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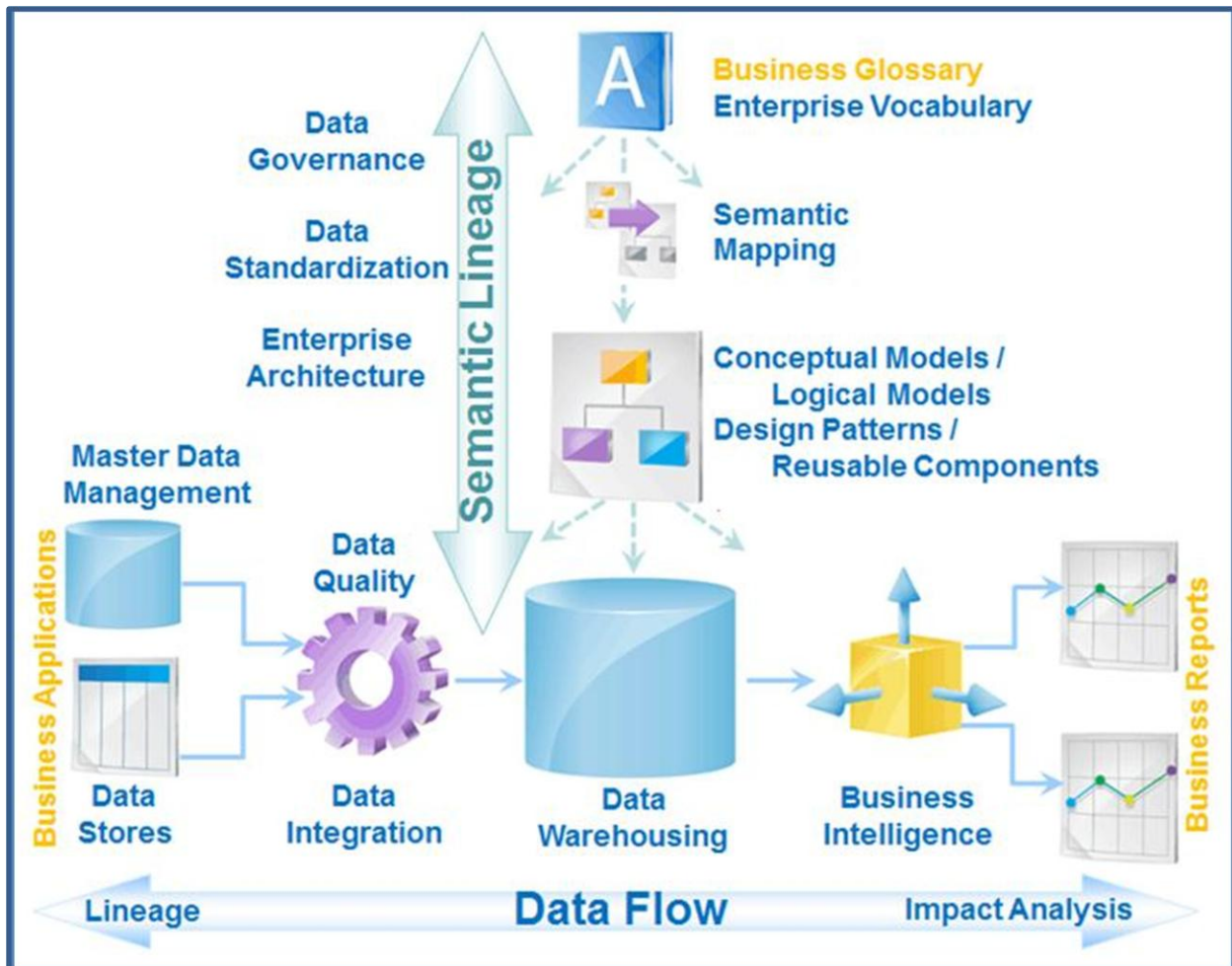
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Metadata Explorer Overview

The need for more sophisticated and precise metadata management is a growing concern for most large organizations. Nearly all components that comprise modern information technology, from CASE tools, ETL engines, Warehouses, BI, EAI environments, as well as metadata repositories, contain, and often derive their processing from, metadata. The metadata for these environments is distributed and duplicated, often times active, and generally represented in a variety of methodologies, depending upon the underlying technology they represent.

Help on Metadata Explorer



The Oracle Metadata Management (OMM) provides a strikingly expansive set of capabilities in many facets of metadata management, including:

- Data Governance
- Metadata annotation and labeling
- Metadata comparison, integration, and mapping
- Version and configuration management
- Data life cycle related metadata management
- Lineage and impact analysis
- Enterprise architecture development, management and deployment.

At the heart of the Oracle Metadata Management (OMM) is its Repository which contains Repository Objects such as Models and Mappings which are organized in Folders. Models can be harvested from any External Metadata model or External Metadata Repository for Databases, Data Modeling (DM), Data Warehouse (DW), Data Integration (DI) and Business Intelligence (BI) tools. A particular type of Repository Object called Configuration can connect (metadata stitching) Models and Mappings together to represent the Enterprise Architecture (EA) to be analyzed, including full support for data flow lineage and impact analysis, as well as semantic lineage definitions.

Help on Metadata Explorer

Disclaimer

Oracle Metadata Management (OMM) solutions includes two products: Oracle Metadata Management for Oracle Business Intelligence and Oracle Enterprise Metadata Management. Each of these products provides a subset of a full Metadata Management (MM) solution as described below. Therefore, some sections of this help documentation may not apply to the Oracle Metadata Management (OMM) solutions.

User Feedback, Collaboration and Review

Provides an environment where Oracle Metadata Management (OMM) models may be reviewed and/or approved by users with the appropriate permission. These tools allow one to add Comments (notes) and Labels to individual objects, such as Tables and Columns. The comments may also be synchronized with the External Metadata (where supported in the External Metadata tool user interface) outside Oracle Metadata Management (OMM)

User Interface

User Interface General Concepts

Placement of Action Icons

There are some basic rules regarding the layout of the user interface which provides consistency and ease of navigation. In particular, action icons (e.g., [Search](#) or [View Reports](#)) are organized into two categories:




- Actions which relate to the panel overall (e.g., model or configuration)
- Actions which apply to a selected metadata element within the panel (e.g., a table or column in a model)

and placed accordingly in the UI:

- Overall panel icons are placed on the right hand side of the header for the panel
- Selected metadata element icons are placed on the left in the tool bar for the panel (underneath the header).

Standard graphical navigation tool bar

Lineage overview, lineage traces and model diagrams are highly graphical results, and thus a standard graphical navigation bar (see the [diagram visualization or graphical lineage UI](#)) is used consistently throughout Oracle Metadata Management (OMM) for navigating within these graphical presentations.

- You may quickly navigate around the diagram using the [Overview](#), which may be collapsed. Expand or collapse using the [Overview](#) () icon.
 - You may click anywhere inside the [Overview](#) pane.
 - One may also drag the display area rectangle around the [Overview](#) panning the diagram
 - You may resize the display area rectangle inside the [Overview](#) pane by dragging the bottom right corner.
 - You may even resize the [Overview](#) pane itself by dragging the bottom right corner.
- Zoom in and out using the slider control: .
- Zoom out completely by clicking on the [Fit Contents](#)  icon.
- Drag the cursor anywhere within the diagram to bring portions off screen into the current graphical context.

Help on Metadata Explorer

Use on tablet or touch device

The Metadata Explorer UI works well on tablets or touch screen type device. In fact, there are no context (right-click) menus but instead action icons which act on the selected item.

