule Job On* ☐ Local ☒ Server

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

Field Name	Description
Catalogs	Select the catalog containing the required business term.
Splitter	Select appropriate splitter based on the table name or column name.

Configuring Expanded Logical Name

Field Name	Description
ELN Scope	Select an appropriate scope of the job. ▪ Columns: Indicates that the expanded logical names of all the columns in this system are configured ▪ Tables: Indicates that the expanded logical name of all the tables in this system are configured ▪ Both: Indicates that the expanded logical names of all the tables and columns in this system are configured
Job Name	A default job name is autopopulated. You can modify it and enter a job name.
Interval	Select an interval of the job. Interval sets the frequency of the job. For example: If you set the interval every week then the job will be executed every week.
Local or Server	Select the machine whose clock decides the time of the scheduled scan. ▪ Local: Refers to your local machine. ▪ Server: Refers to the machine where erwin DI has been deployed.
Schedule Job On	Select date and time of the execution of the job.
Notify Me	Switch the Notify Me to ON to receive a notification email about the scheduled job.
Notification Email	This field is autopopulated with your email ID. You receive email notifications about the scheduled job from the Admin Email ID, configured in the Email Settings. For more information on configuring Admin Email ID, refer to the Configuring Email Settings topic.
CC List	Enter a comma-separated list of email IDs that should receive the job notification.

5. Click .

The job is scheduled and added to the Scheduled Jobs list on the **Scheduled Jobs** tab.

Configuring Expanded Logical Name

is

Extended Properties

Data Lineage

Mindmap

Associations

System Documents

Configure Extended Properties

Scheduled Jobs

Scheduled Jobs

Job Type	Environment Name	Scheduled Objects	Previous Fire Time	Next Fire Time	Job State	Created By	Created Date Time	Last Modified By	Last Modified Date Time	Edit
Metadata Expanded Logical Name	N/A	All Environments		05-26-2021 05:14	NORMAL	Administrator	2021-05-26 05:11:43.345	Administrator	2021-05-26 05:11:43.345	

Records from 1 to 1

Page 1

12 rows per page

You can edit the job using or delete it using .

The job is executed at the scheduled time and the expanded logical names of tables and columns are updated.

Columns	Properties	Extended Properties	Data Lineage	Impact Analysis	Mindmap	Associations
Technical Properties						
Name	dbo.RM_RESOURCE_New			Environment Name	erwin_Sales	
System Name	erwin DI Suite			No of Rows	100	
Synonym Reference				FileType		
Entity Type	TABLE					
Workflow Status	Preliminary Draft					
Business Properties						
Data Steward				Logical Name	RESOURCE	
Definition	Organization resource			Expanded Logical Name	RM RESOURCE Representative	
Comments				JSON Physical Name		
Sensitive Data Indicator (SDI) Flag				Used In Gap Analysis	☒	
Sensitive Data Indicator (SDI) Classification	Confidential			Sensitive Data Indicator (SDI) Description	Confidential	
Class	Table_Class			Alias		
DQ Score	High (7-8)					

Configuring Expanded Logical Name

Foreign Key Flag	☐	Primary Key Flag	☒
Foreign Key Column Name		Foreign Key Table Name	
Minimum Value		ETL Default Value	
File Starting Position		Maximum Value	
Attribute Type	ENTITY_ELEMENT		
Workflow Status	Preliminary Draft		
Business Properties			
Data Steward		Logical Name	Sales ID
Definition	Sales resource	Expanded Logical Name	Sale Representative ID
Comments		JSON Physical Column Name	
Sensitive Data Indicator (SDI) Flag		Used In Gap Analysis	☒
Sensitive Data Indicator (SDI) Classification	Confidential	Sensitive Data Indicator (SDI) Description	Confidential
Class	Column_Class	Alias	
DQ Score	Very High (9-10)	Business Key Flag	☐
User Defined Fields			



You can use this job to update the expanded logical name only once. Alternately, you can update expanded logical names under [table properties](#) and [column properties](#).

Tagging Environments

Tagging environments enables asset grouping, and better reporting, data traceability, and data discovery. You can tag environments one at a time or "Tagging Tables and Columns" on page 186.

To tag environments one at a time, follow these steps:

1. On the Explore tab, click an environment tile.

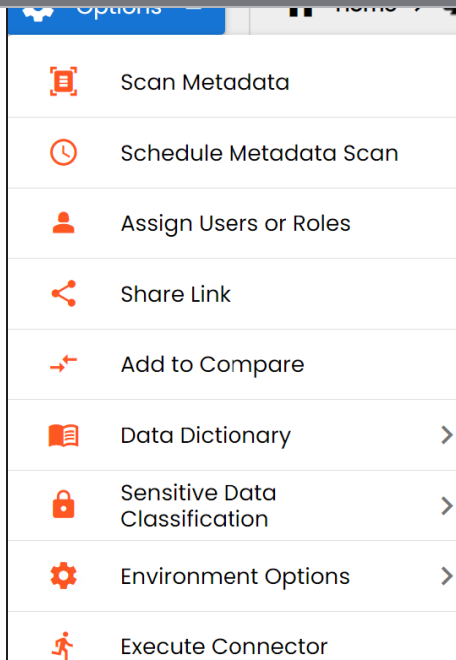
The environment details appear.

The screenshot shows the 'Explore' tab in the Erwin Data Catalog. The breadcrumb navigation indicates the path: Home > erwin DI Suite > erwin_Sales (v1.00). The interface displays statistics for the selected environment: Total Tables : 35 and Total Columns : 235. A table of columns is visible, with columns for #, Options, Table Name, Column Name, Logical Column Name, Column Comments, and Column Definition. The table lists two columns from the 'dbo.RM_RESOURCE_New' table: 'RESOURCEID_New' and 'RESOURCENAME_New'.

#	Options	Table Name	Column Name	Logical Column Name	Column Comments	Column Definition
1	☐	dbo.RM_RESOURCE_New	RESOURCEID_New			
2	☐	dbo.RM_RESOURCE_New	RESOURCENAME_New			

2. Click **Options**.

The available options appear.



3. Click **Environment Options > Edit Environment**.

The Edit Environment page appears.

Tagging Environments

erwin DI Suite → erwin_Sales(1.00)

Datasources
Configuration Details
Miscellaneous

Datasource Type *
MS Excel File

System Environment Name *
erwin_Sales

Server Platform

File Management Type

Production System Name
Choose Production System

Version Label

System Environment Type

Server OS Version

File Location

Production Environment Name

Enable DQ Sync

If you change datasource type your data(tables) will be considered as changed datasource type.

Governance Responsibilities

Data Stewards

Classification

Sensitive Data Indicator(SDI) Classification
Restricted

Sensitive Data Indicator (SDI) Description

Miscellaneous

Business Entity Type
MS Excel File

Tags

Audit History

Created By
Administrator

Created Date Time
29-07-2020 11:07:20

Last Modified By

Last Modified Date Time

- Click **Tags** and select a tag from the suggestions that appear.
The list contains tags created in the Enterprise Tags module; based on the configured scope.



You can create a tag by typing a tag name in the Tags box and then pressing Enter.

For example, in the following image, a tag, data integration 1, is created and assigned to a system.

Tags

Data Quality
data integration 1

No Tags Available

Tags

Data Quality
data integration 1

or click [here](#).

The selected environment is tagged.

Once an environment is tagged, you can visualize its association with a tag on a mind map Enterprise Tags module.

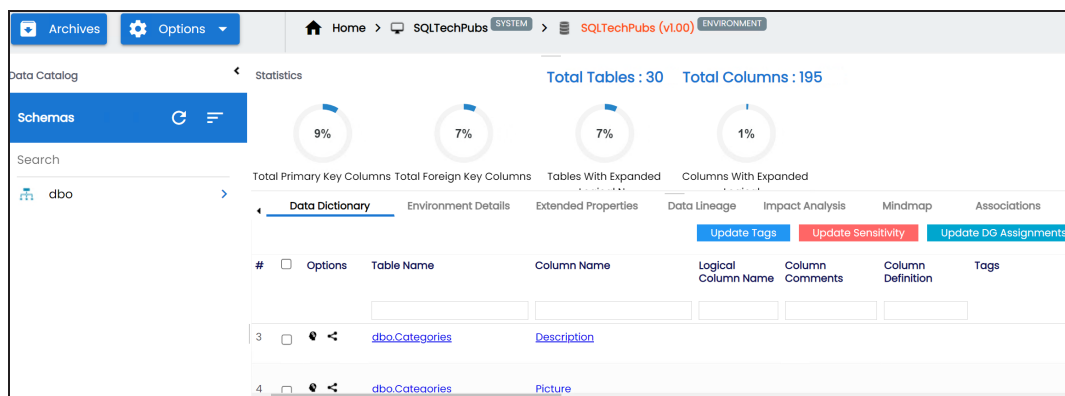
Tagging Tables and Columns

You can update the tag tables and columns in an environment individually or in bulk. You can also propagate these tags to the system and environment containing these tables and columns.

To tag tables or columns, follow these steps:

1. On the Explore tab, click an environment tile.

The environment details appear.



2. On the Data Dictionary tab, select one or more assets.

You can update the tag tables and columns in an environment individually or in bulk. You can also propagate these tags to the system and environment containing these tables and columns.

3. Hover over **Update Tags**.

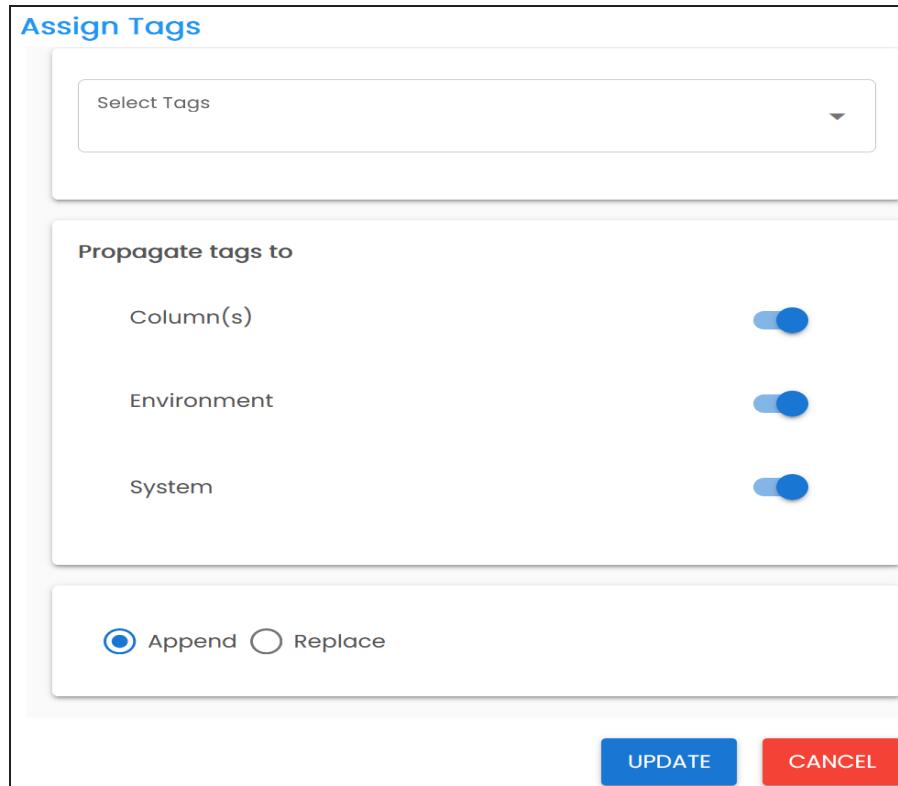


4. Click the required option.

Tagging Tables and Columns

- **Selected Columns(s)**: Use this option to tag all tables in the selected columns.

The Assign Tags page appears.



Assign Tags

Select Tags

Propagate tags to

Column(s) ☒

Environment ☒

System ☒

☒ Append ☐ Replace

UPDATE CANCEL

5. Enter or select appropriate values in the fields. Refer to the following table for field descriptions.

Field Name	Description
Select Tags	Depending on the asset and tag scope, displays available tags. You can assign multiple tags to the selected assets. Click Select Tags and select a tag from the suggestions that appear.
Propagate tags to	Specifies whether tag is applicable to: Table(s): Switch Table(s) to Yes to tag the tables containing the

Tagging Tables and Columns

Field Name	Description
	columns. This option is available only when you click Selected Column(s) in step 4. - Column(s): Switch Column(s) to Yes to tag all columns in the selected tables. This option is available only when you click Selected Table(s) in step 4. - Environment: Switch Environment to Yes to tag the environment containing the tables or columns. - System: Switch System to Yes to tag the system containing the tables or columns.

6. Use the following options:

Append

Use this option to add new tags to the existing metadata.

Replace

Use this option to replace existing tags.

7. Click **Update**.

The tables and columns are tagged.

Scanning and Managing Metadata

You can scan source and target metadata from different databases, data models, or flat files etc. Ensure that you create an appropriate environment depending on the database type. For example, if you want to scan metadata from SQL Server, then you should create the SQL Server environment.

The metadata scan adds data dictionary, table properties, and column properties that can be validated and updated. You can enrich your metadata by assigning codesets to columns as valid values. Tables and columns can be associated with business and technical assets and these associations can be viewed on a mind map. You can also assign workflows to tables and columns using the Workflow Manager and view workflow logs.

Scanning and managing metadata involves:

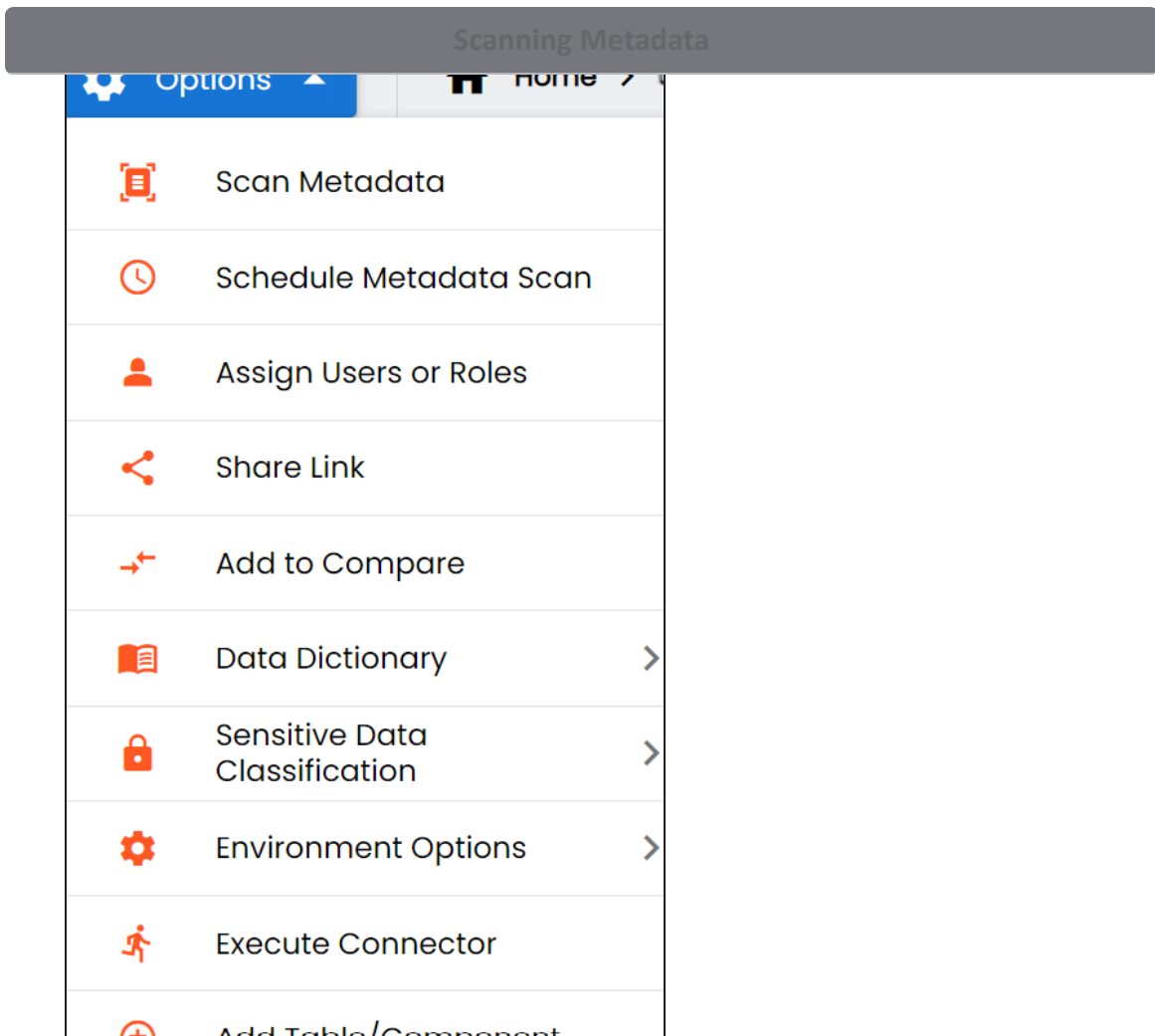
- [Scanning metadata from data sources](#)
- [Adding tables](#)
- [Adding Columns](#)
- [Deleting tables and columns](#)
- [Scheduling metadata scans](#)
- [Updating table properties](#)
- [Updating column properties](#)
- [Validating data](#)
- [Assigning codesets to columns](#)
- [Viewing workflow logs of tables](#)
- [Viewing workflow logs of columns](#)
- [Associating tables](#)
- [Associating columns](#)

Scanning Metadata

After creating systems and environments, the next logical step is to scan source and target metadata. Ensure that the environment database type and connection parameters are correct and that the environment can establish a connection with the database.

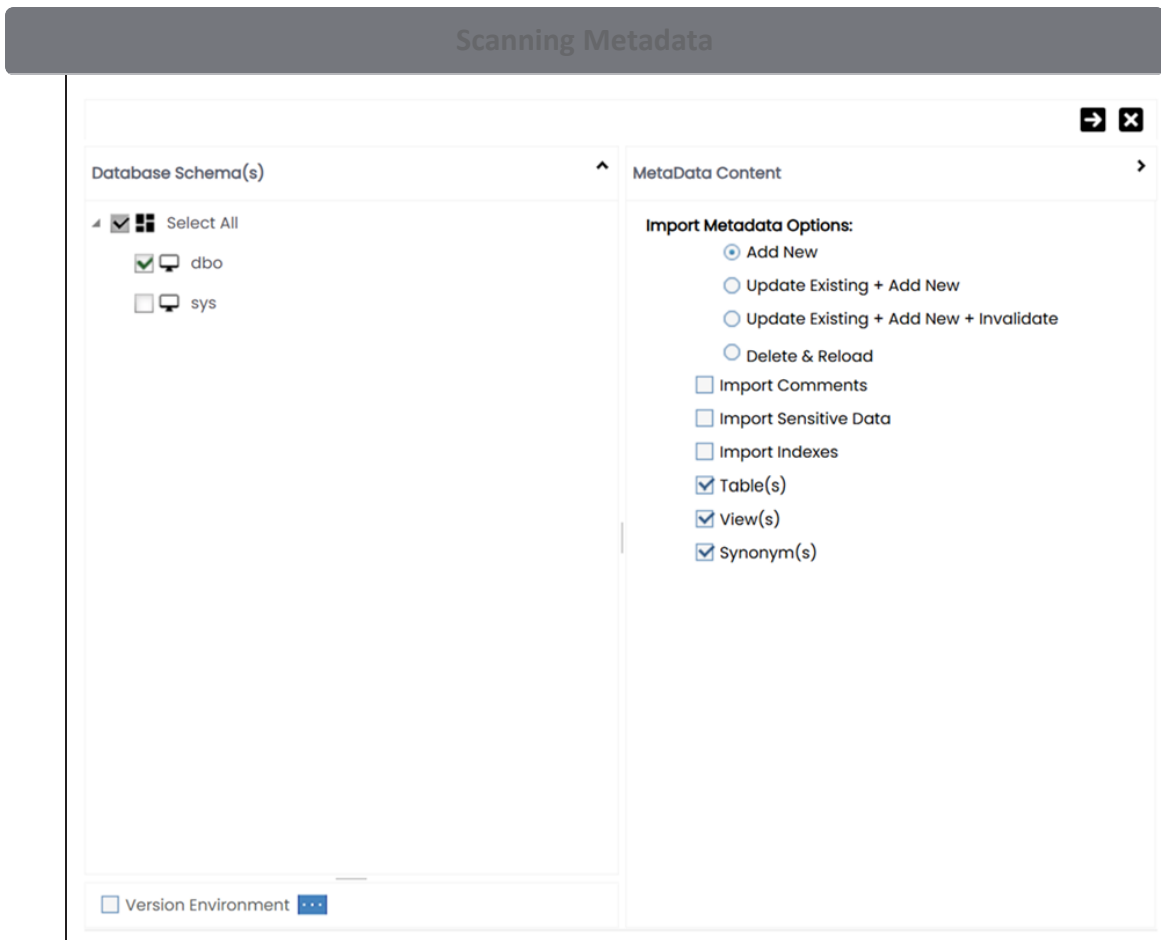
To scan source or target metadata, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.
3. Click **Options**.
The available options appear.



4. Click **Scan Metadata**.

The <Data_Base> Metadata Scan-Step1 page appears. For example, if it is the SQL Server environment, then the SqlServer Metadata Scan - Step1 page appears.



5. In the **Database Schema(s)** pane, select the database schemas.
6. In the **Metadata Content** pane, select the appropriate **Import Metadata Options**.

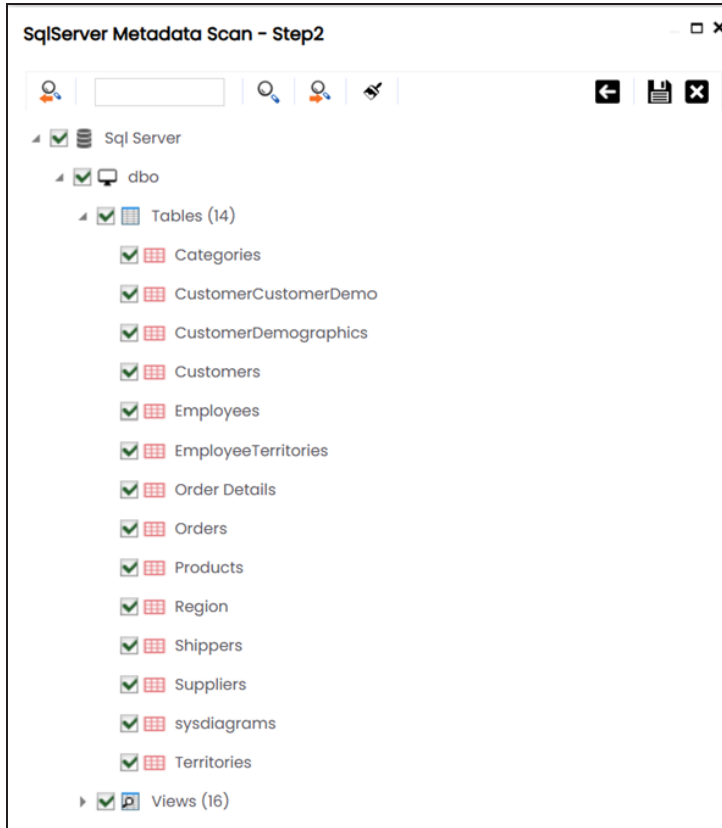
Refer to the following table for the descriptions of the metadata import options.

Import Metadata Options	Description
Add New	This option adds new objects to the existing object list. The existing metadata is not updated.
Update Existing + Add New	This option adds new objects to the existing list and updates the existing metadata at the same time.

Scanning Metadata

Import Metadata Options	Description
Update Existing + Add New + Invalidate	This option adds new objects to the existing list, updates existing ones, and invalidates the table/column during the scanning process.
Delete & Reload	This option deletes all existing metadata and scans only the new objects that have been selected.
Import Comments	Select the checkbox to import comments.
Import Sensitive Data	Select the checkbox to import sensitivity classification of the metadata from the data source.  This option is available for SQL, Oracle, and Snowflake environments.
Import Indexes	Select the checkbox to import indexes of the metadata from the data source. In addition to the listed datasources, this option is available when the datasource is set to Others.  This option is available for SQL, Oracle, and MySQL environments.
Table(s)	Select the checkbox to import Tables.
View(s)	Select the checkbox to import Views.
Synonym(s)	Select the checkbox to import Synonyms.
Version Environment	Select the checkbox to create a version of the environment.
Skip Empty Cells	Select the checkbox to skip blank cells in the data source from overwriting existing values during import. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

The <Database_Name> Metadata Scan Step-2 page appears. It pulls up the objects selected in Metadata Scan Step-1, such as Tables, Views, and Synonyms.



8. Select the required objects.

9. Click .

The metadata is scanned successfully and saved under the environment node.

The above method is applicable for most data sources. Apart from that, you can also import metadata from the following file types:

- [MS Excel File](#)
- [JSON](#)
- [CSV \(Flat File\)](#)

- [MS Access File](#)
- [XSD](#)

MS Excel

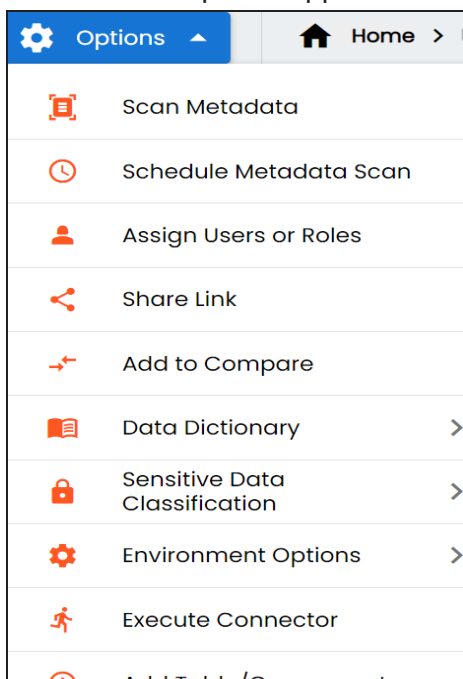
You can import metadata from MS Excel files into an MS Excel environment.

To import metadata from MS Excel files, follow these steps:

1. On the Explore tab, click an MS Excel environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **Excel** option to view all Excel environments.

2. Click **Options**.

The available options appear.



3. Click **Scan Metadata**.

The Excel Metadata Scan - Step1 page appears.

MS Excel

→ ×

MetaData Content

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



1. Choose Import Method

☒ Default Template Import
 

Note: This option allows you to import metadata from the standard excel template

☐ Enable header selection

Note: Select this option to allow header selection for excel

☒ Skip & Assume first row as header.

Note: This option will preselect headers from excel and also allow to change headers. (Uncheck if excel doesn't have header row)

☐ Advanced Template Import

Note: This option allows you to import metadata from Advanced Template

☒ Import Extended Properties

Note: This option will import the Extended Properties into Tables and Columns

☒ Import Valid Values

Note: This option will import the Valid Values into Columns

☒ Import Indexes

Note: This option will import the Indexes into Columns

2. Choose Update Method

☒ Add New
 ☐ Import Comments

☐ Update Existing + Add New

☐ Update Existing + Add New + Invalidate

4. Drag and drop or use  to browse and select the MS Excel file.
5. Use the following options to import metadata.

Default Template Import

Use this option to import metadata from the standard Excel template. To download the standard excel template, click .

Enable header selection

Use this option to allow header selection for the Excel file. Click **Enable header selection** and click .

The Excel Metadata Scan - Step2 page appears.

Metadata Content							
Excel Metadata Preview Screen Please use first row (double click on NOT IN USE Cell) to set each column's identity!							
	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE
1	TABLE_NAME	TABLE_DEF	TABLE_COMMENTS	LOGICAL_TABLE_NAME	COLUMN_NAME	COL_DEF	COLUMN_COMMENT
2	dbo.Categories				CategoryID		
3	dbo.Categories				CategoryName		
4	dbo.Categories				Description		
5	dbo.Categories				Picture		
6	dbo.Categories				custom		
7	dbo.Categories				custom!		

Note: In this screen only 100 rows from excel file are loaded as sample data!

To select headers, on the **Excel Metadata Scan - Step2** page, double-click the **NOT IN USE** cell.

Skip & Assume first row as header

You can use this option only when you click Enable header selection. It allows you to select the first row in the Excel file as headers.

Select the **Skip & Assume first row as header** check box and click .

The Excel Metadata Scan - Step2 page appears. The first row in the Excel file appears as headers.

MS Excel

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✕

Metadata Content

Excel Metadata Preview Screen

Please use first row (double click on NOT IN USE Cell) to set each column's identity!

	Table Name	Table Definition	Table Comments	Logical Table Name	Column Name	Column Definition	Column Comment	Logical Column
1	dbo.Categories				CategoryID			
2	dbo.Categories				CategoryName			
3	dbo.Categories				Description			
4	dbo.Categories				Picture			
5	dbo.Categories				custom			
6	dbo.Categories				custom1?			
7	dbo.Categories				new			

Note: In this screen only 100 rows from excel file are loaded as sample data!

To select alternate headers, double-click the header cell.

Advance Template Import

Use this option to import metadata from an advanced template. You can use the following import options with the advanced template:

Import Extended Properties:

Use this option to import the extended properties into tables and columns.

Import Valid Values:

Use this option to import valid values into columns.

Import Indexes:

Use this option to import the indexes into columns.

6. Use the following update options.

Add New

Use this option to insert new metadata.

Update Existing + Add New

columns in the Excel file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Delete & Reload

Use this option to delete all the business properties and data dictionary stored as metadata for this environment.

Import Comments

Use this option to import comments and descriptions from the Excel file into the ENVIRONMENT.

Skip Empty Cells

Use this option to skip blank cells in the Excel file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate options.

Import Business Properties

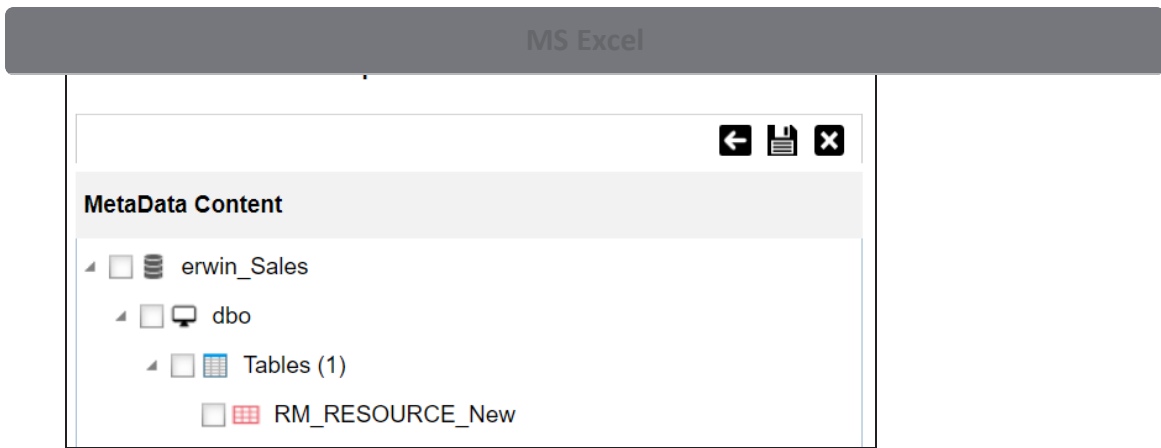
Use this option to import business metadata such as terms, definitions, maximum value, minimum value, alias, class, classifications, and stewardship assignments. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

Import User Defined Fields

Use this option to import custom metadata fields (User Defined Fields) defined in the environment. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

7. Click .

The Excel Metadata Scan - Step2 page appears.



8. Select the required schema and tables.

9. Click .

The metadata is imported and saved in the environment.

JSON

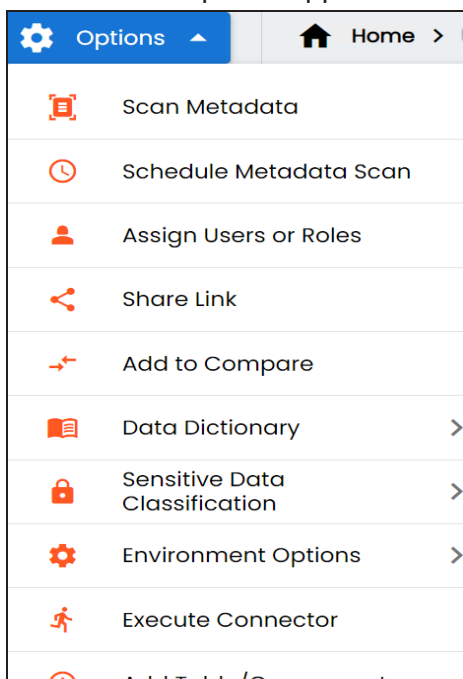
You can import metadata from JSON files into a JSON environment.

To import metadata from JSON files, follow these steps:

1. On the Explore tab, click a JSON environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **JSON** option to view all JSON environments.

2. Click **Options**.

The available options appear.



3. Click **Scan Metadata**.

The JSON Metadata Scan - Step1 page appears.

JSON

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✕

JSON Schema : *

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



Data File (JSON) :

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



Scan Options

☒ Add New

☐ Update Existing + Add New

☐ Update Existing + Add New + Invalidate

☐ Delete & Reload

☐ Import Comments

Note: Checking this will Delete All Business Properties and Data Dictionary values stored as metadata for this Environment

Import Model Type

☐ Physical

☒ Logical

4. Under the **JSON Schema** section, drag and drop or use  to browse and select the JSON schema file.
5. Under the **Data File [JSON]** section, drag and drop or use  to browse and select the JSON data file.
6. Use the following scan options:

Add New

Use this option to insert new metadata into the environment.

Update Existing + Add New

Use this option to update the existing metadata based on tables and columns in the JSON file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Delete & Reload

Use this option to delete all the business properties and data dictionary stored as metadata for this environment.

Import Comments

Skip Empty Cells

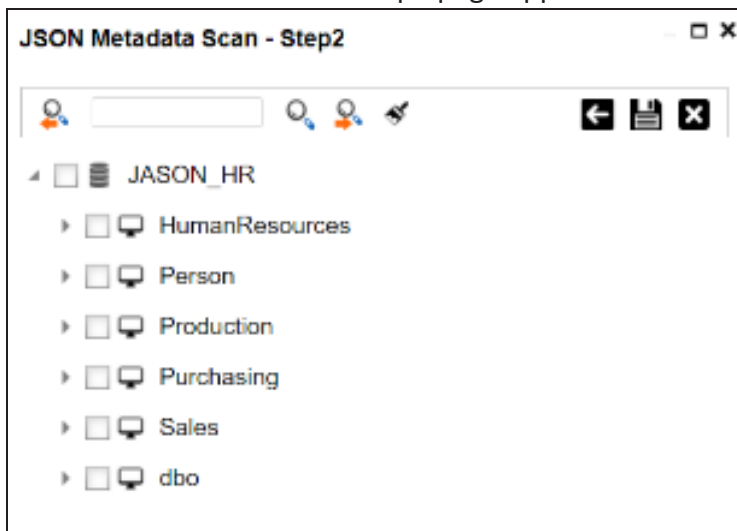
Use this option to skip blank cells in the JSON file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

Import User Defined Fields

Use this option to import environment-specific custom fields configured as User Defined Fields (UDFs). This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

7. Click the appropriate **Import Model Type**.
8. Click .

The JSON Metadata Scan - Step2 page appears.



9. Select the required schema and tables.
10. Click .

The metadata is imported and saved in the environment.

CSV

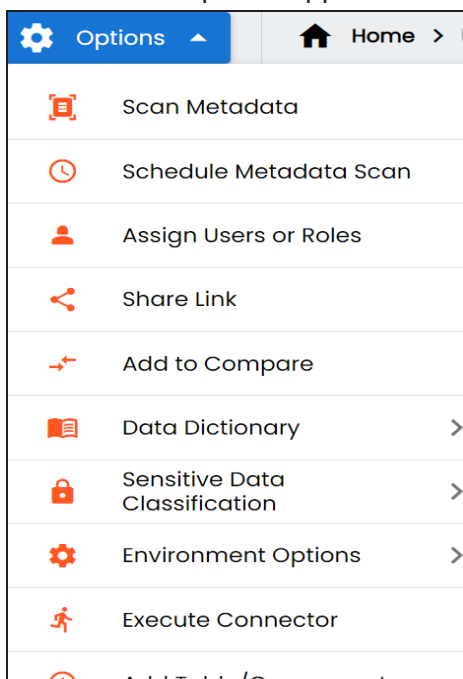
You can import metadata from CSV files into a CSV environment.

To import metadata from CSV files, follow these steps:

1. On the Explore tab, click a CSV environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **CSV** option to view all CSV environments.

2. Click **Options**.

The available options appear.



3. Click **Scan Metadata**.

The CSV Metadata Scan - Step1 page appears.

CSV

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MetaData Content

Delimiter File :

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



File Path:

Scan Options

☒ Add New
 ☐ Import Comments

☐ Update Existing + Add New

☐ Update Existing + Add New + Invalidate

☐ Delete & Reload

Note: Checking this will Delete All Business Properties and Data Dictionary values stored as metadata for this Environment

4. Drag and drop or use  to browse and select the delimiter file.
5. In the **File Path(s)** box, enter the file path.
6. Use the following scan options:

Add New

Use this option to insert new metadata into the environment.

Update Existing + Add New

Use this option to update the existing metadata based on the table and columns in the CSV file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Delete & Reload

as metadata for this environment.

Import Comments

Use this option to import column-level comments from the CSV file into the environment.

Skip Empty Cells

Use this option to skip blank cells in the CSV file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

7. Click .

The CSV Metadata Scan - Step2 page appears.



8. Select the required tables.

9. Click .

The metadata is imported and saved in the environment.

XMI

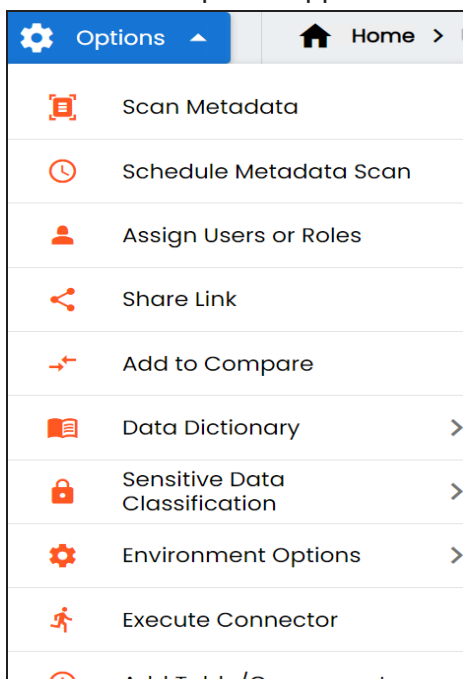
You can import metadata from XMI files into an XMI environment.

To import metadata from XMI files, follow these steps:

1. On the Explore tab, click an XMI environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **XMI** option to view all XMI environments.

2. Click **Options**.

The available options appear.



3. Click **Scan Metadata**.

The XMI Metadata Scan - Step1 page appears.

XMI

XML Metadata Scan Step 1

→ ×

Metadata Content

XMI File : *

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



Scan Options

☒ Add New

☐ Update Existing + Add New

☐ Update Existing + Add New + Invalidate

☐ Delete & Reload

☐ Import Comments

4. Drag and drop or use  to browse and select the XMI file.
5. Use the following scan options:

Add New

Use this option to insert new metadata into the environment.

Update Existing + Add New

Use this option to update the existing metadata based on tables and columns in the XMI file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Delete & Reload

Use this option to delete all the business properties and data dictionary stored as metadata for this environment.

Use this option to import comments from XMI tables and columns into the environment.

Skip Empty Cells

Use this option to skip blank cells in the XMI file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

6. Click .

The XMI Metadata Scan - Step2 page appears.



7. Select the required tables.

8. Click .

The metadata is imported and saved in the environment.

MS Access File

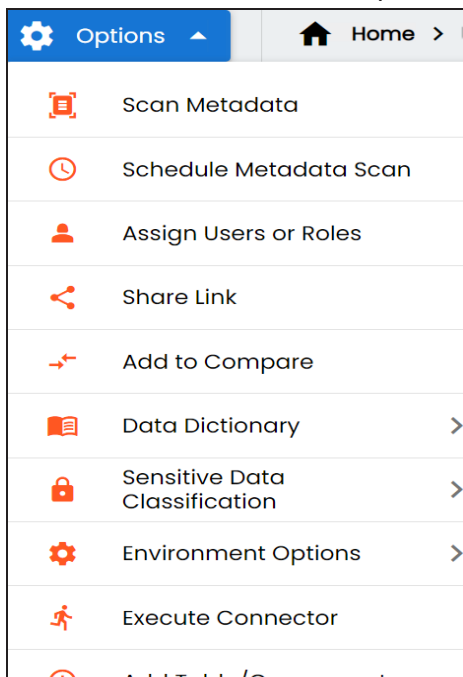
You can import metadata from MS Access files into an MS Access environment.

To import metadata from MS Access files, follow these steps:

1. On the Explore tab, click an MS Access environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **MS Access** option to view all MS Access environments.

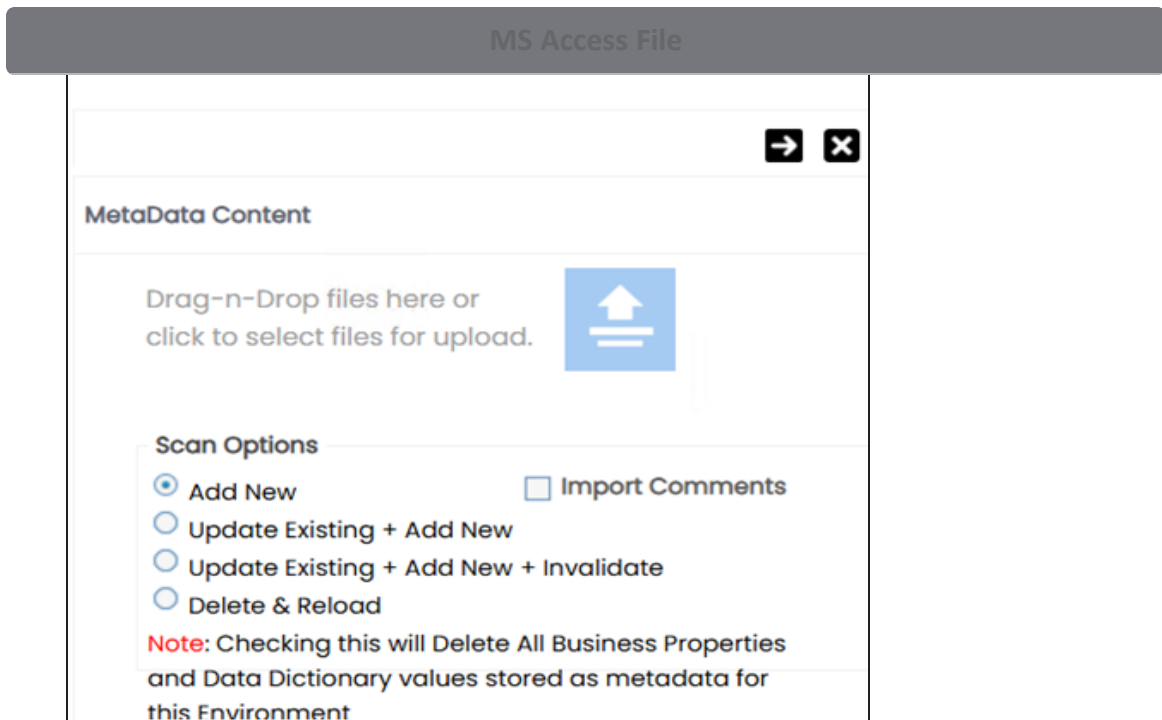
2. Click **Options**.

The available environment options appear.



3. Click **Scan Metadata**.

The MS Access Metadata Scan - Step1 page appears.



4. Drag and drop or use  to browse and select the MS Access file.
5. Use the following scan options:

Add New

Use this option to insert new metadata into the environment.

Update Existing + Add New

Use this option to update the existing metadata based on tables and columns in the MS Access file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Delete & Reload

Use this option to delete all the business properties and data dictionary stored as metadata for this environment.

Import Comments

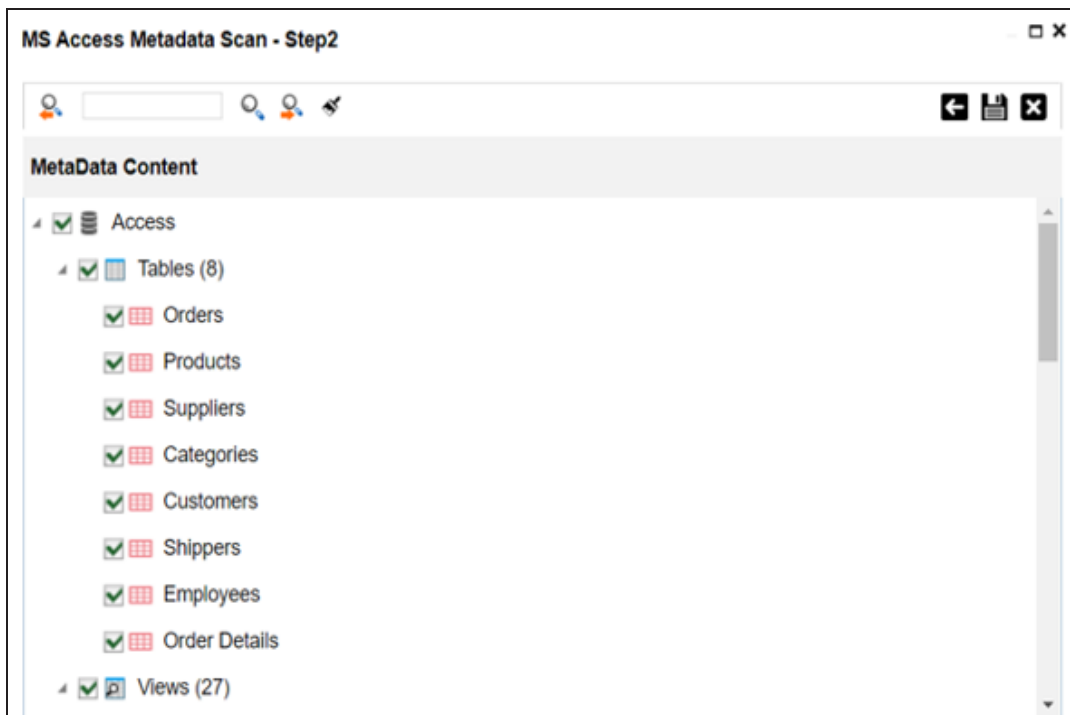
the environment.

Skip Empty Cells

Use this option to skip blank cells in the MS Access file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

6. Click .

The MS Access Metadata Scan - Step2 page appears.



7. Select the required tables.

8. Click .

The metadata is imported and saved in the environment.

XSD

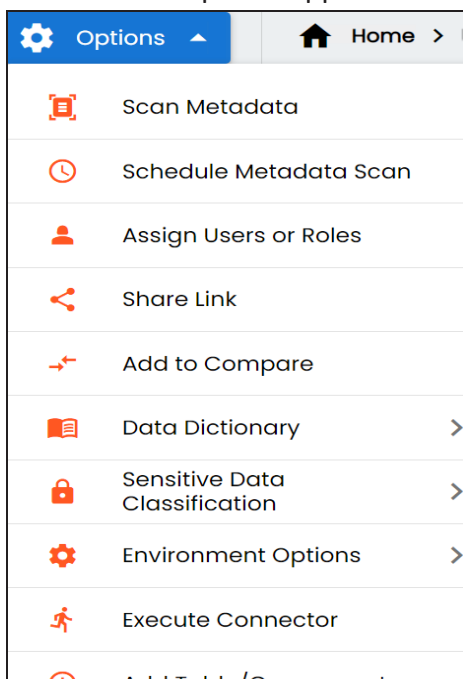
You can import metadata from XSD files into XSD environments.

To import metadata from XSD files, follow these steps:

1. On the Explore tab, click an XSD environment tile to view its details.
Alternatively, in the Data Catalog pane, select the **XSD** option to view all XSD environments.

2. Click **Options**.

The available options appear.



3. Click **Scan Metadata**.

The XSD Metadata Scan - Step1 page appears.

XSD

→
✕

Metadata File (XSD) : *

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

Data File (XML) :

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

Scan Options

☒ Add New
☐ Update Existing + Add New
☐ Update Existing + Add New + Invalidate
☐ Delete & Reload

☐ Import Comments

Note: Checking this will Delete All Business Properties and Data Dictionary values stored as metadata for this Environment

☐ Version Environment ...

4. Under the **Metadata File [XSD]** section, use to browse or drag and drop the metadata file with .xsd extension.
5. Under the **Data File [XML]** section, use to browse or drag and drop the data file with .xml extension.
6. Use the following scan options:

Add New

Use this option to insert new metadata into the environment.

Update Existing + Add New

Use this option to update the existing metadata based on tables and columns in the XSD file.

Update Existing + Add New + Invalidate

Use this option to update the existing metadata without deleting it.

Use this option to delete all the business properties and data dictionary stored as metadata for this environment.

Import Comments

Use this option to import comments from the XSD tables and columns into the environment.

Skip Empty Cells

Use this option to skip blank cells in the XSD file from overwriting existing values. This option is available only when you select the Update Existing + Add New or Update Existing + Add New + Invalidate option.

7. Click .

The XSD Metadata Scan - Step2 page appears.



8. Select the required tables.

9. Click .

The metadata is imported and saved in the environment.

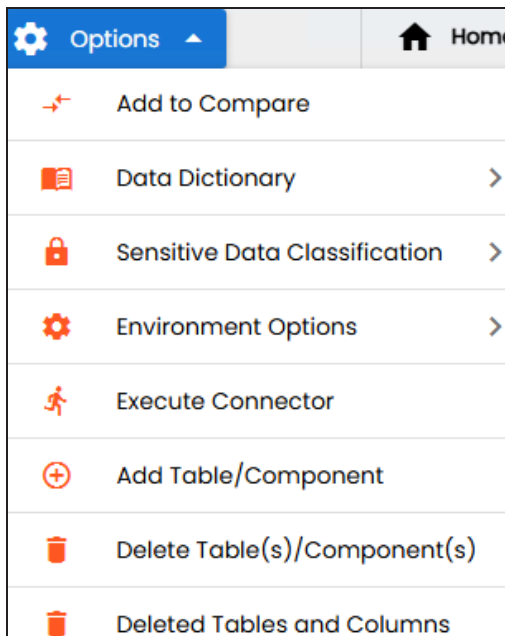
Adding Tables

You can manually add tables in an environment and define their technical and business properties. You can use User-Defined Fields to define additional properties of a table. Also, you can UI labels of the User-Defined fields can be configured in [Language Settings](#).

To add tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

The available options appear.



4. Click **Add Table/Component**.

The Add Table Form page appears.

Adding Tables

Form

erwin DM → DM Landing → (c)

Details

Additional Information

Technical Details

Name *

No of Rows

Synonym Reference

FileType

File Location

Entity Type
TABLE

Business Details

Logical Name

Definition

Expanded Logical Name

Comments

Used In Gap Analysis

Governance Responsibilities

Data Stewards

Data Owners

Classification

Sensitive Data ...

Sensitive Data Indicator (S...

5. Enter or select appropriate values in the fields. Refer to the following table for field description.

Field Name	Sub-Field	Description
Technical Prop- erties	Name	Specifies the physical name of the table. For example, Account or Currency.
	Schema Name	Specifies the schema name of the table. For example, dbo.
	No of Rows	Specifies the total number of rows in the table. For example, 100.
	Synonym Reference	Specifies the synonym reference of the table. For example, Sales_Rep_Information. This field is autopopulated during the

Adding Tables

Field Name	Sub-Field	Description
		metadadata scan. You cannot enter it manually.
	File Type	Specifies the file type of the table if the table is in a file-based environment.
	File Location	Specifies the location of the file type.
	Entity Type	Specifies the entity type of the new component. It is autopopulated with Table .
Business Details	Used in Gap Analysis	Specifies whether the table is being used as part of a gap analysis to check table usage in mappings. Select the check box if the table is used in gap analysis. For more information on performing table gap analysis, refer to the Performing Table Gap Analysis topic.
	Logical Name	Specifies the logical name of the table. For example, if the physical name of a table is DIM_Customer, then the logical name of the table is Customer Dimension. You can manually enter a logical name or click  to generate it automatically.
	Definition	Specifies the definition of the table. For example: The table contains five columns with emp ID column as the primary key. You can manually enter a definition or click  to generate it automatically.
	Expanded Logical Name	Specifies the expanded logical name of the table. For example, if the physical name of a table is RM_Resource, then the expanded logical name

Adding Tables

Field Name	Sub-Field	Description
		of the table is RM Sales Representative. You can configure expanded logical name of tables in bulk at system and environment level.
	Comments	Specifies comments about the table. For example: The table contains details of the employees. You can manually enter comments or click  to generate them automatically.
	JSON Physical Name	Specifies the JSON physical name of the table if the table is in a JSON environment. For example, account.
	Class	Specifies the table class property. For more information on configuring table class, refer to Configuring Table and Column Class topic.
	Alias	Specifies the alias name of the table. For example, Sales_Representative_Table.
Governance Responsibilities	Data Steward	Specifies the name of the data steward responsible for the table. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options. For more information on assigning roles and users, refer to the Updating Data Governance Assignments topic.
Classification	Sensitive Data Indicator (SDI) Classification	Specifies the SDI classification of the table. For example, PHI. You can manually add classifications or click  to generate them auto-

Adding Tables		
Field Name	Sub-Field	Description
		atically. For more information on configuring SDI classifications, refer to the Configuring Sensitive Data Indicator Classifications topic.
	Sensitive Data Indicator (SDI) Description	Specifies the description of the SDI classification. For example: Protected Health Information. The field autopopulates based on the SDI classification.
Miscellaneous	Business Entity Type	Specifies the database type of business entity.

6. Click .

The table is added to the environment.

Adding Columns

You can add columns in a table manually and enter technical and business properties of a column. You can also use user defined fields to enter additional properties of the column. UI labels of user defined fields can be configured in [Language Settings](#).

To add columns in tables manually, follow these steps:

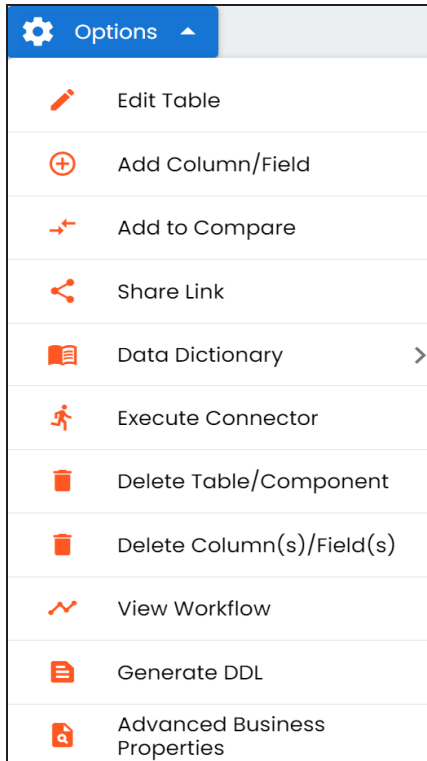
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the Data Catalog pane, click a table to see its columns.

The screenshot shows the 'Explore' view in the Data Catalog. The breadcrumb navigation is: Home > erwin DM > SYSTEM > DM Landing (v1.00) > ENVIRONMENT > Citizens > TABLE. The 'Columns' tab is selected, showing a search bar and a list of columns: CitizenID, CitizenName, and EmployeeID. The main content area displays statistics for the 'Citizens' table: Total Columns: 3, Total Primary Key: 67%, Total Foreign Key: 67%, and Columns With Expanded: 0%. Below the statistics is a 'Data Dictionary' table with columns: #, Column Name, Logical Column Name, Column Comments, Column Definition, Tags, SDI Flag, and Sensitive Data Indication (SDI) Classification. The table lists two columns: 1. CitizenID, Logical Column Name: CitizenID, SDI Flag: PII, and Sensitive Data Indication: PII. 2. CitizenName, Logical Column Name: CitizenName, SDI Flag: PII, and Sensitive Data Indication: PII.

#	Column Name	Logical Column Name	Column Comments	Column Definition	Tags	SDI Flag	Sensitive Data Indication (SDI) Classification
1	CitizenID	CitizenID				PII	PII
2	CitizenName	CitizenName				PII	PII

Adding Columns

The available options appear.



5. Click **Add Column/Field**.

The Add Column Form appears.

Adding Columns

erwin DM → DM Landing → Employee →

Details
Additional Information

Technical Properties

Name*

Data Type

Data Domain

Storage Type

Precision

Length

DB Default Value

Scale

Percent Null Value

Maximum Value

Minimum Value

File Starting Position

Attribute Type
COLUMN

ETL Default Value

Keys & Flags

☐ Primary Key Flag

☐ Natural Key Flag

☐ Identity Flag

☐ Nullable Flag

☐ Business Key Flag

☐ Used In Gap Analysis

☐ Foreign Key Flag

Governance Responsibilities

Data Stewards
▼

Data Owners
▼

Classification

Sensitive Data Indicator(SDI) ...
✦✦
▼

Sensitive Data Indicator (SDI) Description

Business Properties

Logical Name ✦✦

Definition ✦✦

Expanded Logical Name

Comments ✦✦

6. Enter or select appropriate values in the fields. Refer to the following table for field description.

Field Name	Sub-Field	Description
Technical Properties	Name	Specifies the physical name of the column. For example, Object_ID.
	Data Type	Specifies the physical data type of the column. For example, varchar.

Adding Columns

Field Name	Sub Field	Description
	Data Domain	Specifies the data domain values for the column. For example, data domain of a Gender column is M and F.
	Storage Type	Specifies the storage type of the column. For example, row store/column store in the case of SAP systems.
	Precision	Specifies the precision of the column. For example: 5, the number 123.45 has a precision of 5 and a scale of 2.
	Length	Specifies the physical length of the column. For example, if the column datatype is char(5), then its physical length is 5.
	DB Default Value	Specifies the default value of the column in the database. For example, True.
	Scale	Specifies the physical scale of the column. For example: The number 123.45 has a precision of 5 and a scale of 2.
	Percent Null Value	Specifies the percentage of null values in the column. For example, 10%.
	Maximum Value	Specifies the maximum value of the column. For example, maximum value of ID column can be 1503.
	Minimum Value	Specifies the minimum value of the column. For example, minimum value of ID column can be 424.
	File Starting Position	Specifies the starting position in the file.

Adding Columns

Field Name	Sub-Field	Description
	Attribute Type	Specifies the attribute type of the new component. It is autopopulated with Column .
	ETL Default Value	Specifies the default ETL value of the column during the load process.
Business Properties	Logical Name	Specifies the logical name of the column. For example, if the physical name of the table is CUST_ID_NUM, then the logical name of the table is Customer Identification Number. You can manually enter a logical name or click  to generate it automatically.
	Definition	Specifies the definition of the column. For example: The column is a primary key that allows 5 alpha-numeric characters. You can manually enter a definition or click  to generate it automatically.
	Expanded Logical Name	Specifies the expanded logical name of the column. For example, if the physical name of the column is Resource_ID, then the logical name of the . You can also configure expanded logical name of columns in bulk at system and environment level.
	Comments	Specifies the comments about the column. For example: The column provides unique identification of employee in the employee table. You can manually enter comments or click  to generate them automatically.
	JSON Physical Column Name	Specifies the JSON physical name of the column if the column is in a JSON environment.

Adding Columns

Field Name	Sub Field	Description
		For example, objectID.
	Class	Specifies the column class property. Select a column class. For more information on configuring column class, refer to the Configuring Table and Column Class topic.
	Alias	Specifies the alias name of the column. For example, Resource_ID.
Keys & Flags	Primary Key Flag	Specifies whether the column is a primary key. Select the check box if the column is used as the primary key.
	Natural Key Flag	Specifies whether the column is a natural key. Select the check box if the column is a natural key.
	Identity Flag	Specifies whether the column is used as an identity flag. Select the check box if the column is used as an identity flag.
	Nullable Flag	Specifies whether the column allows null values. Select the check box if the column allows null values.
	Business Key Flag	Specifies whether the column is a business key. Select the check box if the column is a business key.
	Used in Gap Analysis	Specifies whether the column is being used in a gap analysis for usage in mappings. Select the check box if the column is used in the gap analysis. For more information on performing column gap analysis, refer to the Performing Column Gap Ana-

Adding Columns

Field Name	Sub-Field	Description
		lysis topic.
	Foreign Key Flag	Specifies whether the column is a foreign key. Select the check box if the column is a foreign key and appears next to this option. Click to add the following: • Foreign Key Table Name: Specifies the actual table name where the column is listed as a PK (in case of the current column being an FK). • Foreign Key Column Name: Specifies the actual column name where the column is listed as a PK (in case the current column being an FK).
Governance Responsibilities	Data Steward	Specifies the data steward responsible for the column. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options. For more information on assigning roles and users, refer to the Updating Data Governance Assignments topic.
Classification	Sensitive Data Indicator (SDI) Classification	Specifies the SDI classification of the column. For example, PHI. You can manually add classifications or click  to generate them automatically. For more information on configuring SDI classifications, refer to the Configuring Sensitive Data Indicator Classifications topic.

Adding Columns		
Field Name	Sub-Field	Description
	Sensitive Data Indicator (SDI) Description	Specifies the description of the SDI classification. For example: Protected Health Information. The field autopopulates based on the SDI classification.

7. Click .

The column is added to the table.

Deleting Tables and Columns

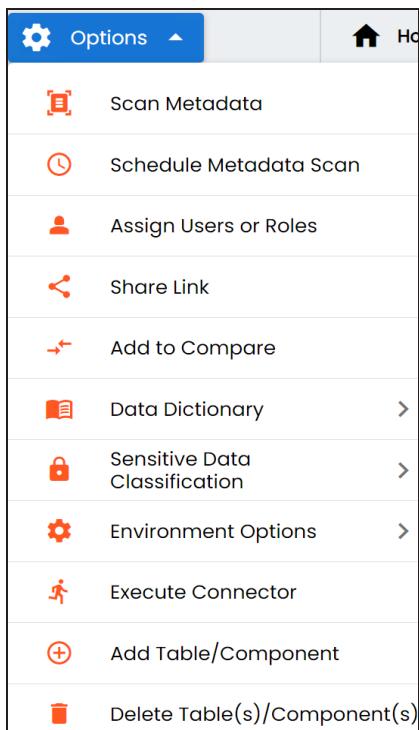
You can delete tables and columns that are not required.

Tables

To delete tables from environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

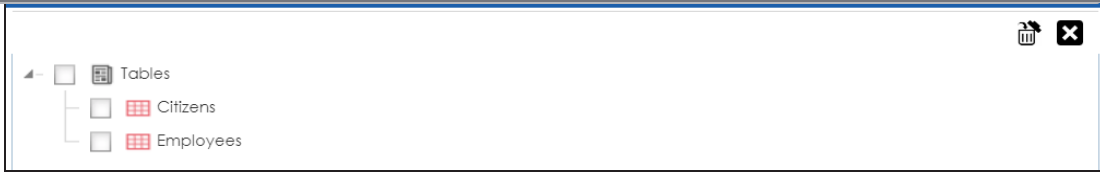
The available options appear.



4. Click **Delete Table(s)/Components(s)**.

The Delete Tables page appears.

Deleting Tables and Columns



5. Select the required tables.

6. Click .

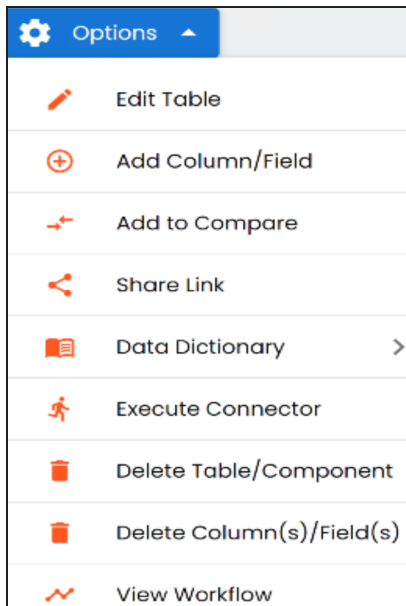
The selected tables are deleted from the environment.

Columns

To delete columns from tables, follow these steps:

1. On the Explore tab, click an environment tile to view its details and tables.
2. In the **Data Catalog** pane, click a table to see its columns.
3. Click **Options**.

The available options appear.



Deleting Tables and Columns

The column is deleted.

Restoring, Re-adding, or Purging Tables and Columns

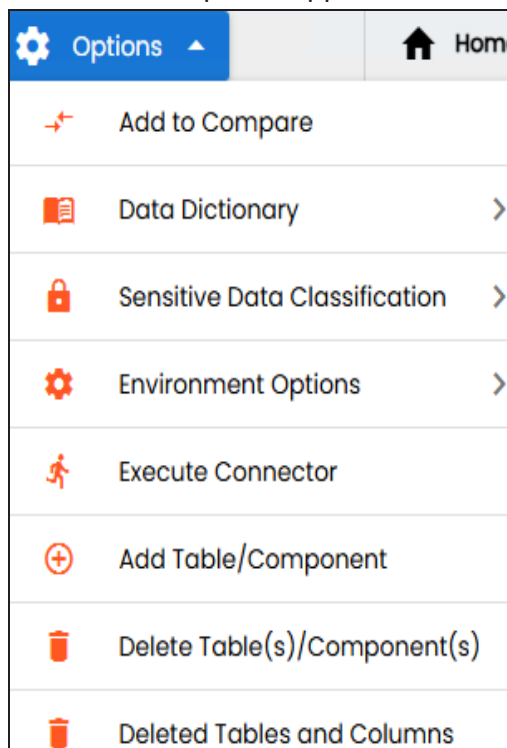
You can restore, re-add, or purge tables and columns that are in an invalid state. You can either perform these actions individually while re-adding tables and columns or manage them in bulk through the Deleted Tables and Columns option.

Tables

To restore or re-add a table, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

The available options appear.



4. Click **Add Table/Component**.

The Add Table Form page appears.

Restoring, Re-adding, or Purging Tables and Columns

Form
erwin DM → DM Landing → (c)

Details

Additional Information

Technical Details

Name *

No of Rows

Synonym Reference

FileType

File Location

Entity Type
TABLE

Business Details

Logical Name

Definition

Expanded Logical Name

Comments

☐ Used In Gap Analysis

Governance Responsibilities

Data Stewards

Data Owners

Classification

Sensitive Data ...

Sensitive Data Indicator (S...

5. In the **Name** box, enter the name of the invalid table.

6. Click

A **Confirm** pop-up appears.

Confirm

Table Already Existed but in Invalide state. Do you want to validate Table?

DELETE AND ADD

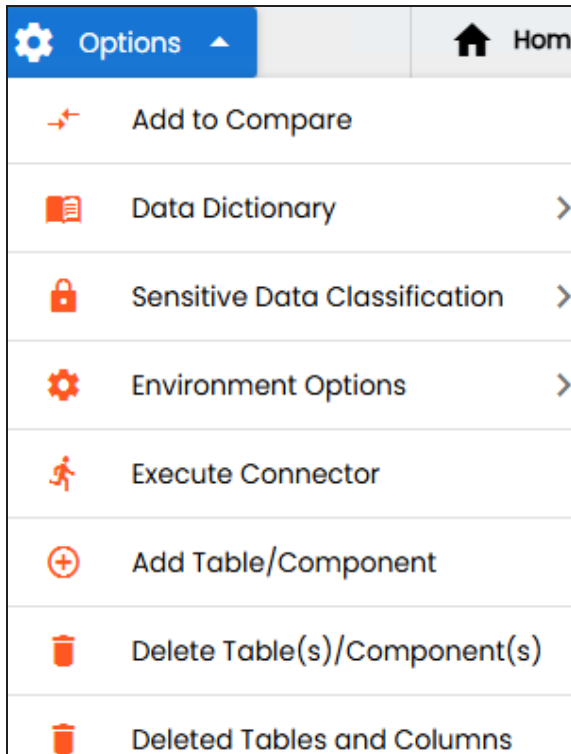
RESTORE

- **Delete and Add:** Use this option to delete an invalid table and add a new one.
- **Restore:** Use this option to restore the existing table.

To restore or purge the tables in bulk, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

The available options appear.



4. Click **Deleted Tables and Columns**.

The Deleted Tables and Columns page appears.

Restoring, Re-adding, or Purging Tables and Columns

Tables

Columns

Restore

Purge

☐	#	Schema Name	Table Name	Table Definition	XPath
☐	1	[No Schema]	Citizens		/Citizens

5. On the Tables tab, select the required tables, and then use the following options:

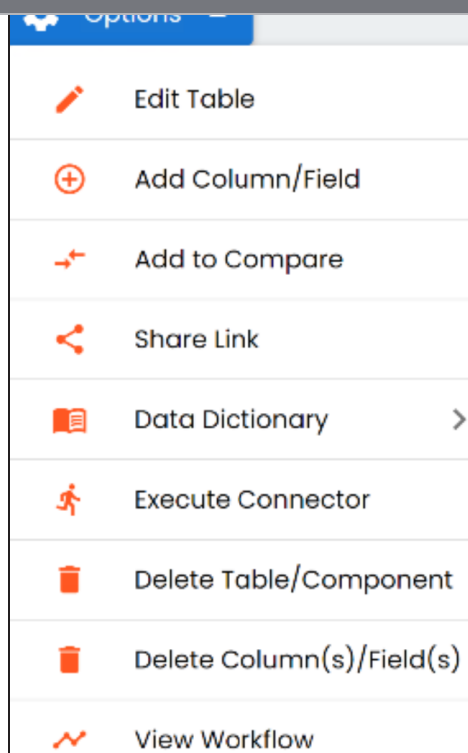
- **Restore:** Use this option to restore the selected tables.
- **Purge:** Use this option to delete the selected tables from the database permanently .

Columns

To restore or re-add columns, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a table to see its columns.
4. Click **Options**.

The available options appear.



5. Click **Add Column/Field**.

The Add Column Form page appears.

Restoring, Re-adding, or Purging Tables and Columns

6. In the **Name** box, enter the name of the invalid column.

7. Click .

A **Confirm** pop-up appears.

8. Use the following options:

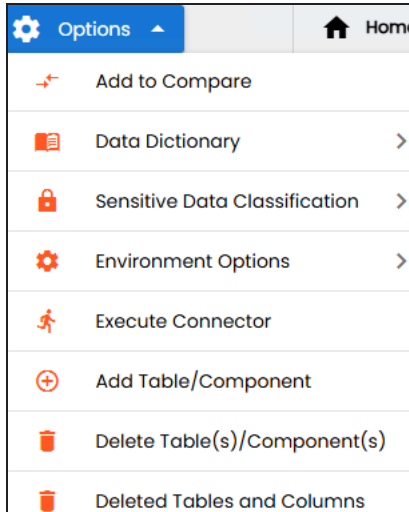
- **Delete and Add:** Use this option to delete the invalid column and add a new one.
- **Restore:** Use this option to restore the existing column.

To restore or purge the columns in bulk, follow these steps:

Restoring, Re-adding, or Purging Tables and Columns

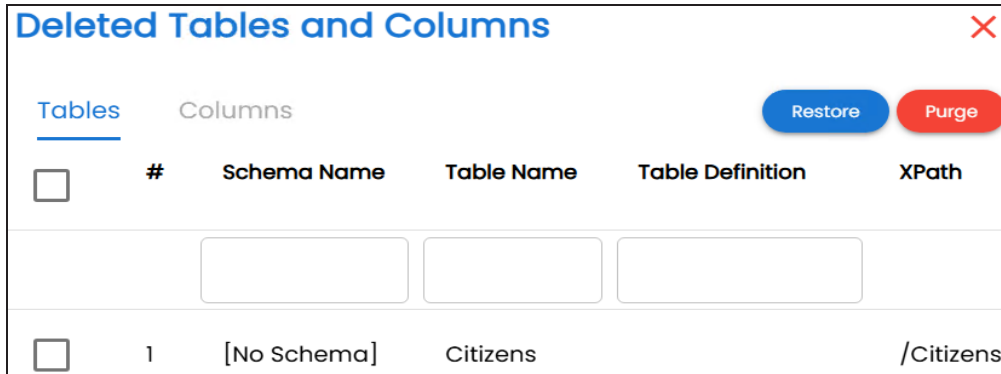
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

The available options appear.



4. Click **Deleted Tables and Columns**.

The Deleted Tables and Columns page appears.



5. Click the **Columns** tab.
6. Select the required columns, and use the following options:

- **Purge:** Use this option to delete the selected columns from the database permanently.

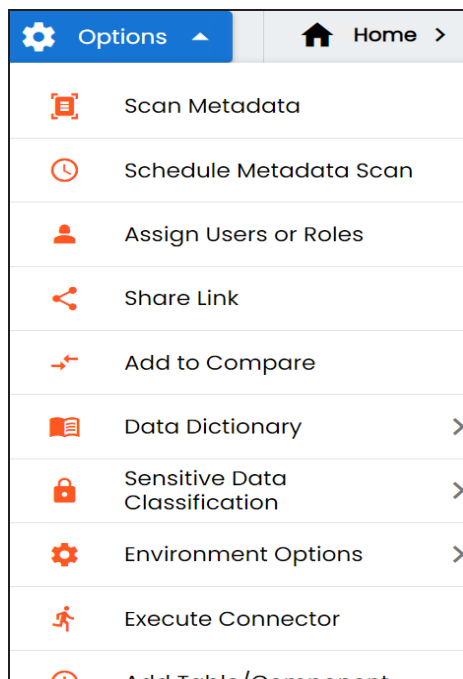
Scheduling Metadata Scans

You can schedule a metadata scan for an environment whose schema was selected or it was scanned at least once.

To schedule a metadata scan, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. Click **Options**.

The available options appear.



4. Click **Schedule Metadata Scan**.

The Job Scheduler page appears.

Scheduling Metadata Scans

Schedule
Cancel

Job Name* :

Interval : ▼

Schedule Job On* :

☐ Local ☒ Server

Import Metadata Options

☒ Add New

☐ Update Existing + Add New

☐ Update Existing + Add New + Invalidate

☐ Delete & Reload

☐ Import Comments

☐ Import Sensitive Data

☐ Import Indexes

☒ Table(s)

☒ View(s)

☒ Synonym(s)

☐ Version ...

Notify Me : ON

Notification Email :

CC List :

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
Job Name	Specifies the job name. For example, Administrator1585030550001. This field autopopulates with a job name. You can edit it and enter a different job name.
Interval	Specifies the frequency of the job. For example, Every Week.

Scheduling Metadata Scans

Field Name	Description
Schedule Job On	Set the date and time of the job using  . For example, 05-16-2025 06:55:45.
Local or Server	Select whether the job uses local or server time. - Local: Refers to your local machine. - Server: Refers to the machine where your application is deployed.
Import Metadata Options	Add New: This option adds new objects to the existing object list. Existing metadata is not updated. Update Existing + Add New: This option adds new objects to the existing list and at the same time the existing metadata is also updated. Update Existing + Add New + Invalidate: This option adds new objects to the existing list and at the same time the existing metadata is also updated and invalidated. Delete & Reload: This option deletes all the existing metadata and scans only the new objects that have been selected. Import Comments: Select the checkbox to import comments. Import Sensitive Data: Select the checkbox to import sensitivity classification of the metadata from the data source. This option is available for SQL, Oracle, and Snowflake environments. Import Indexes: Select the checkbox to import the indexes of the metadata from the data source. This option is available for SQL, Oracle, and Snowflake environments. Table(s): Select the checkbox to import Tables. View(s): Select the checkbox to import Views. Synonym(s): Select the checkbox to import Synonyms. Version: Select the checkbox to create a new version of the environment. To enter version label and change description, click .

Scheduling Metadata Scans	
Field Name	Description
Notify Me	Switch Notify Me to ON to receive a job notification. For more information on configuring notifications, refer to the Configuring Notifications on Scanning Metadata topic.
Notification Email	This field is autopopulated with your email ID. You receive email notifications about the scheduled job from the administrator's email ID. For more information on configuring the administrator's email ID, refer to the Configuring Email Settings topic.
CC List	Enter a comma-separated list of email IDs that should receive email notifications about the scheduled job. For example, ab.dav@xyz.com, cal.kai@xyz.com

6. Click **Schedule**.

The metadata scan is scheduled and the scheduled job is listed on the **Scheduled Jobs** tab.

as Target

Mindmap

Associations

Workflow Log

Documents

Data Quality

Configure Extended Properties

Scheduled Jobs

Scheduled Jobs

#	Job Name	Job Type	Scheduled Objects	Previous Fire Time	Next Fire Time	Job State	Created By	Created Date Time	Last Modified By	Last Modified Date Time	Edit
1	1620143110236	Metadata Scan	DBO		05-06-2021 15:45	NORMAL	Administrator	2021-05-04 15:45:37.079	Administrator	2021-05-04 15:45:37.079	

The metadata is scanned at the scheduled time and the environment is updated.



If you have opted to create new version of the environment, then a new version is created and the old version is archived.

Alternatively, on the Explore tab, select **Metadata Options** and click **Scheduled Jobs** to view the list.

Use the following options to work on the scheduled job list:

Edit ()

Scheduling Metadata Scans

Delete ()

Use this option to delete the scheduled job.

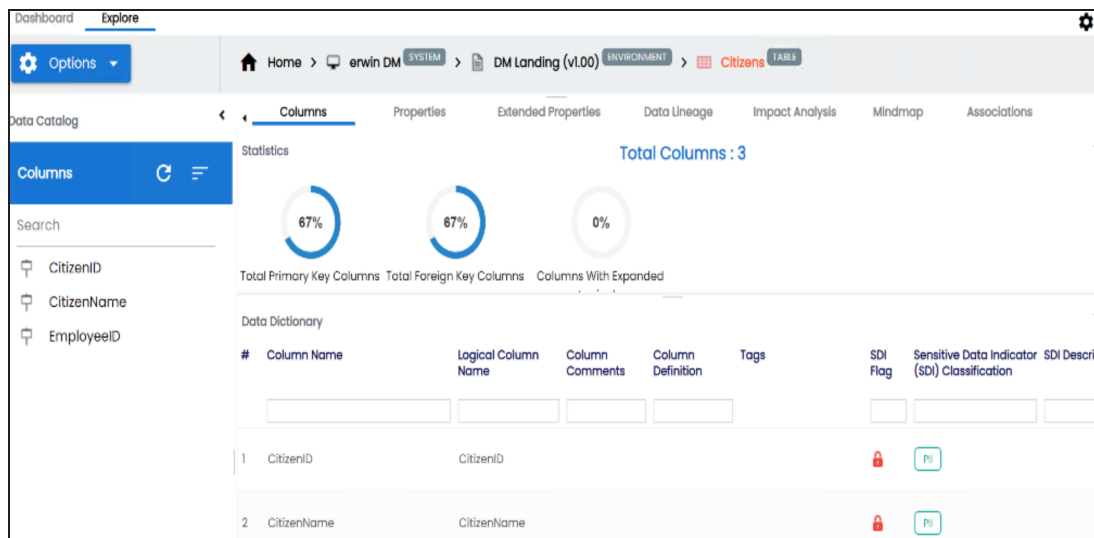
Updating Table Properties

Table properties are classified as technical and business properties. You can update these properties for a table and use user defined fields to enter additional properties of a table.

To update table properties, follow these steps:

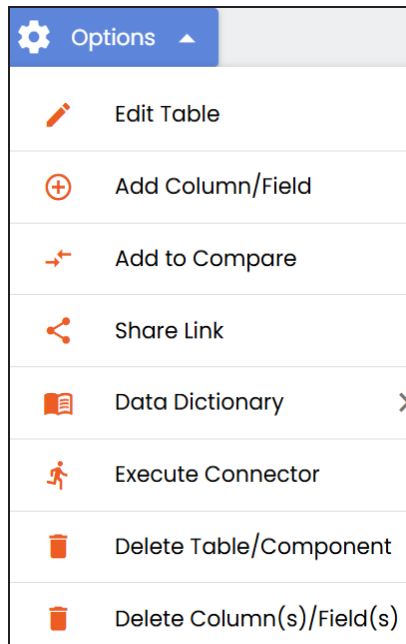
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a table.

By default, the Columns tab opens.



Updating Table Properties

The available options appear.



5. Click **Edit Table**.

The Edit Table Form appears.

Updating Table Properties

erwin DM → DM Landing → (employee)

Details

Technical Details

Name * Employee No of Rows

Synonym Reference File Type

File Location Entity Type TABLE

Business Details

Logical Name View Definition Stores information about company e

Expanded Logical Name Comments Stores information about employees

JSON Physical Name Employee Class Select

Alias

☐ Used In Gap Analysis

Governance Responsibilities

Data Stewards

Data Owners

Classification

Sensitive Data Indicator (SDI) Classifi... Confidential PII

Sensitive Data Indicator (SDI) Descripti...

Miscellaneous

Business Entity Type Select

Tags

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

Field Name	Sub-Field	Description
Technical Properties	Name	Specifies the physical name of the table. For example, Account or Currency.
	Schema Name	Specifies the schema name of the table. For example, dbo.
	No of Rows	Specifies the total number of rows in the table. For example, 100.
	Synonym Reference	Specifies the synonym reference for the table. For example, Sales_Rep_Information. This field is autopopulated during the metadata scan. You cannot enter it manually.

Updating Table Properties

Field Name	Sub-Field	Description
	File Type	Specifies the file type of the table if the table is in a file-based environment. For example, MS Excel.
	File Location	Specifies the location of the files.
	Entity Type	Specifies the entity type of the new component. It is autopopulated with Table .
Business Details	Logical Name	Specifies the logical name of the table. For example, if the physical name of a table is DIM_Customer, then the logical name of the table is Customer Dimension. You can manually update a logical name or click  to generate it automatically.
	Definition	Specifies the definition of the table. For example: The table contains five columns with emp ID column as the primary key. You can manually update a definition or click  to generate it automatically.
	Expanded Logical Name	Specifies the expanded logical name of the table. For example, if the physical name of a table is RM_Resource, then the expanded logical name of the table is RM Sales Representative. You can configure expanded logical name of tables in bulk at system and environment level.
	Comments	Specifies comments about the table. For example: The table contains details of the employees. You can manually update comments or click  to generate them automatically.

Updating Table Properties

Field Name	Sub Field	Description
	JSON Physical Name	Specifies the JSON physical name of the table if the table is in a JSON environment.
	Class	Specifies the table class property. For more information on configuring table class, refer to Configuring Table and Column Class topic.
	Alias	Specifies the alias name of the table. For example, Sales_Representative_Table.
	Used in Gap Analysis	Specifies whether the table is being used as part of a gap analysis to check table usage in mappings. Select the check box if the table is used in gap analysis. For more information on performing table gap analysis, refer to the Performing Table Gap Analysis topic.
Governance Responsibilities	Data Steward	Specifies the name of the data steward responsible for the table. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options. For more information on assigning roles and users, refer to the Updating Data Governance Assignments topic.
Classification	Sensitive Data Indicator (SDI) Classification	Specifies the sensitivity data indicator (SDI) classification of the table. Also, you can add multiple classifications to a table. For example, PHI, Confidential. You can manually add classifications or click  to generate

Updating Table Properties		
Field Name	Sub Field	Description
		them automatically. For more information on configuring SDI classifications refer to the Configuring Sensitive Data Indicator Classifications topic.
	Sensitive Data Indicator (SDI) Description	Specifies the description of the SDI classification. For example: Protected Health Information. The field autopopulates based on the SDI classification.
Miscellaneous	Business Entity Type	Specifies the database type of business entity.
	Tags	Specifies tags of the column. For example, PII. You can manually add tags or click ✨ to generate them automatically. Click Tags and select an existing tag or enter a tag name to create one on the fly.

7. Click .

The table properties are updated.

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

You can also hide user defined fields. For more information on hiding user defined fields, refer to the [Displaying User Defined Fields](#) topic.

Updating Column Properties

Column properties are classified as technical and business properties. You can update these properties for a column and use user defined fields to enter additional properties of a column.

To update Column Properties, follow these steps:

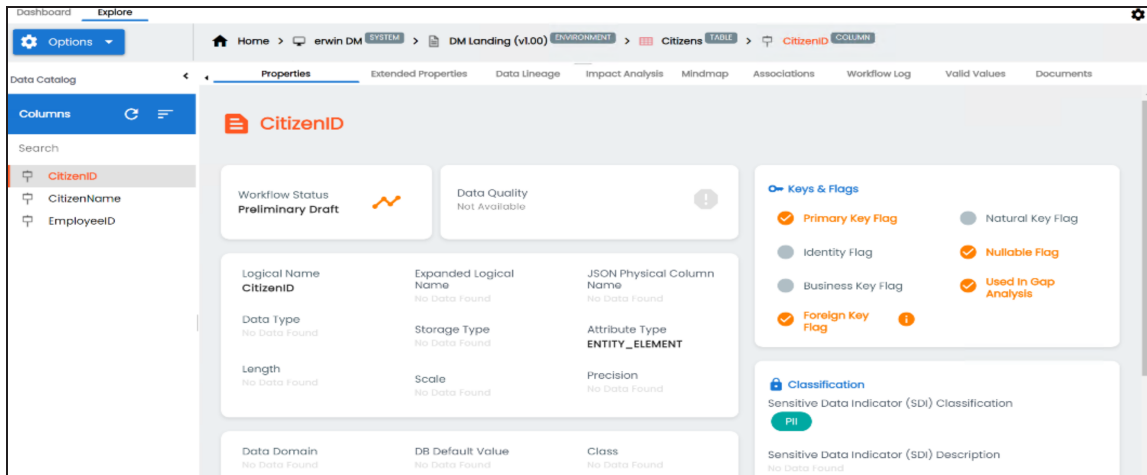
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the Data Catalog pane, click a table to see its columns.

The screenshot shows the 'Explore' tab in the Data Catalog. The breadcrumb navigation is: Home > erwin DM (SYSTEM) > DM Landing (v1.00) (ENVIRONMENT) > Citizens (TABLE). The left sidebar shows the 'Columns' section with a search bar and a list of columns: CitizenID, CitizenName, and EmployeeID. The main area displays statistics for the 'Columns' tab, showing 'Total Columns : 3'. The statistics include: Total Primary Key (67%), Total Foreign Key (67%), and Columns With Expanded (0%). Below the statistics is a 'Data Dictionary' table with columns: #, Column Name, Logical Column Name, Column Comments, Column Definition, Tags, SDI Flag, and Sensitive Data Indication (SDI) Classification. The table lists two columns: 1. CitizenID and 2. CitizenName. Both columns have a red lock icon in the SDI Flag column and a 'PII' label in the Sensitive Data Indication column.