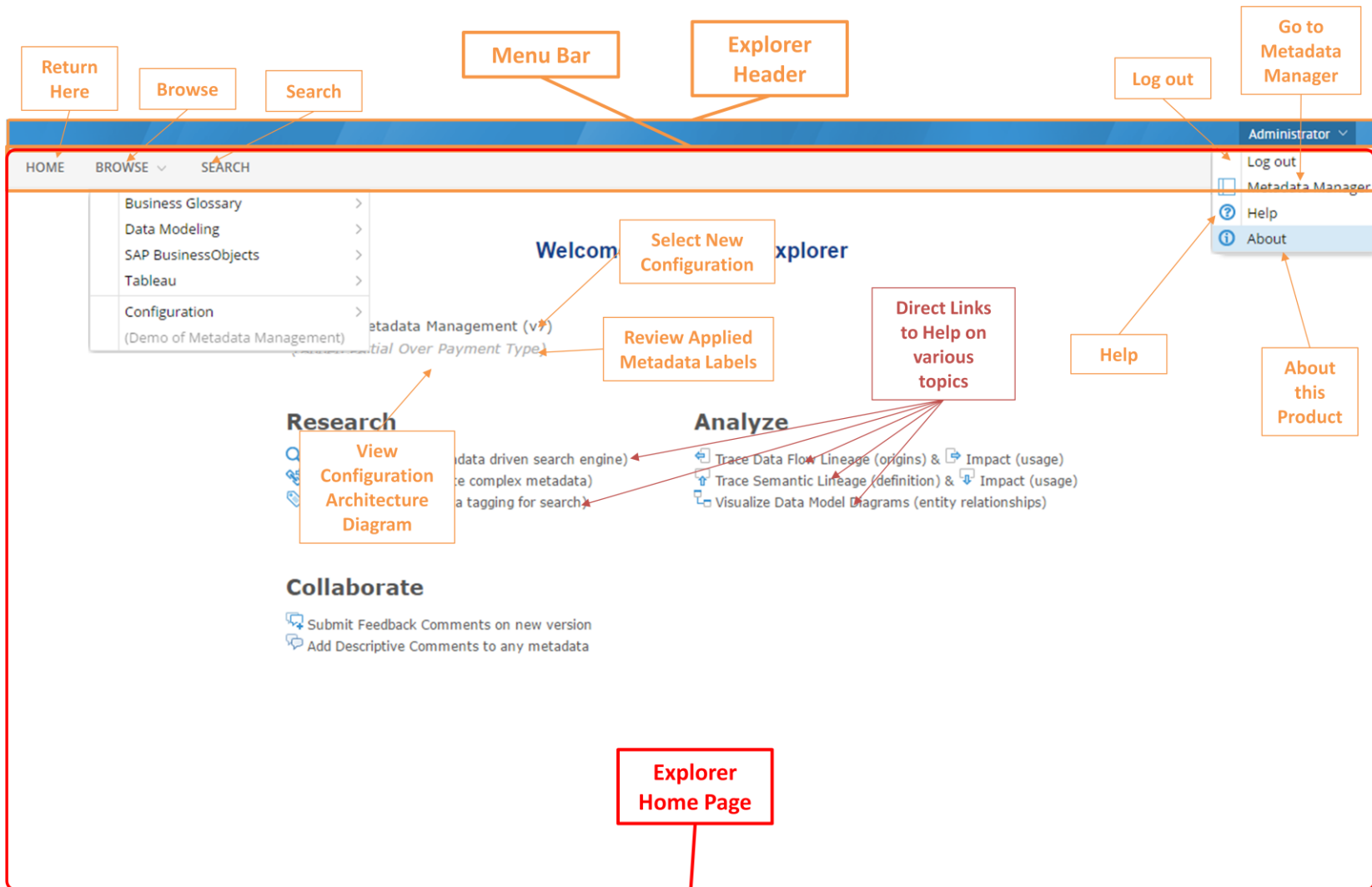
Sharing URLs

Unlike the Metadata Manager UI, in the Metadata Explorer UI the URL that the browser displays for a given page is the one to use for sharing. This is a “live” link and will work even as new versions of the models are imported and included in a given Configuration.

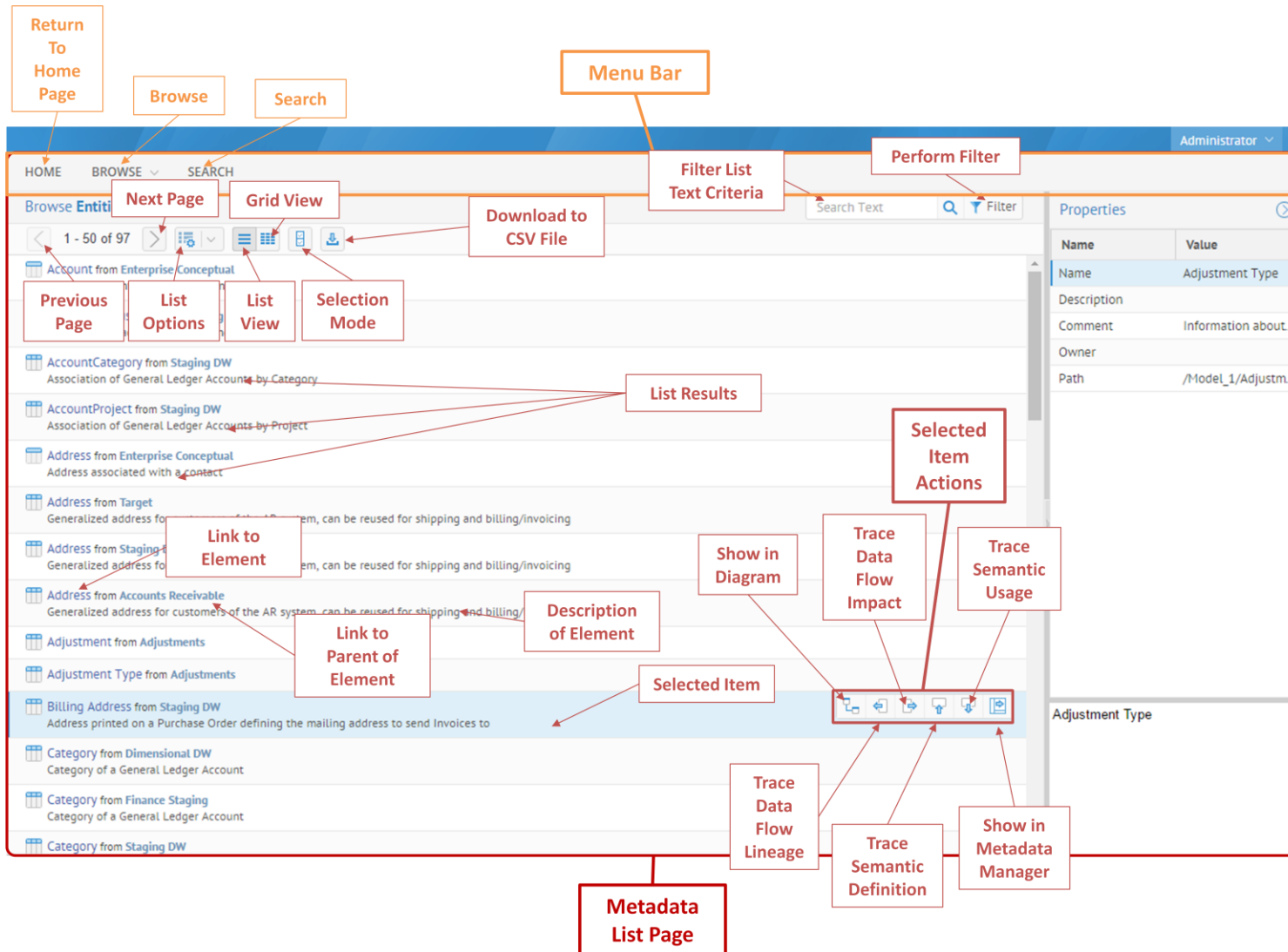
User Interface Components

Help on Metadata Explorer

Top Banner with Global Menus



Metadata List User Interface Components



Grid View User Interface Components

The screenshot displays the Metadata Explorer interface in Grid View. The main area is a table listing metadata items. A red box labeled "Selected Item Actions" points to a set of icons above the table. Other red boxes label various UI elements: "Show in Diagram", "Trace Data Flow Impact", "Trace Semantic Usage", "Perform Filter", "Download to CSV File", "Filter List Text Criteria", "Show in Metadata Manager", "Trace Semantic Definition", "Trace Data Flow Lineage", "Selection Mode", "List View", "List Options", "Previous Page", "Next Page", "Grid View", and "Metadata List Page".