#	Column Name	Logical Column Name	Column Comments	Column Definition	Tags	SDI Flag	Sensitive Data Indication (SDI) Classification
1	CitizenID	CitizenID				🔒	PII
2	CitizenName	CitizenName				🔒	PII

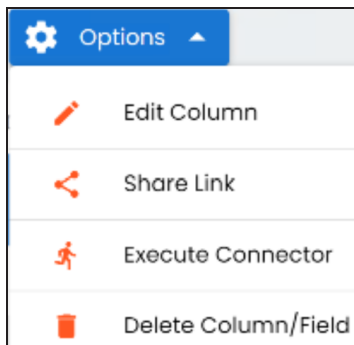
Updating Column Properties

By default, the Properties tab opens and displays the column properties.



5. Click **Options**.

The available options appear.



Updating Column Properties

The Edit Column Form appears.

The screenshot shows the 'Edit Column Form' for 'BGM_System → EXCEL → BGM_Table01 → Custom1'. The form is divided into several sections:

- Details** (selected) and **Additional Information** tabs.
- Technical Properties** section with fields for:
 - Name* (Custom1)
 - Data Type (int)
 - Data Domain (Data Domain)
 - Storage Type
 - Precision (4)
 - Length (5)
 - DB Default Value (DB Default)
 - Scale (0)
 - Percent Null Value (100)
 - Maximum Value (50)
 - Minimum Value (100)
 - File Starting Position (First Index)
 - Attribute Type (ENTITY_ATTRIBUTE)
 - ETL Default Value (ETL Default)
- Keys & Flags** section with radio buttons for:
 - Primary Key Flag
 - Natural Key Flag
 - ☒ Identity Flag
 - ☒ Nullable Flag
 - Business Key Flag
 - ☒ Used In Gap Analysis
 - Foreign Key Flag
- Governance Responsibilities** section with dropdowns for:
 - Data Owner
 - Group01
- Classification** section with:
 - Sensitive Data Indicator(SDI) Classific... (dropdown with red star icon)
 - Sensitive Data Indicator (SDI) Description
- Business Properties** section with:
 - Logical Name (logical Column, red star icon)
 - Definition (COLUMNIdeli, red star icon)
 - Expanded Logical Name
 - Comments (columncomments, red star icon)
- Miscellaneous** section with:
 - Tags (dropdown with red star icon)

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

Field Name	Sub-Field	Description
Technical Prop- erties	Name	Specifies the physical name of the column. For example, Object_ID.
	Data Type	Specifies the physical data type of the column. For example, varchar.
	Data Domain	Specifies the data domain values for the column.

Updating Column Properties

Field Name	Sub Field	Description
		For example, data domain of a Gender column is M and F.
	Storage Type	Specifies the storage type of the column. For example, row store/column store in the case of SAP systems.
	Precision	Specifies the precision of the column. For example: 5, the number 123.45 has a precision of 5 and a scale of 2.
	Length	Specifies the physical length of the column. For example, if the column datatype is char(5), then its physical length is 5.
	DB Default Value	Specifies the default value of the column in the database. For example, True.
	Scale	Specifies the physical scale of the column. For example: The number 123.45 has a precision of 5 and a scale of 2.
	Percent Null Value	Specifies the percentage of null values in the column. For example, 10%.
	Maximum Value	Specifies the maximum value of the column. For example, maximum value of ID column can be 1503.
	Minimum Value	Specifies the minimum value of the column. For example, minimum value of ID column can be 424.
	File Starting Position	Specifies the starting position in the file.

Updating Column Properties

Field Name	Sub Field	Description
	Attribute Type	Specifies the attribute type of the column. It is autopopulated with ENTITY_ELEMENT.
	ETL Default Value	Specifies the default ETL value of the column during the load process.
Business Details	Logical Name	Specifies the logical name of the column. For example, if the physical name of the table is CUST_ID_NUM, then the logical name of the table is Customer Identification Number. You can manually update a logical name or click ✨ to generate it automatically.
	Definition	Specifies the definition of the column. For example: The column is a primary key that allows 5 alpha-numeric characters. You can manually update a definition or click ✨ to generate it automatically.
	Expanded Logical Name	Specifies the expanded logical name of the column. For example, if the physical name of the column is Resource_ID, then the logical name of the . You can also configure expanded logical name of columns in bulk at system and environment level.
	Comments	Specifies the comments about the column. For example: The column provides unique identification of employee in the employee table. You can manually update comments or click ✨ to generate them automatically.
	JSON Physical Column Name	Specifies the JSON physical name of the column if the column is in a JSON environment.

Updating Column Properties

Field Name	Sub Field	Description
		For example, objectID.
	Class	Specifies the column class property. Select a column class. For more information on configuring column class, refer to the Configuring Table and Column Class topic.
	Column Alias	Specifies the alias name of the column. For example, Resource_ID.
Keys & Flags	Primary Key Flag	Specifies whether the column is a primary key. Select the check box if the column is used as the primary key.
	Identity Flag	Specifies whether the column is used as an identity flag. Select the check box if the column is used as an identity flag.
	Business Key Flag	Specifies whether the column is a business key. Select the check box if the column is a business key.
	Foreign Key Flag	Specifies whether the column is a foreign key. Select the check box if the column is a foreign key and appears next to this option. Click to add the following: • Foreign Key Table Name: Specifies the actual table name where the column is listed as a PK (in case of the current column being an FK). • Foreign Key Column Name: Specifies the actual column name where the column is listed as a PK (in case the current column being an FK).
	Natural Key	Specifies whether the column is a natural key.

Updating Column Properties

Field Name	Sub-Field	Description
	Flag	Select the check box if the column is a natural key.
	Nullable Flag	Specifies whether the column allows null values. Select the check box if the column allows null values.
	Used in Gap Analysis	Specifies whether the column is being used in a gap analysis for usage in mappings. Select the check box if the column is used in the gap analysis. For more information on performing column gap analysis, refer to the Performing Column Gap Analysis topic.
Governance Responsibilities	Data Steward	Specifies the data steward responsible for the column. For example, Jane Doe. 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. To assign data steward, select a data steward from the drop down options. For more information on assigning roles and users, refer to the Updating Data Governance Assignments topic.
Classification	Sensitive Data Indicator (SDI) Classification	Specifies the SDI classification of the column. For example, PHI. You can manually add classifications or click  to generate them automatically. For more information on configuring SDI classifications, refer to the Configuring Sensitive Data Indicator Classifications topic.
	Sensitive Data	Specifies the description of the SDI clas-

Updating Column Properties		
Field Name	Sub-Field	Description
	Indicator (SDI) Description	sification. For example: Protected Health Information. The field autopopulates based on the SDI classification.
Miscellaneous	Tags	Specifies tags of the column. For example, PII. You can manually add tags or click ✨ to generate them automatically. Click Tags and select an existing tag or enter a tag name to create one on the fly.

8. Click .

The column properties are updated.

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

You can also hide user defined fields on the Column Properties tab. For more information on hiding user defined fields, refer to the [Displaying User Defined Fields](#) topic.

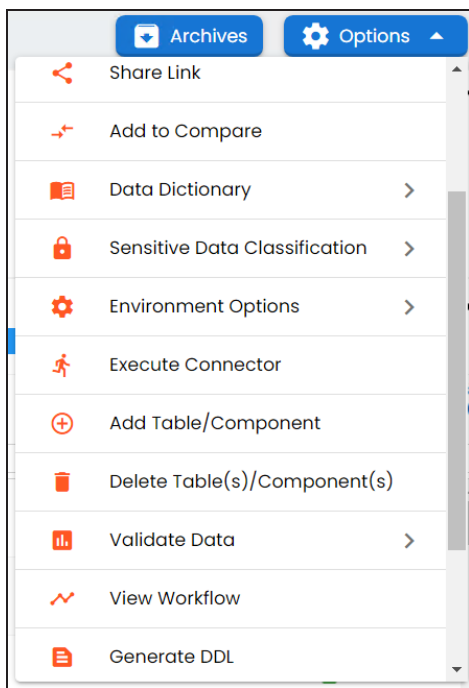
Validating Data

You can validate the data in the environment at table and column levels. The data is validated against the forms (Table Properties or Column Properties) associated with the environment. The forms can be created, configured, and associated with environments in the [Form Validation Settings](#).

To validate data, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.
3. Click Options.

The available options appear.



4. Scroll down the list and click **Validate Data**.

The following options appear:

Table

Validating Data

Column

Click this option to validate columns in the environment, click **Column**.

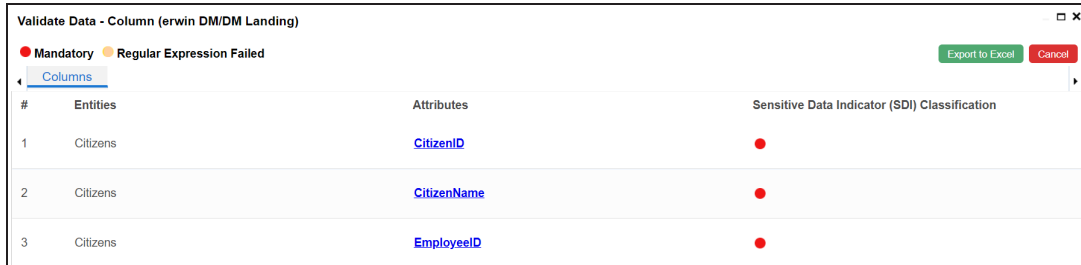
Both

Click this option to validate tables and columns both, click **Both**.

The data is validated.

The columns or tables that fail mandatory field criterion are marked with red.

The columns or tables that fail regular expression criterion are marked with orange.



#	Entities	Attributes	Sensitive Data Indicator (SDI) Classification
1	Citizens	CitizenID	●
2	Citizens	CitizenName	●
3	Citizens	EmployeeID	●

You can download the validation report in the XLSX format. To download the validation reports, click **Export to Excel**.

Assigning Codesets to Columns

You can create codesets in the Codeset Manager and assign them to a source or target column as valid values. You can also export the valid values in the XLSX format.

To assign codesets to columns, follow these steps:

1. In the **Data Catalog** pane, click a column.
2. Click the **Valid Values** tab.

The screenshot shows the 'Valid Values' tab in the Data Catalog pane. The tab is highlighted in blue. Below the tab are two buttons: 'Assign/Remove Codesets' (orange) and 'Export to Excel' (green). Below these buttons is a table with the following columns: #, Code Name, Code Value, Code Description, System Name/Environment, Codeset Name, Version, and Published Flag. The table is currently empty, and the text 'No Records Found' is displayed in red at the bottom right of the table area.

3. On the **Valid Values** tab, click **Assign/Remove Codesets**.

The Codesets page appears.

The screenshot shows the 'Codesets' page. The page has a title bar with 'Codesets' and window control buttons. Below the title bar are 'Save' and 'Cancel' buttons. The main area displays a tree view of codesets. The tree structure is as follows: Enterprise Codesets (expanded) -> Codesets (expanded) -> TechPubs (expanded) -> Codesets (selected). Under 'Codesets' (selected), there are two sub-items: 'Public(1.01)' and 'TechPubs(1.02)'. Below these, there is a 'Sub Cat 1' item. Under 'TechPubs1' (expanded), there is a 'Codesets' item. At the bottom of the page, there is a note: 'Note: Assigning/Removing codeset will reset workflow status of column(s) to initial stage'.

Assigning Codesets to Columns

The codesets are saved on the **Valid Values** tab.

Valid Values										
PropertiesData LineageImpact AnalysisMindmapAssociationsWorkflow LogValid ValuesDocuments Assign/Remove CodesetsExport to Excel										
#	Code Name	Code Value	Code Description	System Name/Env	Codeset Name	Version	Published Flag	Category Hierarchy	Created By	Created Date
1	Public	2	The code value for Public		Public	1.01	N	TechPubs	Administrator	2020-04-10 06:06: A
2	Admin	1	The code value for Admin		TechPubs	1.02	N	TechPubs	Administrator	2020-04-10 05:57: A

You can download the assigned codesets in the XLSX format. To download the assigned codesets, click **Export to Excel**.

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

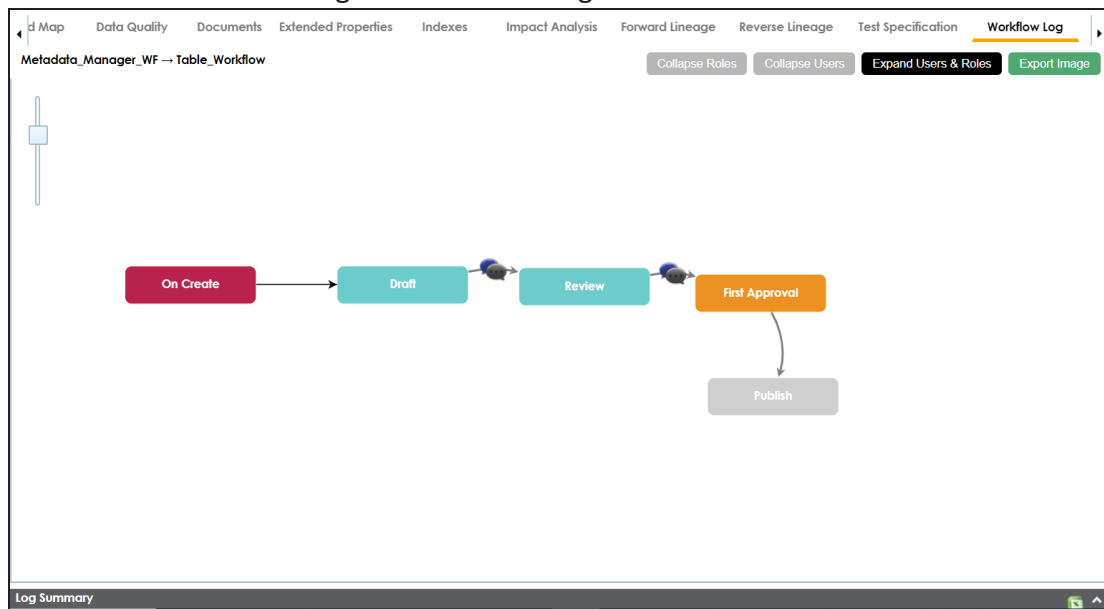
Viewing Workflow Logs of Tables

You can view workflow logs of a table in the Metadata Manager. It displays the current state of the table in the workflow. By default, the `Metadata_Manager_Default_Workflow_1` is assigned to all the tables. You can create your own workflow and assign it to tables. For more information, creating and assigning workflows to tables, refer to the [Managing Metadata Manager Workflows](#) section.

To view workflow log of tables, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a table.
4. In the central pane, click the **Workflow Log** tab.

The current workflow stage blinks in the diagram.



Use the following options:

User Comments

**Expand/Hide Users and Roles**

Use this option to view or hide users and roles assigned to the stages of the workflow.

Collapse/Expand Roles

This option is enabled when you are in the Expand Users and Roles view. Use this option to collapse or expand roles.

Collapse/Expand Users

This option is enabled when you are in the Expand Users and Roles view. Use this option to collapse or expand users.

Export Image

Use this option to download the workflow in the JPG format.

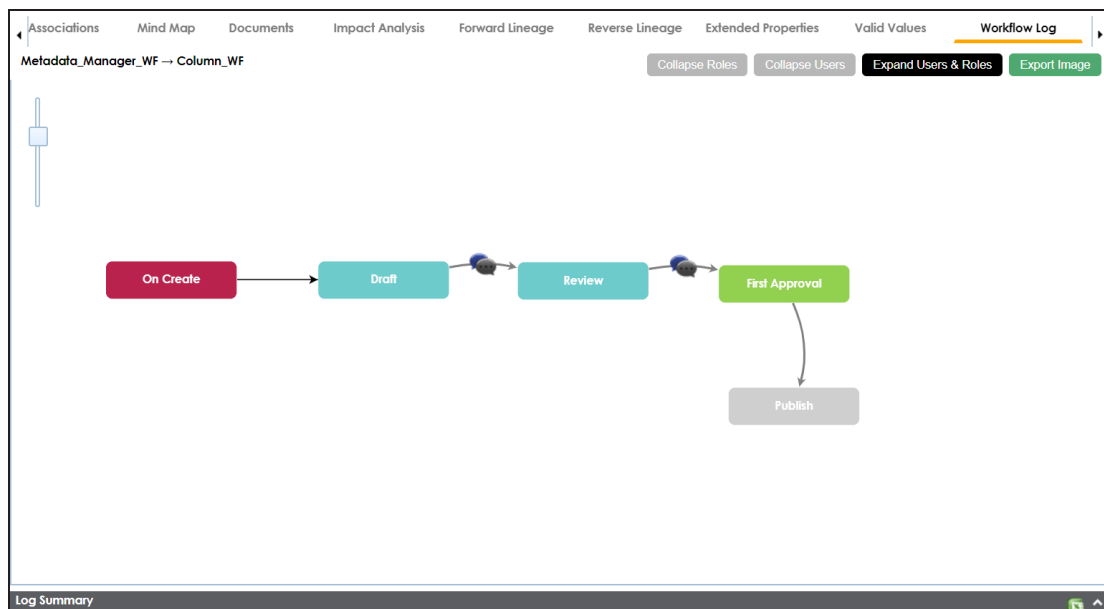
Viewing Workflow Logs of Columns

You can view workflow logs of a column in the Metadata Manager. It displays the current state of the column in the workflow. By default, the `Metadata_Manager_Default_Workflow` is assigned to all the columns. You can create your own workflow and assign it to columns. For more information, creating and assigning workflows to columns, refer to the [Managing Metadata Manager Workflows](#) section.

To view workflow log of columns, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a column.
4. In the central pane, click the **Workflow Log** tab.

The current workflow stage blinks in the diagram.



Use the following options:

User Comments

**Expand/Hide Users and Roles**

Use this option to view or hide users and roles assigned to the stages of the workflow.

Collapse/Expand Roles

This option is enabled when you are in the Expand Users and Roles view. Use this option to collapse or expand roles.

Collapse/Expand Users

This option is enabled when you are in the Expand Users and Roles view. Use this option to collapse or expand users.

Export Image

Use this option to download the workflow in the JPG format.

Associating Tables

You can associate tables with business assets, systems, environments, tables, and columns. You can also view mind map and association statistics.

Ensure that:

- Business assets are enabled. You can add custom business assets and enable them in [Business Glossary Manager Settings](#).
- Relationship between table and the asset type is defined. You can define associations and relationships in [Business Glossary Manager Settings](#).

To associate tables with asset types, follow these steps:

1. In the **Data Catalog** pane, click the required table.
2. In the central pane, click the **Associations** tab.
3. Select an asset type from the drop down.

Term Name	Description	Definition

No Records Found

4. Click **+**.

The Relationship Associations page appears.

Associating Tables

Current Context: [Group.AddressCountryRegionGroupBLWI](#)

Current Context Type: [Table](#)

Relationship Name:

Search (partial matches):

☐	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐					
☐	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
			3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association		

5. Select **Relationship Name** and the asset type.
If you know the term name, use the Search (partial matches) field to look up for it.
6. Click **Save**.

The asset is added to the table.

Impact Analysis

Mindmap

Associations

Workflow Log

Data Quality

Documents

Indexes

Test Specification

Business Term

Actions

Qualifier Name

Relationship Name

Term Name

Description

Definition

Catalog Name

Catalog Hierarchy

+

is associated with

3 -Hydroxyl End

LEN(D3)

The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.

Macroeconomics

Monetary Terms → Macroeconomics

+

is associated with

AAPM

LEN(D33)

American Association of Physicists in Medicine

International Society for Pharmaceutical Engineering - ISPE

Pharmaceuticals → International Society for Pharmaceutical Engineering - ISPE

Once you have created associations, you can use the following options under the **Actions** column:

Add Association (+)

Edit Association (✎)

Use this option to edit the association.

Delete Association (🗑)

Use this option to delete the association.

To view mind map, click the **Mindmap** tab. For more information on mind maps, refer to the [Viewing Mind Maps](#) topic.

You can associate multiple assets with tables and view the associations based on a qualifier view in the mind map. For more information, refer to the [Setting Up Associations Using Qualifiers](#) topic.

Associating Columns

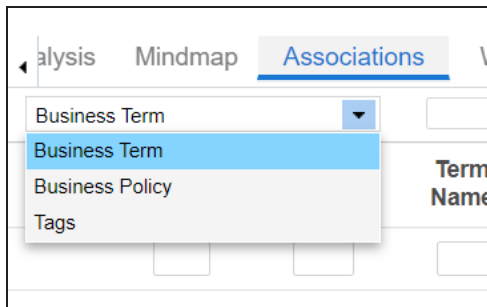
You can associate columns with business assets, systems, environments, tables, and columns. You can also view mind map and association statistics.

Ensure that:

- Business assets are enabled. You can add custom business assets and enable them in [Business Glossary Manager Settings](#).
- Relationship between column and the asset type is defined. You can define associations and relationships in [Business Glossary Manager Settings](#).

To associate columns with asset types, follow these steps:

1. In the **Data Catalog** pane, click the required column.
2. In the central pane, click the **Associations** tab.
3. Select an asset type from the drop down.



4. Click **+**.
The Relationship Associations page appears.

Associating Columns

Relationship Name: **is Represented By**

Current Context: **CitizenID**

Current Context Type: **Column**

Search (partial matches):

☐	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
☐			3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association representing		

Records from 1 to 200 of 10242

5. Select **Relationship Name**, and asset type.

If you know the term name, use the Search (partial matches) field to look up for it.

6. Click **Save**.

The asset is added to the column.

Associations								
☐	Actions	Qualifier Name	Relationship Name	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐	  		is Represented By	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
☐	  		is Represented By	ACTIS	LEN(D141)	AIDS Clinical Trials Information Service	International Society for Pharmaceutical Engineering - ISPE	Pharmaceuticals → International Society for Pharmaceutical Engineering - ISPE
☐	  		is Represented By	CURRENCY	COD Currency	COD Currency	Customer Master Catalog	Customer Master Catalog

Once you have created associations, you can use the following options under the **Actions** column:

Add Association (+)

Use this option to add associations using a qualifier.

Edit Association (✎)

Use this option to edit the association.

Delete Association (🗑)

Use this option to delete the association.

To view mind map, click the **Mindmap** tab. For more information on mind maps, refer to the [Viewing Mind Maps](#) topic.

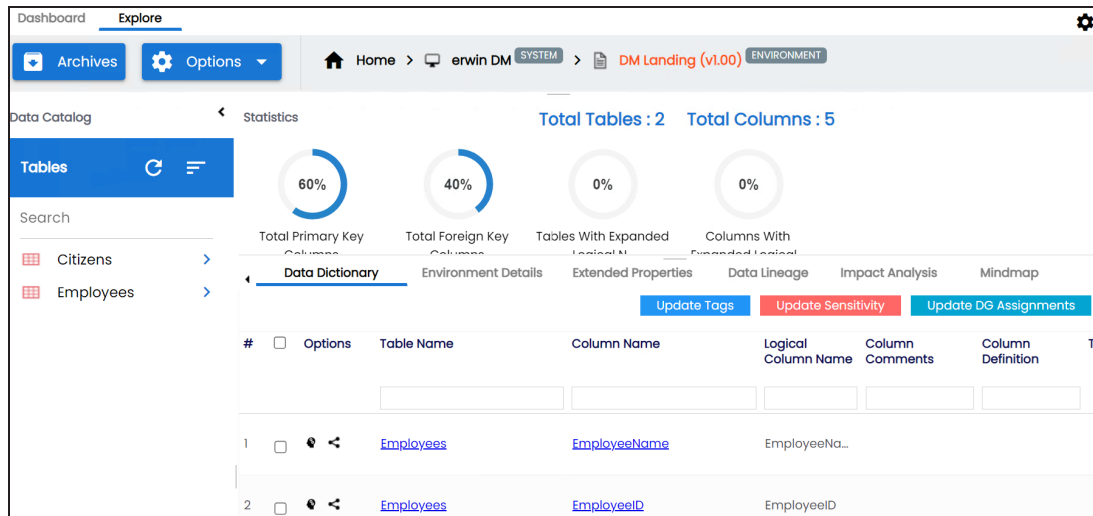
You can associate multiple assets with column and view the associations based on a qualifier view in the mind map. For more information, refer to the [Setting Up Associations Using Qualifiers](#) topic.

Updating Data Governance Assignments

You can update data governance and assign governance responsibilities for tables and columns in environments to users. The user-list appears as pick list values based on the roles group. Ensure that you [assign appropriate roles and users](#) to the environments containing technical assets.

To update data governance assignments, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
By default, the Data Dictionary tab opens.



The Data Dictionary tab displays tables and columns in an environment.

On the Data Dictionary tab, you can update the data governance responsibilities of the asset (s) as per the following:

- [Bulk](#)
- [Individual](#)

Bulk Update

You can update the sensitivity in bulk at [table](#) and [column](#) levels.

Table Level

To update the data governance responsibilities for tables in an environment, follow these steps:

1. On the **Data Dictionary** tab, select the required rows.
You can use the check box at top to select all the rows.
2. Hover over **Update DG Assignments**.

#	Options	Table Name	Column Name	Logical Column Name	Column Comments	Column Definition	Indicator
1	☒	Employees	EmployeeName	EmployeeNa...			🔒
2	☒	Employees	EmployeeID	EmployeeID			🔒
3	☒	Citizens	CitizenID	CitizenID			🔒
4	☐	Citizens	CitizenName	CitizenName			🔒

3. Click **Selected Table(s)**.
The Governance Responsibilities page appears. It displays roles groups based on the roles and users assigned to the environment.

Governance Responsibilities

Data Stewards

☒ **Append**
 This option will add the new assignments to the already existing assignments

☐ **Replace**
 This option will replace the already existing assignments with the currently selected assignments

Update DG Assignments For

Environment ☒

Column(s) ☒

4. Select the required user based on the role available.

Append

Use this option to add new assignments to the existing assignments.

Replace

Use this option to replace existing assignments.

6. To update the assignments to relevant columns and environment, use the following options under Update DG Assignment For:

Environment

Switch **Environment** to **YES** to apply the governance responsibilities to the environment containing the tables.

Column(s)

Switch **Column(s)** to **YES** to apply the governance responsibilities to the all the columns in the selected tables.

7. Click .

The data governance assignment is updated.

Column Level

To update the data governance responsibilities for columns in an environment, follow these steps:

1. On the **Data Dictionary** tab, select the required rows.
You can use the check box at top to select all the rows.

Updating Data Governance Assignments

Data Dictionary							
		Environment Details	Extended Properties	Data Lineage	Impact Analysis	Mindmap	
				Update Tags	Update Sensitivity	Update DG Assignments	
#	☐ Options	Table Name	Column Name	Logical Column Name	Column Comments	Column Definition	Indicator
1	☒	Employees	EmployeeName	EmployeeNa...			
2	☒	Employees	EmployeeID	EmployeeID			
3	☒	Citizens	CitizenID	CitizenID			
4	☐	Citizens	CitizenName	CitizenName			

3. Click **Selected Column(s)**.

The Governance Responsibilities page appears. It displays roles groups based on the roles and users assigned to the environment.

Governance Responsibilities

Data Stewards

☒ Append
This option will add the new assignments to the already existing assignments

☐ Replace
This option will replace the already existing assignments with the currently selected assignments

Update DG Assignments For

Environment

Tables(s)

4. Select the required user based on the role available.

5. Use the following options:

Append

Use this option to add new assignments to the existing assignments.

Replace

Use this option to replace existing assignments.

options under Update DG Assignment For:

Environment

Switch **Environment** to **YES** to apply the governance responsibilities to the environment containing the columns.

Table(s)

Switch **Column(s)** to **YES** to apply the governance responsibilities to the tables of the selected column.

7. Click .

The data governance assignment is updated.

Individual Asset Update

You can view and update the data governance responsibilities of technical assets (environments, tables, and columns) individually.

To view and update the data governance responsibility of technical assets individually, follow these steps:

- **Environment:**
The governance responsibility of an environment can be viewed under the Environment Details tab. You can [edit an environment](#), and governance responsibility individually.
- **Table:**
In the Data Catalog pane, you can click <Table_Name> to view and update the data governance responsibility. You can [edit the table](#) properties to update governance responsibility individually.
- **Column:**
Once you have selected a table, in the Data Catalog pane, you can click <Column_Name> to view and update the data governance responsibility. You can [edit the column](#) properties to update governance responsibility individually.

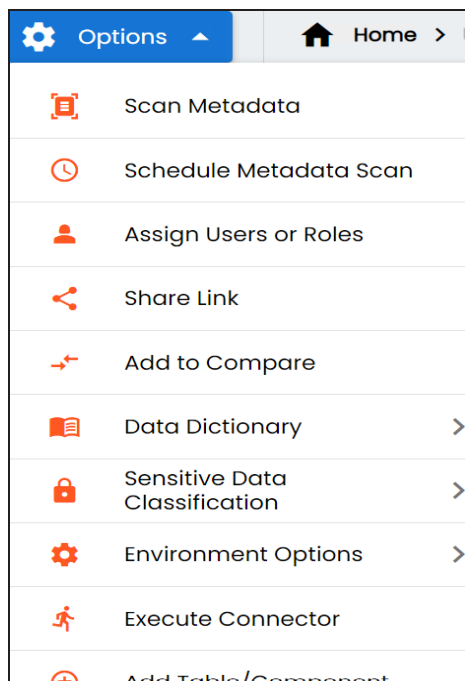
Versioning Environments

You can create versions of an environment and keep a legacy of old metadata. You can also track changes by comparing the two versions of the environment.

To create new versions of environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.
3. Click **Options**.

The available options appear.



4. Click **Environment Options > New Version**.

The New Version page appears.

Versioning Environments

Environment Name*

DM Landing

Version

1.01

Version Label

Change Description*



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
Environment Name	Specifies the name of the environment. For example, EDW-Test.
Version	Specifies the new version of the environment. For example, 1.02.
Version Label	Specifies the version label of the environment. For example, Beta. For more information on configuring version display of environments, refer to the Configuring Version Display topic.
Change Description	Specifies the description of the changes made in the environment. For example: A new table, EMP_Details was added in the environment.

6. Click .

A new version of the environment is created and stored in the environment tree.

[sions of the environment.](#)

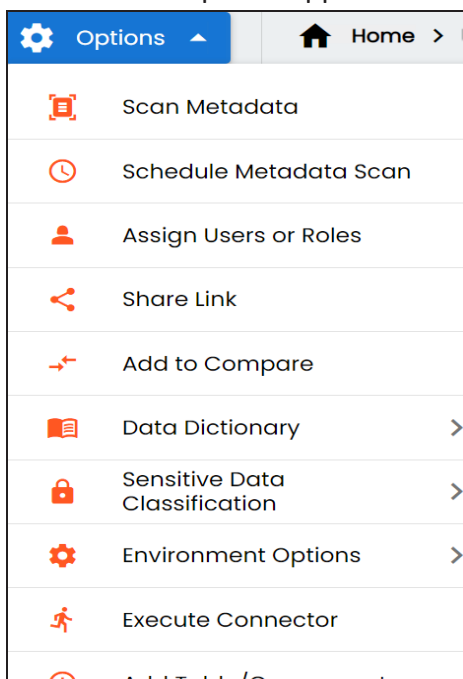
Comparing Environments

You can compare two environments and trace the table and column level changes. Comparing two environments enables you to debug scanned metadata and makes your data integration project efficient.

To compare environments, follow these steps:

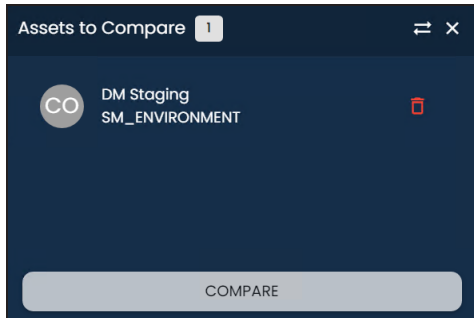
1. On the Explore tab, click an environment tile to view its details.
2. Click **Options**.

The available options appear.



Comparing Environments

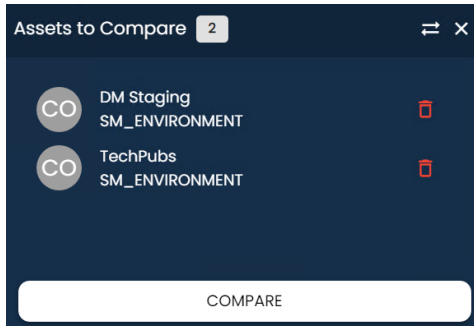
The Asset to Compare sheet appears and displays the environment for comparison.



4. Select a different environment to add it for comparison.

To add another environment, open an environment that you like to compare, follow steps 2 and 3.

This adds the environment for comparison.



You can click  to remove assets from the compare list.

5. Click **Compare**.

The Compare Environments page appears and displays side by side comparison of asset properties for the selected assets. By default, it opens the Table Level Changes tab.

Comparing Environments

Table Level Changes							
Column Level Changes							
#	Change Description	System Name	Environment	Table	Definition	Logical Name	Expanded Logical Name
1	Table Exists in one Environment and not the other	erwin DM	DM Staging(1.00)	Claim	A claim is a statement listing services rendered, the dates of services, and itemization of costs	Claim	
2	Table Exists in one Environment and not the other	erwin DM	DM Staging(1.00)	Claims Analysis	This information package analyzes claims by time, member, and claim.	Claims Analysis	
3	Table Exists in one Environment and not the other	erwin DM	DM Staging(1.00)	Date	Topic providing analysis context at the day / date	Date	

To view column level changes, on the **Compare Environments** page, click the **Column Level Changes** tab.

To download the comparison report, click .

Downloading Data Dictionaries

Once the metadata is scanned and stored in the repository, you can instantly view and export data dictionary at the environment and table levels.

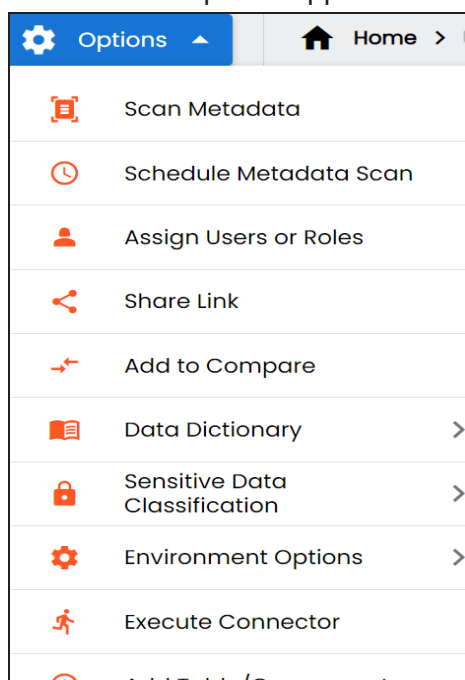
A data dictionary at environment level includes definitions of all the tables and columns available in the environment. Whereas, a data dictionary at table level includes the definitions of the table and its columns.

Environment Level

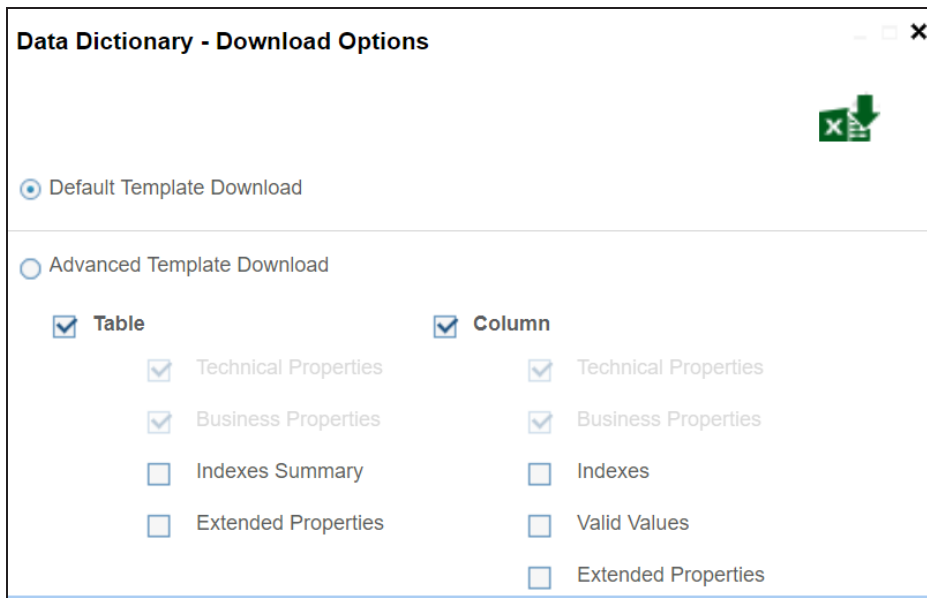
To download data dictionaries at environment level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. Click **Options**.

The available options appear.



The Data Dictionary-Download Options page appears.



Data Dictionary - Download Options

☒ Default Template Download

☐ Advanced Template Download

☒ Table	☒ Column
☒ Technical Properties	☒ Technical Properties
☒ Business Properties	☒ Business Properties
☐ Indexes Summary	☐ Indexes
☐ Extended Properties	☐ Valid Values
	☐ Extended Properties

5. Use the following options:

Default Template Download

Use this option to download the data dictionary in a default template. The default template includes technical and business properties of tables and columns.

Advanced Template Download

Use this option to download the data dictionary in an advanced template. You can customize an advanced template to include additional information, such as Indexes Summary, Extended Properties for Tables, Valid Values, and Extended Properties for columns.

6. Click .

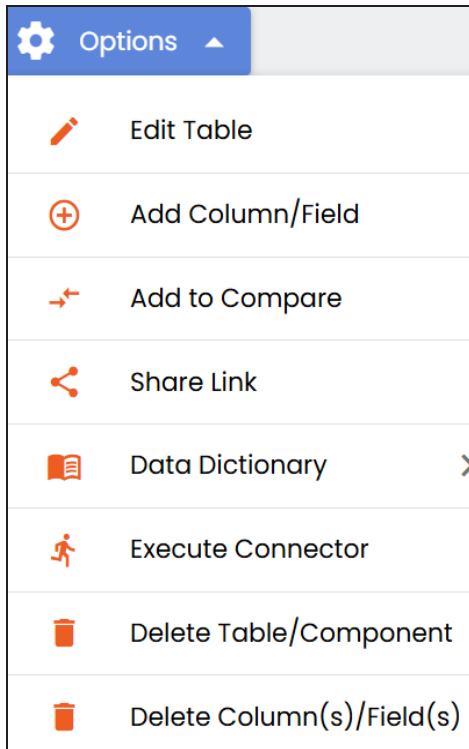
Data dictionary is downloaded in the XLSX format.

Table Level

To download data dictionaries at table level, follow these steps:

2. Click **Options**.

The available options appear.



3. Click **Data Dictionary > Download**.

The data dictionary of the selected table is downloaded in the XLSX format.

You can also [view data dictionary report](#) at system level and [update data dictionary](#) at environment level.

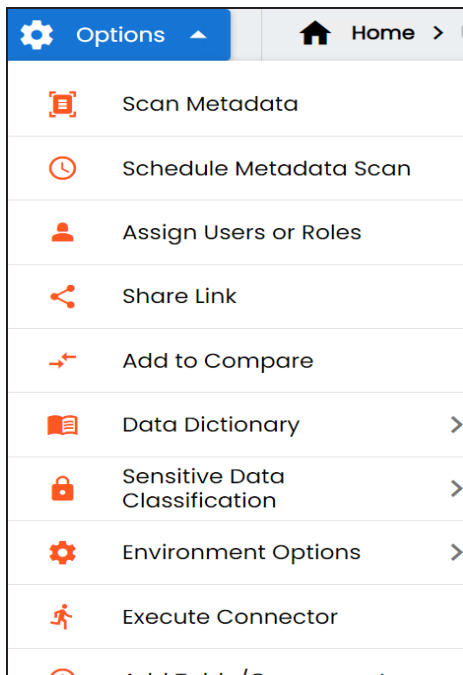
Uploading Data Dictionary

You can update and upload a data dictionary at the environment level in the XLSX format. To update data dictionary, you can either use an existing XLSX file or download a data dictionary file from a suitable environment. Ensure that the XLSX file follows the correct template. For more information on downloading a data dictionary in XLSX, refer to the [Downloading Data Dictionary](#) topic.

To upload data dictionaries at the environment level, follow these steps:

1. On the Explore tab, click an environment tile to see its details.
2. Click **Options**.

The available options appear.



3. Click **Data Dictionary > Upload**.

The Upload Metadata page appears.

Uploading Data Dictionary

Upload Metadata

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

☐ **Enable Header Selection**
Note: Checking this will allow users to select headers for excel.

☐ **Skip & Assume first row as header.**
Note: Checking this will preselect headers from excel and also will allow to change headers. (Uncheck if excel doesn't have header row).

Note: Upload Metadata will reset workflow status of table(s)/columns(s) to initial stage

4. Drag and drop the updated data dictionary file or use  to upload the file.

You can use the following options to select headers for the XLSX file:

Enable Header Selection

Use this option to select headers for the XLSX file. Select the checkbox and click .

The Upload Metadata page appears.

Excel Metadata Preview Screen **Please use first row (double click on NOT IN USE Cell) to set each column's identity!**

	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE
1	TABLE_NAME	TABLE_DEF	TABLE_SDI_FLAG	TABLE_SDI_CLASSIFICATION	TABLE_SDI_DESCRIPTOR	TABLE_COMMENTS	LOGICAL_TABLE_NAME	COLUMN_NAME
2	Citizens						Citizens	CitizenID
3	Citizens						Citizens	CitizenName
4	Citizens						Citizens	EmployeeID
5	Employees						Employees	EmployeeName
6	Employees						Employees	EmployeeID

To select headers, double-click the **NOT IN USE** cell.

Skip & Assume first row as header

Uploading Data Dictionary

selected. Use this checkbox to use the first row as header.

Select the checkbox and click .

The Upload Metadata page appears. The first row in the XLSX file appears as the header.

Excel Metadata Preview Screen Please use first row (double click on NOT IN USE Cell) to set each column's identity!									
	Table Name	Table Definition	Table SDI Flag	Table SDI Classificatio	Table SDI Description	Table Comments	Logical Table Name	Column Name	
1	Citizens						Citizens	CitizenID	
2	Citizens						Citizens	CitizenName	
3	Citizens						Citizens	EmployeeID	
4	Employees						Employees	EmployeeName	
5	Employees						Employees	EmployeeID	

To select alternate headers, double-click the header cell.

5. Click .

The data dictionary is updated at the environment level.

Viewing Data Dictionary Report

You can view a data dictionary report at the system level. The data dictionary report includes all the environments in the system and it can be exported in various formats, such as HTML, PDF, and MS Excel.

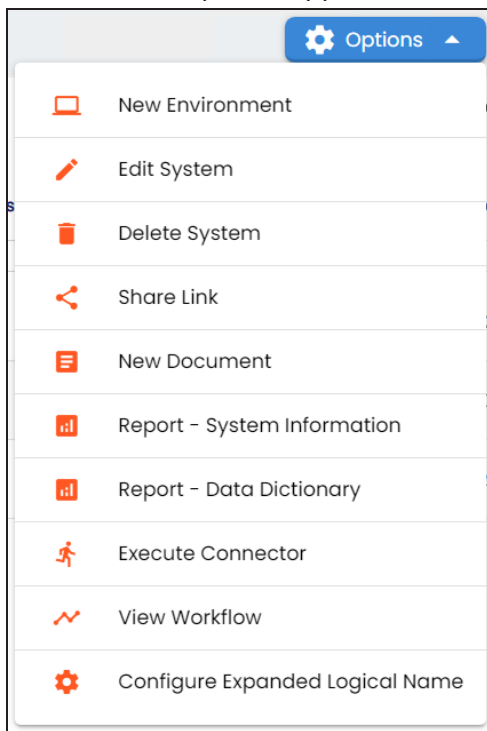


It is meaningful to view data dictionary report after scanning metadata into an environment.