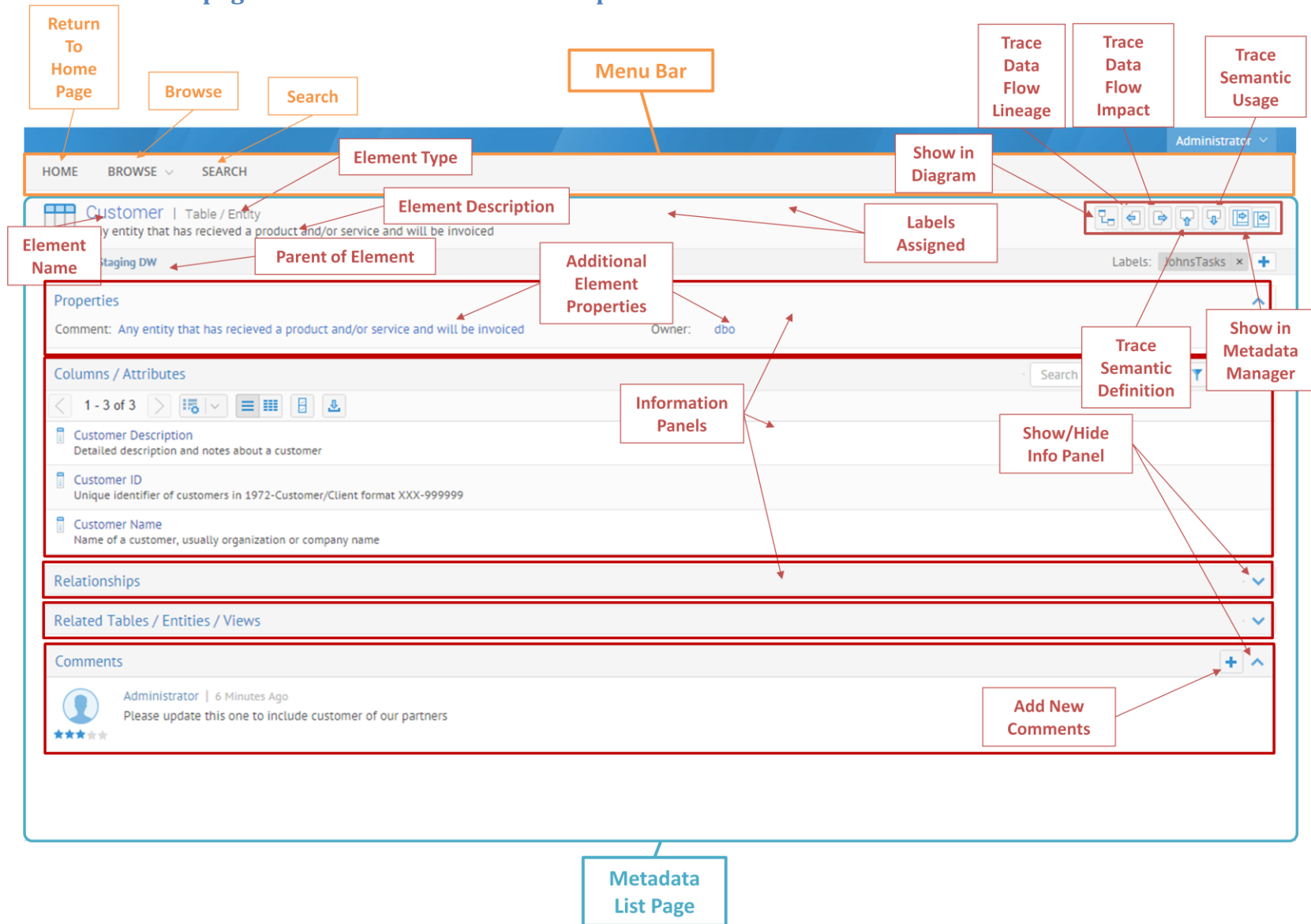
Name	Entity Type	Context	Description	Comment
AccountCategory	Table / Entity	Staging DW	Association of General Ledger Accounts by...	
AccountProject	Table / Entity	Staging DW	Association of General Ledger Accounts by...	
Address	Entity	Enterprise Conceptual	Address associated with...	
Address	Table / Entity	Target	Generalized address for customers of the AR syste...	
Address	Table / Entity	Staging DW	Generalized address for customers of the AR syste...	Generalized address for customers of the A...
Address	Table / Entity	Accounts Receivable	Generalized address for customers of the AR syste...	Generalized address for customers of the A...
Adjustment	Table / Entity	Adjustments		Adjustment to account
Adjustment Type	Table / Entity	Adjustments		Information about the Type of Adjustment
Billing Address	Table / Entity	Staging DW	Address printed on a Purchase Order defining the...	Address printed on a Purchase Order defini...
Category	Table / Entity	Dimensional DW	Category of a General Ledger Account	Category of a General Ledger Account
Category	Table / Entity	Finance Staging	Category of a General Ledger Account	Category of a General Ledger Account
Category	Table / Entity	Staging DW	Category of a General Ledger Account	Category of a General Ledger Account
Category Group	Table / Entity	Dimensional DW	Grouping of Categories of General Ledger Accoun...	Grouping of Categories of General Ledger /
Category Group	Table / Entity	Staging DW	Grouping of Categories of General Ledger Accoun...	Grouping of Categories of General Ledger /
CategoryGroup	Table / Entity	Finance Staging	Grouping of Categories of General Ledger Accoun...	
Contact	Entity	Enterprise Conceptual	Point of contact	
Customer	Entity	Enterprise Conceptual	One who purchases something	
Customer	Table / Entity	Target	Any entity that has recieved a product and/or serv...	

Metadata Tree User Interface Components

The screenshot displays the Metadata Explorer user interface with several components highlighted by red callout boxes:

- Return To Home Page**: Located at the top left of the navigation bar.
- Browse**: A button in the navigation bar.
- Search**: A button in the navigation bar.
- Menu Bar**: The top navigation bar containing HOME, BROWSE, and SEARCH.
- Element Name**: Points to the 'Customer' element name in the main view.
- Element Type**: Points to 'Table / Entity' below the element name.
- Element Description**: Points to the description text: 'Any entity that has received a product and/or service and will be invoiced'.
- Parent of Element**: Points to the 'Context: Staging DW' label.
- Labels Assigned**: Points to the 'Labels: JohnsTasks' section.
- Trace Data Flow Lineage**, **Trace Data Flow Impact**, and **Trace Semantic Usage**: Buttons in the top right toolbar.
- Show in Diagram**: A button in the toolbar.
- Additional Element Properties**: Points to the 'Properties' section.
- Expand/Collapse Tree Node**: Points to the plus and minus icons in the left-hand tree view.
- Information Panels**: Points to the 'Columns / Attributes', 'Relationships', and 'Related Tables / Entities / Views' sections.
- Selected Element Shown in Metadata Information Page**: Points to the 'Customer' element in the left-hand tree view.
- Metadata Tree Browse Page**: Points to the tree view area.
- Show in Metadata Manager**: A button in the toolbar.
- Trace Semantic Definition**: A button in the toolbar.
- Show/Hide Info Panel**: Points to the expand/collapse icons for the information panels.
- Add New Comments**: Points to the '+' button in the comments section.
- Metadata Information Page**: A large box at the bottom center encompassing the main content area.

Metadata details page List View User Interface Components



Search User Interface Components

The screenshot displays the Search User Interface of the Metadata Explorer. The interface is annotated with several callout boxes:

- Return To Home Page**: Points to the HOME link in the top navigation bar.
- Browse**: Points to the BROWSE dropdown menu in the top navigation bar.
- Search**: Points to the SEARCH link in the top navigation bar.
- Menu Bar**: Points to the top navigation bar containing HOME, BROWSE, and SEARCH.
- Show / Hide Advanced Search Criteria**: Points to the search criteria toggle button.
- Search Category**: Points to the search category dropdown menu.
- Advanced Search Criteria**: Points to the search criteria input fields (Search in, Steward, for, Labels).
- Execute Search**: Points to the Search and Help buttons.
- Result Object Type**: Points to the search results list.
- Search Result Panels**: Points to the search result panels for Business Glossary, Data Modeling (Business), and Table / Entity.
- Expand to this set of results**: Points to the Show all link for a search result panel.
- Selected Item Actions**: Points to the action icons for a selected search result.
- Search Page**: Points to the overall search interface.

Diagram Visualization User Interface Components

The screenshot shows the Metadata Explorer interface with the following components highlighted:

- Zoom Controls**: Includes icons for zooming in and out.
- Fit Contents**: Icon for fitting the diagram to the window.
- Show only related entities**: Filter button to show only entities related to the selected one.
- Remove Objects**: Icon to delete selected objects from the diagram.
- Layout Objects**: Icon to rearrange the layout of objects.
- Relationship Display Preferences**: Panel for configuring how relationships are shown.
- Selection Tool (Pan or Multi-select)**: Tools for navigating and selecting multiple objects.
- Show / Hide Overview**: Toggle for the overview map.
- Overview Navigation**: Navigation controls for the overview map.
- Lineage**: Feature for tracing the lineage of data.
- Undo / Redo**: Standard editing controls.
- Add Shape**: Option to add new shapes to the diagram.
- Display Preferences**: Panel for configuring the appearance of diagram elements.
- More options**: Menu for additional actions.
- Print Diagram**: Option to print the current diagram.
- Find in Diagram**: Search function within the diagram.
- Selected Relationship**: Callout for a relationship between Customer and InvoiceLineItem, showing attributes like InvoiceAmount, InvoiceStatus, InvoiceDate, CustomerID (FK), and PaymentAddressID (FK).
- Selected Relationship PK / FK**: Callout for a relationship between InvoiceLineItem and InvoiceAssociationtoPurchaseOrder, showing attributes like InvoiceNumber (FK), InvoiceLineItemNumber, InvoiceLineItemDescription, InvoiceLineItemUnitPrice, InvoiceLineItemUnitDescription, InvoiceLineItemQuantity, InvoiceLineItemAmount, and GLAccountNumber (FK).
- Selected Relationship Join Expression Text**: Callout for the join expression: Customer.CustomerID=Invoice.CustomerID.
- Selected Object Properties**: Callout for the Properties panel on the right, which lists attributes like Name, Description, Comment, Identifying, Path, and Related Columns.
- Show / Hide Selected Object Properties**: Callout for the expand/collapse icon in the Properties panel.
- Diagram Page**: Label for the main diagram area.