To view data dictionary at system level, follow these steps:

1. On the Explore tab, hover over a system and click  to open.
2. Click **Options**.

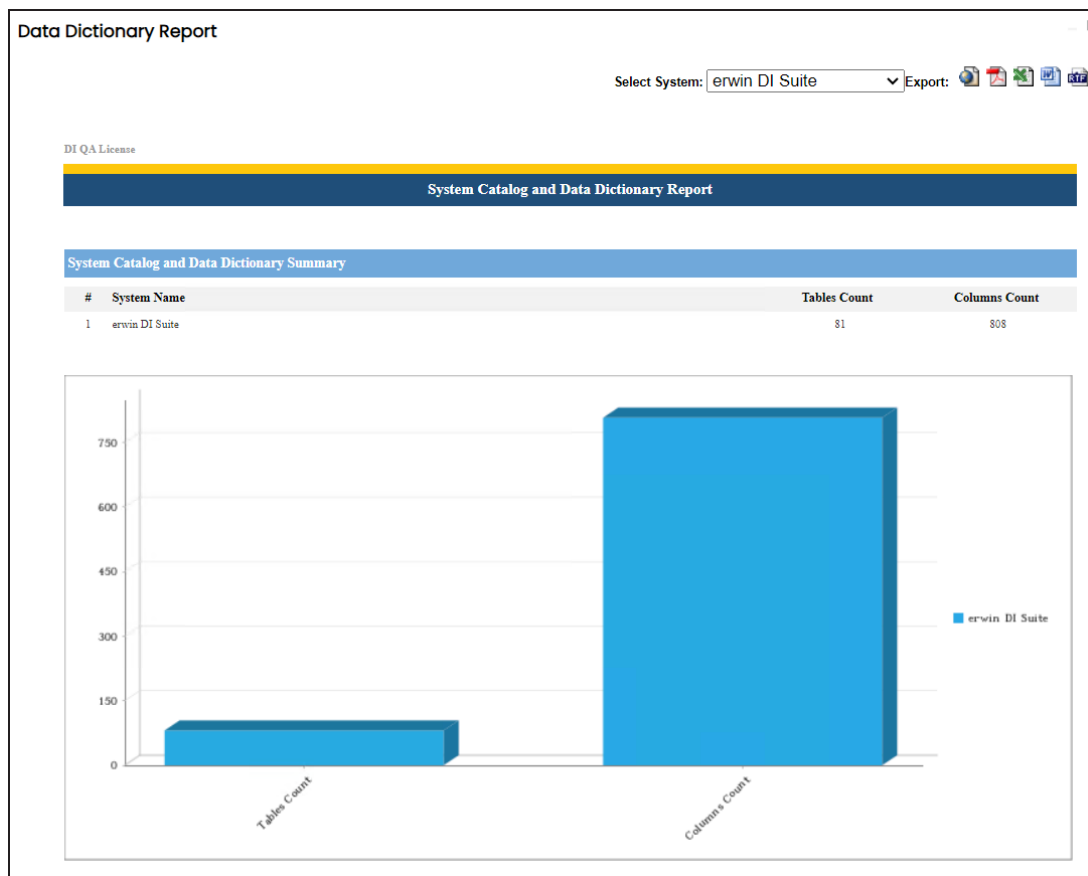
The available options appear.



3. Click **Report - Data Dictionary**.

Viewing Data Dictionary Report

tionary reports of any system.



Use the following options to export the data dictionary report:

HTML ()

Use this option to export the report in the HTML format.

PDF ()

Use this option to export the report in the PDF format.

MS Excel ()

Use this option to export the report in the XLSX format.

Viewing Data Dictionary Report

Microsoft Word (DOCX)

Use this option to export the report in the DOCX format.

RTF ()

Use this option to export the report in the RTF format.

Exporting and Importing Sensitive Data Classification

You can export and import sensitive data indicator (SDI) classification at metadata and environment levels via an MS Excel template.

This topic walks you through the following:

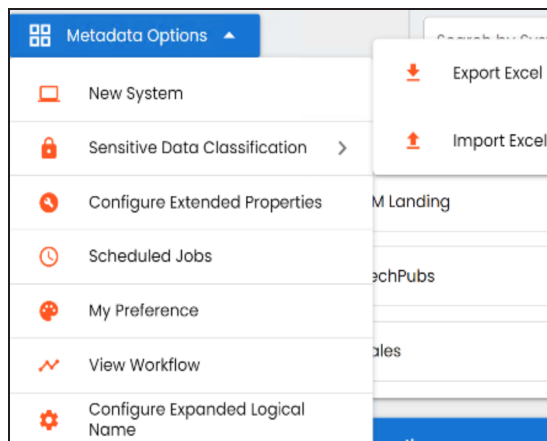
- [Exporting SDI at metadata level](#)
- [Exporting SDI at environment level](#)
- [Importing SDI](#)

Exporting SDI at Metadata Level

To export SDI at metadata level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. Click **Metadata Options** and select **Sensitive Data Classification**.

Options for sensitive data classification appear.



3. Click **Export Excel**.

The Export Sensitive Data Classification page appears.

Exporting and Importing Sensitive Data Classification

Export Sensitive Data Classification

System

Sensitive Only

Non-Sensitive Only

Sensitive & Non-Sensitive

Environment

Sensitive Only

Non-Sensitive Only

Sensitive & Non-Sensitive

Table

Sensitive Only

Column

Sensitive Only

Note:

This will export all classified and unclassified assets at the system and environment level and only classified assets at the table and column level.

Export

4. Use the following options to export SDI at based on assets:

System

Switch this option **ON** to export SDI for systems.

Use one of the following options:

- **Sensitive Only:** Use this option to export sensitive systems.
- **Non-Sensitive Only:** Use this option to export non-sensitive systems.
- **Sensitive & Non-Sensitive:** Use this option to export both sensitive and non-sensitive systems.

Environment

Switch this option **ON** to export SDI for environments.

Use one of the following options:

- **Non-Sensitive Only:** Use this option to export non-sensitive environments.
- **Sensitive & Non-Sensitive:** Use this option to export both sensitive and non-sensitive environments.

Table

Use this option to export SDI for tables. By default, a list of sensitive tables is exported.

Column

Use this option to export SDI for columns. By default, a list of sensitive columns is exported.

5. Click **Export**.

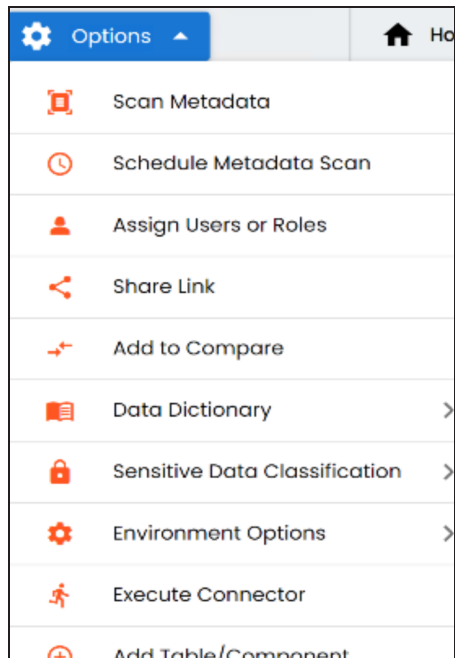
SDI classification report is downloaded in the XLSX format.

Exporting SDI at Environment Level

Similarly, to export SDI at environment level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile.

The available options appear.



4. From the environment options list, click **Sensitive Data Classification > Export Excel**.

The Export Sensitive Data Classification page appears.

Exporting and Importing Sensitive Data Classification

System

Sensitive & Non-Sensitive

Environment

Sensitive & Non-Sensitive

Table

Sensitive Only

Non-Sensitive Only

Sensitive & Non-Sensitive

Column

Sensitive Only

Non-Sensitive Only

Sensitive & Non-Sensitive

Export

5. Use the following options to export SDI based on assets:

System

Switch this option **ON** to export SDI for the associated system. By default, a list of both sensitive and non-sensitive system is exported.

Environment

Switch this option **ON** to export SDI for the environment. By default, a list of both sensitive and non-sensitive environment is exported.

Table

Switch this option **ON** to export SDI for tables in the environment.

Use one of the following options:

- **Sensitive Only:** Use this option to export sensitive tables.
- **Non-Sensitive Only:** Use this option to export non-sensitive tables.
- **Sensitive & Non-Sensitive:** Use this option to export both sensitive and non-sensitive tables.

Column

Exporting and Importing Sensitive Data Classification

Use one of the following options:

- **Sensitive Only:** Use this option to export sensitive columns.
- **Non-Sensitive Only:** Use this option to export non-sensitive columns.
- **Sensitive & Non-Sensitive:** Use this option to export both sensitive and non-sensitive columns.

6. Click **Export**.

System Data Classification is downloaded in the XLSX format.

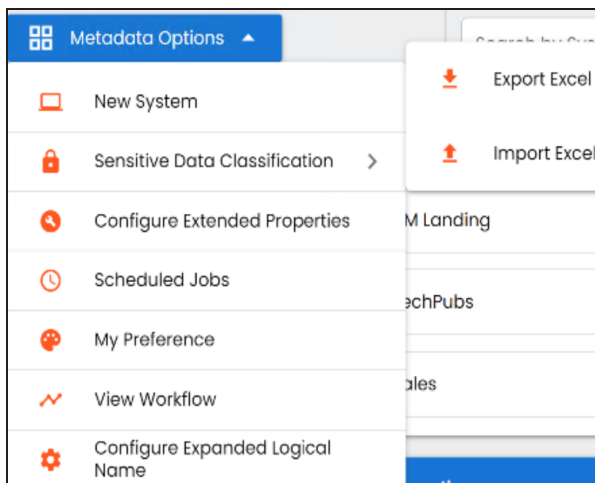
Importing Sensitive Data Classification

You can import SDI from an MS Excel template at system and environment levels.

To import SDI, follow these steps:

1. On the Explore tab, click **Metadata Options** and select **Sensitive Data Classification**.

Options for sensitive data classification appear.



Alternatively, to import SDI for environments, on the Explore tab, click an environment tile. Then, click **Options > Sensitive Data Classification**.

2. Click **Import Excel**.

The Import Sensitive Data Classification page appears.

Import Sensitive Data Classification

Import Excel
0.0B / 0.00%

Click the + button to browse or select the Excel file

Assets to Import

- System ☒
- Environment ☒
- Table ☒
- Column ☒

Import Options

☒ **Add New**
This option will add new classifications to the existing list of classifications.

☐ **Replace**
This option will replace the existing classifications with the new set of classifications.

Import

3. Use the following options:

Import Excel

Use this section to import MS Excel file containing SDI classification for systems and environments. Click  to browse and select a file.

Assets to Import

Use these options to select the asset types for which you want to import SDI classification.

Import Options

- **Add New:** Use this option to add new classifications to an existing list.
- **Replace:** Use this option to replace existing classifications with new ones.

4. Click **Import**.

Sensitive data classification is imported.

Running Impact Analysis

After mapping source metadata to target metadata, you can run impact analysis on technical assets. Impact analysis helps you understand upstream and downstream dependencies of technical assets and their impacts linked to business assets. It helps you assess the impact of transformations and source or target-level changes.

Apart from this you can also, view lineages based on selected assets and export its impact analysis.

You can run impact analysis at the following levels:

- [System](#)
- [Environment](#)
- [Table](#)
- [Column](#)

Systems and Environments

You can perform impact analysis on environments and systems and analyze their impact as source and target.

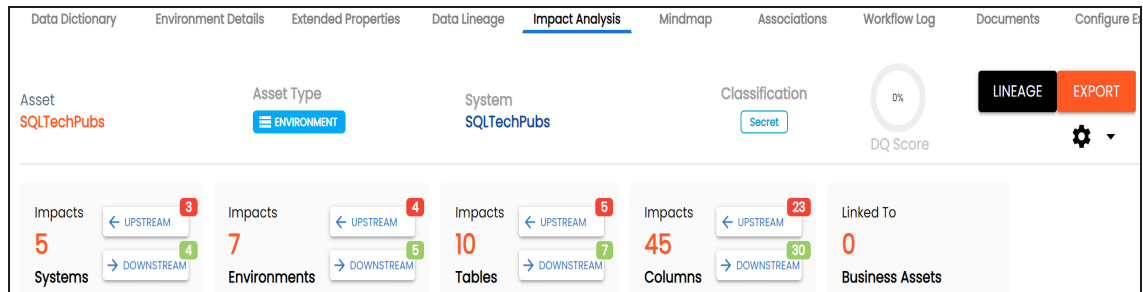
This topic walks you through the steps to view impact analysis of environments. Similarly, you can view impact of systems, [tables](#), and [columns](#).

To view impact analysis at system or environment levels, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. Click the **Impact Analysis** tab.

Impact analysis for the environment appears.

It displays the asset hierarchy, sensitivity data indicator (SDI) classification, data quality analysis, and environment's impact based on related assets in your metadata.



Alternatively, click  to switch the **Overview Impact** option **ON** to exclude non-existent systems and environments from the impact analysis. When this option is switched off, the view includes systems and environments that do not exist in the Metadata

Systems and Environments

0%

DQ Score

LINKAGE

EXPORT

⚙️

▲

Linked To

0

Business Assets

Overview Impact

Includes only Metadata Assets

4. On the Environments card, click **Downstream**.

The downstream dependencies of the environment appear in a grid format.

Impacts 6 Systems 4 UPSTREAM 4 DOWNSTREAM 4

Impacts 8 Environments 5 UPSTREAM 5 DOWNSTREAM 5

Impacts 11 Tables 6 UPSTREAM 6 DOWNSTREAM 7

Impacts 47 Columns 25 UPSTREAM 25 DOWNSTREAM 30

Linked To 0 Business Assets

Upstream (5)

Downstream (5)

#	System Name	Environment Name	Project	Subject Area	Mapping
1	SQL System	TechPubs	Test		TestingBugs
2	Salesforce	TechPubs	Project		SalesforceIntegration
3	SQL System	Northwind	Lineage Demo		FlowTest
4	Oracle	TechPubs	erwinDIS		erwinSalesIntegration

1-5 of 5 < >

Similarly, you can view upstream dependencies on the Upstream tab.

5. On the Upstream or Downstream tab, click an asset to view its lineage or impact analysis. For more information on running lineage analysis on assets, refer to the [Running](#)

Systems and Environments

Upstream (5)		Downstream (5)	
#	System Name	Environment Name	Project
1	SQL System	TechPubs	TestingBugs
2	SQLTechPubs	Lineage Impact Analysis	TestingBugs
3	SQL System		Flow Test
4	Oracle	TechPubs	erwinSalesIntegration

You can also view the upstream and downstream dependencies of other impacted assets from selected environment's perspective. For example, the image below displays upstream system dependencies from the environment's perspective.

Impacts

6

← UPSTREAM

4

Systems

→ DOWNSTREAM

4

Impacts

8

← UPSTREAM

5

Environments

→ DOWNSTREAM

5

Impacts

11

← UPSTREAM

6

Tables

→ DOWNSTREAM

7

Impacts

47

← UPSTREAM

25

Columns

→ DOWNSTREAM

30

Linked To

0

Business Assets

Upstream (4)

Downstream (4)

#	System Name	Project	Subject Area	Mapping
1	SQL System	erwinDIS		TechPubsBUGTrial
2	TABLEUAU	erwinDIS		Data Integration
3	SQLTechPubs	Test		TestingBugs
4	erwinDoc	erwinDIS		Data Integration

Additionally, you can use the following options:

Lineage

Use this option to view lineage based on the asset type.

Export

Use this option to export the impact analysis in the XLSX format.

Tables and Columns

You can perform impact analysis on tables and columns, and analyze their impact as source and target.

This topic walks you through the steps to view impact analysis of tables. Similarly, you can view impact of [systems](#), [environments](#) and columns.

A table can be a source, target, or both in a mapping specification. It can also be used for transformations, such as business rules and lookups in a mapping project. Impact analysis helps you identify these impacts of the table on mapping projects.

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

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. In the **Data Catalog** pane, click a table.
4. Click the **Impact Analysis** tab.

Impact analysis of the table appears.

It displays the asset hierarchy, sensitivity data indicator (SDI) classification, data quality analysis, and table's impact based on related assets in your metadata.



Alternatively, click  to switch the **Overview Impact** option **ON** to exclude non-existent systems and environments from the impact analysis. When this option is switched off, the view includes systems and environments that do not exist in the Metadata

Tables and Columns

0%
DQ Score

LINEAGE EXPORT

Linked To
0
Business Assets

Overview Impact
☒ Includes only Metadata Assets

- On the Tables card, click **Upstream**.

The upstream dependencies of the environment appear in a grid format.

Impacts 4 Systems 2

Impacts 4 Environments 2

Impacts 4 Tables 2

Impacts 21 Columns 14

Has 32 Other Impacts 32

Linked To 0 Business Assets

Upstream (2) Downstream (2)

#	System Name	Environment Name	Table Name	Project	Subject Area	Mapping
1	TABLEUAU	PRESENTATION LAYER	Account	Test		Data Integration
2	erwinDoc	erwinDOC	CustDetails	erwinDIS		Data Integration

Similarly, you can view downstream dependencies on the Downstream tab.

- On the Upstream or Downstream tab, click an asset to view its lineage or impact analysis. For more information on running lineage analysis on assets, refer to the [Running](#)

Tables and Columns

Upstream (5)		Downstream (5)	
#	System Name	Environment Name	Project
1	SQL System	TechPubs	TestingBugs
2	SQLTechPubs	Lineage Impact Analysis	TestingBugs
3	SQL System		Flow Test
4	Oracle	TechPubs	erwinSalesIntegration

Use the Other Impacts tile, and click one of the following to view them:

- Business rules
- Source Extract SQL
- Lookups

For example, the image below displays the In Lookups tab with lookup conditions that impacts the asset type. Also, you can switch between In Source Extract SQL and In Business Rules tabs to view relevant impacts.

Impacts 4

← UPSTREAM 2

→ DOWNSTREAM 2

Systems

Impacts 4

← UPSTREAM 2

→ DOWNSTREAM 2

Environments

Impacts 4

← UPSTREAM 2

→ DOWNSTREAM 2

Tables

Impacts 21

← UPSTREAM 7

→ DOWNSTREAM 14

Columns

Has 32

TRANSFORMATION RULES 0

EXTRACT SQL 0

Other Impacts 32

LOOKUPS 32

Linked To 0

Business Assets

In Transformation Rules (0)

In Source Extract SQL (0)

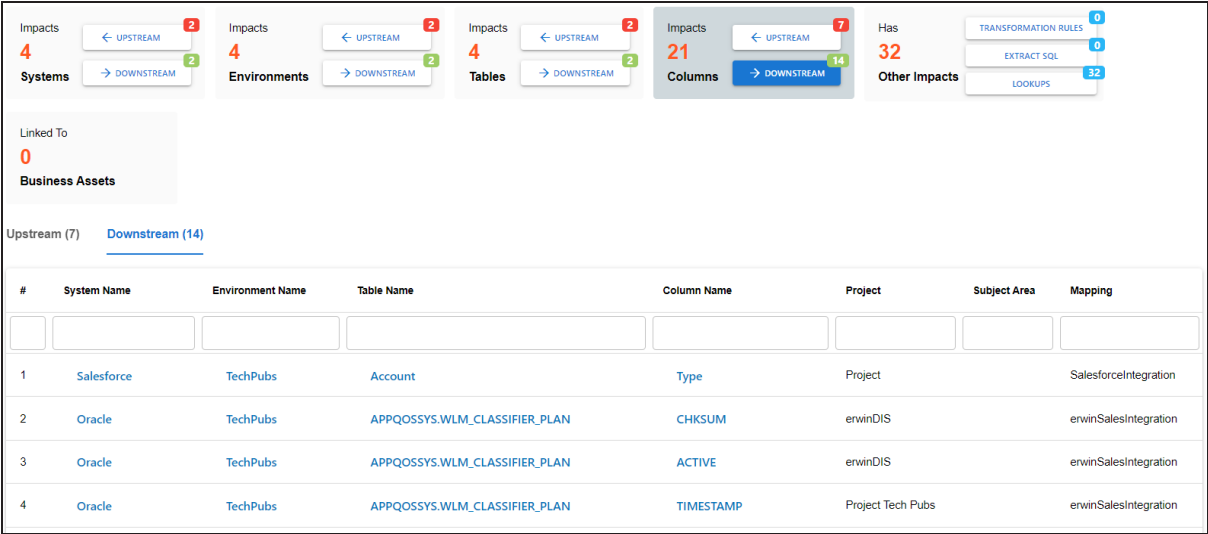
In Lookups (32)

Source Table	Source Column	Lookup Condition
dbo. Customers		SELECT CompanyName FROM dbo. Customers WHERE CompanyName = dbo. Customers.CompanyName
dbo. Customers		SELECT ContactName FROM dbo. Customers WHERE ContactName = dbo. Customers.ContactName
dbo. Customers		SELECT ContactTitle FROM dbo. Customers WHERE ContactTitle = dbo. Customers.ContactTitle
dbo. Customers		SELECT CustomerID FROM dbo. Customers WHERE CustomerID = dbo. Customers.CustomerID

Tables and Columns

Yo

from selected tablet's perspective. For example, the image below displays upstream column dependencies from the table's perspective.



Additionally, use the following options:

Lineage

Use this option to view lineage based on the asset type.

Export

Use this option to export the impact analysis in the XLSX format.

Running Lineage Analysis

After mapping source metadata to target metadata, you can run the lineage analyzer in Metadata Manager. The generated lineage report helps you trace the data's origin, its transformations, and its destination after source to target mappings.

You can run the lineage at the following levels:

- [System](#)
- [Environment](#)
- [Table](#)
- [Column](#)

System

You can run forward and reverse lineage analysis to trace metadata at the system level. Forward lineage analysis generates lineage with the system as source. Whereas reverse lineage analysis generates lineage with the system as target. The Dual Lineage analysis generates a lineage, which includes both forward and reverse lineage.

This topic walks you through the following:

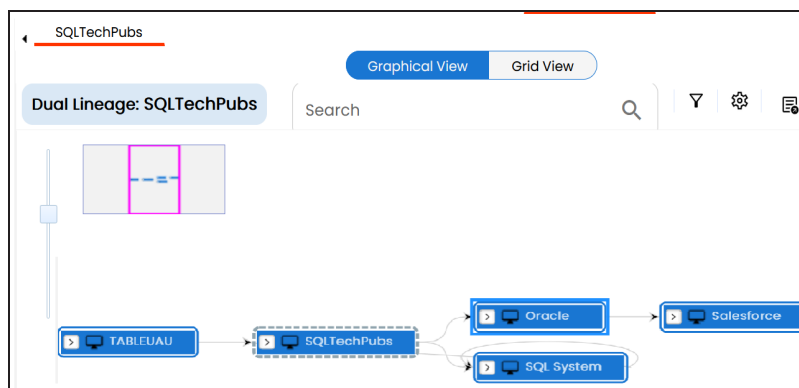
- [Viewing Lineage](#)
- [Working on Lineage](#)

Viewing Lineage

To run lineage at the system level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, hover over the system card and click .
3. Click the **Data Lineage** tab.

By default, the dual lineage of the system appears in Graphical View.



You can click **Graphical View** or **Grid View** to switch between them:

System

ical format. Selecting a system on the graphical view displays its Legends. Hovering over a system displays an **i** icon. Clicking this icon opens the object's properties.

The screenshot shows the 'Graphical View' of a lineage diagram titled 'Dual Lineage: SQLTechPubs'. The diagram illustrates data flow from 'TABLEAU' to 'SQLTechPubs', which then connects to 'Oracle' and 'Salesforce'. The 'Oracle' system is expanded to show 'TechPubs'. On the right, the 'Metadata Properties' panel is open, displaying tabs for 'Business', 'Technical', and 'Extended Properties'. The 'Business' tab is active, showing 'Sensitive Data Indica...' and a 'Data Steward' field.

Grid View: The grid view displays the lineage of a systems in a tabular format. You can view the source and target system associated with the selected system.

SQLTechPubs

Graphical View Grid View

Dual Lineage: SQLTechPubs

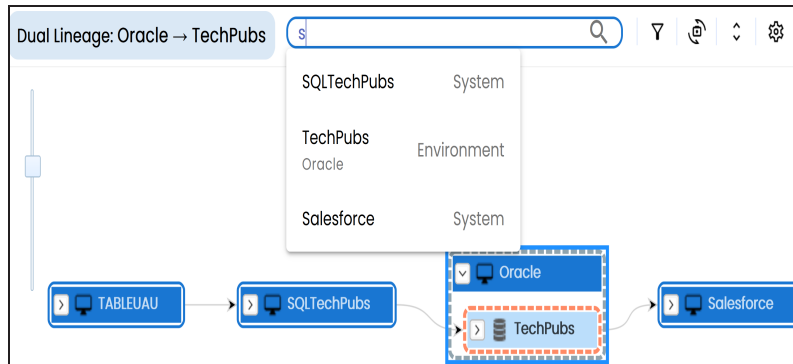
#	Source System Name	Target System Name
1	TABLEAU	SQLTechPubs
2	Informatica	Informatica
3	SQL System	SQL System
4	SQL System	SQLTechPubs
5	erwin DM	erwin DM
6	SAP	SAP

Use the following options to work on the lineage in graphical view:

Search (🔍)

Use this option to search for systems that you want to see on the lineage.

lineage.



Filter Objects ()

Use this option to filter and display required systems in the lineage view.

Filter Objects



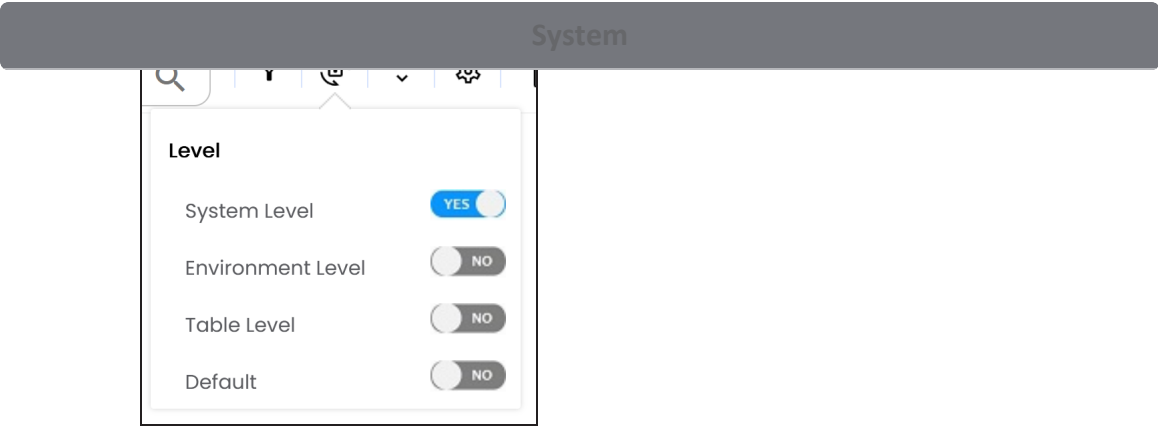

- ☒ TABLEUAU
- ☐ SQLTechPubs
- ☐ Oracle
- ☒ Salesforce

The unselected objects are replaced with black dots on the lineage diagram.



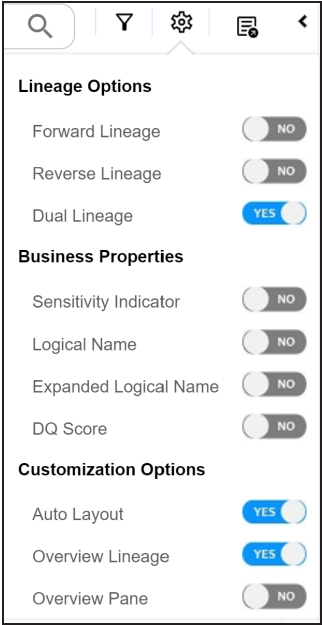
Switch View ()

Double-click an object to see Switch View option. Use this option to switch the level of objects displayed and see the system, environment, or table in which the object is located.



Options (⚙️)

Use this option to view lineage types, business properties, and customizations options. For more information on lineage options, refer to the [Working on Lineage](#) section.



Exports (📄)

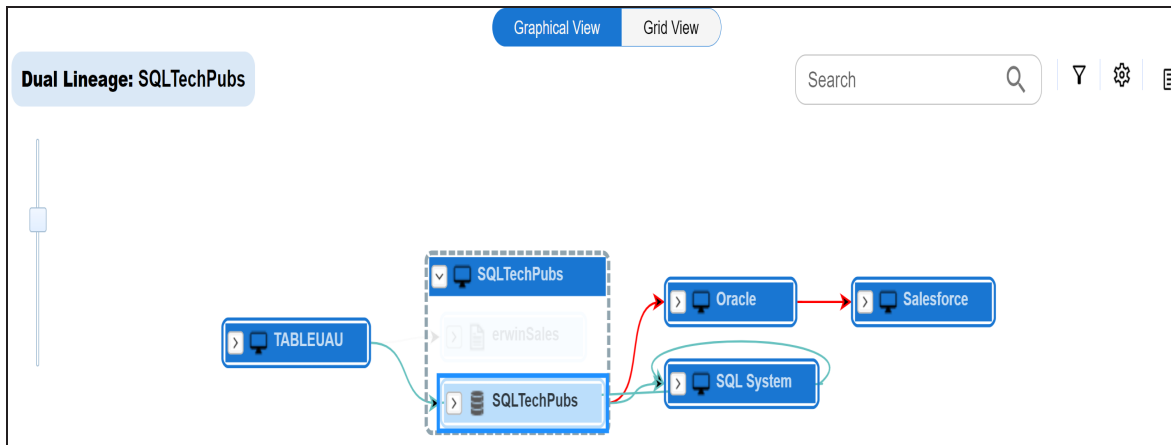
Use this option to export the lineage. Click 📄 and use the following options:

System

format. Ensure that you expand the required nodes in a lineage before downloading the lineage as image.

- **PDF** (📄): Use this option to download the lineage report in the .PDF format. Ensure that you expand the required nodes in a lineage before downloading the lineage report as PDF.
- **Excel** (📊): Use this option to download the lineage report in the .XLSX format. Ensure that you expand the required nodes in a lineage before downloading the report.

On the lineage, expand a system node and select an environment to view its lineage path. The environment is highlighted in orange color, its forward lineage path in red color, and its reverse lineage path in blue color. Systems that are not part of lineage path disappear.



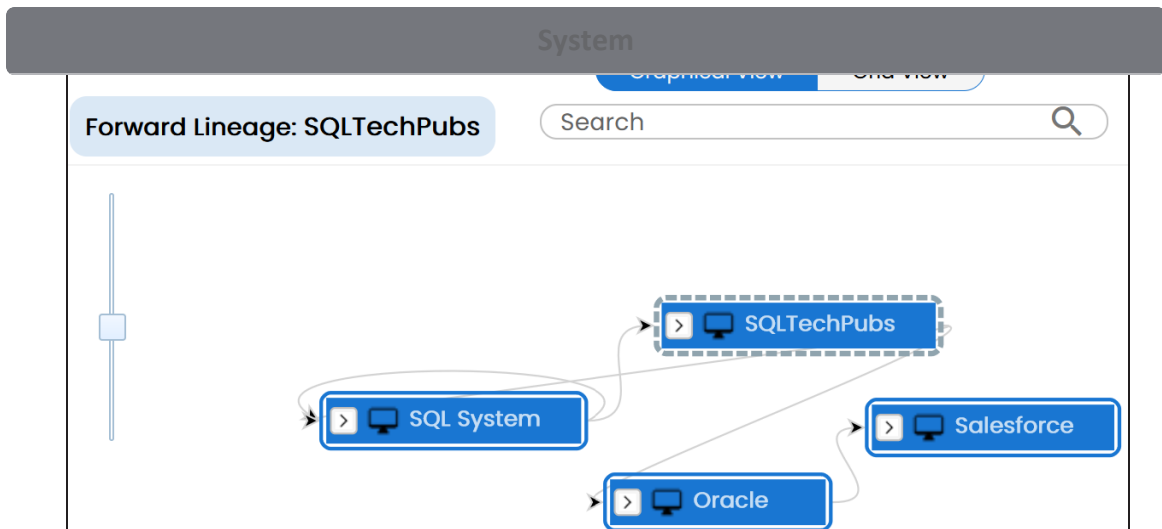
Right-click a path around the selected object to highlight its path of the source or target in the lineage.

Working on Lineage

Use the following options to work on lineage:

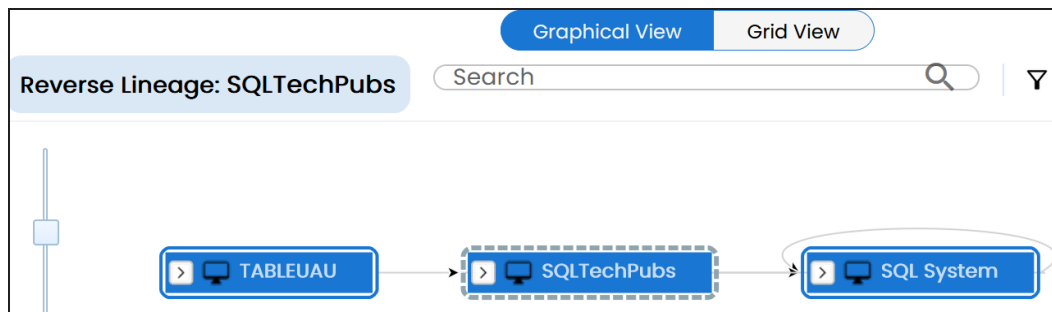
Forward Lineage

Use this option to view forward lineage of the system.



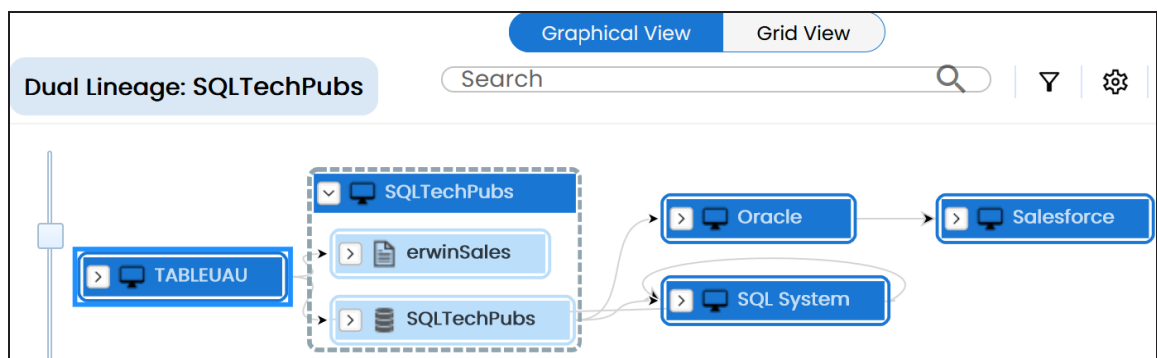
Reverse Lineage

Use this option to view reverse lineage of the system.

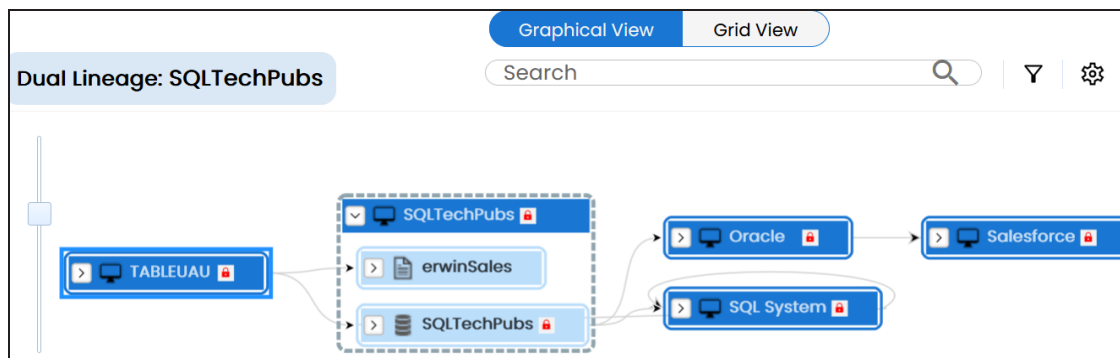


Dual Lineage

Use this option to view dual lineage, which includes both forward and reverse lineage of the system.



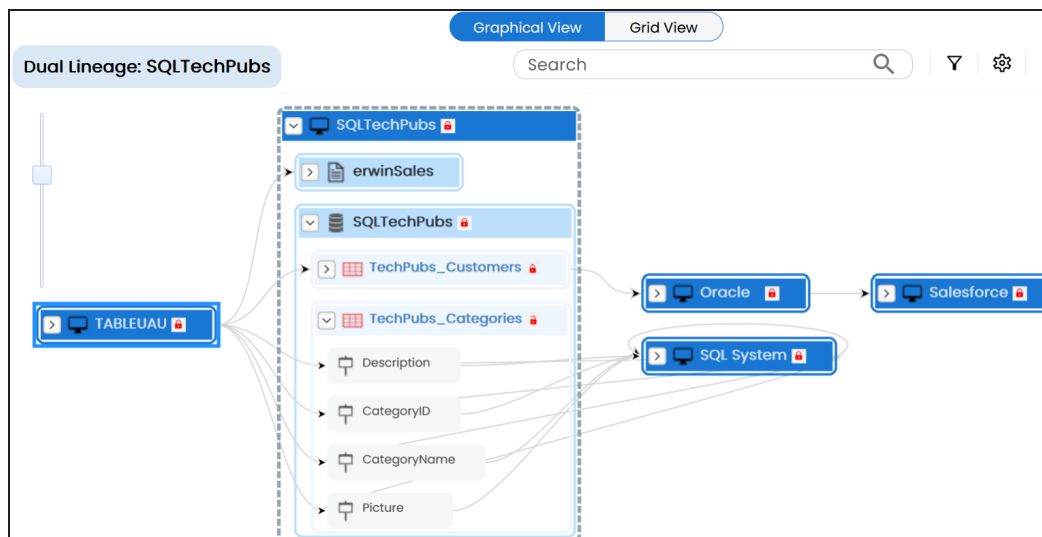
Use this option to view sensitivity of the environments in the lineage. You can expand a system node to view sensitive environments. The sensitive system and environments are indicated using .



Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments and tables.

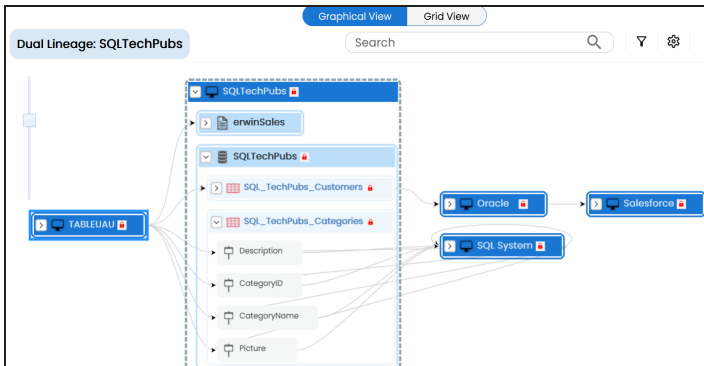
For example, the following image displays the table's logical name in the lineage.



Ex

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments, tables, and columns. For more information, on configuring expanded logical name of a system, refer to the [Configuring Expanded Logical Name](#) topic.

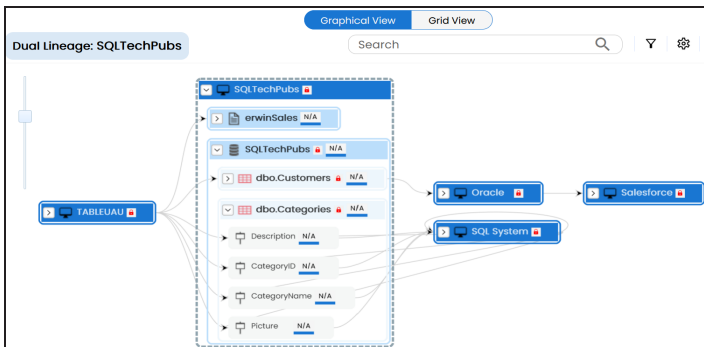
For example, the following image displays the table's expanded logical name in the lineage.



DQ Tool Score

Use this option to view the data quality score of the environments, tables, and columns in the lineage. You can expand a system node to view data quality scores for environments, tables, and columns.

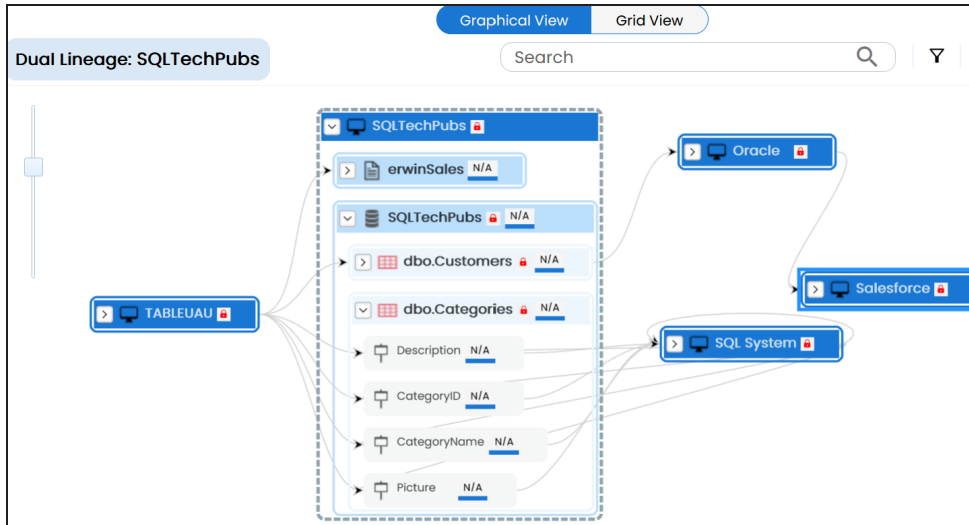
For example, the following image displays the data quality score in the lineage.



Auto Layout

System

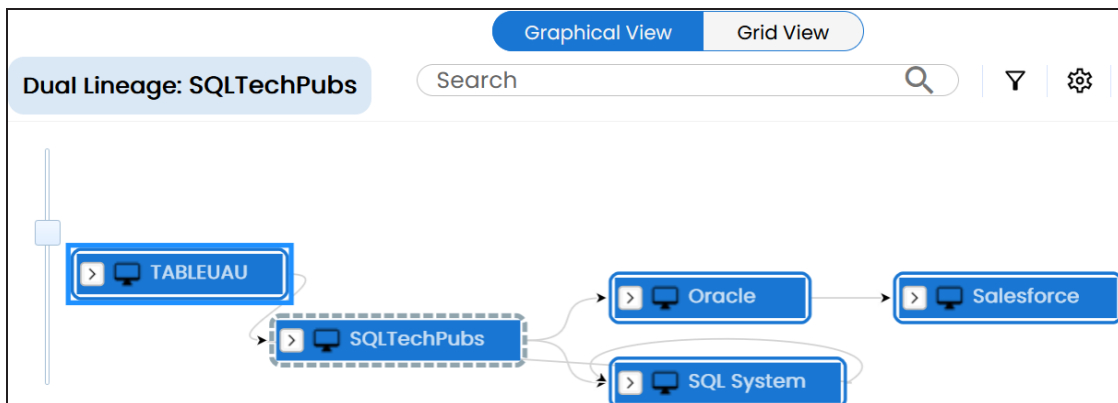
For example, the following image displays the rearranged object layout with respect to the previous screenshot.