Help on Metadata Explorer

Lineage Trace User Interface Components

The screenshot displays the 'Data Impact for 'Customer'' page in the Metadata Explorer. The interface includes a navigation bar with 'HOME', 'BROWSE', and 'SEARCH' options, and a user profile 'Administrator'. The main content area shows a tree view of data objects, including 'BN Reporting (Repository)', 'Customer Purchase Orders (Report Page)', and 'Customer PO Invoice Item (Table / Entity)'. A 'Next' button is visible next to the selected object. Several callout boxes provide details:

- Switch to Column Level Details:** Points to the 'Details' tab in the navigation bar.
- Show on End objects or All:** Points to the 'End Objects Only' dropdown menu.
- Download:** Points to the download icon next to the 'End Objects Only' dropdown.
- Textual Overview of Lineage Trace:** Points to the 'Overview' tab.
- Graphical Lineage Trace:** Points to the 'Graph' tab.
- Identifies which objects are adjacent to the start of the trace:** Points to the 'Next' button.

Lineage Page

Help on Metadata Explorer

Graphical Lineage Trace User Interface Components

The screenshot displays the Metadata Explorer interface with various components highlighted by red and green callout boxes. The interface includes a top navigation bar with 'HOME', 'SEARCH', and 'Administrator' dropdown. Below this is a search bar and a 'Data Impact for Customer in Stage' section with 'Overview' and 'Graph' tabs. A toolbar contains icons for navigation and analysis, with callouts for 'Zoom Controls', 'Expand / Collapse All', 'Trace Controls', 'Open Information Page', 'Print', 'More Options', 'Show / Hide Overview', 'Fit Contents', 'Highlight Path', 'Lineage', and 'Find in Diagram'. The main workspace shows a lineage diagram with nodes for 'Finance Universe', '_Business Layer View_', 'Customer', 'Customer Description', 'CustomerID', 'CustomerName', 'ID', 'Staging DW', 'Dimensional DW', and 'Tableau'. A 'Properties' panel on the right shows a table with 'Name' and 'Value' columns, with callouts for 'Selected Object Properties' and 'Show / Hide Selected Object Properties'. At the bottom, an 'Operations' table lists operations with callouts for 'Overview Navigation', 'Selected Object Elements in Trace (Impact or Sourcing)', and 'Selected Item Actions'.

Name	Value
Empty	
No value	

Operation	Description	Context
.INT(Mathematical, CustomerID) * 10	None provided	Customer

Physical Data Model User Interface Components

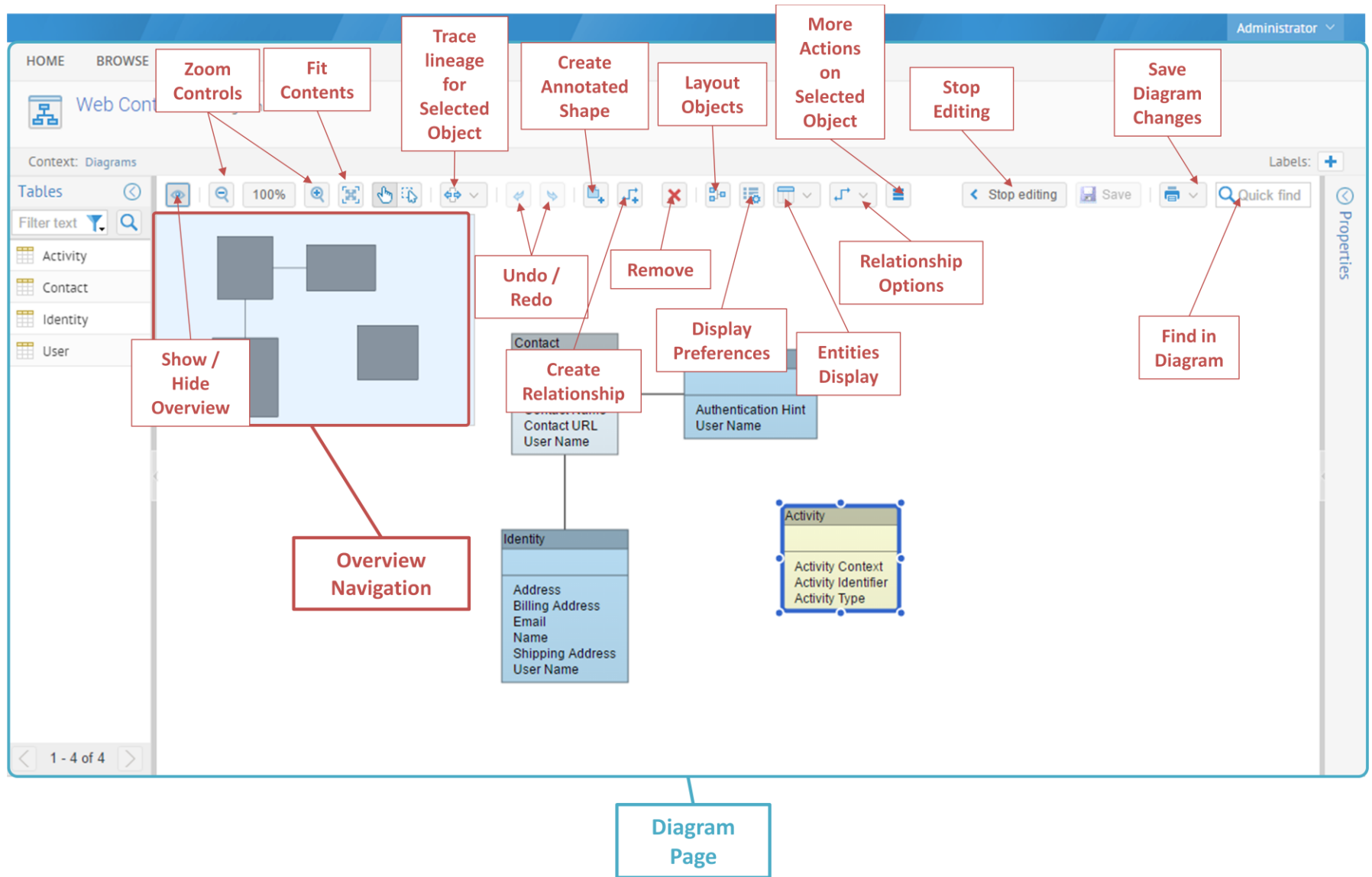
The screenshot displays the Metadata Explorer interface with the following components labeled:

- Reuse / Extend Glossary Terms
- Apply Naming Standard
- Element Type
- Element Description
- Parent of Element
- Element Name
- List Options
- List View
- Selection Mode
- Add Candidate
- Information Panels
- Download
- Page controls
- Grid View
- Actions on Selected Row
- Labels Assigned
- Trace Data Flow Lineage
- Trace Data Flow Impact
- More Options
- Show in Diagram
- Trace Semantic Definition
- Show in Metadata Manager
- Show/Hide Info Panel
- Edit on Double-click
- Add New Comments

Entity Type	Context	Physical Name	Description	Type	Position	Datatype	Datatype Length
Activity Context	Column			COLUMN	3	text	16
Activity Identifier	Column	ACT_ID		COLUMN	1	int	10
Activity Type	Column	ACT_TYP		COLUMN	2	char	255

Metadata List Page

Physical Data Model Diagram Editing User Interface Components








Basic Functions

From any place in the Metadata Explorer UI you may use the [top right banner menu](#) to:

- [Log Out](#) – End your session and/or sign in as another user
- Go to [Metadata Manager](#) – Open the Metadata Manager UI in a new tab
- [Help](#) – Open the online help in a new tab
- [About](#) – Open the product about dialog

Explore metadata

Browse a list of metadata

1. Click on [Browse](#) in the [banner](#).
2. Select the type of metadata you wish to browse:
 - Data Modeling – includes metadata from data models
 - Database – includes metadata from databases, physical data models, and other data source technologies
 - Glossary – Terms and categories from the business glossary
 - Other specific technologies, e.g. business intelligence tools.
3. When you select one of the metadata element types (e.g., [Data Modeling](#) → [Tables](#)) you are then presented with a metadata list view of the element type you selected.
4. From [here](#) you may:
 - Click on any metadata element in the list to [view metadata details page](#) about that metadata element
 - Click on *the line a particular metadata element is on* in the list to see action icons that you may click on for this metadata element without going to the metadata element's information page
 - Click on the context (i.e. [from...](#)) listed next to each metadata element in the list (e.g., the table containing the column in the list)
 - Move to the  ([Next](#)) or the  ([Previous](#)) page of results
 - Select 
 - Select the number of [Items per Page](#)
 - [Sort by Name](#) either ascending or descending
 - [Refresh](#)
 -  ([Download](#)) to a CSV file
 -  ([Filter](#)) the results based upon advanced matching criteria, including:
 - Where the filter text string is in [Name](#), [Physical Name](#) or [Description](#)
 - Where specific (Sub) Types of the element type selected, e.g. a [view](#) vs. [table](#)
 - Only those results in particular [models](#)
 - Only those results assigned to a specific [Steward](#)
 - Only those results with specific [labels](#) (tags) set









Help on Metadata Explorer

- Only those results with where the matched text is a part of a specific [attribute type](#)
- [Reset](#) to clear the selected the filter criteria

Browse metadata tree

1. Click on [Browse](#) in the [banner](#).
2. Select the type of metadata you wish to browse:
 - Data Modeling – includes metadata from data models
 - Database – includes metadata from databases, physical data models, and other data source technologies
 - Glossary – Terms and categories from the business glossary
3. Select the [Tree View](#) option, which provides a full tree browsing interface for the particular type of metadata selected.
4. From [here](#) you may:
 - In the [Tree View](#) panel :
 - Expand / Contract metadata elements
 - Click on and metadata element to [view metadata details page](#).



View metadata details page

1. Navigate to a metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
2. You are presented with the [metadata details page](#) for this metadata element
3. From here you may:
 - Click on the [Context](#), or containing metadata element (e.g., the table containing the column in the list)
 - [Assign or remove Labels](#) to this metadata element
 - Click on one of the lineage (   ) icons to present a [lineage trace](#) for that metadata element where appropriate
 - Click on the  icon to present the [graphical diagram for a metadata element](#) where appropriate
 - Click on the  icon to go to the equivalent metadata element in the Metadata Explorer UI.
4. The remainder of the page presents one or more panels with information about this Metadata Element.
 - Each panel may be expanded or hidden using the  (show) or  (hide) control.
 - Each panel presents of list metadata elements of a particular type which are related to the metadata element this page is for. If the list of metadata elements is long, only a portion of that list is presented and it functions much like [the list of metadata when browsing](#), including pagination and filtering.
 - The first panel contains the properties directly attached to this metadata element.

Help on Metadata Explorer


- The last panel provides the use with the opportunity to [add and edit comments](#).
- From [here](#) you may:
 - Click on any metadata element in the list to [view metadata details page](#) about that metadata element
 - Click on *the line a particular metadata element is on* in the list to see action icons that you may click on for this metadata element without going to the metadata element's information page.
 - For any of these panels one may page through the results, download to CSV or filter just as when [browsing any other list of metadata elements](#).

Search for any Metadata Element

1. Click on **Search** in the [banner](#).
2. Select the search category defining the scope of metadata types to search by clicking on the  icon above the search text box or by clicking on [Change](#) next to the currently displayed category.
3. Enter the search text in the search text box (see [Search Interface Components](#)).
4. Click on the **Search** button.
5. You are then presented with the search results.
6. The remainder of the page presents one or more result panels with information about this Metadata Element.
 - Each result panel presents a list of metadata elements of a particular type which are related to the metadata element this page is for. If the list of metadata elements is long, only a portion of that list is presented and it functions much like [the list of metadata when browsing](#), including pagination and filtering.
 - Click on any metadata element or its Context to [view metadata details page](#)
 - Click on *the line a particular metadata element is on* in the list to see action icons that you may click on for this metadata element without going to the metadata element's information page
 - Click on  (Show all results of this type) in the result panel for a given metadata element type, in order to see a metadata list with all the results of that type.
7. At any point you may click on the **Help** button to receive instructions on the advanced search options supported.
8. In the search category panel, you may restrict the results to only those elements which:
 - Are in the selected set of metadata element types to search for
 - Are assigned to a specific **Steward**
 - Have any one of the specific **Labels**
 - the matched text is a part of a specific **Property Types**.

Analyze metadata













Visualize the diagram of a Model

1. Browse via the [metadata element list](#) or [tree](#) to a specific diagram.
 - Click on the  icon.




Help on Metadata Explorer

While one cannot permanently alter a diagram (or create new ones) for a simple model, nevertheless all of the layout, annotation, display level, etc., features may be employed for visualization. You may always return to the original published layout by clicking on the [Show original](#) button.

























Thus, from here you may:

- All actions that are available for a harvestable model are also available here with a Physical Data Model.
- Click on an metadata element and view its properties in the [Properties Panel](#). You may need to show () the [Properties Panel](#) (far right hand side of the page).
- Make use the of the [standard graphical navigation toolbar](#).
- [Open the selected object](#) () icon to display the [metadata details page](#) for the selected metadata element.
- [Trace lineage](#) () to/from the selected metadata element
- [Show only related entities](#) () related to the selected table
- Click on the [Undo](#) () to undo the last action.
- Click on the [Redo](#) () to redo the last action.
- Click on the [New Shape](#) () icon to create and edit annotations in many shapes for a diagram.
- Click on the [Remove](#) () icon to remove an object from the diagram.
- Click on the [Layout](#) () icon to automatically layout the diagram.
- Use the [Diagram Properties](#) () pick list to specify Model display options, including:
 - [General](#)
 - [Notation](#) (e.g. IDEF vs. IE)
 - [Diagram Background color](#)
 - [Default Entity display type](#)
 - [Show lines on top](#).
 - [Display format](#) with formats for [Entity](#), [Shape](#) and [Label](#), including:
 - [Background color](#)
 - [Border color](#)
 - [Border size](#)
 - [Font](#)
 - [Opacity](#)
 - [Default Entity Display Options](#)
- Use the [Entities Display](#) () pick list to specify Model display options, including:
 - [Display Level](#)
 - [Column Properties](#)
 - [Reset entities size](#)
- Use the  control for the selected metadata element (or the entire diagram if nothing is selected), including [Show](#) and [Hide](#):

Help on Metadata Explorer

- [Labels](#) for labels on relationship lines
- [Relationship Names](#) for names on relationship lines
- [Cardinalities](#) for cardinality notations on relationship lines
- [Role Names](#) for role name notations on relationship lines
- [Layout Labels](#) to arrange relationship labels
- For any selected object in the diagram, right-click for the context menu or click on the  icon in the header to:
 - [Open](#) – Open the selected object details page
 - [Show in Diagram](#) – Move to the selected object location in the diagram and highlight the object
 - [Trace Lineage](#) – Trace lineage from the selected Object in the context of the current configuration
 - [Show only related entities](#) – related to the selected table
 - [Quick Color](#) – Quick color pallet dialog for the selected object
 - [Reset Size](#) – Reset the size of the selected object to the last saved state
 - [Auto Size](#) – Auto size the select object
 - [Display Level...](#) – Specify the display level for the selected object, including:
 1. [Entity](#)
 2. [Description](#)
 3. [Primary Key](#)
 4. [Keys](#)
 5. [Attributes](#)
 6. [Physical Order](#)
 7. [Inherit](#) – Inherit level from diagram settings.
 - [Layout](#) – Auto layout the selected object(s)
 - [Start Relationship](#) – To start a relationship line from the selected object
 - [Properties](#) – Edit properties for the selected object
 - [Remove](#) – Remove the selected object from the diagram only
- Actions which apply to the overall model (right-hand side of the model header):
 - Use the  [Quick find](#) text box metadata elements in the displayed diagram using a text string.
 - Print () the diagram
 - Analyze relationships in the diagram of a physical data model
 1. You may select a relationship in that diagram and perform the following analysis:
 - The associated primary keys and foreign keys are highlighted in the associated tables in the diagram. If there are more than one PK/FK pair, each will be highlighted in a different color.
 - In the [Properties Panel](#) you may copy and paste the [Related Columns](#) to be used to define the equivalent join directly in a reporting .

RELATIONSHIP NOTATIONS

<u>Object Modeling</u>	<u>Data Modeling</u>	<u>UML</u>	<u>IDEF1X</u>	<u>IE</u>
Generalization	SuperType/SubType			
Aggregation	Identifying			
Relationship	Non Identifying: one to many			
	Non Identifying: many to many			
	Zero or one			
	One only			
	Zero or more			
	One or more			

Trace and Analyze the data flow and semantic lineage of a Metadata Element

Once well managed, metadata is then open for detailed analysis, and true business level use cases may be solved. Oracle Metadata Management (OMM) supports full business level lineage and impact analysis down to the classifier (table/entity/dimension) and feature (column/attribute/measure) level.