Overview Lineage

Use this option to view the lineage excluding systems and environments that do not exist in the Metadata Manager. When this option is switched off, the views include systems and environments, that do not exist in the Metadata Manager.

For example, the following image displays lineage excluding assets that do not exist in Metadata Manager.



Use this option to remove the overview pane from the graphical view.

Environment

You can run forward and reverse lineage analysis to trace metadata at the environment level. Forward lineage analysis generates lineage with the environment as source. Whereas reverse lineage analysis generates lineage with the environment as target. The Dual Lineage analysis generates lineage, which includes both forward and reverse lineage.

This topic walks you through the following:

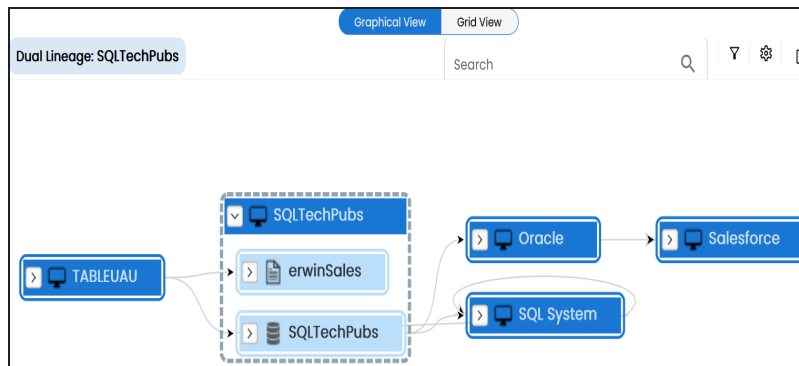
- [Viewing Lineage](#)
- [Working on Lineage](#)

Viewing Lineage

To run lineage at the environment level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. Click the **Data Lineage** tab.

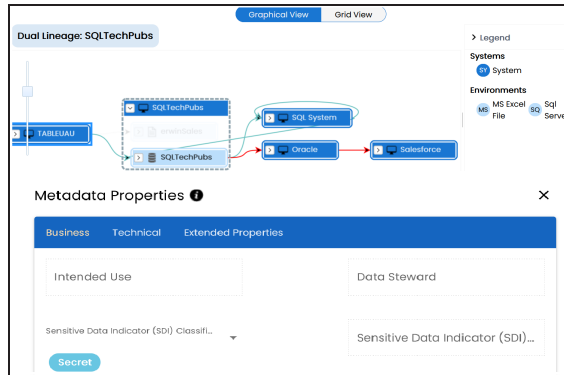
By default, dual lineage of the environment appears in Graphical View.



4. You can click **Graphical View** or **Grid View** to switch between them:

- **Graphical View:** The graphical view displays the lineage of the environment in a graphical format. Selecting an environment on the graphical view displays its

opens the object's properties.



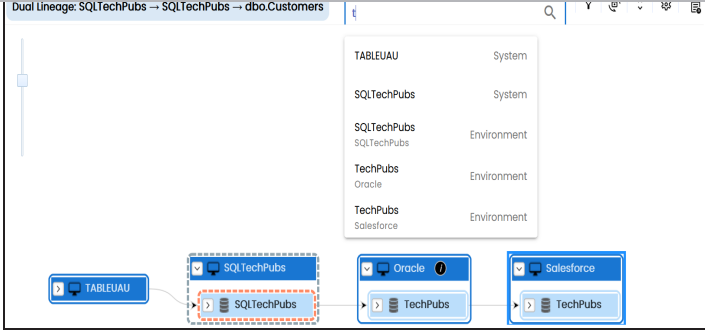
Grid View: The grid view displays the lineage of the environment in a tabular format. You can view the source and target system and environment associated with the selected environment.

#	Source System Name	Source Environment Name	Target System Name	Target Environment Name
1	SQLTechPubs	SQLTechPubs	SQL System	TechPubs
2	SQL System	Northwind	SQL System	Northwind
3	SQL System	TechPubs	SQL System	Northwind
4	SQLTechPubs	SQLTechPubs	Oracle	
5	TABLEUAU		SQLTechPubs	SQLTechPubs

Use the following options to work on the lineage in graphical view:

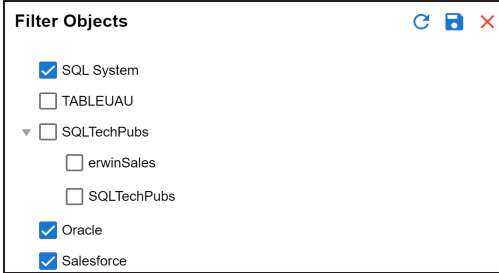
Search (🔍)

Use this option to search for environments that you want to see on the lineage. Type in the search box to see a list of related environments that are available on the lineage.

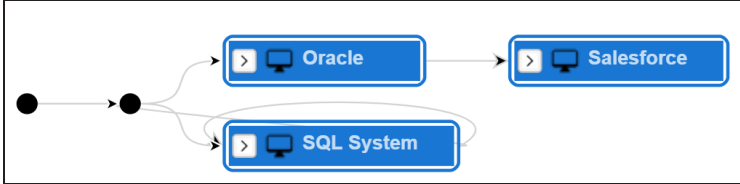


Filter Objects ()

Use this option to filter and display required environments in the lineage view.

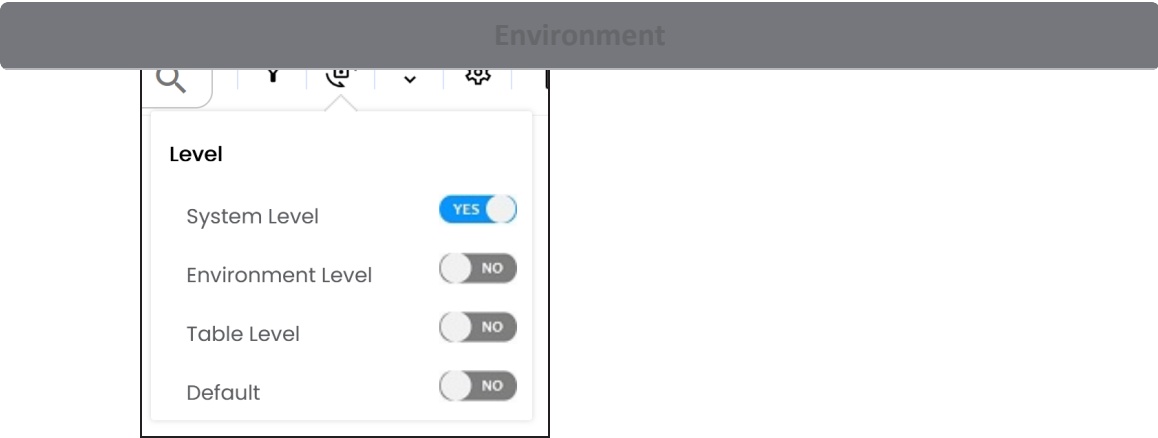


The unselected objects are replaced with black dots on the lineage diagram.



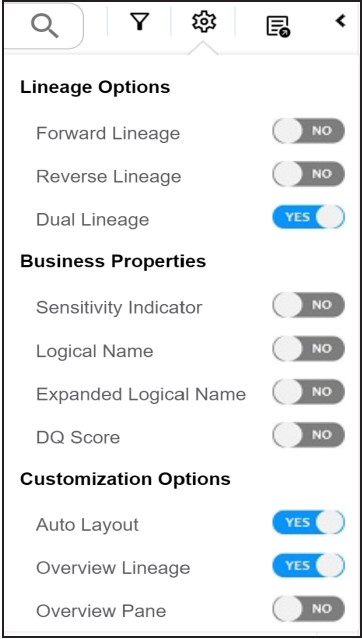
Switch View ()

Double-click an object to see Switch View option. Use this option to switch the level of objects displayed and see the system, environment, or table in which the object is located.



Options (⚙️)

Use this option to view lineage types, business properties and customizations options. For more information on lineage options, refer to the [Working on Lineage](#) section.



Exports (📄)

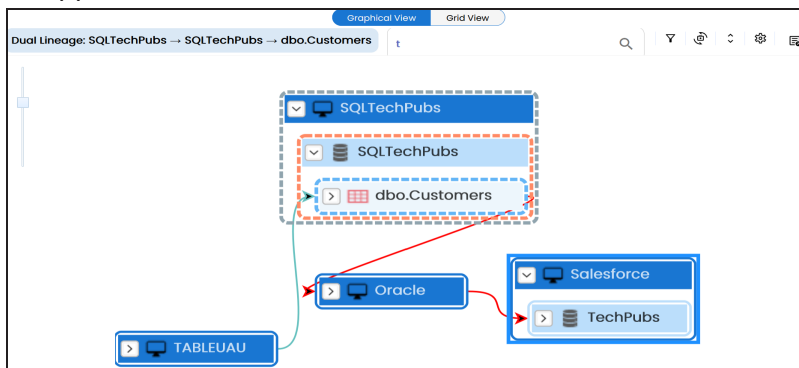
Use this option to export the lineage. Click 📄 and use the following options:

Environment

format. Ensure that you expand the required nodes in a lineage before downloading the lineage as image.

- **PDF (📄):** Use this option to download the lineage report in the .PDF format. Ensure that you expand the required nodes in a lineage before downloading the lineage report as PDF.
- **Excel (📊):** Use this option to download the lineage report in the .XLSX format. Ensure that you expand the required nodes in a lineage before downloading the report.

On the lineage, expand a system node, and select a table to view its lineage path. The environment is highlighted in blue color, its forward lineage path appears in red, and its reverse lineage path appears in blue. Systems and environments that are not part of a lineage path disappear.



Right-click a path around the selected object to highlight its path of the source or target in the lineage.

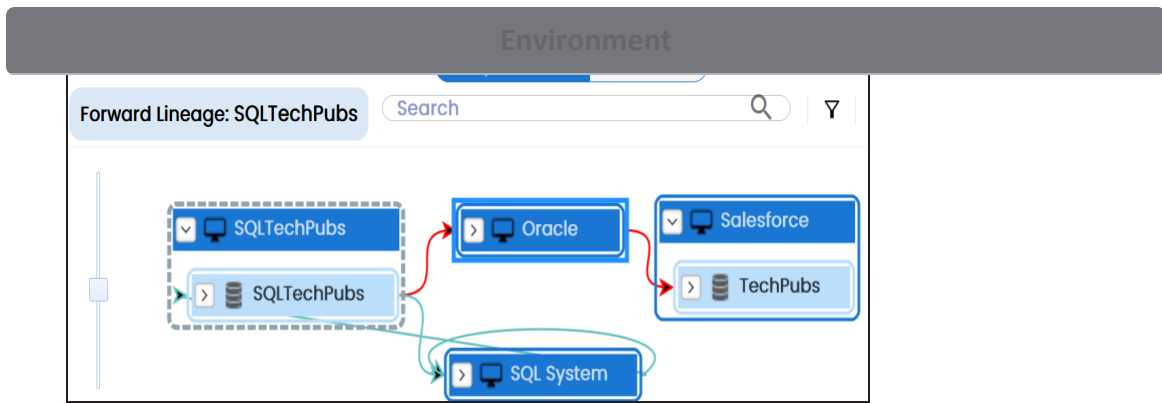
Working on Lineage

Lineage of an environment shows how metadata moves through environments. It provides a summary of tables used as source and target. Also, it gives information about the environments and tables involved in the lineage.

Use the following options to work on lineage:

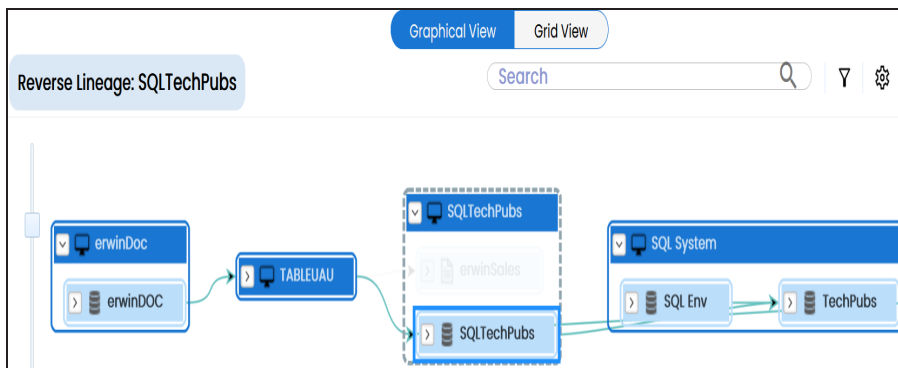
Forward Lineage

Use this option to view forward lineage of the environment.



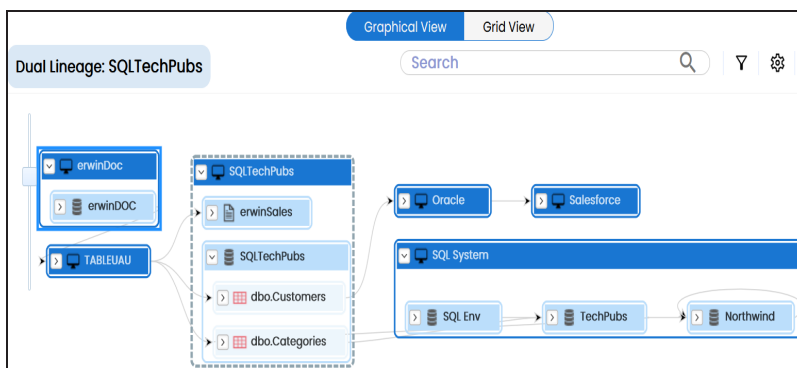
Reverse Lineage

Use this option to view reverse lineage of the environment.

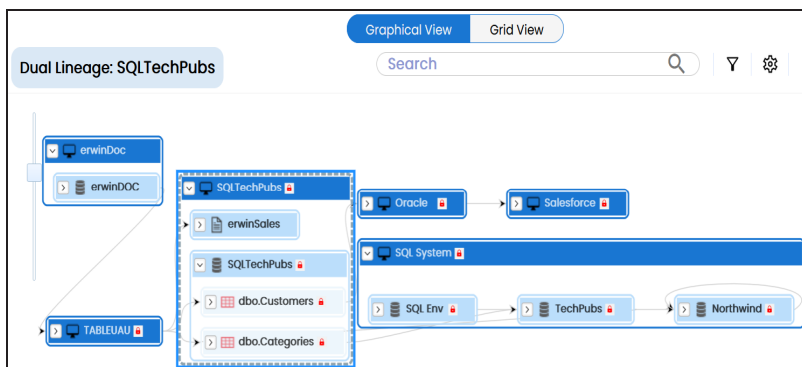


Dual Lineage

Use this option to view dual lineage, which includes both forward and reverse lineage of the environment.



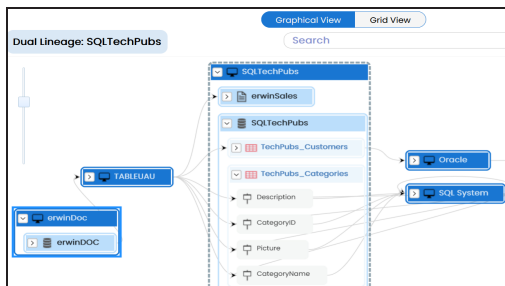
Use this option to view sensitivity of the environments in the lineage. You can expand the environment node to view sensitive tables. The sensitive assets are indicated using .



Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments and tables.

For example, the following image displays the table's logical name in the lineage.

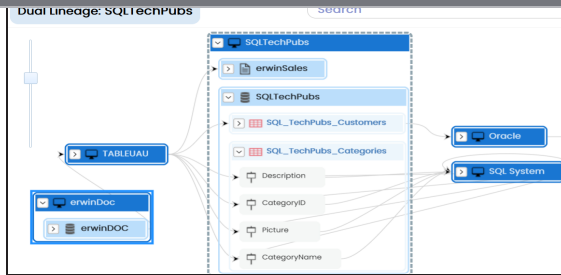


Expanded Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments, tables, and columns.

For example, the following image displays the table's expanded logical name in the lineage.

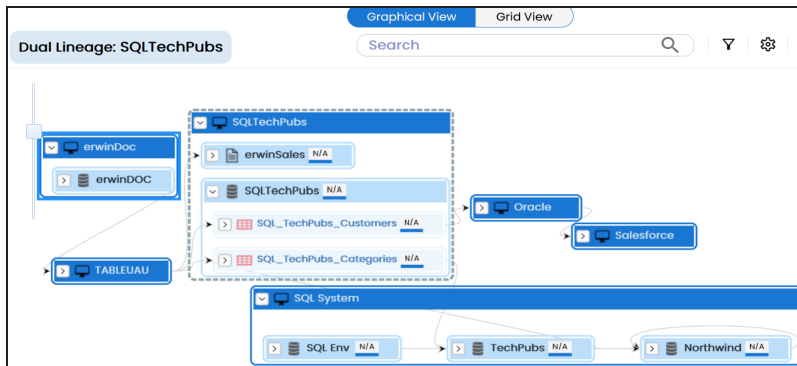
Environment



DQ Tool Score

Use this option to view the data quality score of the environments, tables, and columns in the lineage. You can expand a system node to view data quality scores for environments, tables, and columns.

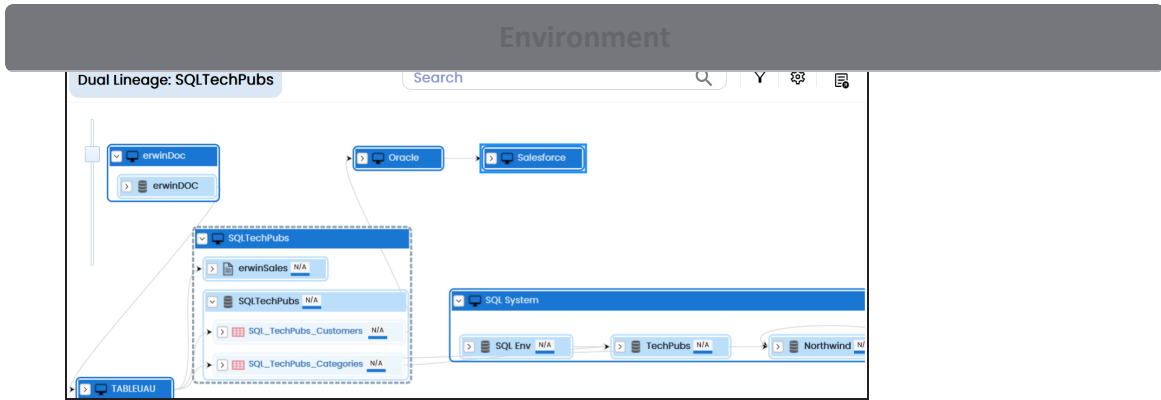
For example, the following image displays the data quality score in the lineage.



Auto Layout

Use this option to rearrange the layout of the lineage automatically.

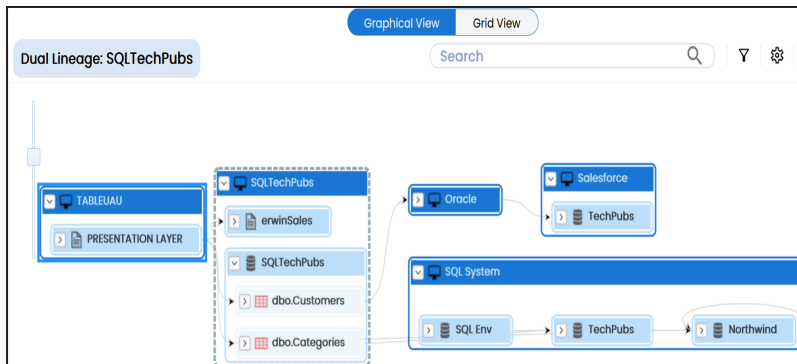
For example, the following image displays the rearranged object layout with respect to the previous screenshot.



Overview Lineage

Use this option to view the lineage excluding systems and environments that do not exist in the Metadata Manager. When this option is switched off, the views include systems and environments, that do not exist in the Metadata Manager.

For example, the following image displays lineage excluding assets that do not exist in Metadata Manager.



Overview Pane

Use this option to remove the overview pane from the graphical view.

Table

You can run forward and reverse lineage analysis to trace metadata at the table level. Forward lineage analysis generates lineage with the table as source. And, reverse lineage analysis generates lineage with the table as target. The Dual lineage analysis generates a lineage, which includes both forward and reverse lineage.

This topic walks you through the following:

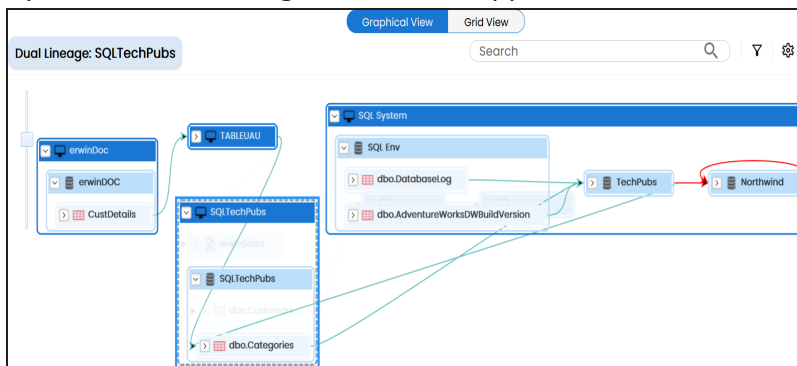
- [Viewing Lineage](#)
- [Working on Lineage](#)

Viewing Lineage

To run lineage at the table level, follow these steps:

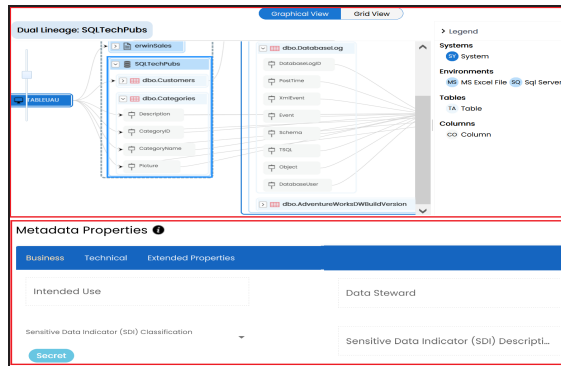
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. In the **Data Catalog** pane, click a table.
4. Click the **Data Lineage** tab.

By default, dual lineage of the table appears.



Table

- Graphical View:** The graphical view displays the lineage of the table in a graphical format. Selecting a table on the graphical view displays its Legends. Hovering over a table displays an **i** icon. Clicking this icon opens the object's properties.



- Grid View:** The grid view displays the lineage of the table in a tabular format. You can view the source and target system, environment, table, and column associated with the selected table.

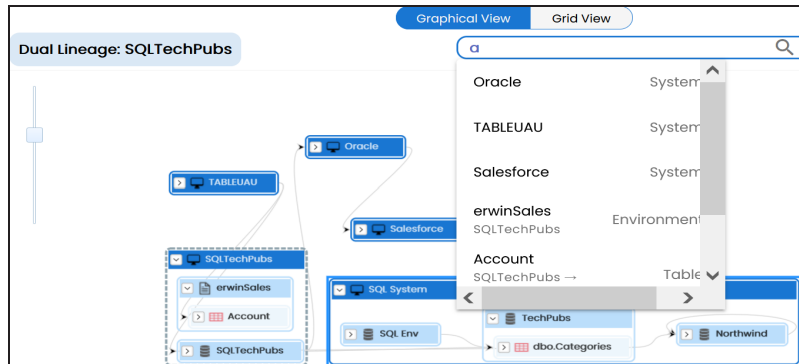
#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Target System Name	Target Environment Name	Target Table Name
1	SQL System	Northwind			SQL System	Northwind	
2	SQL System	TechPubs			SQL System	Northwind	
3	SQL System	SQL Etw	dbo.AdventureWorksDWBld Version		SQL System	TechPubs	
4	erwinDoc	erwinDOC	CustDetails		TABLEUAI		
5	SQL System	TechPubs			SQLTechPubs	SQLTechPubs	dbo.Categories
6	SQL System	TechPubs			SQLTechPubs	SQLTechPubs	dbo.Categories
7	SQLTechPubs	SQLTechPubs	dbo.Categories	Picture	SQL System	TechPubs	
8	SQL System	TechPubs			SQLTechPubs	SQLTechPubs	dbo.Categories

Use the following options to work on the lineage in graphical view:

Search (🔍)

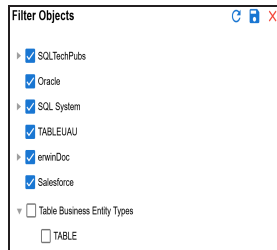
Use this option to search for tables that you want to see on the lineage.

eage.

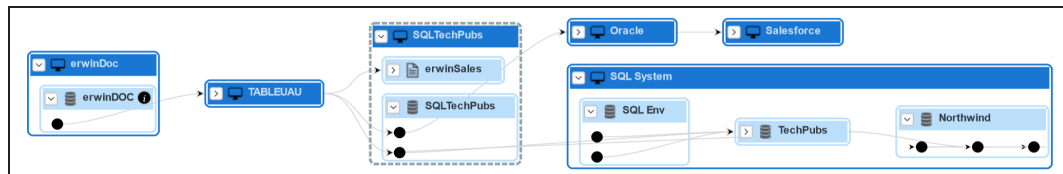


Filter Objects ()

Use this option to filter and display required tables in the lineage view.



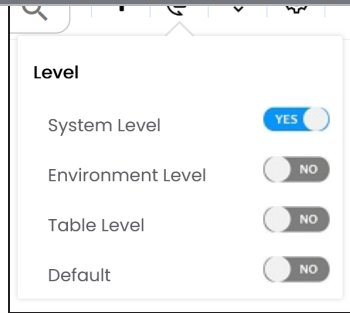
The unselected objects are replaced with black dots on the lineage diagram.



Switch View ()

Double-click an object to see Switch View option. Use this option to switch the level of objects displayed and see the system, environment, or table in which the object is located.

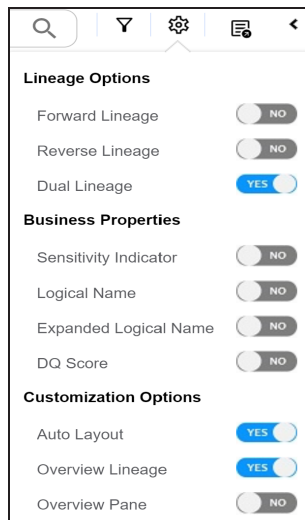
Table



Level	
System Level	☒ YES
Environment Level	☐ NO
Table Level	☐ NO
Default	☐ NO

Options (⚙️)

Use this option to view lineage types, business properties and customizations options. For more information on lineage options, refer to the [Working on Lineage](#) section.



Lineage Options	
Forward Lineage	☐ NO
Reverse Lineage	☐ NO
Dual Lineage	☒ YES
Business Properties	
Sensitivity Indicator	☐ NO
Logical Name	☐ NO
Expanded Logical Name	☐ NO
DQ Score	☐ NO
Customization Options	
Auto Layout	☒ YES
Overview Lineage	☒ YES
Overview Pane	☐ NO

Exports (📄)

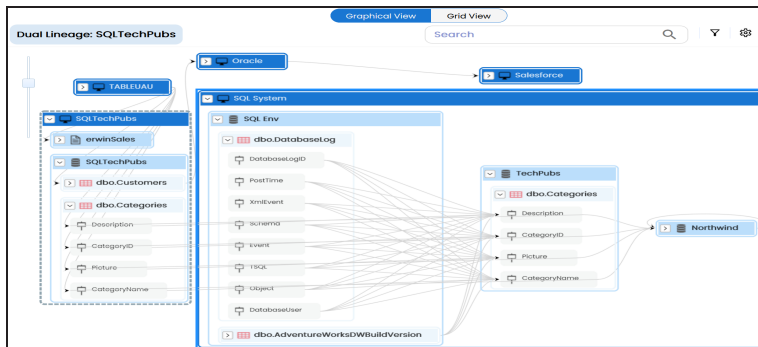
Use this option to export the lineage. Click  and use the following options:

- **Image (🖼️):** Use this option to download the lineage as an image, in the .JPG format. Ensure that you expand the required nodes in a lineage

Table

- **PDF (📄):** Use this option to download the lineage report in the .PDF format. Ensure that you expand the required nodes in a lineage before downloading the lineage report as PDF.
- **Excel (📊):** Use this option to download the lineage report in the .XLSX format. Ensure that you expand the required nodes in a lineage before downloading the report.

On the lineage, expand a table node, and select a column to view its lineage path. The column is highlighted in blue color, its forward lineage path appears in red, and its reverse lineage path appears in blue. The assets that are not part of a lineage path disappear.



Click a path around the selected object to highlight its path of the source or target in the lineage.

Viewing Transformations

Transformations between columns are indicated using **T** in the lineage. Hover over **T** to view transformation rules for the columns on a pop-up. Or, click the path between the columns to highlight it to view detailed transformations between them in the Transformation Details pane.

Table

Map ID	105
Project Name	Project Tech Pubs
Map Name	erwinSalesIntegration
Map Spec Version	1.01
Source Extract SQL	
Source Column Name	customerid
Source Column Data Type	nchar
Source Column Precision	0
Source Column Length	5
Source Column Scale	0
Target Column Name	OPER
Target Column Data Type	NUMBER
Target Column Precision	
Target Column Length	
Target Column Scale	
Business Rule	TRUNC
Extended Business Rule	
Trans lookup Condition	SELECT CustomerID FROM dbo.Customers WHERE CustomerID = dbo.Customers.CustomerID
Lookup On	CustomerID
Map Sequence Id	935

Systems

Node Properties

Transformation Details

Property	Value
Transformation	
Transformation	
Project Name	Project Tech Pubs
Map Name	erwinSalesIntegration
Map Spec Ver	1.01
JOB_XREF	
Source Extra	
Source Column	customerid

You can expand the transformation node to view the transformation details that includes Business Rule, Extended Business Rule, Trans lookup Condition, Lookup On, and more relevant properties.

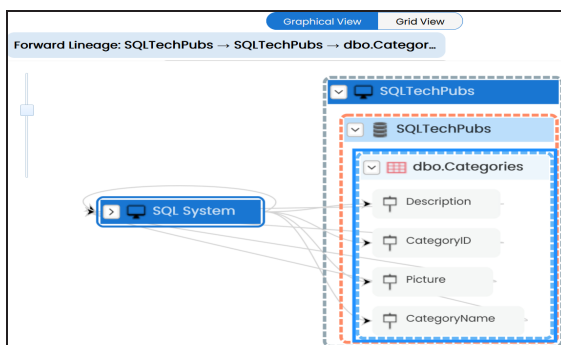
Working on Lineage

Lineage of a table shows how metadata moves through tables. It provides a summary of columns used as source and target. Also, it gives you information about the technical and business properties of columns involved in the lineage.

Use the following options to work on lineage:

Forward Lineage

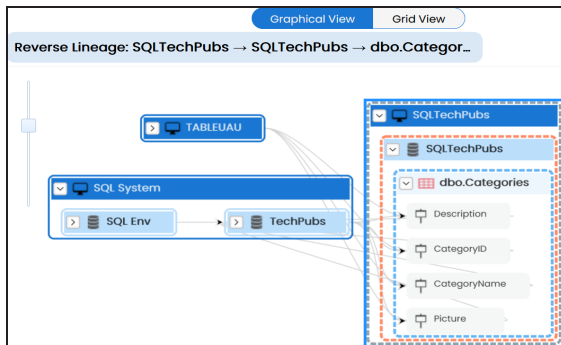
Use this option to view forward lineage of the table.



R

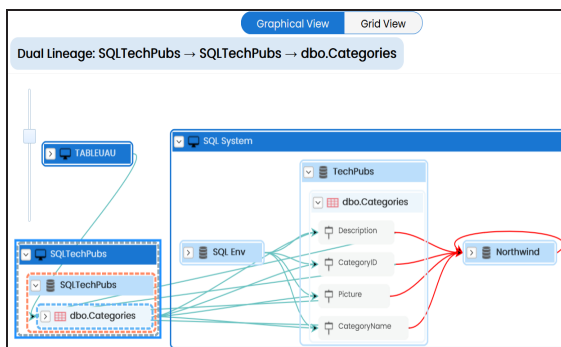
Table

Use this option to view reverse lineage of the table.



Dual Lineage

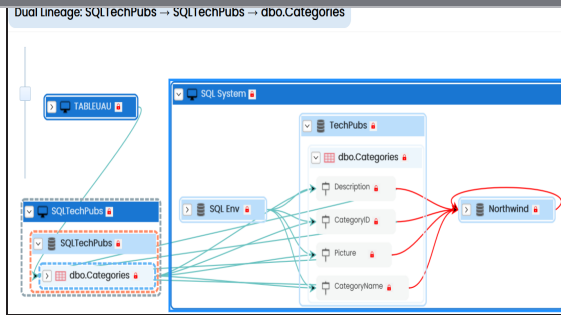
Use this option to view dual lineage, which includes both forward and reverse lineage of the table.



Sensitivity Indicator

Use this option to view sensitivity of the table in the lineage. You can expand the table node to view sensitive columns. The sensitive assets are indicated using .

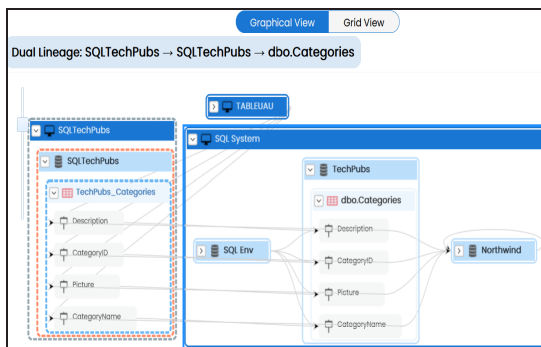
Table



Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments and tables.

For example, the following image displays the table's logical name in the lineage.

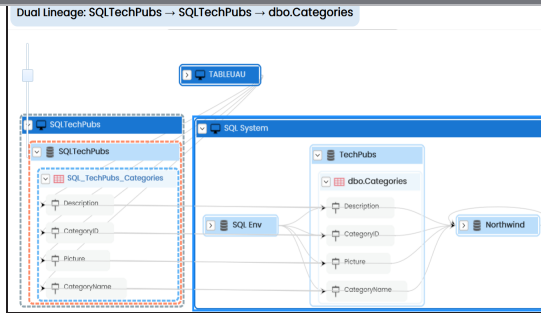


Expanded Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments, tables, and columns.

For example, the following image displays the table's expanded logical name in the lineage.

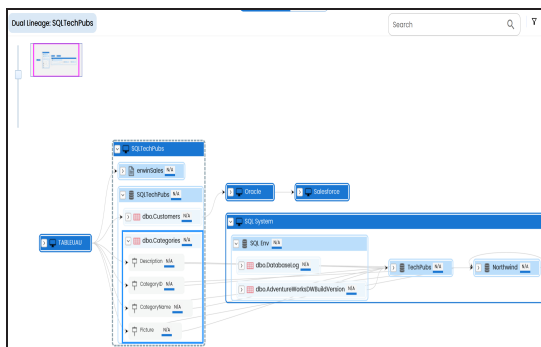
Table



DQ Tool Score

Use this option to view the data quality score of the environments, tables, and columns in the lineage. You can expand a system node to view data quality scores for environments, tables, and columns.

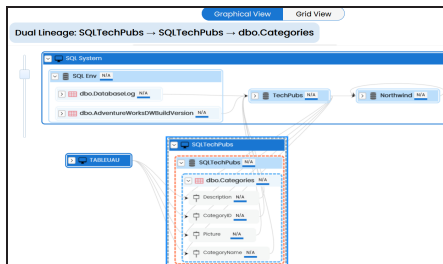
For example, the following image displays the data quality score in the lineage.



Auto Layout

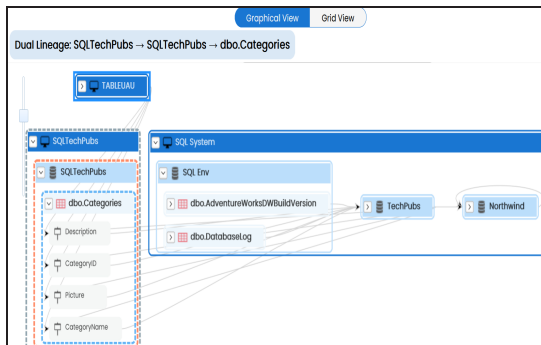
Use this option to rearrange the layout of the lineage automatically.

For example, the following image displays the rearranged object layout with respect to the previous screenshot.



Use this option to view the lineage excluding systems and environments that do not exist in the Metadata Manager. When this option is switched off, the views include systems and environments, that do not exist in the Metadata Manager.

For example, the following image displays lineage excluding assets that do not exist in Metadata Manager.



Overview Pane

Use this option to remove the lineage overview pane from the graphical view.

Column

You can run forward and reverse lineage analysis to trace metadata at the column level. Forward lineage analysis generates a lineage with the column as source. And, reverse lineage analysis generates a lineage with the column as target. The Dual lineage analysis generates a lineage, which includes both forward and reverse lineage.

This topic walks you through the following:

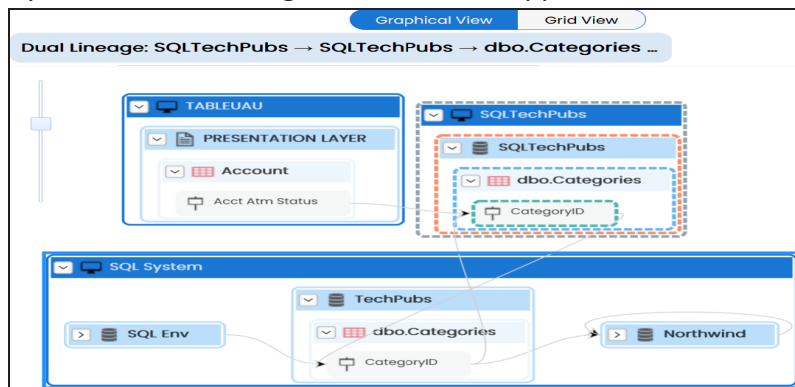
- [Viewing Lineage](#)
- [Working on Lineage](#)

Viewing Lineage

To run lineage at the column level, follow these steps:

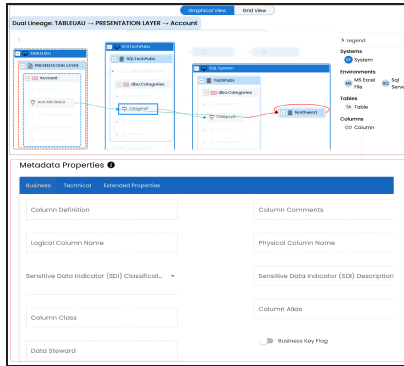
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. In the **Data Catalog** pane, click a table and then, select a column.
4. Click the **Data Lineage** tab.

By default, dual lineage of the column appears.



Column

- Graphical View:** The graphical view displays the lineage of the column in a graphical format. Selecting a column on the graphical view displays its Legends. Hovering over a column displays an  icon. Clicking this icon opens the object's properties.



- Grid View:** The grid view displays the lineage of the environment in a tabular format. You can view the source and target system, environment, table, and column associated with the selected column.

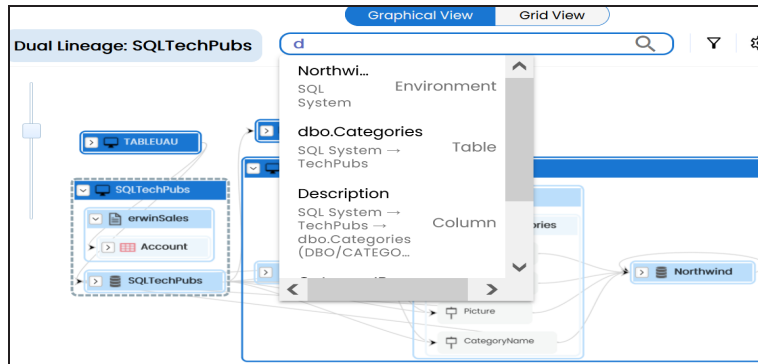
CategoryID									
Dual Lineage: SQLTechPubs → SQLTechPubs → dbo.Categories → CategoryID									
#	Info	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Target System Name	Target Environment Name	Target Table Name	Target Column Name
1		SQL System	SQL Env	dbo.DatabaseLog	PostTime	SQL System	TechPubs		
2		SQL System	SQL Env	dbo.DatabaseLog	Event	SQL System	TechPubs		
3		SQL System	SQL Env	dbo.DatabaseLog	TSQL	SQL System	TechPubs		
4		SQLTechPubs	SQLTechPubs	dbo.Categories	CategoryID	SQL System	TechPubs		
5		TABLEUAU	PRESENTATION LAYER	Account	Acct Atm Status	SQLTechPubs	SQLTechPubs	dbo.Categories	CategoryID
6		SQL System	SQL Env	dbo.DatabaseLog	DatabaseLogID	SQL System	TechPubs		
7		SQL System	TechPubs			SQLTechPubs	SQLTechPubs	dbo.Categories	CategoryID

Use the following options to work on the lineage in graphical view:

Search ()

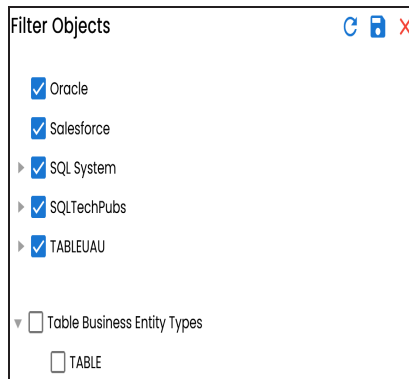
Use this option to search for columns that you want to see on the lineage.

lineage.

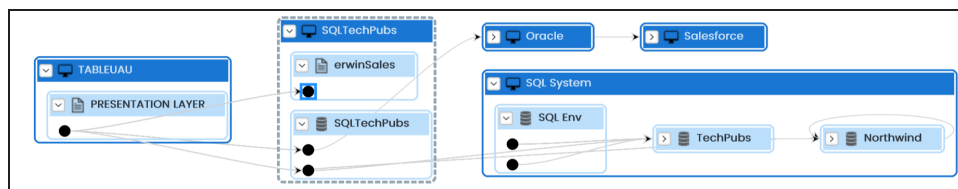


Filter Objects ()

Use this option to filter and display required columns in the lineage view.

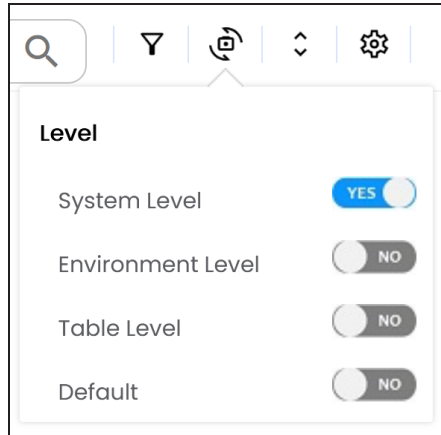


The unselected objects are replaced with black dots on the lineage diagram.