Generally, there are two types of lineage:

Help on Metadata Explorer

- Data Flow based upon connection definitions to data stores and physical transformation rules which transform and move the data
- Semantic, e.g., detailing the relationships from a conceptual to logical model, or a logical to physical model.

Oracle Metadata Management (OMM) can allow users to display and analyze both types of lineage.

About lineage tracing



Data Flow Lineage

These are the *reporting analysis* type use cases, generally posed as questions such as:

- Given an item on a report, what data entry system fields impact these results?
- Why are the numbers on this report the way that they are?
- How do change the system data to get the correct the results of this report?

This type of analysis, i.e., asking where the information comes from, is a question posed “upstream” in the dataflow. We refer to it as a *reverse lineage* question. When consumers of these reports ask these questions, a correct and responsive answer may be the most valuable information provided by a metadata management solution.



Semantic Definition

In this scenario, from the same report one may wish to simply discover what are the meanings of these report fields.



Semantic Usage

In this scenario, one may wish to see the usage of the semantic element (e.g., business glossary term) in the architecture.



Show Reports

In this scenario, one may wish to see the business reports that use fields which are semantically related to a particular semantic element (e.g., business glossary term).



Data Flow Impact

Finally, business users may ask the forward lineage or impact analysis type of questions:


- If I make a change to this field, what reports will be impacted?
- How is this identity information merged with the personnel system information on these other reports?

Trace Semantic Definition


In this scenario, from the same report one may wish to simply discover what are the meanings of these report fields.

1. Navigate to a metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)

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- [Search](#)
- 2. Click on the  icon
- 3. A [Trace Semantic Definition](#) dialog will be presented with the full definition of that metadata element.

From here you may:


- Click on the resulting term to go to [view the metadata details page](#).
- Use the [Show Semantic Definition Details](#) () icon to see [Lineage Trace Page](#).
- Use the [Show more](#) link to see other definitions provided in the architecture (via lineage trace) and the glossary (via search).

Trace Semantic Usage

In this scenario, from a business glossary term or conceptual/logical model element one may wish to simply discover what data element are semantically mapped in the data flow architecture and thus would be impacted by a change to the term or model element.


- 4. Navigate to a metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
- 5. Click on the  icon
- 6. A [Trace Semantic Usage](#) dialog will be presented with the full definition of that metadata element.

From here you may:


- Click on the resulting term to go to [view the metadata details page](#).
- Use the [Show Semantic Definition Details](#) () icon to see [Lineage Trace Page](#).
- Use the [Show more](#) link to see other definitions provided in the architecture (via lineage trace) and the glossary (via search).

Show Reports

In this scenario, one may wish to see the business reports that use fields which are semantically related to a particular semantic element (e.g., business glossary term).

- 1. Navigate to a semantic metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
- 2. Click on the  icon
- 3. A [Show Related Business Reports](#) dialog will be presented with the list of all such reports for that metadata element.
- 4. From [here](#) you may:
 - Click on any report in the list to [view metadata details page](#)


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- Click on *the line a particular report is on* in the list to see action icons that you may click on for this report without going to the report's information page. In particular, there is the Open () action which will open the report in the 3rd Party tool.

Data Flow Lineage

These are the *reporting analysis* type use cases, generally posed as questions such as:


- Given an item on a report, what data entry system fields impact these results?
- Why are the numbers on this report the way that they are?
- How do change the system data to get the correct the results of this report?

1. Navigate to a metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
2. Click on the  icon.
3. You will then go to the [Lineage Trace Page](#).

Data Flow Impact

Users may ask the forward lineage or impact analysis type of questions:

- If I make a change to this field, what reports will be impacted?
- How is this identity information merged with the personnel system information on these other reports?

1. Navigate to a metadata element by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
2. Click on the  icon.
3. You will then go to the [Lineage Trace Page](#).


Lineage Trace In General

Reporting on lineage will bring you to the [Lineage Trace Page](#).

You may then:

- Click on the **Overview**, **Detailed** or **Graph** selections to choose:
 - Present a text based lineage overview
 - Present a detailed column level lineage report
 - Present a [graphical report](#) of the lineage
- Actions which apply to the lineage trace are within the header:
- Use the Show: **End Objects Only v** option to show only the ultimate source objects without any intermediary objects in the trace.

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- Use the Show: **All Public Objects v** option to show all intermediary objects as well as the ultimate source objects in the trace.
- Use the **Download Details** () icon to download a complete report of the trace to a format compatible with Microsoft Excel.

Interpreting the graphical lineage

In general, the lineage tools within Oracle Metadata Management (OMM) function identically whether one is analyzing data flow lineage, semantic lineage or both. However, the presentation is different, as follows:

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		Thick Line	Thin Line
		Underlying Process (which may be expanded separately)	No Underlying Process
Data Flow Link	Black	Expression/ Transformation	Underlying Process with Transformation of the Data
	Grey	Pass-Through	Underlying Process but simple pass-through
	Yellow	Column Control	Control Flow which directly impacts values of columns (e.g., Lookup) and represents and underlying process
	Yellow Dashed	Row Control	Control Flow which does not directly impact values of columns (e.g., Filter) and represents and underlying process
Semantic Link	Blue Dashed	Semantic Link	Semantic link such as a derivation where there is an underlying process

In addition, Oracle Metadata Management (OMM) has four levels of presentation:

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- configuration model [Connections Overview](#) – which is a diagram representing the various models contained within a configuration and how they are related (or stitched) to each other based upon connection definitions manually assigned to Oracle Metadata Management (OMM).
- External Metadata Repository model [Connections Overview](#) – which is a diagram representing the various models contained within the directory of a External Metadata Repository and how they are related (or stitched) to each other based upon connection definitions already provided in the External Metadata Repository.
- Model [Lineage Overview](#) – which is a diagram representing and overview of the lineage within a given model.
- Lineage [Trace](#) analysis at the configuration or model level – which is a fully detailed trace of semantic and/or data flow lineage for detailed analysis.

Label metadata

Place labels for search and review

Labels are single word Oracle Metadata Management (OMM) wide meta tags, which may be applied to any object in a model, searched on, reviewed and managed centrally by model or configuration.

Tag, view or remove labels on an metadata element

To tag a metadata element with a label:

1. Browse via the [metadata element list](#) or [tree](#) to a specific metadata element.
2. Click on the area to the right of the [Labels](#) tag
3. Add a new label by typing it in (remember, each word is a separate label)
4. Assign already defined labels to this metadata element by typing one or more letters of that label and selecting from the resulting pick list.
5. Unassign a label by simply deleting it.

Note: Labels are defined Oracle Metadata Management (OMM) wide. Please keep in mind that the pool of labels defined by all users is shared across Oracle Metadata Management (OMM)

Review Label Assignments

One may review the label assignments across an entire model or configuration.

1. Click on in the [banner](#).
2. Select the [Configuration](#) option.
3. Select the [Review Labels](#) option.
4. Enter any number single word labels into the [Labels](#) combo box or select any number using the combo box selection. Remember, you may select any number of labels to review.

Search for Label Assignments

When searching in a [model](#) or [configuration](#), one may

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- Filter the search results using the [Filters](#) panel to specific labels.

Provide feedback/comments and review

Comments are free-form text notes which may be queried for, reported on, reviewed and managed by model. A comment tracks its author, creation time, update time, importance and status. The user can attach any file including pictures and multimedia to the model and refer to them in a comment. One can leave one or more comment(s) per object and see comments made by others.


Unlike [labels](#), comments only apply to the specific version of the model they were entered in. In addition, these comments may then be exported out of Oracle Metadata Management (OMM) and opened in External Metadata tool, there to be reviewed and edited in the original External Metadata model format (where supported in the External Metadata tool user interface).

Add/Remove comments

1. Browse via the [metadata element list](#) or [tree](#) to a specific metadata element.
2. The last panel provides the use with the opportunity to add and edit comments.
 - a. Click on the  icon to add a new comment
 - b. Click on the  (Edit) icon to edit the comment
 - c. Click on the  (Delete) icon to delete the comment
3. When editing a comment you may click on the number of stars (★) to indicate the relative importance of the comment.

Report glossary documenter

When the business glossary is mapped to a business intelligence model (including reports), one may define new semantic (definition) maps from elements in the reports to terms in the business glossary directly in the Metadata Explorer UI. Of course, one must have permission to do so (contact the Oracle Metadata Management (OMM) Administrator to obtain these permissions).

1. Navigate to a report or metadata element within a report by either
 - [Browse a list of metadata](#)
 - [Browse a metadata tree](#)
 - [Search](#)
2. You are presented with the [metadata details page](#) for this report or metadata element
3. To add a link to a term in the glossary click on the [Link to Term](#) () action icon in the [Glossary](#) panel header.
4. From here you may
 - Search for terms and use the More pull down next to the search to select [More](#) search options
 - Expand the glossary category structure until you find a term
 - Click on the breadcrumb list to return to a category
 - [Create](#) a new [category](#) in the glossary
 - [Create](#) a new [term](#) in the current category in the glossary. This will create a terms based upon the name and description of the current report or metadata element you have opened. You may also specify you own name and definition.

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The term will then be linked to the open report or metadata element.

Create and Manage a Business Glossary

Use the Metadata Manager UI to create a new and/or manage an existing business glossary.

Review and Edit a Business Glossary

Critical to the development and management of a complete data architecture is a Business Glossary. Oracle Metadata Management (OMM) provides an ISO 11179 based Business Glossary to capture, define, maintain and implement an enterprise Business Glossary of terminology, data definitions, code sets, domains, validation rules, etc. In addition, semantic mappings describe how elements in a source model (more conceptual like the Business Glossary) define elements in a destination model (closer to an implementation or representation).

The Business Glossary helps an enterprise to reach agreement between all stakeholders on their business assets (e.g. terms) and how they relate to data assets (e.g. database tables) and technology assets (e.g. ETL mappings). The Business Glossary can be used to document logical/physical data entities and attributes across IT collaboratively. Again, it involves tracing dependencies between business and technical assets.

The business glossary

In Oracle Metadata Management (OMM), a business glossary is a self-contained collection of categories and the terms sub-categories contained within each category. In turn, the terms may be semantically mapped to objects throughout the rest of the repository, such as tables and columns in a data model. Once mapped, one may perform semantic lineage traces such as definition lookups and term semantic usage across any configurations containing the business glossary, mappings and mapped objects.

Building a business glossary can be as simple as dragging in an existing well documented data model, via import from other sources via a CSV file format, or can be populated directly via the user interface as well as during the process of classifying objects in other data store models. In general, a combination of such methods are employed in conjunction with one another.

In order to ensure that the business glossary is accurate, up-to-date, available to all who need access to it and integrated properly with the rest of the metadata in the repository, Oracle Metadata Management (OMM) also provides a robust collection of Data Governance tools and methodologies. The Oracle Metadata Management (OMM) business glossary provides a very flexible workflow and publication process that may alternatively be quite sophisticated or quite simple depending upon one's needs. In addition, one may maintain any number of business glossaries, each with different workflow and publication characteristics.

Help on Metadata Explorer

The Business Glossary may be part of your lineage, will appear in the repository panel and when you open a Business Glossary, you will be presented with a different UI than for other (harvestable) models.

Versions

The business glossary is one of the content types Oracle Metadata Management (OMM) supports. As a content, it can have multiple versions. You can employ different business glossary workflow strategies that involve one, two and multiple versions of the glossary. Here are some options:

- Simple - single version
- Dev vs. Prod - development and published versions
- Snapshots - historical versions

The business glossary may be part of your lineage, will appear in the repository panel, and when you open a business glossary you will be presented with a different UI than for other (harvestable) models.

Categories

A business glossary is organized into categories, which may then contain terms or other categories. Categorization can help with:

- Subset by subject matter or organizational structure
- Managing stewardship assignments (at the category level)

Relationships

Terms may be cross-linked in a wide variety of relationship types, including:

- Synonyms
- See Also
- More General
- More Specific
- Contains
- Contained By
- Represents
- Represented By

Not surprisingly, all of the management and much of the editing of this authored content is performed using the Metadata Manager UI. However, as business users will often be required to contribute to the business glossary and physical data model, the Oracle Metadata Management (OMM) provides the ability to edit these types of content directly within the Metadata Explorer UI.

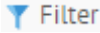










Review and edit terminology

1. Sign in to Oracle Metadata Management (OMM) as a Metadata Explorer UI user which had editor permissions to the business glossary you wish to document.

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2. Navigate to the physical data model using the (please see [Metadata Explorer UI User Interface Components](#)). It will be a part of the [Business Glossary](#) category.
3. Navigate to any element (term or category) you wish to edit, or create a new category.

From here you may:

- Edit any of the properties of a term or category (e.g., [Name](#) and [Description](#)) simply by clicking on their value and typing. This will update the property
- One may use the  [Filter](#) button to limit the results in the list by:
 - Labels
 - Or use the  [Add Filter](#) button for additional filters based upon any other property of the objects in the list.
- One may enter text and use the  control to limit the list to those items with names or descriptions that contain the text.
- One may select multiple items in the list with shift-click and/or ctrl-click. Then, the number of items selected appears as well as the  [Edit](#) icon. Clicking on the  [Edit](#) icon then allows one to set any of the properties that exist across all of the selected list items.
- One may switch between the List View and the Grid View. In the [Grid View](#), one may edit in place any property associated with any of the rows (or list items in the list view).
- One may use the [Custom Attribute](#)   control in the properties area to assign custom attributes to the selected item. Note, one must first Define a Custom Attribute and associate it with objects in a business glossary before the   control will appear.
- One may add columns and terms tables and columns:
 - Navigate to the business glossary as a whole and click on the  icon of the [Categories](#) panel to create a new category
 - Navigate to a category and click on the  icon of either the [Categories](#) or [Terms](#) panels to create a new column or term

Document Data Stores

Oracle Metadata Management (OMM) allows users to document existing data stores, like databases, big data sources, imported as models in Oracle Metadata Management (OMM), and publish the resulting documented data stores to the enterprise.

Data modeling tools have been conceived as database design tools to be use by data architects and database administrator to design logical and physical data models generating DDL. Although many of these data modeling tools are rather used to document (create a data model) of existing databases. Oracle Metadata Management (OMM) offers a different approach than traditional data modeling tool:

- The Business Glossary driven methodology allows for immediate reuse and creation of Terms and naming standards on the fly, fast tracking the data store documentation process
- The Web enabled tool offers better access than Desktop tools

Help on Metadata Explorer

- The Data Modeling / Diagramming capabilities of Oracle Metadata Management (OMM) are similar to conventional data modeling tools
- Full integration (import/export) to most popular data modeling tool.

Oracle Metadata Management (OMM) can import undocumented metadata directly from a data store or External Metadata model. When documenting a model, one may:

- Add business names and descriptions to objects, like tables and columns
- Document relationships including
 - Cardinality
 - Join conditions
 - Verb phrases
 - to better understand interrelated objects
- Organize and view objects graphically using diagrams and subject areas
- Annotate diagrams.

In addition, these data stores change over time. Oracle Metadata Management (OMM) protects an investment in documenting data stores by supporting the migration of existing documentation to new data store versions automatically.

Finally, Oracle Metadata Management (OMM) has a business glossary application that allows one to manage terminology and domain definitions across the enterprise. One can reuse these definitions not only among different enterprise applications but between versions of the same application. A glossary may be used to collect and apply naming standards based upon the name assignments made when editing a documentable model. In addition, Oracle Metadata Management (OMM) allows one to link tables and columns to terms and glossary domains and business rules.

Create and Manage a Physical Data Model

Use the Metadata Manager UI to create a new and/or manage an existing physical data model.



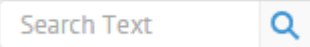







Edit a Physical Data Model

1. Sign in to Oracle Metadata Management (OMM) as a Metadata Explorer UI user which had editor permissions to the physical data model you wish to document.
2. Navigate to the physical data model using the (please see [Metadata Explorer UI User Interface Components](#)). It will be a part of the [Data Models](#) category.
3. Navigate to any element (table or column) you wish to edit, or create a new subject area, diagram or [edit a diagram](#).

From here you may:



- All actions that are available for a harvestable model are also available here with a physical data model the (please see [Metadata Explorer UI User Interface Components](#)).
- Edit the [Name](#) and [Description](#) properties simply by clicking on their value and typing. This will update the business name and description. The physical name and comment will remain unchanged (as faithful representations of what is in the underlying data store).