Switch View ()

Double-click an object to see Switch View option. Use this option to switch the level of objects displayed and see the system, environment, or table in which

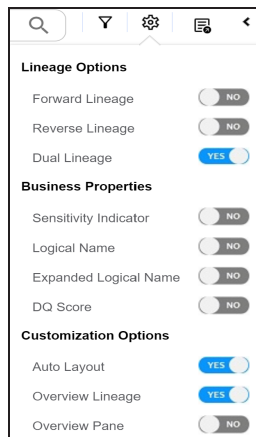


Level

System Level	YES
Environment Level	NO
Table Level	NO
Default	NO

Options (⚙️)

Use this option to view lineage types, business properties and customizations options. For more information on lineage options, refer to the [Working on Lineage](#) section.



Lineage Options

Forward Lineage	NO
Reverse Lineage	NO
Dual Lineage	YES

Business Properties

Sensitivity Indicator	NO
Logical Name	NO
Expanded Logical Name	NO
DQ Score	NO

Customization Options

Auto Layout	YES
Overview Lineage	YES
Overview Pane	NO

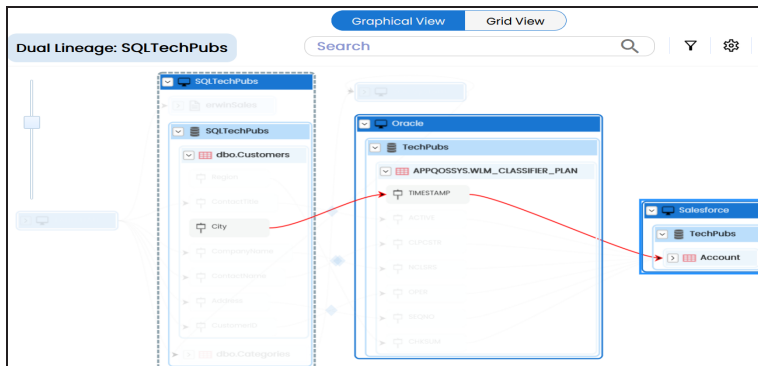
Exports (📄)

Use this option to export the lineage. Click 📄 and use the following options:

- **Image (🖼️):** Use this option to download the lineage as an image, in the .JPG format. Ensure that you expand the required nodes in a lineage

- **PDF** (📄): Use this option to download the lineage report in the .PDF format. Ensure that you expand the required nodes in a lineage before downloading the lineage report as PDF.
- **Excel** (📊): Use this option to download the lineage report in the .XLSX format. Ensure that you expand the required nodes in a lineage before downloading the report.

On the lineage, expand a system node, and select a table to view its lineage path. The environment is highlighted in blue color, its forward lineage path appears in red, and its reverse lineage path appears in blue. Systems and environments that are not part of a lineage path disappear.



Right-click a path around the selected object to highlight its path of the source or target in the lineage.

Viewing Transformations

Transformations between columns are indicated using  in the lineage. Hover over  to view transformation rules for the columns on a pop-up. Or, click the path between the columns to highlight it to view detailed transformations between them in the Transformation Details pane.

Column

Map ID	105
Project Name	Project Tech Pubs
Map Name	erwinSalesIntegration
Map Spec Version	1.01
Source Extract SQL	
Source Column Name	customerid
Source Column Data Type	nchar
Source Column Precision	0
Source Column Length	5
Source Column Scale	0
Target Column Name	OPER
Target Column Data Type	NUMBER
Target Column Precision	
Target Column Length	
Target Column Scale	
Business Rule	TRUNC
Extended Business Rule	
Trans lookup Condition	SELECT CustomerID FROM dbo.Customers WHERE CustomerID = dbo.Customers.CustomerID
Lookup On	CustomerID
Map Sequence Id	935

Systems

Node Properties

Transformation Details

Property	Value
▶ Transformation	
✚ Transformation	
Project Name: Project Tech Pubs	
Map Name: erwinSalesIntegration	
Map Spec Ver: 1.01	
JOB_XREF	
Source Extra	
Source Column: customerid	

You can expand the transformation node to view the transformation details that includes Business Rule, Extended Business Rule, Trans lookup Condition, Lookup On, and more relevant properties.

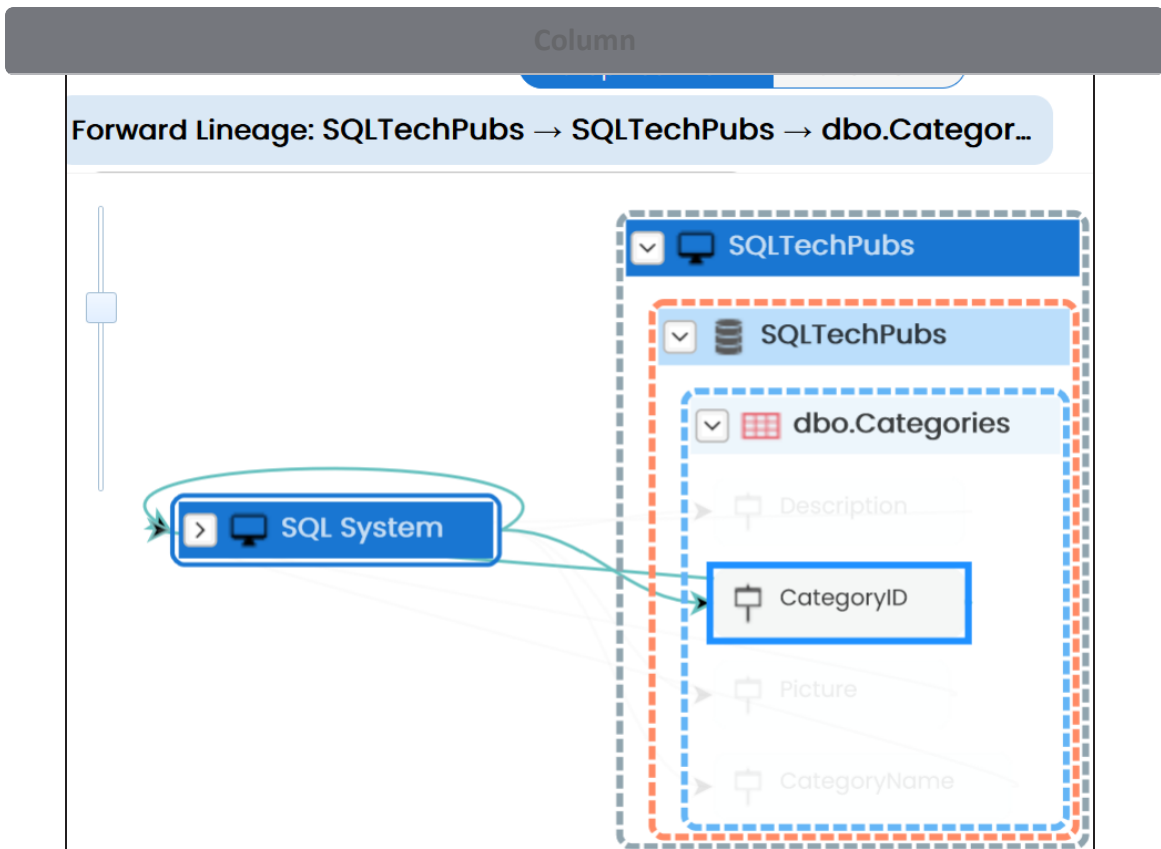
Working on Lineage

Lineage of a column shows how metadata moves through columns. It provides a summary of columns used as source and target. Also, it gives information about technical and business properties of columns involved in the lineage.

Use the following options to work on lineage:

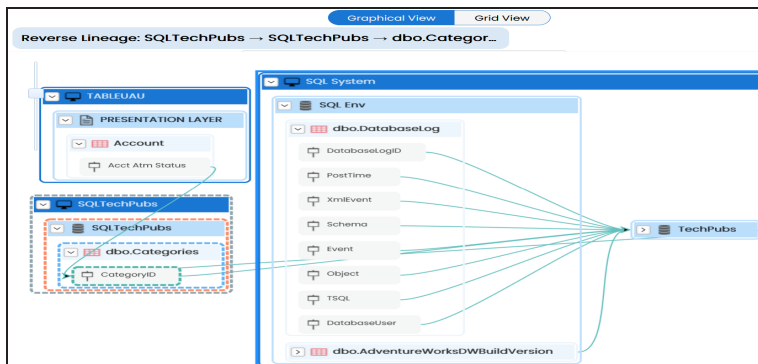
Forward Lineage

Use this option to view forward lineage of the column.



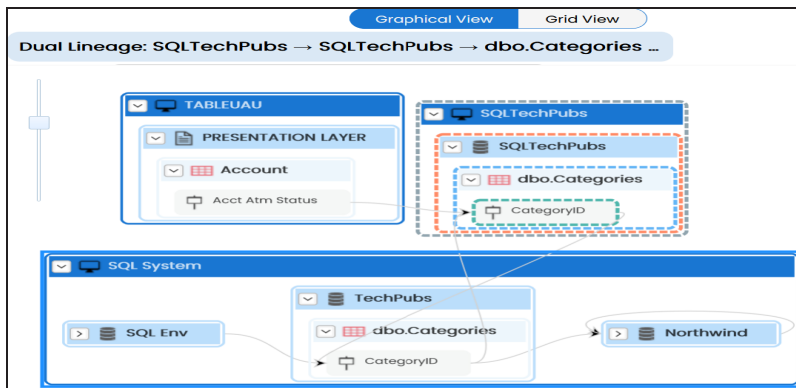
Reverse Lineage

Use this option to view reverse lineage of the column.



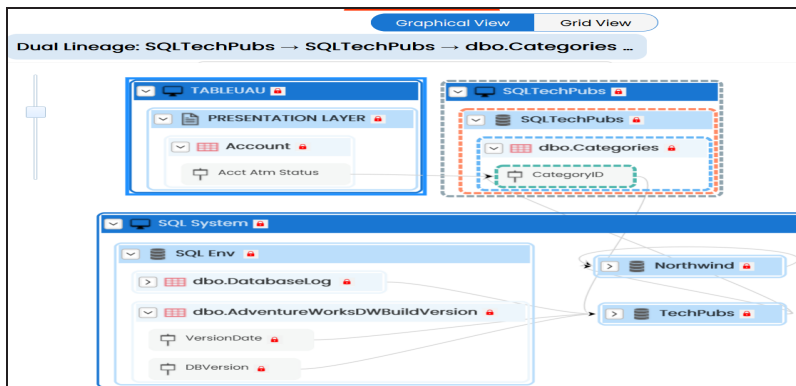
Dual Lineage

of the column.



Sensitivity Indicator

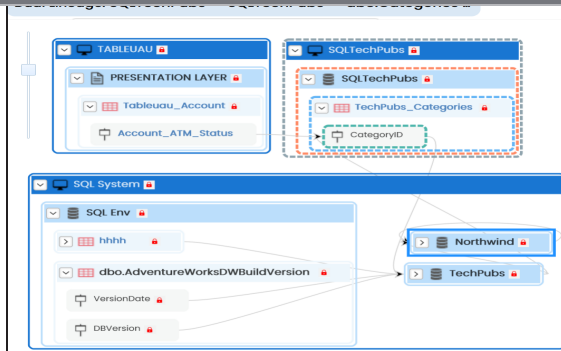
Use this option to view sensitivity of the columns in the lineage. You can expand the environment node to view sensitive columns. The sensitive assets are indicated using



Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments and tables.

For example, the following image displays the table's logical name in the lineage.

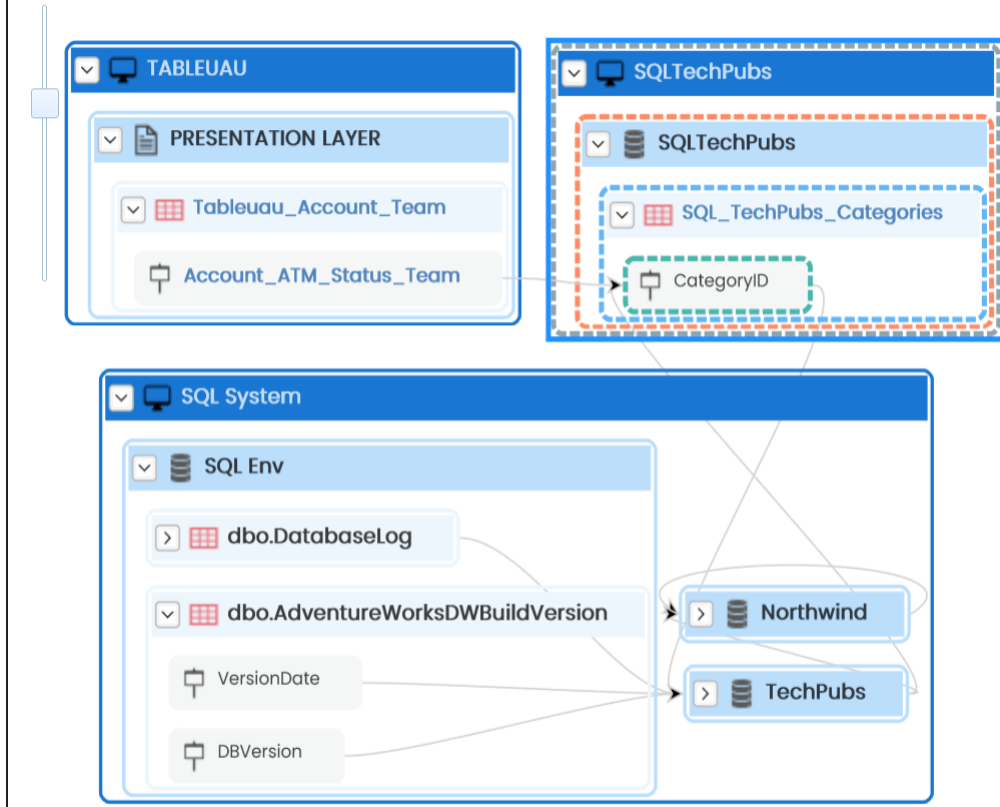


Expanded Logical Name

Use this option to view expanded logical names of the tables and columns in an environment in the lineage. You can expand a system node to view environments, tables, and columns. or more information on configuring extended properties of columns, refer to the [Configuring Extended Properties](#) topic.

For example, the following image displays the table's expanded logical name in the lineage.

Dual Lineage: SQLTechPubs → SQLTechPubs → dbo.Categories ...

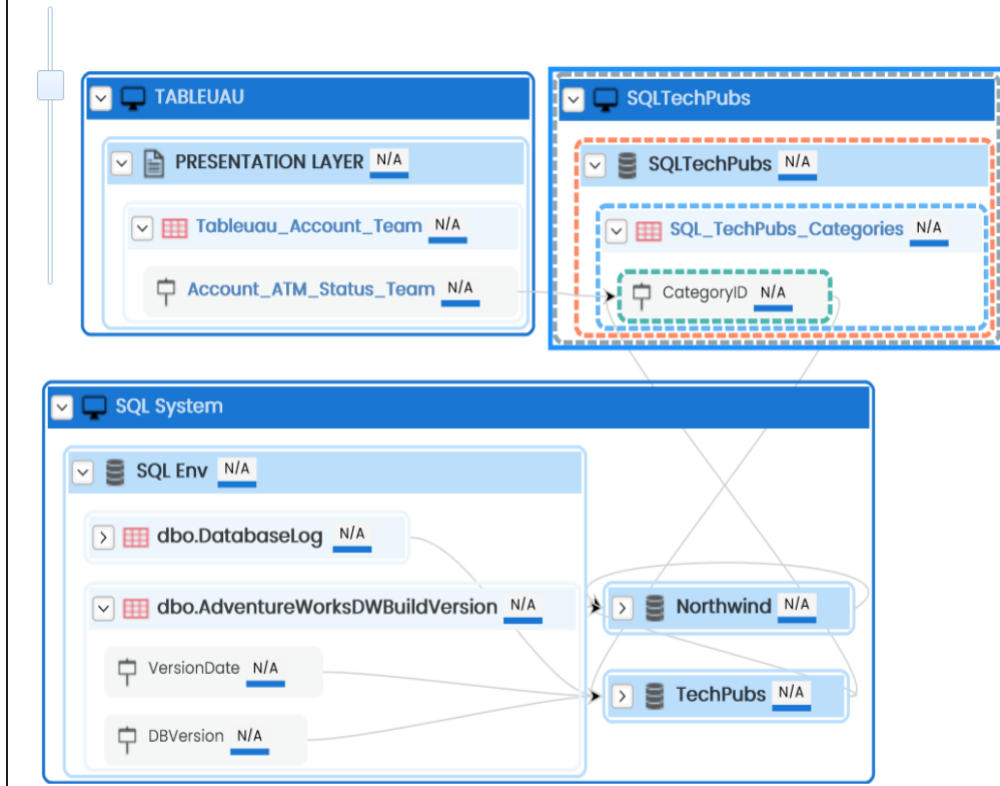


DQ Tool Score

Use this option to view the data quality score of the environments, tables, and columns in the lineage. You can expand a system node to view data quality scores for environments, tables, and columns.

For example, the following image displays the data quality score in the lineage.

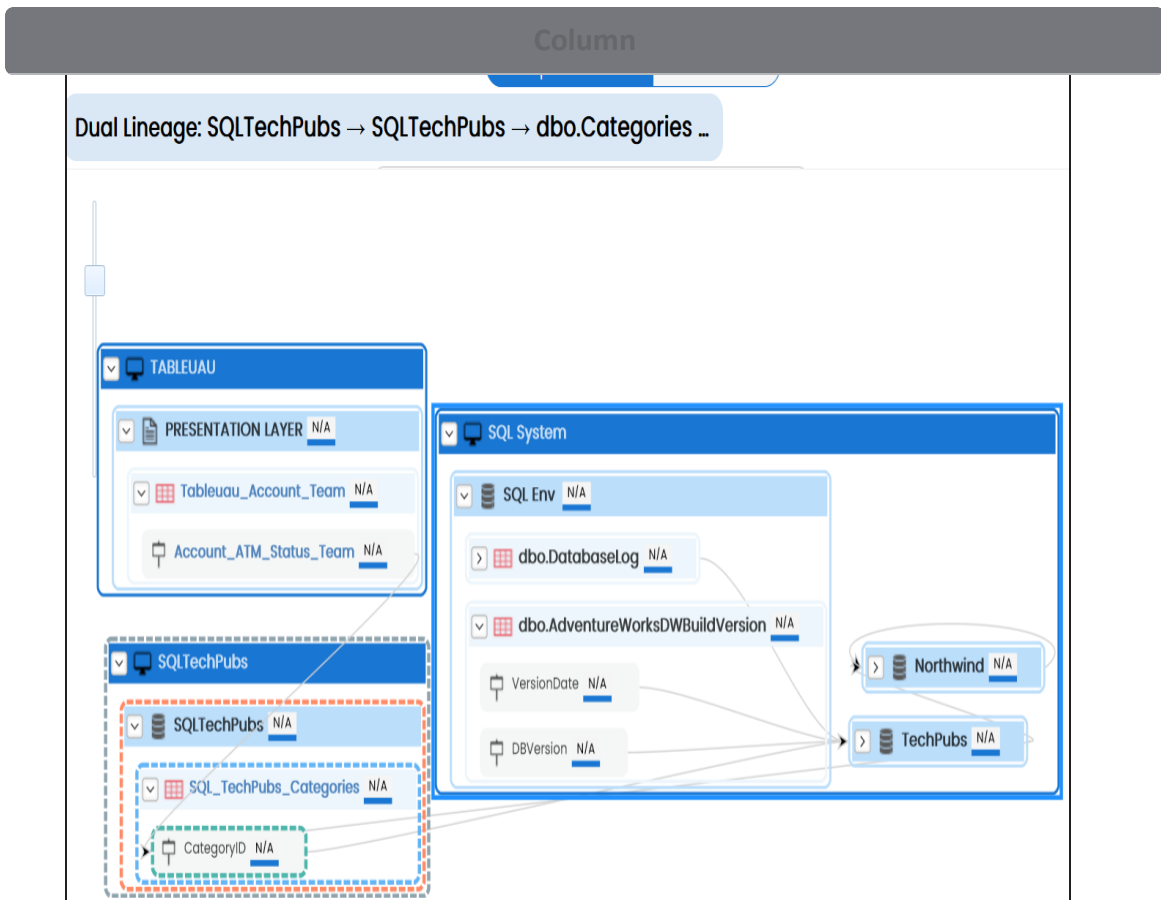
Dual Lineage: SQLTechPubs → SQLTechPubs → dbo.Categories ...



Auto Layout

Use this option to rearrange the layout of the lineage automatically.

For example, the following image displays the rearranged object layout with respect to the previous screenshot.

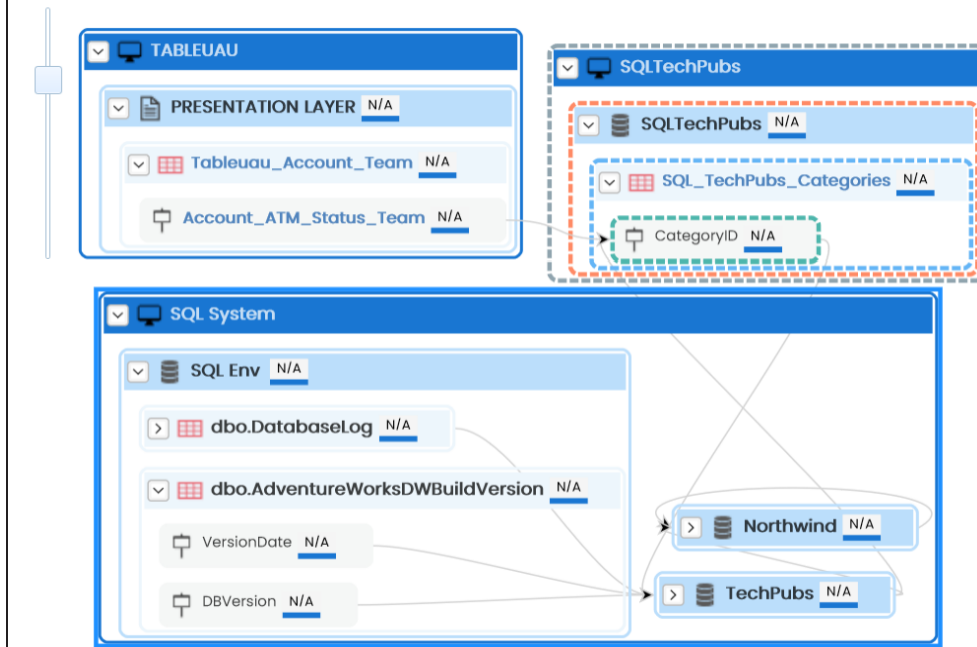


Overview Lineage

Use this option to view the lineage excluding systems and environments that do not exist in the Metadata Manager. When this option is switched off, the views include systems and environments, that do not exist in the Metadata Manager.

For example, the following image displays lineage excluding assets that do not exist in Metadata Manager.

Dual Lineage: SQLTechPubs → SQLTechPubs → dbo.Categories ...



Overview Pane

Use this option to remove the lineage overview pane from the graphical view.

Previewing Data

You can preview data at table level using SQL queries. Data previewing capability at table level enables you to view data instantly and profile the data. You can also schedule a data profiling job and view data profiling summary report at the scheduled time.



Data Quality tab is not available if the Enable DQ Sync option is enabled for environments.

To preview table data, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. In the **Data Catalog** pane, click a table.
4. Click the **Data Quality** tab.

By default, the Data Profiling tab opens.

Extended Properties

Data Lineage

Impact Analysis

Mindmap

Associations

Workflow Log

Data Quality

Documents

Indexes

Test Specification

Data Profiling

Data Profile Statistics

Preview Data

Data Profiling Summary Report

Data Profiling Pattern Summary Report

Profile Data

#

Column Name

DQ Score

Column Datatype

Length

Locked?

Job State

Total Rows

Distinct Values

% Distinct Values

Repeated Values

Nulls

% Nulls

Min Value

Max

1

ChannelKey

Int

0

0

0%

0

0

0%

2

ChannelLabel

Nvarchar

100

0

0

0%

0

0

0%

3

ChannelName

Nvarchar

20

0

0

0%

0

0

0%

4

ChannelDescrit

Nvarchar

50

0

0

0%

0

0

0%

5

ETLLoadID

Int

0

0

0%

0

0

0%

6

LoadDate

Datetime

0

0

0%

0

0

0%

7

UpdateDate

Datetime

0

0

0%

0

0

0%

Dashboard

--

DQ Score

7

Total Columns

0

Profiled Columns

0

Total Rows

0

Unique Values

0

Nulls

5. Click the **Preview Data** tab.

The User Credentials page appears. For more information on enforcement of user credentials, refer to the [Enforcing Credentials for Data Access or Preview](#) topic.

Previewing Data

User Credentials

Note: Validate User credentials to proceed

→

×

User Name* :

Password* :

6. Enter credentials to connect with the database.

Data at table level can be viewed. You can use SQL Editor to execute a SQL query to preview data.

Data LineageImpact AnalysisMindmapAssociationsWorkflow LogData QualityDocumentsIndexesTest Spe

Data ProfilingData Profile StatisticsPreview Data

Type your SQL Query here

Execute Query

CategoryID	CategoryName	Description	Picture
1	Beverages	Soft drinks, coffees, teas, beers, and ales	151C2F0002000000D000E0014002100FFF
2	Condiments	Sweet and savory sauces, relishes, spreads, ;	151C2F0002000000D000E0014002100FFF
3	Confections	Desserts, candies, and sweet breads	151C2F0002000000D000E0014002100FFF
4	Dairy Products	Cheeses	151C2F0002000000D000E0014002100FFF
5	Grains/Cereals	Breads, crackers, pasta, and cereal	151C2F0002000000D000E0014002100FFF

You can also [profile data at table level](#) and provide data quality score.

Profiling Data at Table Level

You can assess your data quality by profiling the data at table level. You need to schedule a data profiling job and provide the data quality score by assessing the data quality.



Data Quality tab is not available if the Enable DQ Sync option is enabled for environments.

To profile data at table level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to see its details.
3. In the **Data Catalog** pane, click a table.
4. Click the **Data Quality** tab.

By default, the Data Profiling tab opens.

#	Column Name	DQ Score	Column Datatype	Length	Locked?	Job State	Total Rows	Distinct Values	% Distinct Values	Repeated Values	Nulls	% Nulls	Min Value	Max
1	ChannelKey	—	Int		🔒		0	0	0%	0	0	0%		
2	ChannelLabel	—	Nvarchar	100	🔒		0	0	0%	0	0	0%		
3	ChannelName	—	Nvarchar	20	🔒		0	0	0%	0	0	0%		
4	ChannelDescription	—	Nvarchar	50	🔒		0	0	0%	0	0	0%		
5	ETLLoadID	—	Int		🔒		0	0	0%	0	0	0%		
6	LoadDate	—	Datetime		🔒		0	0	0%	0	0	0%		
7	UpdateDate	—	Datetime		🔒		0	0	0%	0	0	0%		

5. Select columns.
6. Click **Profile Data**.

The User Credentials page appears. For more information on enforcement of user credentials, refer to the [Enforcing Credentials for Data Access or Preview](#) topic.

User Credentials

Note: Validate User credentials to proceed  

User Name* :

Password* :

7. Enter credentials to connect with the database.

The Job Scheduler page appears.

Job Scheduler

Job Name* :

Interval : 

Schedule Job On* : 

☐ Local ☒ Server

Data Profile Preferences

☒ Total Values	☒ Minimum Value	☐ Most Frequent Patterns
☒ Distinct Values	☒ Maximum Value	☐ Least Frequent Patterns
☒ Repeated Values	☒ Most Frequent Value	
☒ Null Values	☒ Least Frequent Value	

Notify Me : ☒

Notification Email :

CC List :

Profiling Data at Table Level

datory. Refer to the following table for field descriptions.

Option	Description
Job Name	Specifies the job name. For example, Administrator1585030550001. This field autopopulates with a job name. You can edit it and enter a different job name.
Interval	Specifies the frequency of the job. For example, Every Week.
Scheduled Job On	Set the date and time of the job using . For example, 03-24-2020 11:45.
Local or Server	Select whether the job uses local or server time. - Local: Refers to your local machine. - Server: Refers to the machine where your application is deployed.
Data Profile Preferences	Select the corresponding check boxes to give your data profile preferences in the profile grid report. Total Values: Select the check box to display the total number of rows in the selected columns. Distinct Values: Select the check box to display the number of distinct values in the selected columns. Repeated Values: Select the check box to display the number of repeated values in the selected columns. Null Values: Select the check box to display the number of null values in the selected columns. Minimum Value: Select the check box to display the minimum value in the selected columns. You can enable or disable analysis of minimum value for character data. For more information on this, refer to the Configuring Data Profiling and DQ Scores topic. Maximum Value: Select the check box to display the maximum value in the selected columns. For more information on this, refer

Profiling Data at Table Level	
Option	Description
	to the Configuring Data Profiling and DQ Scores topic. ▪ Most Frequent Value: Select the check box to display the most frequent values in the selected columns. ▪ Least Frequent Value: Select the check box to display the least frequent values in the selected columns. ▪ Most Frequent Patterns: Select the check box to display the most frequent patterns in the selected columns. For more information on this, refer to the Configuring Data Profiling and DQ Scores topic. ▪ Least Frequent Patterns: Select the check box to display the least frequent patterns in the selected columns. For more information on this, refer to the Configuring Data Profiling and DQ Scores topic.
Notify Me	Switch Notify Me to ON to receive email notification. For more information on email notification, refer to the Configuring Notification on Profiling Data topic.
Notification Email	This field is autopopulated with your email ID. If you enable notifications in the Metadata Manager Settings, you can receive email notifications from the administrator's email ID about the scheduled job.
CC list	Enter a comma-separated list of email IDs that should receive email notifications about the scheduled job. For example, ab.dav@xyz.com, cal.kai@xyz.com

9. Click **Schedule**.

The data profiling job is scheduled.

The data profiling job is completed at the scheduled time and the job state changes to **COMPLETED**.

Profiling Data at Table Level

Data Lineage

Impact Analysis

Minimap

Associations

Workflow Log

Data Quality

Documents

Indexes

Test Specification

Data Profiling

Data Profile Statistics

Preview Data

Data Profiling Summary Report

Data Profiling Pattern Summary Report

Profile Data

Dashboard

--

DQ Score

6

Total Columns

2

Profiled Columns

8

Total Rows

8

Unique Values

0

Nulls

0

Repeated Values

#	Column Name	DQ Score	Column Datatype	Length	Locked?	Job State	Total Rows	Distinct Values	% Distinct Values	Repeated Values	Nulls	% Nulls	Min Value
1	CategoryID	—	int	4	🔒	COMPLETED	8	8	100%	0	0	0%	1
2	CategoryName	—	nvarchar	15	🔒	COMPLETED	8	8	100%	0	0	0%	Beverages
3	Description	—	ntext	16	🔒		0	0	0%	0	0	0%	
4	Picture	—	image	16	🔒		0	0	0%	0	0	0%	
5	Pictu	—			🔒		0	0	0%	0	0	0%	
6	Rose	—			🔒		0	0	0%	0	0	0%	

Records from 1 to 6 of 6

10. Use the following options:

Data Profiling Summary Report

To view data profiling summary, click **Data Profiling Summary Report**.

Data Profiling Summary page appears.

Data Profiling Summary

Export: 📄 📊 📈 📉 📌

Data Profiling Summary

STATISTICAL SUMMARY for erwin DM → Sql Server → dbo.Categories

1

1

6

2

8

8

0

0

TOTAL TABLES

PROFILED TABLES

TOTAL COLUMNS

PROFILED COLUMNS

TOTAL ROWS

UNIQUE VALUES

NULLS

REPEATED VALUES

dbo.Categories

Column Name	DQ Score	Column Type	Length	Total Rows	Distinct Values	% Distinct Values	Repeated Values	Nulls	% Nulls	Min Value	Max Value	Most Frequent	Least Frequent
CategoryID		int	4	8	8	100.0%	0	0	0.0%	1	8	1	1
CategoryName		nvarchar	15	8	8	100.0%	0	0	0.0%	Beverages	Seafood	Beverages	Beverages

Data Profiling Pattern Summary

To view data profiling pattern summary report, click **Data Profiling Pattern Summary Report**.

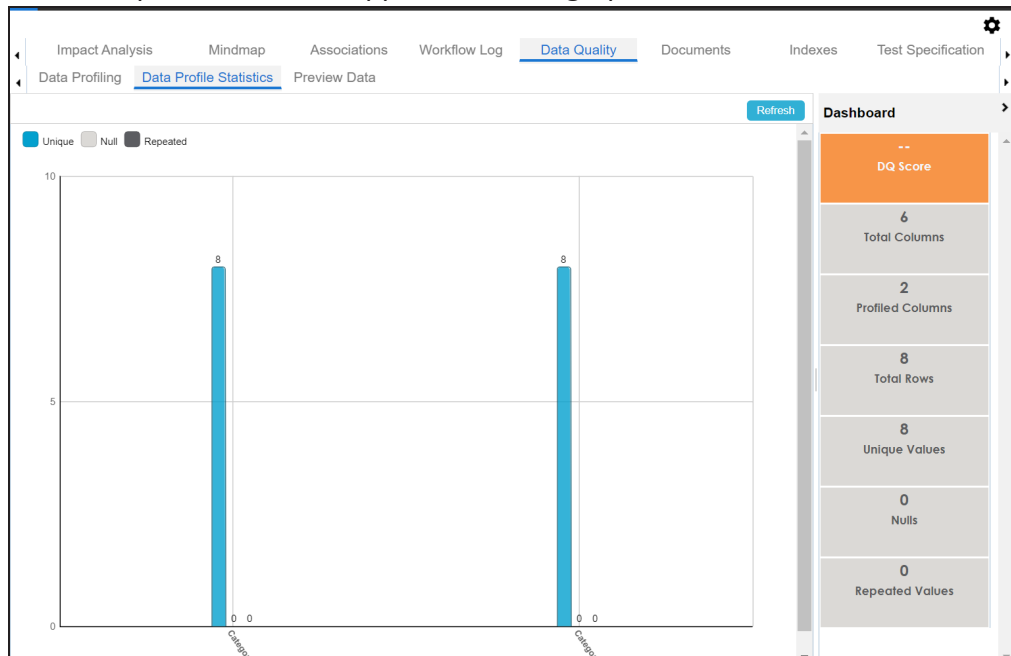
Profiling Data at Table Level

Data Profiling Patterns Summary	
ID	
Most Frequent Patterns	
Pattern	Count
NNN	39
NN	21
Least Frequent Patterns	
Pattern	Count
NN	21
NNN	39
SOURCE_OBJECT_ID	
Most Frequent Patterns	
Pattern	Count
NNN	28
N	21
NNNN	8
NN	3
Least Frequent Patterns	
Pattern	Count
NN	3
NNNN	8
N	21
NNN	28

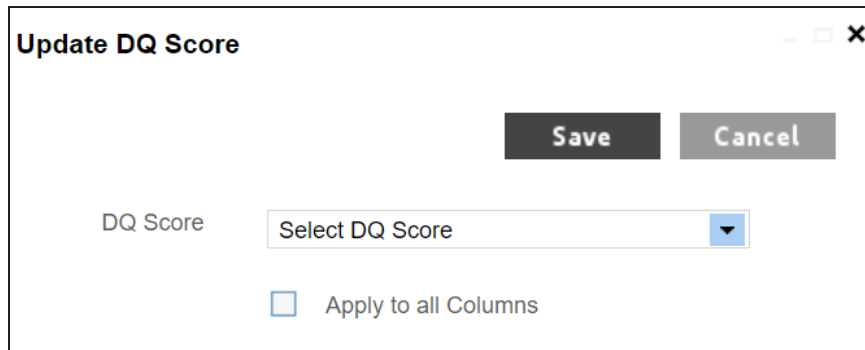
Data Profile Statistics

To view data profile statistics, click **Data Profile Statistics**.

The data profile statistics appears in a bar graph.



The Update DQ Score page appears.

A dialog box titled "Update DQ Score" with a close button (X) in the top right corner. It contains a "DQ Score" label, a dropdown menu with the text "Select DQ Score", and a blue downward arrow. Below the dropdown is a checkbox labeled "Apply to all Columns". At the top right of the dialog are two buttons: "Save" and "Cancel".

Update DQ Score

Save Cancel

DQ Score Select DQ Score ▼

☐ Apply to all Columns

Select **DQ Score** and click **Save**. The DQ Score is updated.

Viewing Mind Maps

A mind map displays the pictorial representation of a technical asset and its association with other business and technical assets. Technical assets refer to systems, environments, tables, and columns. Business assets refer to business terms, business policies, business rules, and other business assets as defined in the Business Glossary Manager Settings.

You can view and analyze Mind Maps in following views:

- Logical View
- Conceptual View

You can select an asset on a mind map and view its properties, association statistics, and sensitivity under the Object Properties pane.

To view mind maps, follow these steps:

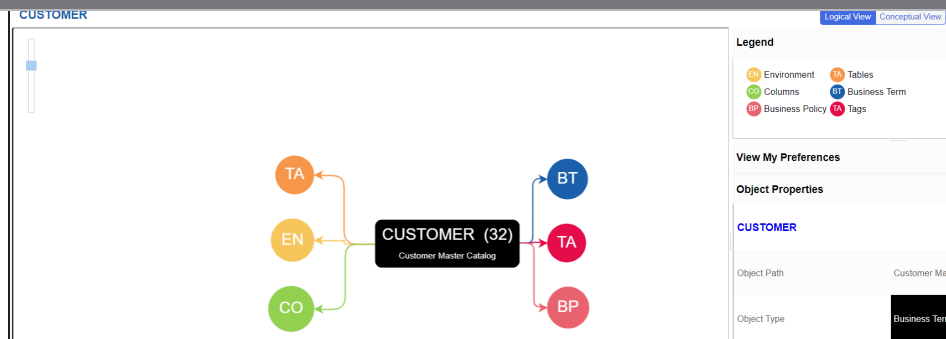
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an asset to see its details.
3. Click the **Mind Map** tab.

The Mind Map page appears, and the Logical View opens by default.

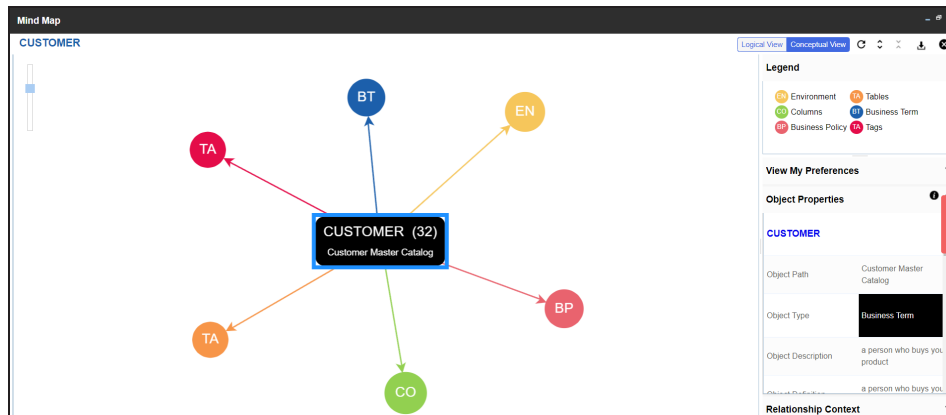
For example, if you click an environment in the Data Catalog pane and then click the Mind Map tab, the mind map of the environment appears.

4. On the Mind Map page, you can click **Logical View** or **Conceptual View** to switch between them:
 - **Logical View:** The logical view displays the associated technical assets on the left side and associated business assets on the right of the business asset. Selecting an asset on the mind map displays its properties in the Object Properties pane.

Viewing Mind Maps



Conceptual View: The logical view displays the associated technical assets in non-hierarchical representation. Selecting an asset on the mind map displays its properties in the Object Properties pane.



5. Use the following options to work on the mind map:

Reload Diagram (🔄)

Use this option to reload the mind map.

Expand Diagram (📏)

Use this option to expand the mind map to view the associated technical and business assets.

Reset Diagram to Original View (↶)

Use this option to collapse the expanded nodes and restore the mind map to its original form.

Viewing Mind Maps

Use this option to export the mind map. Hover over **Export** and use the following options:

Mind Map - Excel Report: Use this option to download the mind map in the .xlsx format. Ensure that you expand the mind map before downloading the report.

Mind Map - Image: Use this option to download the mind map as an image, in the .jpg format. Ensure that you expand the mind map before downloading the mind map image.

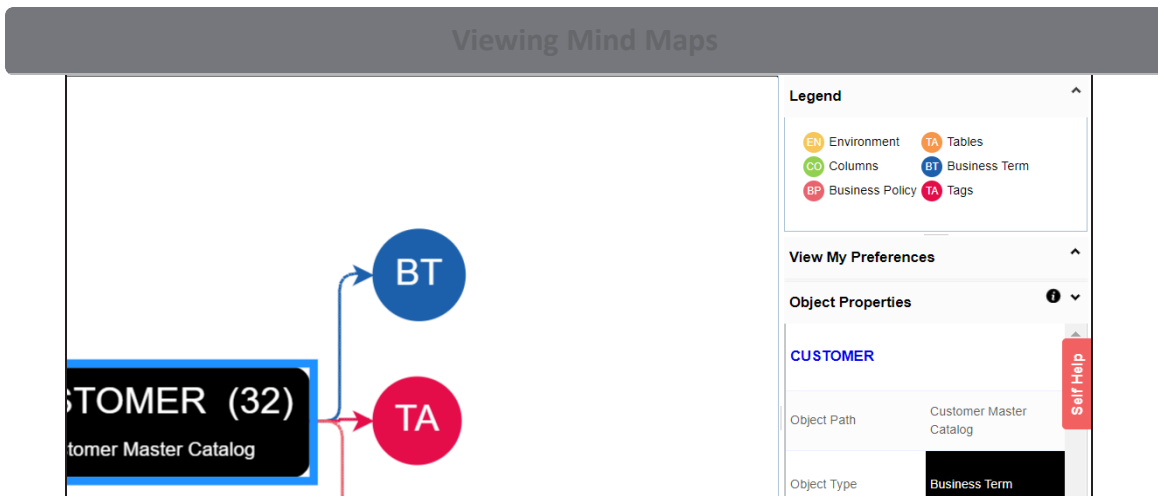
Sensitivity Details - Excel Report: Use this option to download the sensitivity report of all associated assets in the .xlsx format. This report includes sensitive data indicator (SDI), SDI classification, and SDI description of the associated assets.

You can use the following panes to view properties and configure preferences for the mind map:

- [Legend](#)
- [View My Preferences](#)
- [Object Properties](#)
- [Overview](#)

Legends

Use legends to identify the list of components on the mind map.



View My Preferences

You can set your preferences to view the mind map according to your requirements. The available settings differ based on the logical and conceptual view. Expand the **View My Preferences** pane and use the following options:

Qualifier

Use the **Show Qualified View** option to display associated assets with other business and technical assets that are created using a unique qualifier. For more information about creating associations using a qualifier, refer to the [Setting Up Associations Using Qualifiers](#) topic.

Asset Hierarchy

Use the following options to view asset hierarchy:

- Gray Background:**

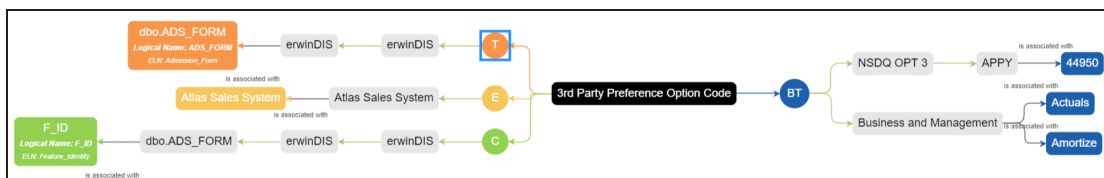
Use this option to display gray colored background for the asset hierarchy nodes. For example, the following mind map displays nodes in the hierarchy with a gray-colored background.
-  This option is only available for Logical View.
- Show Asset Hierarchy/Show Hierarchy:**

Use this option to view hierarchy of all the assets in a mind map.

Use the following options to configure relationship options:

- **Include Relationships:** Select the check box to display relationships between the assets on the mind map.
- **Switch to Enterprise Relationship configuration:** Select the check box to apply the selected line color and type configured in the [Business Glossary Manager Settings](#).

For example, in the following mind map, the relationships (is a Synonym of and is Parent Of) and the line color as set in Business Glossary Manager Settings appear on the mind map.



View Logical Names

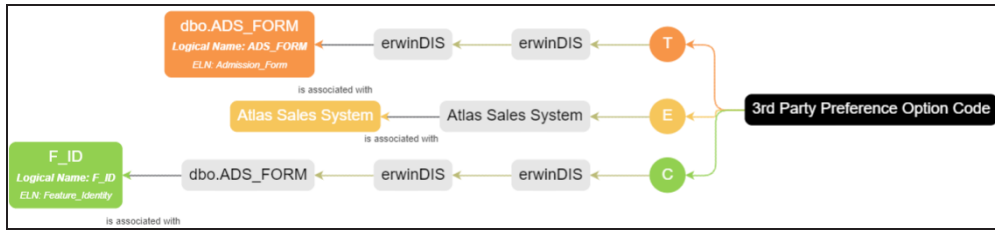
Use the following options to view logical and expanded logical names of tables and columns on the mind map:

- **Logical Names:** Select the check box to view logical names of tables and columns on the mind map.
- **Expanded Logical Names:** Select the check box to view expanded logical names of tables and columns on the mind map.

You can configure logical names and expanded logical names of [tables](#) and [columns](#) in Metadata Manager.

For example, the following mind map displays logical names and expanded

Viewing Mind Maps



View Sensitivity

Use the following options to view sensitivity details of the assets on the mind map:

Filters

Use the following filter options to select information availability on mind maps:

- **By Asset Type:** Use this option to filter and display asset types on the mind map.
- **By Relationship:** Use this option to filter and display assets on the mind map based on relationships.

For example, in the By Asset Type list, select Column and in the By Relationship list select is associated with. Doing this displays only those columns that have the is associated type of relationship with the asset.

- **Sensitivity Data Indicator(Y/N):** Select the check box to indicate whether an asset is classified as sensitive.
- **Sensitive Data Classification:** Select the check box to view the sensitivity classification of assets.

For example, the following mind map displays the sensitive data indicator as sensitive (🔒) and sensitive data classification as Confidential.

For more information on updating asset's sensitivity in mind maps, refer to the [Updating Sensitivity](#) topic.



Object Properties

Expand the Object Properties pane to view the selected asset's information such as its path, type, association statistics, data governance responsibilities, and sensitivity classification of an asset.

Overview

Expand this pane to open a panned view of the mind map. You can drag the purple box to move across the mind map and focus on specific areas.



Setting Up Associations using Qualifiers

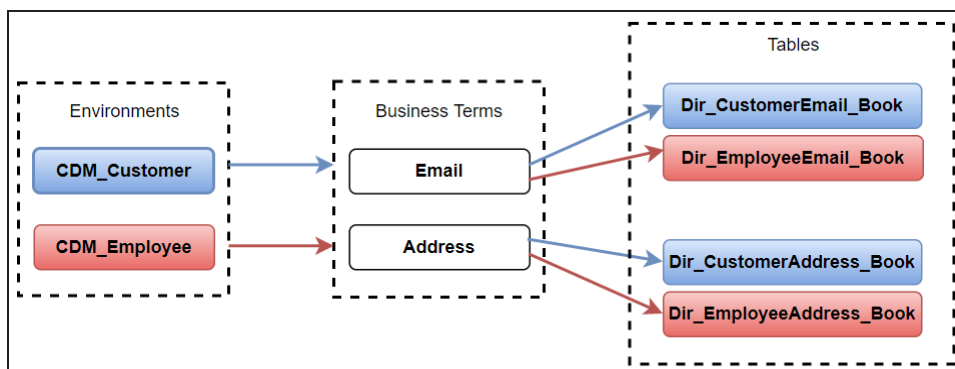
You can associate technical and business assets based on a unique qualifier. A qualifier displays associations that are uniquely identified by a business or technical asset in a mind map. You can also create multiple levels of associations that are unique for a technical or business asset.

This topic walks you through the steps to create associations between environments, business terms, and tables. Then, use the environment as a unique qualifier for association using an example.

The example creates association between technical and business assets in two parts:

- Environments, CDM_Customer and CDM_Employee are associated with respective assets, such as Email and Address.
- Business terms, Email and Address are associated with relevant assets using CDM_Customer and CDM_Employee environments as qualifier.

The following diagram shows how technical and business assets are associated.



In this diagram:

1. Customer information (customer's email and address) is associated with environment, CDM_Customer, using it as a qualifier.
2. Employee information (employee's email and address) is associated with the environment, CDM_Employee, using it as a qualifier.

As an example, if you select CDM_Customer (or CDM_Employee) with the qualifier option enabled, only the associations related to CDM_Customer or CDM_Employee are displayed. For more information on mind map, refer to the [Viewing Mind Maps](#) topic.



For the qualifier option to function as intended, we recommend that you follow the example in this topic to set up associations.

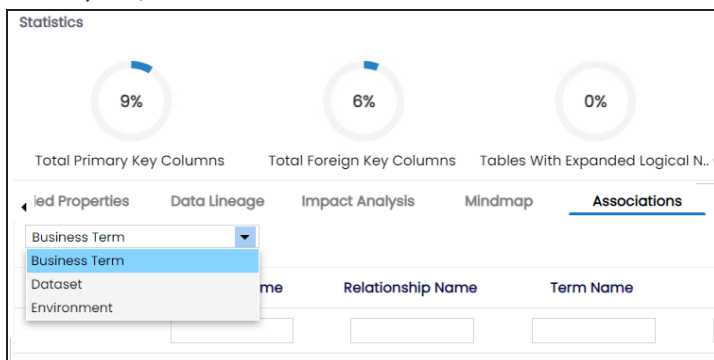
To set up associations for Environments (CDM_Customer or CDM_Employee) using a qualifier, go to **Application Menu > Data Catalog > Metadata Manager > Explore**. Then, set up associations as follows:

- [Associating CDM_Customer as a Unique Qualifier](#)
- [Associating CDM_Employee as a Unique Qualifier](#)

Associating CDM_Customer as a Unique Qualifier

To define associations for CDM_Customer based on the diagram explained above, and use it as a unique qualifier for its associations, follow these steps:

1. On the Explore tab, click CDM_Customer environment tile.
2. Click the **Associations** tab.
3. In the asset type (business policies, business terms, columns, environments, and tables) list, select Business Term to associate with the environment, CDM_Customer.



4. Click **+**.
The Relationship Associations page appears. Based on the asset type that you select, it

Setting Up Associations using Qualifiers

Relationship Associations ✖

Save **Cancel**

Current Context: [CDM_Customer](#)

Current Context Type: [Environment](#)

Relationship Name: [Golden Source for](#)

Search (partial matches):

☐	Term Name	Description	Definition	Catalog Name	Catalog Hierarchy
☐	3 -Hydroxyl End	LEN(D3)	The hydroxyl group that is attached to the 3 carbon atom of the sugar (ribose or deoxyribose) of the terminal nucleotide of a nucleic acid molecule.	Macroeconomics	Monetary Terms → Macroeconomics
☐			3-A Sanitary Standards, Inc. (3-A SSI) is a non-profit association representing environment		

1 2 3 4 5 — Records from 1 to 200 of 10245

- Select the assets, Email and Address to associate with CDM_Customer.
If you know the asset name, use the Search (partial matches) field to look up for it
- Click **Save**.
Email and Address are associated with the CDM_Customer and added to its list of associations.

Data Dictionary Environment Details Extended Properties Data Lineage Impact as Source Impact as Target Mindmap Associations Workflow Log Documents Data G							
Business Term							
☐	Actions	Qualifier Name	Relationship Name	Term Name	Description	Definition	Catalog Name
☐							
☒	+ ✎ ✕		Golden Source for	Address		Specifies the address of the employee and customer.	Operations
☒	+ ✎ ✕		Golden Source for	Email		Specifies email address for Customers and Employees.	Operations

- For Email, under the **Actions** column, click **+** to associate with other assets using CDM_Customer as a qualifier.

Setting Up Associations using Qualifiers

Operations						
Email						
Business Term	Actions	Qualifier Name	Relationship Name	Term Name	Definition	Catalog Name
						Catalog Hierarchy
☐	+ ✎ 🗑		is Synonymous with	Customer	Specifies the customer shipping location.	Operations
☐	+ ✎ 🗑		is Synonymous with	Employee	Employee	Operations
☐	+ ✎ 🗑	Operations/Employee	is a Synonym of	Employee_Email		Testing Techniques

- In the asset type (business policies, business terms, columns, environments, and tables) list, select **Table** to associate with the business term Email using CDM_Customer as a qualifier.
- Click **+** on the top-right corner.
The Relationship Associations page appears.
- Select Dir_CustomerEmail.Book to associate with Email, using CDM_Customer as a qualifier.
If you know the asset name, use the Search (partial matches) field to look up for it.

Relationship Associations
✕

Save

Cancel

Current Context: [Email](#)

Current Context Type: [Business Term](#)

Relationship Name: [Represents](#)

Search (partial matches):

☐	Table Name	Environment Name	System Name
☐	customer		
☒	Group_Dir_CustomerEmail_Book	CDM_Model_CommonR	erwin DI Suite
☐	_CustomerEmail_Book	School_Data	XSD

- Click **Save**.
Dir_CustomerEmail_Book is associated with Email using CDM_Customer as a qualifier.
Once the Dri_CustomerEmail_Book table is associated with Email, the **Qualifier Name**

Setting Up Associations using Qualifiers

Operations Email				
Table				
☐	Actions	Qualifier Name	Relationship Name	Table Name
☐				Environment Name
☐	+ ✎ □	erwin DI Suite/CDM_Customer	Represents	Group.Dir_CustomerEmail_Book
				CDM_Model_CommonR
☐	+ ✎ □	erwin DI Suite/CDM_Employee	Represents	Group.Dir_EmployeeEmail_Book
				CDM_Model_CommonR

- Repeat steps 7 to 11 to associate Dri_Customer_Address with Address using CDM_Customer as a qualifier.

Once the Dir_CustomerAddress_Book table is associated with Address, the **Qualifier Name** column displays CDM_Customer as a unique qualifier for the asset.

Associating CDM_Employee as a Unique Qualifier

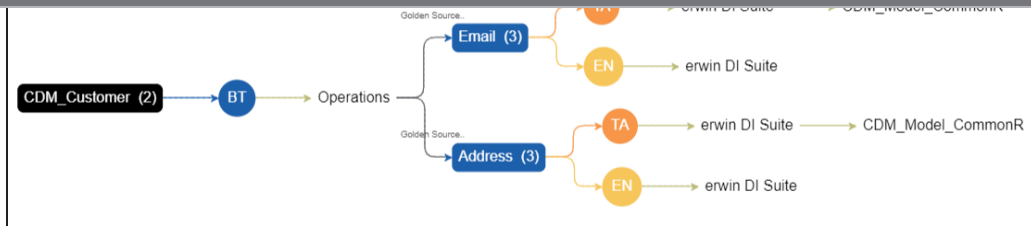
Similarly, you can define associations for CDM_Employee based on the diagram explained above, and use it as a unique qualifier for its associations. To create association based on the diagram, follow steps in [Association CDM_Customer as a Unique Qualifier](#) section.

Once you have created associations, you can view them in [mind map](#). Use the **Show Qualified View** option in the mind map to view the association based on a qualifier. In this case, CDM_Customer.

To view mind map, click **Mind Map** tab for the CDM_Customer. Then, select the **Show Qualified View** option. Selecting this option displays only associations that are based on the unique qualifier, CDM_Customer.

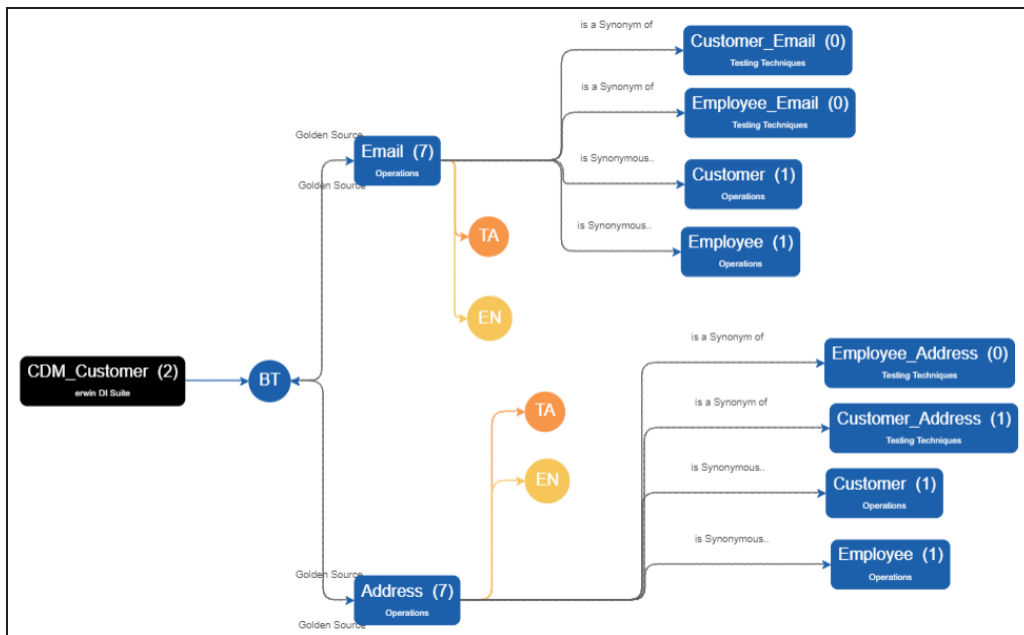
- With Show Qualified View option:** View associations based on CDM_Customer as a qualifier.

Setting Up Associations using Qualifiers



Similarly, you can view associations in a mind map using CDM_Employee as a qualifier.

- **Without Show Qualified View option:** View all associations without a qualifier.



Similarly, you can view associations in a mind map for the environment CDM_employee.

Configuring Extended Properties

You can configure user-defined properties for technical assets. First, you need to set up a form and then use it to configure user-defined extended properties.

You can configure extended properties of technical assets in the following ways:

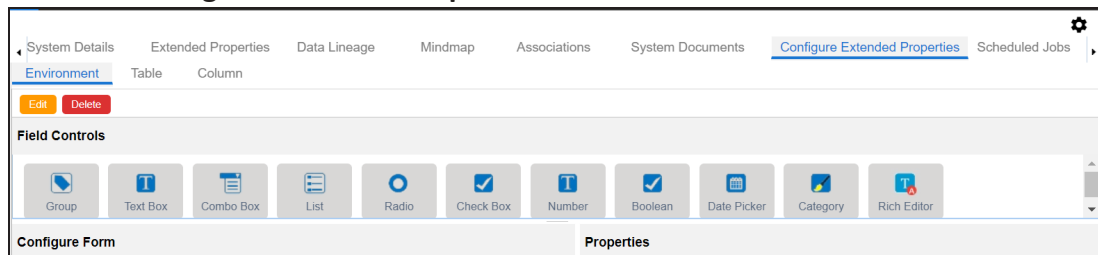
- [Configure extended properties globally](#)
- [Configure extended properties for individual assets](#)

Configure Extended Properties Globally

At the system level, you can configure extended properties for environments, tables, and columns. Extended properties configured at the system level for these objects apply to the objects under the system. For example, extended properties configured at system level for environments apply to all environments under that system.

To configure extended properties at system level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **Asset Catalog** pane, hover over a system and click  to view system details.
3. Click the **Configure Extended Properties** tab.



The Configure Extended Properties tab contains the following sections:

- **Field Controls:** Use this pane to get the required UI elements.
- **Configure Form:** Use this pane to design forms using the UI elements available in the **Field Controls** pane.

Configuring Extended Properties

the **Configure Form** pane.

4. Use the following tabs:

Environment

Use this tab to configure extended properties for environments under the selected system.

Table

Use this tab to configure extended properties for tables under the selected system.

Column

Use this tab to configure extended properties for columns under the selected system.

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

Property	Value
Published	☒
Field	Surrounded By
Type	Text Box
Dependencies	Type or click here
Configure Values	Configure

Configuring Extended Properties



The available properties differ based on the type of element.

Refer to the following table for property descriptions:

Property	Description
Published	Switch Published to ON to publish the field.
Field	Specifies the field label. To change the field labels, double-click the corresponding Value cell. For example, Metadata Scanned On.
Type	Specifies the type of the field. To select field types, double-click the corresponding Value cell.
Dependencies	Defines the pick list fields that can be used as controlling fields. It works only with the Reference Data Manager connector. To define pick list fields, select the fields from the drop-down option.
Configure Values	Specifies the connectors for the field. To configure option values, click Configure Values. Use the following options: • Default connector: Use this option to enter option values manually or using an XLSX file. • Reference Data Manager: Use this option to pull option values from reference tables in the Reference Data Manager.
Mandatory	Specifies whether the field is mandatory.
Description	Specifies the field description. To enter field descriptions, double-click the corresponding Value cell.
Visible in Extended Properties	Switch Visible in Extended Properties to ON to make the field visible on the Extended Properties tab.
Use in Discover	Switch Use in Discover Assets to ON to use the field as a filter in

Configuring Extended Properties	
Property	Description
Assets	the Discover Assets module. Ensure the following: - Filter feature supports field types such drop-down, list, checkbox, radio, and boolean. - Switch the Include Extended Properties option ON on the Discover Asset Settings page. - Schedule a synchronization job or manually synchronize the asset before you can filter assets on the Discover Assets module.
Order	Specifies the order of the field on the Extended Properties tab. To enter the order number, double-click the corresponding Value cell. You can also drag and move fields in the Configure Form pane to change their order.

8. Click **Save**.

The form is saved and is available on the Extended Properties tab of the selected object (Environment, Table, or Column).

Similarly, you can also configure the extended properties form at environment, table, and column levels. Once you configure the form, you can set up extended property values on the Extended Properties tab at system level or individual asset levels.

To use the form, at system level or other (environment, table, or column) levels, follow these steps:

1. In the **Data Catalog** pane, click the required object.
2. Click the **Extended Properties** tab.

3. Click **Edit** and set extended properties.
4. Click **Save**.

The extended properties are saved.

You can download extended properties in the XLSX format and use it as a template to [import extended properties](#). To download extended properties, click **Export To Excel**.

Configure Extended Properties for Individual Assets

You can also configure the extended properties for any individual technical asset.

To configure the extended properties for an individual asset, select an asset from the Metadata Manager, and click the **Extended Properties** tab.

For example, the following image displays the Extended Properties tab for the selected environment. Similarly, you can configure the extended properties of individual assets such as systems, tables, and columns.

Configuring Extended Properties

7%

Total Primary Key Columns

9%

Total Foreign Key Columns

0%

Tables With Expanded Logical N..

0%

Columns With Expanded Logical ..

Extended Properties

Data Lineage

Impact Analysis

Mindmap

Associations

Workflow Log

Documents

Configure

Edit

Delete

Form Values

Modules

Select an option

Name

Victor

Text Box

Text Box1

Winter

Cold

Group

You can download extended properties in the XLSX format and use it as a template to [import extended properties](#). To download extended properties, on the **Extended Properties** tab, click **Export To Excel**.

Default Connector

When you configure extended properties using UI elements, such as combo box, radio button, and list, you also need to configure their option values. You can use the default connector to import option values from an MS Excel file or enter them manually.

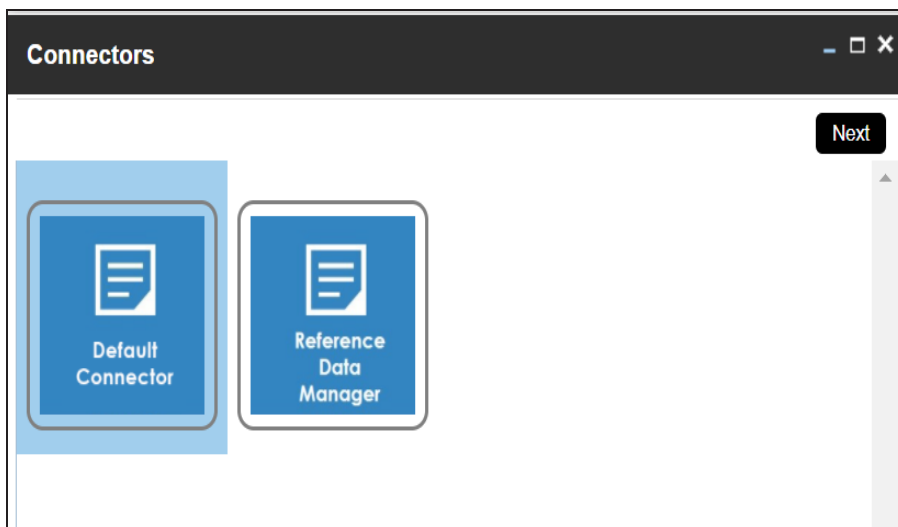
To configure option values using the default connector, follow these steps:

1. In the **Configure Form** section, click the required UI element.

Ensure that you are in edit mode.

2. In the **Properties** section, click **Configure**.

The Connectors page appears.



3. On the **Connectors** page, ensure that the Default Connector option is selected. Then, click **Next**.

The <UI_Element> Options page appears. For example, if the UI element is Combo Box, the Combo Box Options page appears.

Default Connector

Combo Box Options

AddSaveDeleteImport Excel

Text	Value

4. Use the following options:

Add

Use this option to enter text and value manually.

Import Excel

Use this option to import options from MS Excel files.

5. After configuring option values, click **Save**.

To add option values manually, follow these steps:

1. Click **Add**.
2. Enter values in the Text and Value fields.

The Text corresponds to options whereas the Value corresponds to underlying value of an option. You can add as many values as needed.

Default Connector

Add

Save

Delete

Import Excel

Text	Value
Data Steward_GER	rcooper
Data Steward_ROM	vsmith

- Click **Save**.

The option values appear in the UI element under the Configure Form section.

Combo Box

Select an option

Select an option

Data Steward_GER

Data Steward_ROM

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

- Click **Import Excel**.

The Upload Excel page appears.

Upload Excel

Attach Excel File No file chosen

Note*:

1. Empty FIELD pairs are ignored.
2. Duplicate FIELD pairs are ignored.
3. Slash(/) FIELD pairs are ignored.
4. FIELD pair with more than 200 characters are ignored.

2. Click **Choose File** and select the required MS Excel file.

The Upload Excel page appears. It displays the data in the MS Excel file.

Upload Excel			
 			
#	GROUP NAME	ROLE NAME	USER ID
#	Select Column To Import	Select Column To Import	Select Column To Import
1	Data Stewards	Data Steward_GER	mmannigan
2	Data Stewards	Data Steward_GER	mmenza
3	Data Stewards	Data Steward_GER	mmannigan

3. Double-click the **Select Column To Import** cell in the required column.

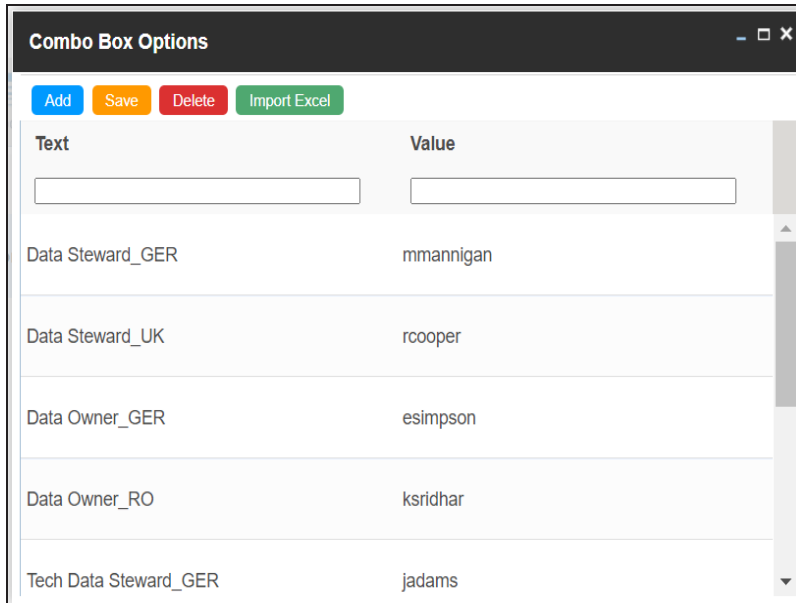
The available options appear.

 			
#	GROUP NAME	ROLE NAME	USER ID
#	Select Column To Import	Select Column To Import	Select Column To Import
1	Data Stewards	Select Column To Import FIELD VALUE Clear Selection	mmannigan

Field corresponds to options and Value corresponds to value of an option. You can import multiple columns. Use Clear Selection to undo the selection.

5. Click .

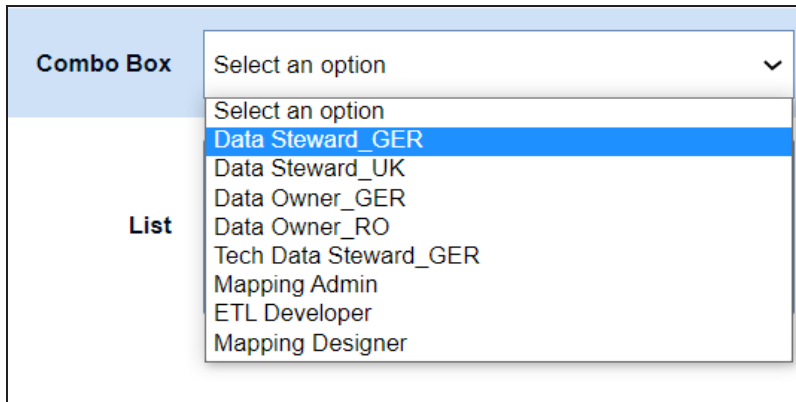
The <UI_Element> Options page appears. It displays the imported columns. You can delete a row that is not required. To delete rows, click a row and then click **Delete**.



Text	Value
Data Steward_GER	mmannigan
Data Steward_UK	rcooper
Data Owner_GER	esimpson
Data Owner_RO	ksridhar
Tech Data Steward_GER	jadams

6. Click **Save**.

The option values appear in the UI element under the Configure Form section.



Combo Box Select an option ▼

List

- Select an option
- Data Steward_GER**
- Data Steward_UK
- Data Owner_GER
- Data Owner_RO
- Tech Data Steward_GER
- Mapping Admin
- ETL Developer
- Mapping Designer

Reference Data Manager

When you configure extended properties using UI elements, such as combo box, radio button, and list, you also need to configure their option values. You can use the Reference Data Manager connector to import option values from tables in the Reference Data Manager.

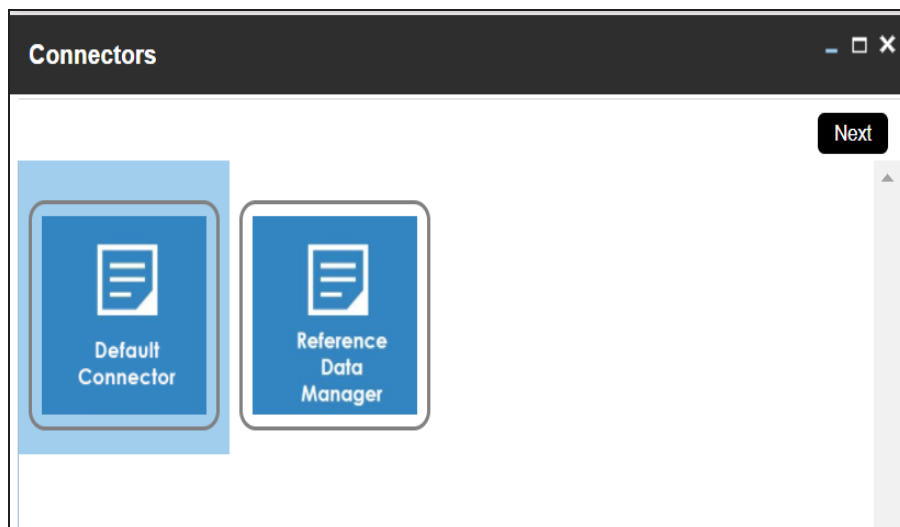
To configure option values using reference data manager connector, follow these steps:

1. In the **Configure Form** section, click the required UI element.

Ensure that you are in edit mode.

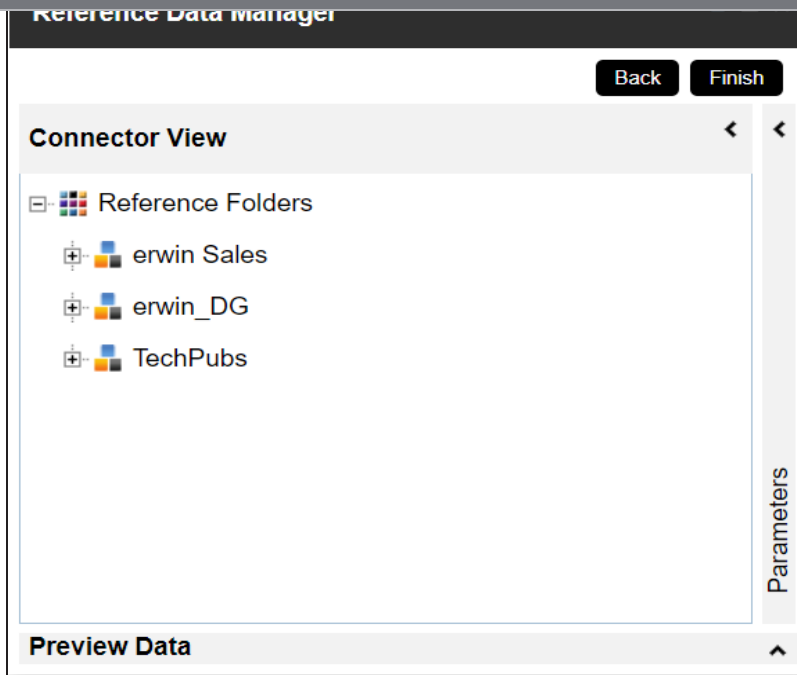
2. In the **Properties** section, click **Configure**.

The Connectors page appears.

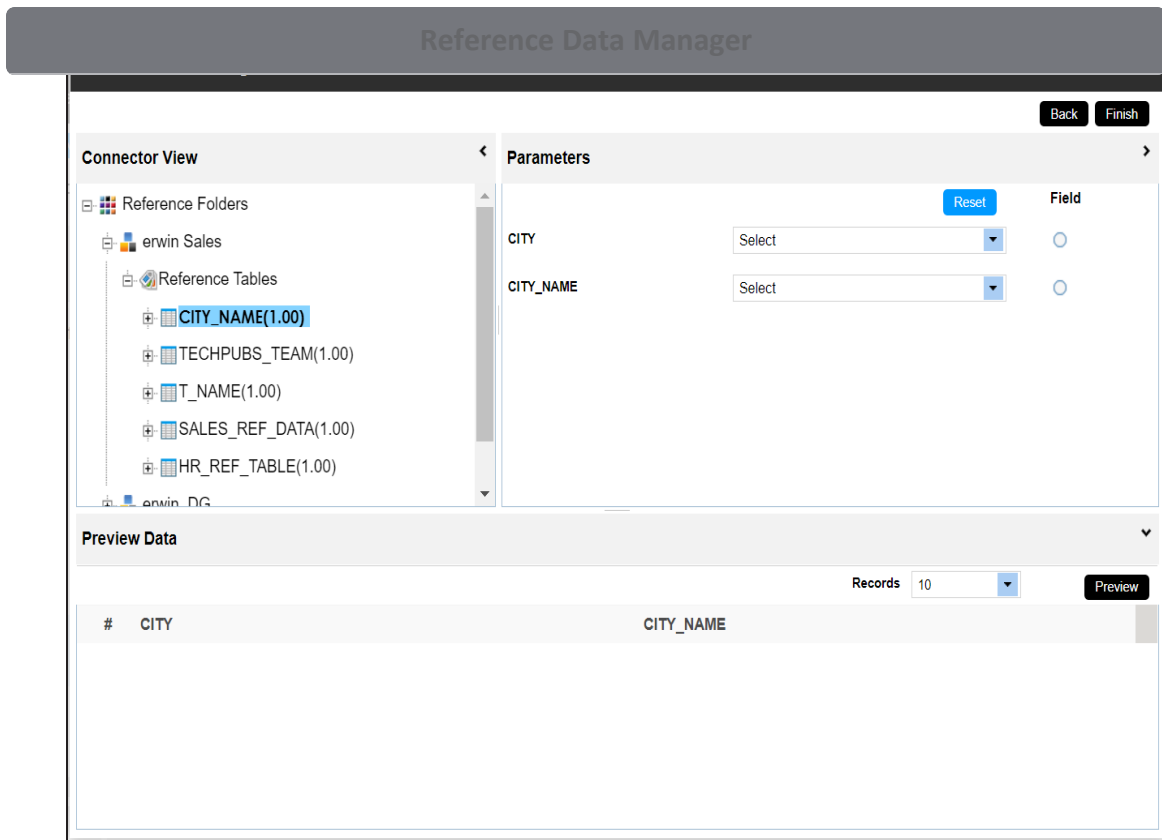


3. On the **Connectors** page, click **Reference Data Manager** and then click **Next**.

The Reference Data Manager page appears. It displays the reference folders in the Connector View pane.



4. In the **Connector View** pane, expand a reference folder and select a reference table. The Parameters pane displays the columns in the reference table. You can also click Preview to view the data in the reference table.



5. In the **Parameters** pane, click the radio button next to the required column.

You can select the controlling field from the drop down option. Ensure that you define the required dependencies in the Properties pane and that the option values for controlling field are configured using the same reference column.

6. Click **Finish**.

The Extended Properties Configuration page appears.

Reference Data Manager

The screenshot shows the 'Reference Data Manager' interface. At the top, there are 'Save', 'Cancel', and 'Delete' buttons. Below them is the 'Field Controls' section with icons for Group, Text Box, Combo Box, List, Radio, Check Box, Number, Boolean, Date Picker, and Category. The main area is divided into 'Configure Form' and 'Properties'.

Configure Form:

- Selected Roles Group:** A dropdown menu showing 'Compliance Officer'.
- List of Cities:** A list box showing 'Mumbai', 'Los Angeles' (highlighted), and 'New Delhi'.
- Radio:** A radio button at the bottom.

Properties:

Property	Value
Description	
Load On Startup	☐ Off
Visible in Extended Properties	☒ On

- Under the **Properties** section, switch **Load on Startup** to **ON**.
- Click **Save**.

The option values are configured. For example, in the following form the List of Cities is the controlling field for Selected City. Both the fields get their option values from the same reference column.

The screenshot shows the 'Configure Form' interface. It has a blue header bar with the text 'Governance Responsibilities' and 'Compliance Officer'. Below this, there are two sections:

- Selected Roles Group:** A dropdown menu showing 'Compliance Officer'.
- List of Cities:** A list box showing 'Mumbai', 'Los Angeles' (highlighted), and 'New Delhi'.

At the bottom, there is a **Selected City** section with a radio button and the text 'Los Angeles'.

Importing from Excel

You can import user-defined properties for technical assets from an XLSX file. You can either use an existing XLSX file or download an extended properties file from the Extended Properties tab. Ensure that the XLSX file follows the correct template.

To import extended properties from XLSX files, follow these steps:

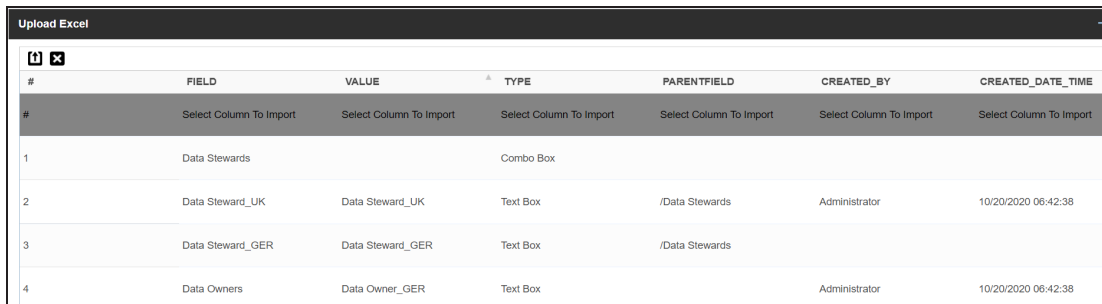
1. On the **Extended Properties** tab, click **Import From Excel**.

The Upload Excel page appears.



2. Click **Choose File**.
3. Browse and select the XLSX file.
4. Click .

The Upload Excel page appears. It displays the data in the XLSX file.



#	FIELD	VALUE	TYPE	PARENTFIELD	CREATED_BY	CREATED_DATE_TIME
#	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	Data Stewards		Combo Box			
2	Data Steward_UK	Data Steward_UK	Text Box	/Data Stewards	Administrator	10/20/2020 06:42:38
3	Data Steward_GER	Data Steward_GER	Text Box	/Data Stewards		
4	Data Owners	Data Owner_GER	Text Box		Administrator	10/20/2020 06:42:38

5. Double-click the **Select Column To Import** cell in the required column.

The available options appear.

Importing from Excel

#	FIELD	VALUE	TYPE	PARENTFIELD
#	Select Column To Import FIELD VALUE TYPE PARENTFIELD Clear Selection	Select Column To Import	Select Column To Import	Select Column To Import
1			Combo Box	
2	Data Steward_UK	Data Steward_UK	Text Box	/Data Stewards
3	Data Steward_GER	Data Steward_GER	Text Box	/Data Stewards

6. Select an appropriate option.

For example, if you select Field, then the selected column is imported as Field.

Similarly, you can also select the Value, Type, and Parentfield columns. Ensure that you at least select a Field column.

7. Click .

The extended properties are imported.

Configure
Edit
Delete
Import From Excel
Export To Excel

Form Values

Data Stewards

Select an option

Data Owners

Data Owner_GER

Technical Data Steward

Tech Data Steward_GER

Compliance Officer

Mapping Designer

Self Help

Creating and Managing Test Cases for Tables

You can define test cases for a table in the Metadata Manager and determine the testing type, expected and actual results, SQL script, and more. You can also enrich a test case by adding validation steps and supporting documents to it.

The metadata-level test cases are stored in the Test Manager under a project. This project follows the <System_Name>_<Environment_Name> nomenclature format.

Creating and managing test cases involves:

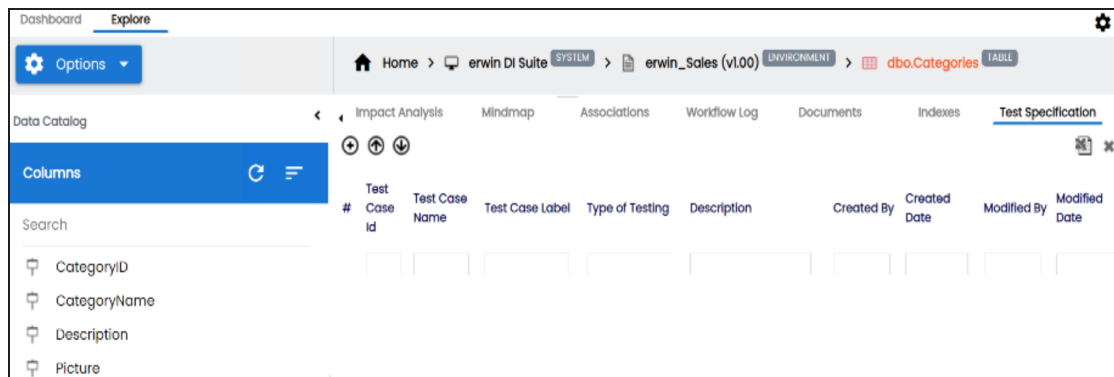
- [Creating test cases](#)
- [Adding validation steps](#)
- [Adding documents](#)
- [Managing test cases](#)

Creating Test Cases

In the Metadata Manager, you can define test cases for tables. You can also add documents and multiple validation steps to the test cases.

To create table-level test cases, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. On the Explore tab, click an environment tile to view its details and tables.
3. In the **Data Catalog** pane, click a table.
4. Click the **Test Specification** tab.



5. Click .

Creating Test Cases

Add New Test Case

Test Case Overview
Validation Steps
Document Upload

Save & Continue
Save & Exit
Cancel

Test Case Name *

Test Case Label

Type of Testing
Select

Test SQL Script

A
H
B
I
U

Description

A
H
B
I
U

Expected Result

A
H
B
I
U

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

Field Name	Description
Test Case Name	Specifies the name of the test case. For example, Verifying Log in Page.
Test Case Label	Specifies the unique label for the test case. For example, Log in Page.
Type of Test- ing	Specifies the type of testing. For example, PERFORMANCE-TEST.

Creating Test Cases

Field Name	Description
Test SQL Script	Specifies the SQL script required in the test execution. For example, select * from dbo.RM_Resource.
Description	Specifies the test objective in brief. For example: The objective of the test case is to verify log in page with a valid user name and password.
Expected Result	Specifies the expected result of the test case in detail. For example: All the users can log on to erwin DI with their user name and password.
Actual Result	Specifies the actual test result after the execution of the test. For example: One user cannot log on to erwin DI.
Testing Comments	Specifies the testing comments about the test case. For example: The user name and passwords are saved in the dbo.RM_Resource table.

7. Click **Save and Exit**.

The test case is created.

Once the test case is created, you can enrich it further by:

- [Adding validation steps](#)
- [Adding documents](#)

[Managing test cases](#) involves:

- Updating test cases
- Exporting test cases
- Deleting test cases

Adding Validation Steps

In Metadata Manager, you can add multiple validation steps to a table. You can also specify actual and expected results for each validation step.

To add validation steps to table-level test cases, follow these steps:

1. In **Data Catalog**, click a table, and click the **Test Specification** tab.

The Test Case Overview appears in the bottom pane.

#	Test Case Id	Test Case Name	Test Case Label	Type of Testing	Description	Created By	Created Date	Modified By	Modified Date
1	10	Verifying Categories				Administrator	2022-03-29 05: Administrator	2022-03-29 05: Administrator	2022-03-29 05: Administrator

Records from 1 to 1 | Page 1 | 25 rows per page

Test Case Overview | Validation Steps | Document Upload

Test Case Id: 10

Test Case Name*: Verifying Categories

Test Case Label:

Adding Validation Steps

ct AnalysisMindmapAssociationsWorkflow LogData QualityDocumentsIndexesTest Specification

#	Test Case Id	Test Case Name	Test Case Label	Type of Testing	Description	Created By	Created Date	Modified By	Modified Date
1	10	Verifying Categories				Administrator	2022-03-29 05:31	Administrator	2022-03-29 05:31

Records from 1 to 1Page 125 rows per page

Test Case OverviewValidation StepsDocument Upload

#	Step Name	Step Type	Description	Created By	Created Date	Modified By	Modified Date

3. Click .

Adding Validation Steps

Add New Test Step

Save

Cancel

Step Name*

Validation Step Type

Select

Description

A

H

B

I

U

Expected Result

A

H

B

I

U

Actual Result

A

H

B

I

U

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

Field Name	Description
Step Name	Enter an unique name of each step.
Validation Step Type	Select the validation step type from the drop-down.
Description	Describe the object in brief.
Expected Result	Enter the SQL script to run the test case.
Actual Result	Enter the actual test result after the execution of the test.