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- Click on the **Link to Term** () icon next to **Name** for [Business Glossary term reuse and creation](#).
- One may use the **Filter** button to limit the results in the list by:
 - Object type
 - Labels
 - Or use the **Add Filter**  button for additional filters based upon any other property of the objects in the list.
- One may enter text and use the **Search Text**  control to limit the list to those items with names or descriptions that contain the text.
- One may select multiple items in the list with shift-click and/or ctrl-click. Then, the number of items selected appears as well as the **Edit**  icon. Clicking on the **Edit**  icon then allows one to set any of the properties that exist across all of the selected list items.
- One may switch between the **List View** and the **Grid View**. In the **Grid View**, one may edit in place any property associated with any of the rows (or list items in the list view).
- One may use the **Custom Attribute**  control in the properties area to assign custom attributes to the selected item. Note, one must first Define a Custom Attribute and associate it with objects in a physical data model before the  control will appear.
- */variable=AddCandidateTablesAndColumns*
- One may add subject areas and diagrams. Subject areas may contain diagrams and further subject areas:
 - Navigate to a physical data model or subject area and click on the  icon of the **Subject Areas** panel to add a new subject area.
 - Navigate to a physical data model or subject area and click on the  icon of the **Diagrams** panel to add a new subject area.
- One may view and edit the diagram(s) of a physical data model by:
 - Select an element in the physical data model and select **Show in Diagram** () to [view and edit the diagram of a physical data model](#).
 - Click on a diagram in the physical data model to [view and edit the diagram of a physical data model](#).

Business Glossary term reuse and creation

When linked to the documentable model, Business Glossary terms may be reused as part of the documentation process. When editing the name of a table or column in the Metadata Explorer UI, one may:

- Click on the **Link to Term** () icon to connect to and search for a terms in the linked business glossary:
 - Once a term is selected its **Name** and **Definition** will be copied as the (logical) **Name** and **Description** for that table or column in the documentable model.
 - Instead of selecting a term, one can click on the **Create Term**  button and then a new term will be created in that category of the business glossary using the


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- (logical) Name and Definition entered for that table or column in the documentable model.
- Click on the **Create Category** button to create a new category where you may then create a term.











Edit the diagram of a Physical Data Model

Visualize the a given diagram for a Physical Data Model in order to add and document relationships to better understand interrelated objects and organize and annotate objects graphically.







One may bring up the diagram(s) of a physical data model by:

- Select an element in the physical data model and select **Show in Diagram** () to [view and edit the diagram of a physical data model](#).
- Click on a diagram in the physical data model to [view and edit the diagram of a physical data model](#).

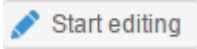

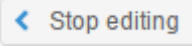
From here you may:

- All actions that are available for a harvestable model are also available here with a Physical Data Model.
- Click on an metadata element and view its properties in the [Properties Panel](#). You may need to show () the [Properties Panel](#) (far right hand side of the page).
- Make use the of the [standard graphical navigation toolbar](#).
- **Open the selected object** () icon to display the [metadata details page](#) for the selected metadata element.
- **Trace lineage** () to/from the selected metadata element
- **Show only related entities** () related to the selected table
- Click on the **Undo** () to undo the last action.
- Click on the **Redo** () to redo the last action.
- Click on the **New Shape** () icon to create and edit annotations in many shapes for a diagram.
- Click on the **Remove** () icon to remove an object from the diagram.
- Click on the **Layout** () icon to automatically layout the diagram.
- Use the **Diagram Properties** () pick list to specify Model display options, including:
 - **General**
 - **Notation** (e.g. IDEF vs. IE)
 - **Diagram Background color**
 - **Default Entity display type**
 - **Show lines on top.**
 - **Display format** with formats for **Entity**, **Shape** and **Label**, including:
 - **Background color**
 - **Border color**
 - **Border size**
 - **Font**

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- Opacity
 - Default Entity Display Options
- Use the **Entities Display** () pick list to specify Model display options, including:
 - Display Level
 - Column Properties
 - Reset entities size
- Use the  control for the selected metadata element (or the entire diagram if nothing is selected), including Show and Hide:
 - Labels for labels on relationship lines
 - Relationship Names for names on relationship lines
 - Cardinalities for cardinality notations on relationship lines
 - Role Names for role name notations on relationship lines
 - Layout Labels to arrange relationship labels
- Click on the **New Relationship** () icon to create relationships by dragging from one table to another.
- For any selected object in the diagram, right-click for the context menu or click on the  icon in the header to:
 - **Open** – Open the selected object details page
 - **Show in Diagram** – Move to the selected object location in the diagram and highlight the object
 - **Trace Lineage** – Trace lineage from the selected Object in the context of the current configuration
 - **Show only related entities** – related to the selected table
 - **Quick Color** – Quick color pallet dialog for the selected object
 - **Reset Size** – Reset the size of the selected object to the last saved state
 - **Auto Size** – Auto size the select object
 - **Display Level...** – Specify the display level for the selected object, including:
 1. Entity
 2. Description
 3. Primary Key
 4. Keys
 5. Attributes
 6. Physical Order
 7. Inherit – Inherit level from diagram settings.
 - **Layout** – Auto layout the selected object(s)
 - **Start Relationship** – To start a relationship line from the selected object
 - **Properties** – Edit properties for the selected object
 - **Remove** – Remove the selected object from the diagram only
- Actions which apply to the overall model (right-hand side of the model header):
 - Use the  **Quick find** text box metadata elements in the displayed diagram using a text string.
 - Print () the diagram
 - Analyze relationships in the diagram of a physical data model

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1. You may select a relationship in that diagram and perform the following analysis:
 - The associated primary keys and foreign keys are highlighted in the associated tables in the diagram. If there are more than one PK/FK pair, each will be highlighted in a different color.
 - In the [Properties Panel](#) you may copy and paste the [Related Columns](#) to be used to define the equivalent join directly in a reporting .
- Click on the  button to open the diagram for editing. When finished or at any time in editing the diagram:
 - One may either click on the  button to save any changes
 - One may click on the  button and you will be prompted to save or not
 - One may simply close the browser, refresh the browser or close the browser tab) to close without saving.

RELATIONSHIP NOTATIONS

<u>Object Modeling</u>	<u>Data Modeling</u>	<u>UML</u>	<u>IDEF1X</u>	<u>IE</u>
Generalization	SuperType/SubType			
Aggregation	Identifying			
Relationship	Non Identifying: one to many			
	Non Identifying: many to many			
	Zero or one			
	One only			
	Zero or more			
	One or more			

Naming standard for a Physical Data Model.

Abbreviation/Naming standard can help one to derive business names from physical ones in a consistent manner. For example, a physical name `empl_first_name` can be interpreted as a business name `Employee First Name` by tokenizing the physical name over the “_” separator, assuming “empl” is an abbreviation of “employee” and capitalizing the first letters of each word. This process is *automated* by Oracle Metadata Management (OMM) based upon any defined *naming standard*.

Help on Metadata Explorer

A naming standard is a list of abbreviations and words they represent, defined as terms in a glossary. Oracle Metadata Management (OMM) allows one to define a naming standard once and reuse it for documenting different models and their new versions.

Oracle Metadata Management (OMM) can generate an initial naming standard from a physical model. It is a list of all unique abbreviation tokens produced from table and column physical names. The application tokenizes names by separating characters (e.g. “_”) and capitalized letters (e.g. **EmployeeName**). The application cleanses the list from obvious noise (e.g. numbers).


To associate a glossary with a Physical Data Model for naming standard purposes, you may do so at model creation time or when editing the **Settings** of the model.

Naming standard supervised learning

When [supervised learning is specified](#) in the Naming Standards tab for the documentable model, every time you edit the (logical) **Name** property for columns and tables, the associated naming standard business glossary category terms will be updated to reflect the new naming. E.g., if a column has the **Physical Name ACT**, and then one edits the (logical) **Name** to be **Action**, a term **Action** will be created with an **Abbreviation ACT**.


One may [apply the naming standard](#) on demand as needed.

Apply a naming standard

To do so, when [editing a physical data model](#) use the **Apply naming standard** () icon.

Document BI Reports

When the business glossary is mapped to a business intelligence model (including reports), one may define new semantic (definition) maps from elements in the reports to terms in the business glossary directly in the Metadata Explorer UI. Of course, one must have permission to do so (contact the Oracle Metadata Management (OMM) Administrator to obtain these permissions).

1. Navigate to a report or metadata element within a report by either
 - o [Browse a list of metadata](#)
 - o [Browse a metadata tree](#)
 - o [Search](#)
2. You are presented with the [metadata details page](#) for this report or metadata element
3. To add a link to a term in the glossary click on the **Link to Term** () action icon in the **Glossary** panel header.
4. From here you may
 - o Search for terms and use the More pull down next to the search to select **More** search options
 - o Expand the glossary category structure until you find a term
 - o Click on the breadcrumb list to return to a category
 - o **Create** a new **category** in the glossary

Help on Metadata Explorer

- **Create** a new **term** in the current category in the glossary. This will create a terms based upon the name and description of the current report or metadata element you have opened. You may also specify you own name and definition.

The term will then be linked to the open report or metadata element.