Adding Validation Steps	
Field Name	Description
Expected Result	Enter the expected result in detail, including the error-message that is displayed on screen.
Test Step Comments	Enter relevant test step comments.

5. Click **Save**.

The validation step is added to the test case.

Adding Documents

You can upload supporting documents such as text files, audio files, videos, and so on to table-level test cases.

To add documents to table-level test cases, follow these steps:

1. In the **Data Catalog** pane, click a table, and click **Test Specification**.

The Test Case Overview appears.

#	Test Case Id	Test Case Name	Test Case Label	Type of Testing	Description	Created By	Created Date	Modified By	Modified Date
1	10	Verifying Categories				Administrator	2022-03-29 05	Administrator	2022-03-29 05

Records from 1 to 1 | Page 1 | 25 rows per page

Test Case Overview | Validation Steps | Document Upload

Test Case Id: 10

Test Case Name *: Verifying Categories

Test Case Label:

Adding Documents

sis Mindmap Associations Workflow Log Data Quality Documents Indexes Test Specification

+ ↶ ↷

#	Test Case Id	Test Case Name	Test Case Label	Type of Testing	Description	Created By	Created Date	Modified By	Modified
1	10	Verifying Categories				Administrator	2022-03-29 05:3	Administrator	2022-03-2

Records from 1 to 1 Page 1 25 rows per page

Test Case Overview Validation Steps Document Upload

+ +

#	Document Name	Document Link	Document Status	Intended Use Description
---	---------------	---------------	-----------------	--------------------------

3. Click .

The Add Test Case Document page appears.

Add Test Case Document

Save Cancel

Document Name*

Document Owner

Document Object

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

Document Link

Intended Use Description 

Approval Required Flag ☐

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

Adding Documents

Field Name	Description
Document Name	Specifies the name of the physical document being attached to the test case. For example, Resource Details.
Document Object	Drag and drop document files or use  to select and upload document files.
Document Owner	Specifies the document owner's name. For example, John Doe.
Document Link	Specifies the URL of the document. For example, https://drive.google.com/file/d/2sC2_SZlYeFKI7OOn-b5YkMBq4ptA7jhg5/view
Intended Use Description	Specifies the intended use of the document. For example: The document has information about the resources of the application.
Approval Required Flag	Specifies whether the document requires approval. Select the Approval Required Flag check box to select the document status.
Document Status	Specifies the status of the document. For example, In Progress. This field is available only when the Approval Required Flag check box is selected.

5. Click **Save**.

The document is added to the test case.

Managing Test Cases

Managing table-level test cases involves:

- Updating test cases
- Exporting test cases
- Deleting test cases

To update table-level test cases, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager**.
2. In the **Data Catalog** pane, click a table.
3. Click the **Test Specification** tab and double-click a test case.

The screenshot shows the Metadata Manager interface with the 'Test Specification' tab selected. The table below lists test cases, with the first one highlighted.

#	Test Case Id	Test Case Name	Test Case Label	Type of Testing	Description	Created By	Created Date	Modified By	Modified Date
1	10	Verifying Categories				Administrator	2022-03-29 05	Administrator	2022-03-29 05

Below the table, the 'Test Case Overview' tab is active, showing the details for Test Case Id 10:

- Test Case Id: 10
- Test Case Name: Verifying Categories
- Test Case Label:

4. In the **Test Case Overview** tab, click .

You can update the test case.

To export a test case, click the test case in the **Test Case Summary** pane, and click .

To delete a test case, click the test case in the **Test Case Summary** pane, and click .

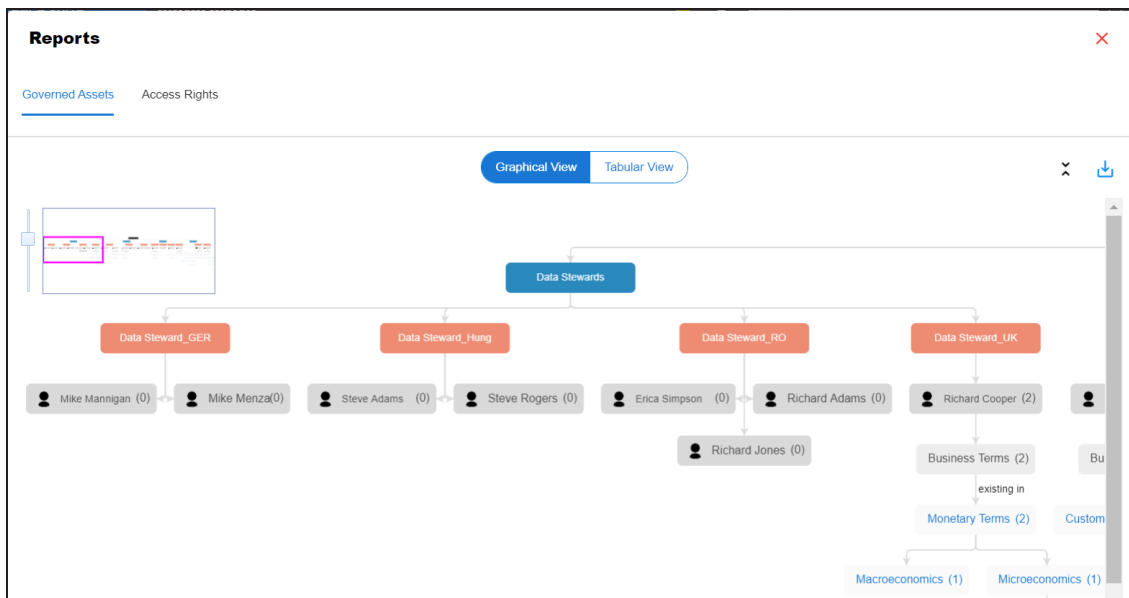
Viewing Access Rights and Data Governance Reports

From the Access to Enterprise Access Rights and Data Governance Documentation Reports page, you can view:

- [Access rights](#)
- [Data governance reports](#)

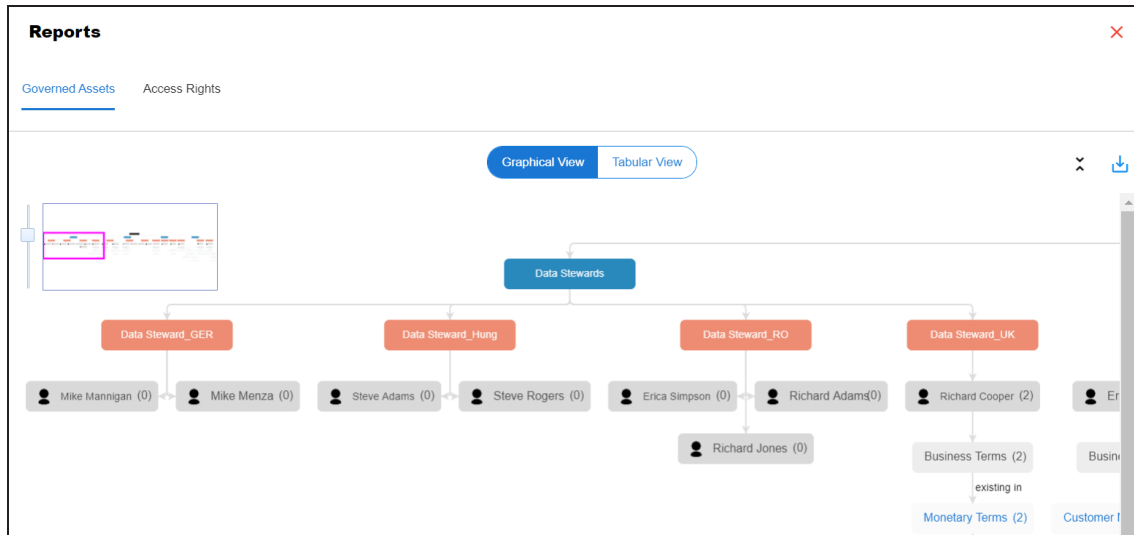
To view access rights and data governance reports, click  from the top navigation pane.

Reports page appears. From the Reports page, you can view [governed assets](#) and [access rights](#). For more information on viewing access rights and data governance reports, follow the below topics.



Data Governance Report

A successful data governance program demands an efficient grouping of roles based on the responsibilities. It is also important to assign appropriate users and roles to catalogs and then assign governance responsibilities to business assets. The governance responsibilities report helps you track assignments of these governance responsibilities to the business assets in the Business Glossary Manager.



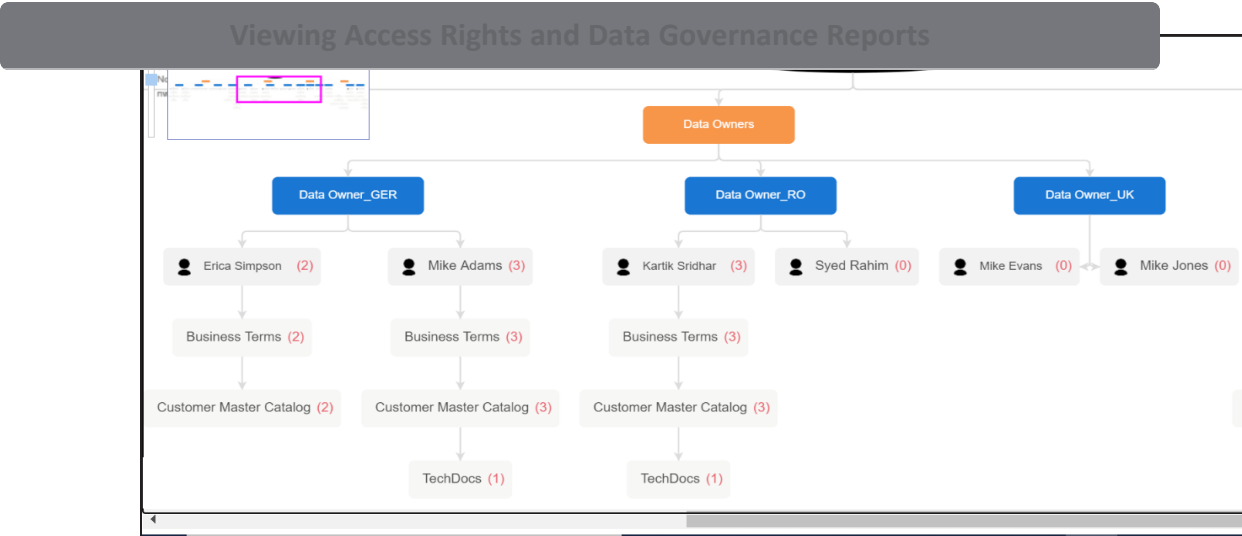
Use the following two views to view reports:

- **Graphical View:**
The graphical view displays the governance responsibilities in a tree structure.
- **Tabular View:**
The tabular view displays the governance responsibilities in a grid format.

By default, the graphical view opens.

To view report details in the graphical view, use the following options:

- **Expand/Collapse** (↕)
Use this option to switch between the expanded or collapsed view. For example, the report displays the governance responsibilities in the expanded view.



Pan View

Use this option to focus on a part of the governance responsibilities tree.



Export (↓)

Use this option to download the report in the JPG format.

The Tabular View displays the governance responsibilities in a grid that includes, roles group, role, user details, asset name, asset type, and catalogs.

Viewing Access Rights and Data Governance Reports

Governed Assets Access Rights

BUSINESS ASSETS ²⁵							
Graphical View				Tabular View			
Group Name	Role Name	User Id	User Name	User Email	Business Asset	Asset Type	Catalog
Data Stewards	Data Steward_UK	rcooper	Richard Cooper	rcooper@xyz.com	Goods Supply	Business Terms	Monetary Terms → Microeconomics → Microeconomics
Data Stewards	Data Steward_UK	rcooper	Richard Cooper	rcooper@xyz.com	3-Hydroxyl End	Business Terms	Monetary Terms → Macroeconomics
Data Owners	Data Owner_GER	madams	Mike Adams	m.adams@xyz.com	CUSTOMER	Business Terms	Customer Master Catalog
Data Owners	Data Owner_RO	ksridhar	Kartik Sridhar	ksridhar@xyz.com	CUSTOMER	Business Terms	Customer Master Catalog
Data Owners	Data Owner_GER	madams	Mike Adams	m.adams@xyz.com	TestTaskList	Business Terms	Customer Master Catalog → TechDocs

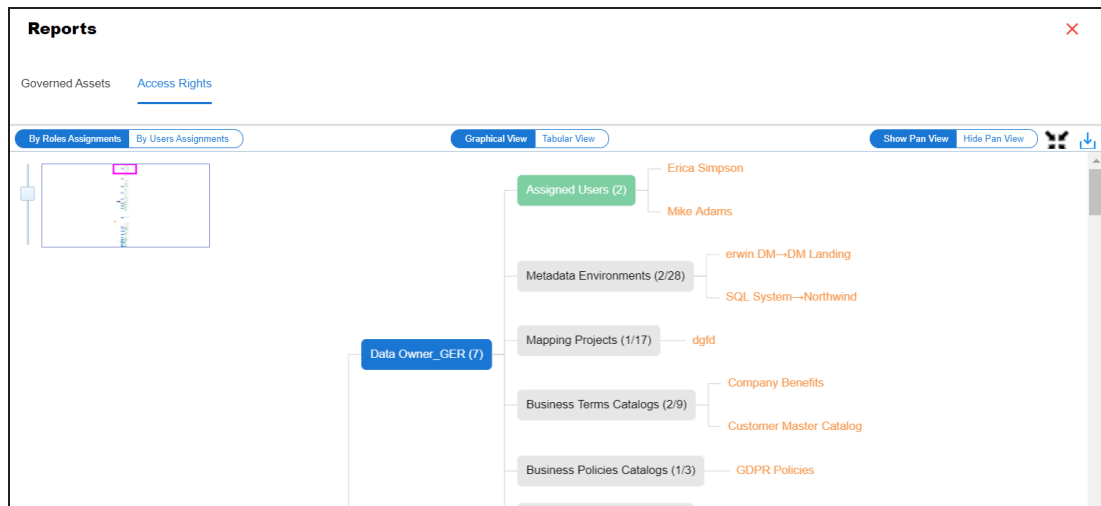
To download the report in the XLSX format, click .

Access Rights

The Access Rights tab displays the roles and user assignments. You can view these assignments in the graphical and tabular views. The graphical view displays the assigned asset types and names in a tree structure that can be expanded. Whereas the tabular view displays the assigned asset types and names in a grid format.

To view access rights, follow these steps:

Viewing Access Rights and Data Governance Reports



2. Use the following options:

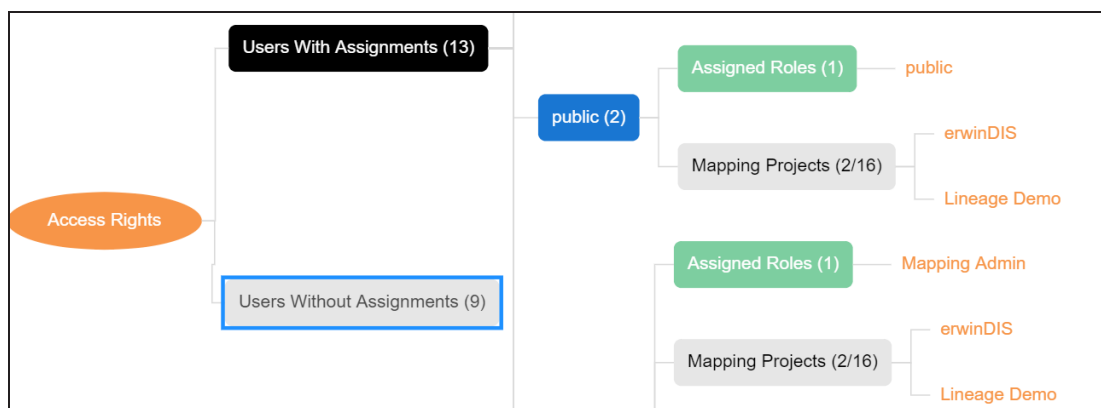
By Roles Assignments/By Users Assignments

Use this option to switch between the roles and user's assignments.

Graphical View/Tabular View

Use this option to switch between the graphical and tabular views.

The graphical view displays the assignments in a tree structure. You can expand the tree to view the asset types and names. For example, the following graphical view displays the users assignment.



Use the following options on the Graphical View:

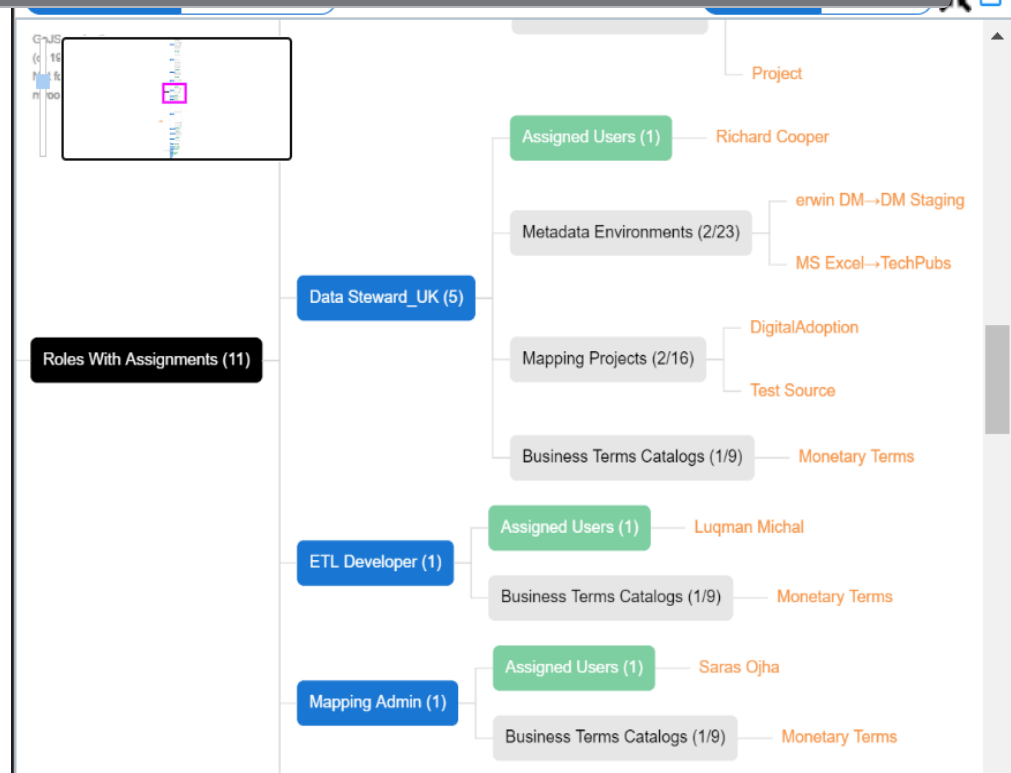
Use this option to show or hide the pan view. The pan view facilitates navigation across the expanded assignment tree. To navigate across the expanded, on the **Pan View**, move the purple box.



Expand/Collapse (🔄)

Use this option to switch between the expanded or collapsed view. For example, the following assignment tree appears in the expanded view.

Viewing Access Rights and Data Governance Reports



Expand Node Level

Use this option to expand the assignment tree at the node level. Hover over a node and click the plus (+) icon.

Export Image (📥)

Use this option to download the assignment tree in the JPG format.

The Tabular View displays the assignment details in a grid format. For example, the following roles assignments are displayed in the grid format.

Viewing Access Rights and Data Governance Reports

Governed Assets [Access Rights](#)

[By Roles Assignments](#) [By Users Assignments](#) [Graphical View](#) [Tabular View](#) 

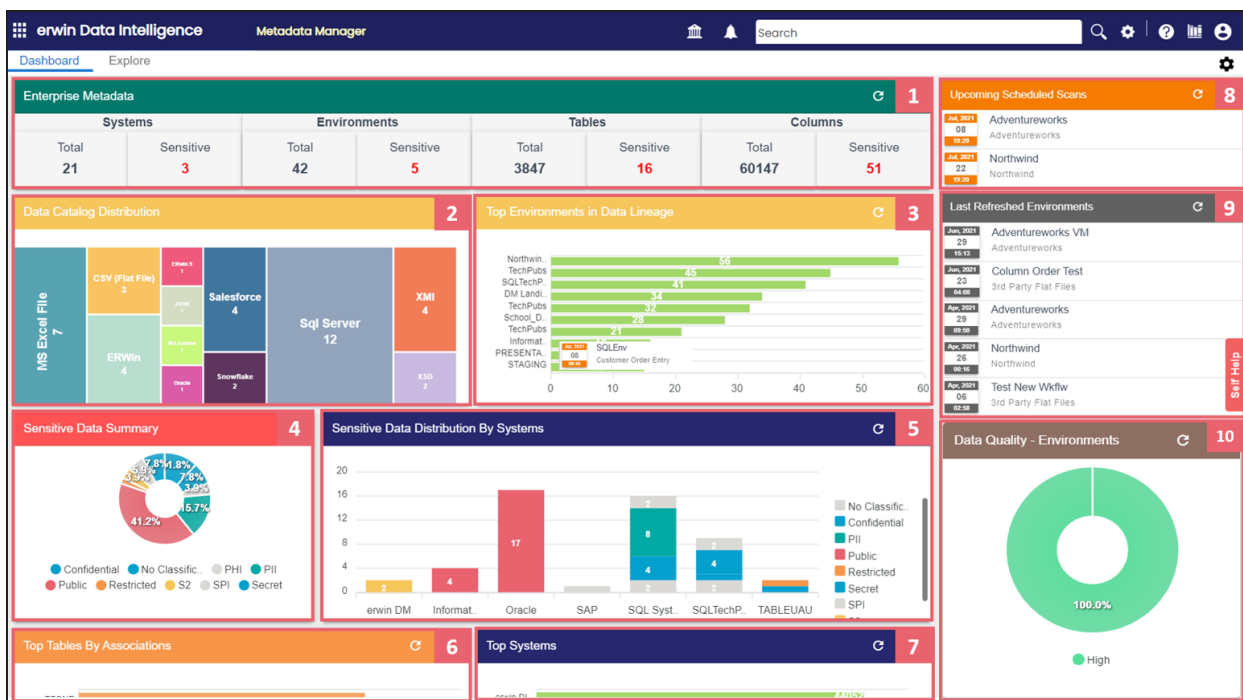
#	Role Name	Asset Type	Asset Name
1	Data Owner_GER	Users	Erica Simpson, Mike Adams
2	Data Owner_GER	Environment	DM Landing(erwin DM)
3	Data Owner_GER	Environment	Northwind(SQL System)
4	Data Owner_GER	Project	dgfd
5	Data Owner_GER	Business Terms	Company Benefits
6	Data Owner_GER	Business Terms	Customer Master Catalog
7	Data Owner_GER	Business Policies	GDPR Policies

You can download the assignment details in the XLSX format. To download the assignments, on the **Tabular View**, click .

Viewing Metadata Manager Dashboard

The Metadata Manager Dashboard displays metrics that help you analyze and track your metadata. It presents this information using charts and graphs in a card format. By default, the dashboard displays information derived from all the assets. You can configure it to display only the information derived from the data that is assigned to you. For more information, refer to the [Configuring Asset Settings](#) topic.

To access Metadata Manager Dashboard, go to **Application Menu > Data Catalog > Metadata Manager > Dashboard**.



Each card is clickable and displays information points using charts or graphs that provide a snapshot of the underlying data.

UI Section	Function
1- Enterprise Metadata	It displays the number of each type of technical assets (systems, environments, tables, and columns) and the distribution of sensitive metadata across these technical assets.

Viewing Metadata Manager Dashboard	
UI Section	Function
2- Data Catalog Distribution	It displays the distribution of environments based on database type.
3- Top <Technical Assets> in Data Lineage	It displays top systems or environments based on number of columns used in mappings.
4- Sensitive Data Summary	It displays the distribution of sensitive columns based on SDI classification across all the systems.
5- Sensitive Data Distribution By <Technical Assets>	It displays the number of sensitive columns and their SDI classifications in a system or environment.
6- Top <Technical Assets> By Associations	It displays top technical assets based on their number of associations.
7- Top <Technical Assets>	It displays top systems or environments based on their number of tables and columns.
8- Upcoming Scheduled Scans	It displays a list of environments that are scheduled for a metadata scan.
9- Last Refereshed Environments	It displays a list of recently refreshed environments.
10- Data Quality	It displays data quality score for environments, tables or columns.

Enterprise Metadata

The Enterprise Metadata section displays the number of each technical asset and the distribution of sensitive metadata across these technical assets. This section has four clickable technical asset-specific cards. You can use them to drill down further and view technical asset details.

Systems

For example, the following Systems card displays that there are 21 systems, out of which three systems are sensitive.

Systems	
Total	Sensitive
21	3

You can drill down and view the list of systems and their sensitivity. To view the list of systems, on the **Systems** card, click **Total**. The System Details page appears. On this page, you can click a system name to navigate to a system and work on it.

System Details			
#	System Name	Sensitive Data Indicator	Sensitive Data Indicator Classification Name
1	erwin DM		
2	Informatica		
3	Salesforce		
4	SAP		SPI
5	Snowflake		
6	SQL System		PII
7	TABLEUAU		

To focus on a list of sensitive systems only and view their details, on the **Systems** card, click **Sensitive**. The System Details page appears. It displays a list of sensitive systems.

Environments

The Environments card displays the total number of environments and the number of sensitive environments. For example, the following Environments card displays that there are 32 environments, out of which five environments are sensitive.

Environments	
Total	Sensitive
32	5

list of environments, on the **Environments** card, click **Total**. The Environment Details page appears. By default, it displays environments in all systems. On this page, you can click an environment name to navigate to an environment and work on it. Also you can use select a system in the Select System list to view environments in a specific system.

Environment Details						
Select System All						
10	SAP	SAP	SAP	MS Excel File		SPI
11	Snowflake	SNOWFLAKE SAMPLE_DATA	SNOWFLAKE SAMPLE_DATA	Snowflake		
12	Snowflake	TechPubs	Test	Snowflake		
13	SQL System	TechPubs	Test	SqlServer		
14	SQL System	Northwind	Northwind	SqlServer		Confidential
15	SQL System	SQL Env	SQL Env	SqlServer		PII
16	TABLEUAU	PRESENTATION LAYER	PRESENTATION LAYER	MS Excel File		

To focus on a list of sensitive environments only and view their details, on the **Environments** card, click **Sensitive**. The System Details page appears. By default, it displays a list of sensitive environments in all systems. To view sensitive environments in a specific system, you can use the Select System list.

Tables

The Tables card displays the total number of tables and the number of sensitive tables. For example, the following Tables card displays that there are 1312 tables, out of which 16 tables are sensitive.

Tables	
Total	Sensitive
1312	16

You can drill down and view the list of tables. To view the list of tables, on the **Tables** card, click **Total**. The Table Details page appears. By default, it displays a list of tables in all

Viewing Metadata Manager Dashboard

System

and work on it. You can select a system in the Select System list and an environment in the Select environment list to view tables in a specific environment.

Table Details							
Select System		Select Environment					
All		All					
#	System Name	Environment Name	Table Name	Sensitive Data Indicator	Sensitive Data Indicator Classification Name	Logical Table Name	Table Definition
1	erwin DM	DM Landing	Employees			Employees	
2	erwin DM	DM Landing	Citizens			Citizens	
3	erwin DM	DM Staging	Claim			Claim	A claim is a sta
4	erwin DM	DM Staging	Date			Date	Topic providing
5	erwin DM	DM Staging	Member			Member	A member is a
6	erwin DM	DM Staging	Claims Analysis			Claims Analysis	This informati

To focus on a list of sensitive tables only and view their details, on the **Tables** card, click **Sensitive**. The Table Details page appears. By default, it displays a list of sensitive tables in all environments. To view sensitive tables in a specific environment, you can use the Select System and Select Environment lists.

Columns

The Columns card displays the total number of columns and the number of sensitive columns. For example, the following Columns card displays that there are 15813 columns, out of which 50 are sensitive.

Columns	
Total	Sensitive
15813	50

You can drill down and view the list of columns. To view the list of columns, on the **Columns** card, click **Total**. The Column Details page appears. By default, it displays a list of columns in all tables. On this page, you can click a column name to navigate to a column and work on it. Also, you can select a system in the Select System list, select an environment in the Select

Erwin
table.

Viewing Metadata Manager Dashboard

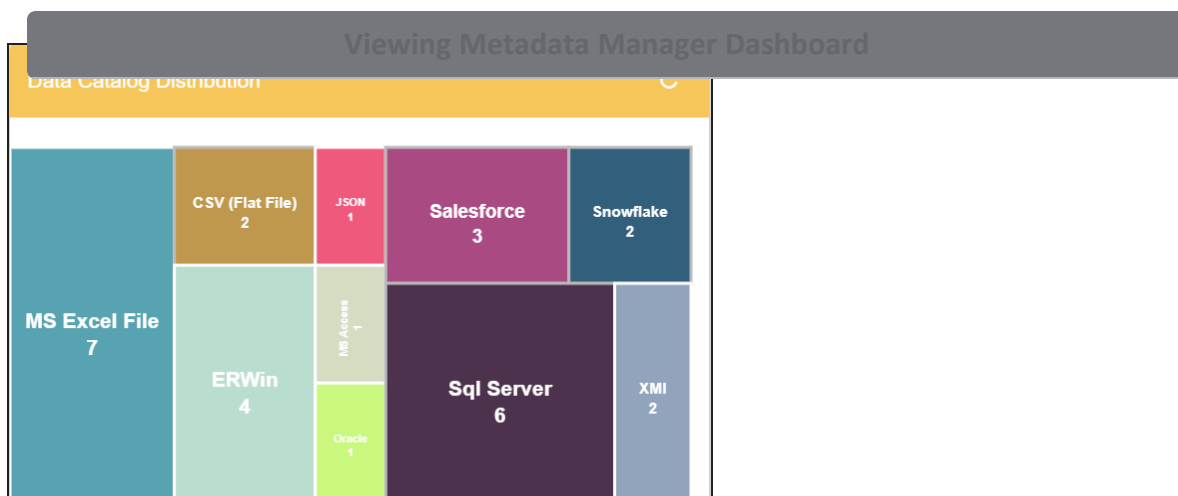
Select System All						
Select Environment All						
Select Table All						
#	System Name	Environment Name	Table Name	Column Name	Sensitive Data Indicator	Sensitive Data Indicator Classification Na
1	erwin DM	DM Landing	Employees	EmployeeName		S2
2	erwin DM	DM Landing	Employees	EmployeeID		S2
3	erwin DM	DM Landing	Citizens	CitizenID		
4	erwin DM	DM Landing	Citizens	CitizenName		
5	erwin DM	DM Landing	Citizens	EmployeeID		
6	erwin DM	DM Staging	Claim	Claim Surrogate Key		

To focus on the list of sensitive columns and view their details, on the **Columns** card, click **Sensitive**. The Column Details page appears. By default, it displays a list of sensitive columns in all tables. To view sensitive columns in a specific table, you can use the Select System and Select Environment lists.

You can change the background color of the Enterprise Metadata section. To change the background color, click and then, click **Background** to select a color from the palette.

Data Catalog Distribution

The Data Catalog Distribution card displays the number of environments based on database types. For example, the following Data Catalog Distribution card displays that there are seven CSV environments, four ERWin environments, six SQL Server environments, and so on.



You can drill down and view a list of environments belonging to a particular database type. For example, to view a list of SQL Server environments, click **Sql Server**. The Data Catalog Distribution page appears. On this page, you can click an environment name to navigate to an environment and work on it.

Data Catalog Distribution						
#	System Name	Environment Name	Database Type	Environment Type	Sensitive Data Indicator	Sensitive Data Indicator Classification Name
1	SQL System	Northwind	SqlServer	Northwind	🔒	Confidential
2	SQL System	SQL Env	SqlServer	SQL Env	🔒	PII
3	TALEND	STAGING	SqlServer	STAGING	🔒	
4	SQL System	TechPubs	SqlServer	Test	🔒	
5	SQLTechPubs	SQLTechPubs	SqlServer	Test	🔒	Secret
6	erwin DM	Sql Server	SqlServer	Sql Server	🔒	
7	High	Low	SqlServer		🔒	
8	erwin DM	Sales	SqlServer		🔒	

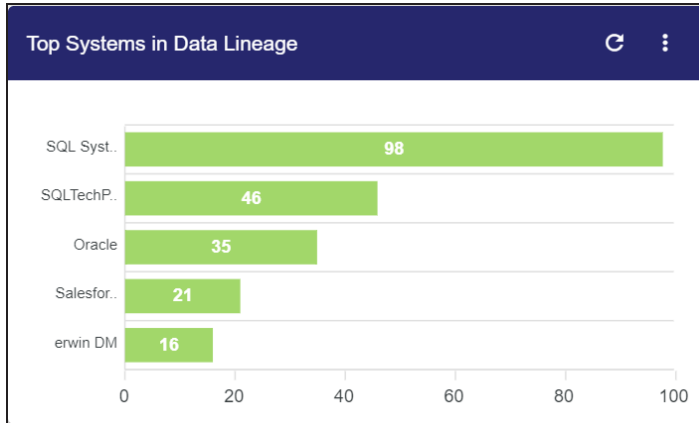
Top <Technical_Assets> in Data Lineage

The Top <Technical_Assets> chart card displays top technical assets based on the number of columns used in mappings. You can switch between the technical assets to view number of columns in systems or environments used in mappings. To switch between systems and

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environments, click . The available options appear. Click **Change Type** and then click the required technical asset.

For example, the following chart card displays top systems in data lineage. The SQL System on this chart card has 98 columns that are used in mappings.



To control the number of records appearing on the chart card, click . The available options appear. Click **Records** and then, click the required number.

To view data lineage details of technical assets, on the chart card, click a bar graph. For example, the Top Systems in Data Lineage page appears on clicking a bar graph. On this page, you can click a system name to navigate to a system and work on it.

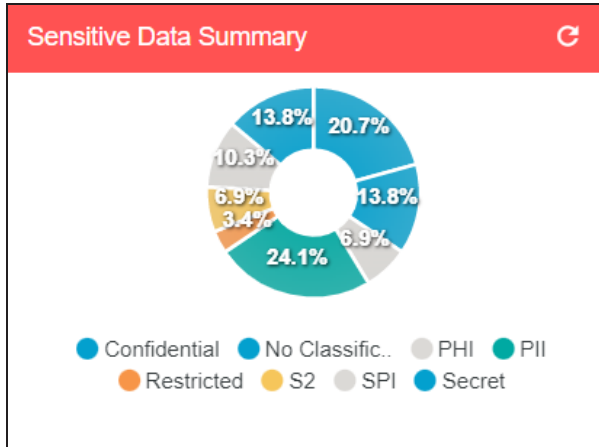
Top Systems in Data Lineage							Database Type
#	System Name	Environment Name	Project Name	Map Name	System Usage In Mappings		
1	SQL System	Northwind	Lineage Demo	TestMap3	22		SqlServer
2	SQL System	Northwind	DigitalAdoption	Flow Test	15		SqlServer
3	SQL System	SQL Env	erwinDIS	TechPubsBUGTrial	8		SqlServer
4	SQL System	Northwind	Lineage Demo	TestDataMap1	8		SqlServer
5	SQL System	Northwind	Lineage Demo	TestMap2	8		SqlServer

Sensitive Data Summary

The Sensitive Data Summary chart card displays the distribution of sensitive columns based on SDI classification across all systems in a donut chart. Each arc of the donut chart

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24.1% of the columns are PII, 20.7% of the columns are confidential, and so on.



Hover over the donut chart to view the absolute number of columns belonging to an SDI classification. To view columns details, click an arc. The Summary of <SDI_Classification> page appears. On this page, you can click a column name to navigate to a column and work on it.

Summary Of **Confidential**

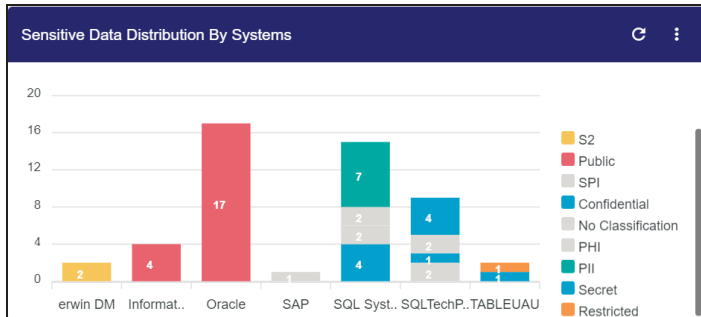
#	System Name	Environment Name	Table Name	Column Name	Sensitive Data Indicator	Sensitive Data Indicator Classification Name
1	SQL System	Northwind	dbo.Categories	CategoryID		Confidential
2	SQL System	Northwind	dbo.Categories	CategoryName		Confidential
3	SQL System	SQL Env	dbo.DimAccount	Operator		Confidential
4	SQL System	SQL Env	dbo.DimEmployee	FirstName		Confidential
5	TABLEUAU	PRESENTATION LAYER	Account	Number of Records		Confidential
6	SQLTechPubs	SQLTechPubs	dbo.Customers	CompanyName		Confidential

Sensitive Data Distribution By <Technical_Assets>

The Sensitive Data Distribution By <Technical_Assets> chart card displays the number of sensitive columns and their SDI classification in a system or environment. To switch

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between systems and environments, click  and then, click the required technical asset. For example, the following card displays the number of sensitive columns and their classification in erwin DM, Informatica, Oracle, SAP, and other systems.



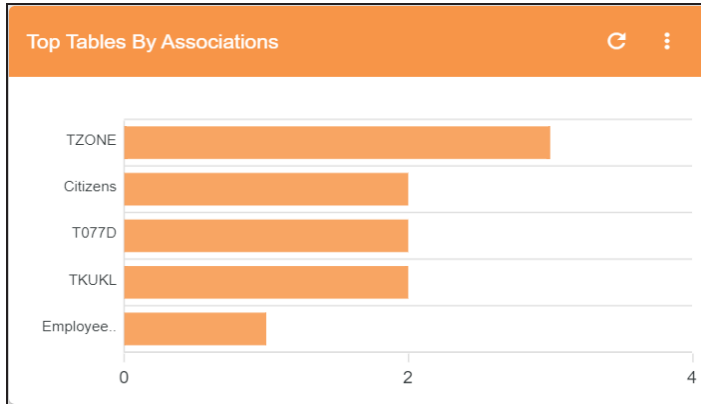
Each bar in the graph corresponds to a system or environment. You can drill down and view detailed information in the list format. To view detailed information about sensitive columns, click a bar. The Sensitive Data Distribution page appears. On this page, you can click a column name to navigate to a column and work on it.

Sensitive Data Distribution						
#	System Name	Environment Name	Table Name	Column Name	Sensitive Data Indicator	Sensitive Data Indicator Classification Name
1	SQL System	SQL Env	dbo.DimCurrency	CurrencyKey		PII
2	SQL System	SQL Env	dbo.DimCurrency	CurrencyName		PII
3	SQL System	SQL Env	dbo.DimCustomer	YearlyIncome		PII
4	SQL System	SQL Env	dbo.DimOrganization	CurrencyKey		PII
5	SQL System	SQL Env	dbo.FactCurrencyRate	CurrencyKey		PII
6	SQL System	SQL Env	dbo.FactInternetSales	CurrencyKey		PII
7	SQL System	SQL Env	dbo.FactResellerSales	CurrencyKey		PII

Top <Technical_Asets> By Associations

The Top <Technical_Asets> By Associations chart card displays the top technical assets based on the number of associations it has with other assets. You can switch between

ber of associations. To switch between technical assets, click . The available options appear. Click **Change Type** and then, click the required technical asset. For example, the following card displays top tables based on the number of associations.



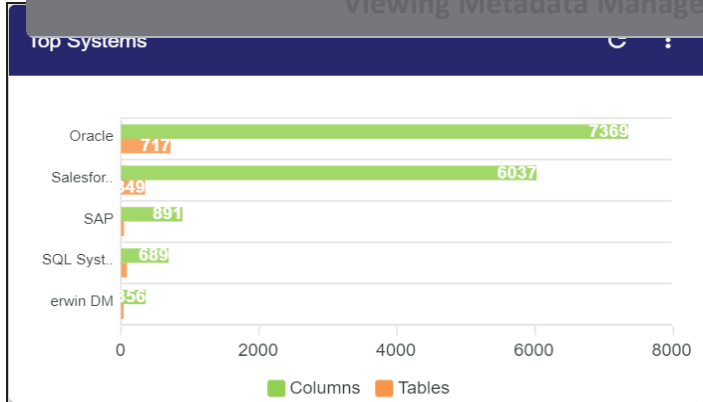
To control the number of records appearing on the chart card, click . The available options appear. Click **Records** and then click the required number.

Each bar in the graph corresponds to a technical asset. Hover over a bar to view the number of associations.

Top <Technical_Assets>

The Top <Technical_Assets> chart card displays top systems or environments based on the number of tables and columns. To switch between systems and environments, click . The available options appear. Click **Change Type** and then, click the required technical asset. For example, the following chart card displays the top five systems.

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To control the number of records available on the chart, click . The available options appear. Click **Records** and then, click the required number.

Each pair of bars in the graph corresponds to a technical asset. Hover over green and orange bars to view the number of columns and tables respectively.

Upcoming Scheduled Scans

The Upcoming Scheduled Scans card displays a list of environments that are scheduled for a metadata scan. This list includes time of the scheduled scan for each environment. To control the number of records available on the chart, click . The available options appear. Click **Records** and then click the required number.

To customize the card background, click . The available options appear. Click **Background** and then use the color palette. For example, the following card's background color is set to orange color.

Upcoming Scheduled Scans			
Jul, 2021	Adventureworks		
08	Adventureworks		
19:20			
Jul, 2021	Northwind		
22	Northwind		
19:20			

Last Refreshed Environments

The

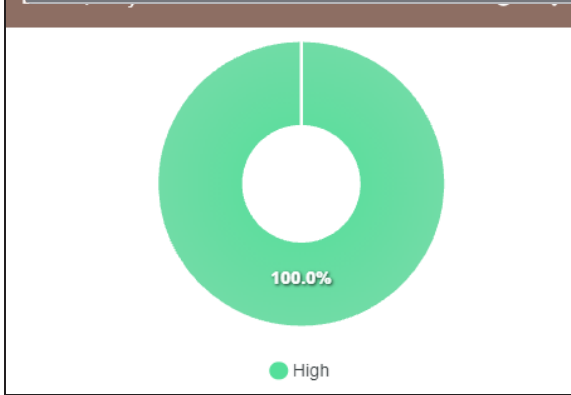
displays the environment name, date, and time of the environment refresh. This helps in tracking environments that are recently updated. To control the number of records available on the chart, click . The available options appear. Click **Records** and then click the required number. For example, the following chart card displays a record of five environments

Last Refreshed Environments  	
Jan, 2021 21 05:56	CSV_erwin erwinHR
Nov, 2020 06 00:00	MS Access Con 1 erwin_MS Access Con
Nov, 2020 05 23:53	XMI R1 XMI
Nov, 2020 05 23:46	JASON_HR erwinHR
Oct, 2020 29 07:00	Sql Server erwin DM

To customize the card background, click . The available options appear. Click **Background** and then use the color palette.

Data Quality <Technical_Assets>

The Data Quality card displays the data quality score for environments, tables, and columns. The card displays data quality score in percentage for environments by default.



To view data quality for tables or columns, click [here](#).