onestream

AI Data Tools Guide

PV9.1.0 SV110

Table of Contents

Overview

This document details the AI Data Tools user interface, including functionality and requirements of each section. Information includes:

- How to interact with each page in the solution.
- How to set permissions restrictions on a per-user basis.
- How to add tabular data types to the environment via the Query Composer page.
- How to query your tabular data types via the Query Composer page.
- How to explore the Meta FileSystem via the File Explorer page.
- How to recount actions performed within AI Data Tools via the Audit Log page.

Query Composer

The first and most significant page of AI Data Tools is the Query Composer page. On this page, users can add tabular data types to various directories. Once added, tables can be queried and altered as needed. Additionally, the Xperiflow engine enables two new routines within the Query Composer page: Query Debug and Natural Language. Query Debug will provide AI assistance with resolving incomplete or erroring queries. Natural Language translates “natural language” text into properly formatted table queries.

File Explorer

The second page of AI Data Tools is the File Explorer page. On this page, users can browse the various folders within the Meta FileSystem. Other OneStream solutions interact with the Meta FileSystem as well, allowing users to inspect their files from within AI Data Tools without any additional actions. Files can also be saved.

Audit Log

The third page of AI Data Tools is the Audit Log page. On this page, users can observe, export and archive a list of all significant actions taken by users within AI Data Tools. The list of audit actions includes: Create Table, Delete Table, Query Table, Alter Table, Build Query from Natural Language, and Change Permissions. Every action logged will also have a status associated with it, either Succeeded, Failed, or Completed With Errors.

Select an Audit Entry to view additional details on the right side of the page. Users are also able to save a copy of the Audit Log to an external location.

Setup and Installation

This section contains details for planning, configuring, and installing the AI Data Tools solution. Before you install the solution, familiarize yourself with these details.

Solution Info

- Solution Version: **DTL-SV110-XPFv4.1.0-PV910**
- Xperiflow Version: **4.1.0**

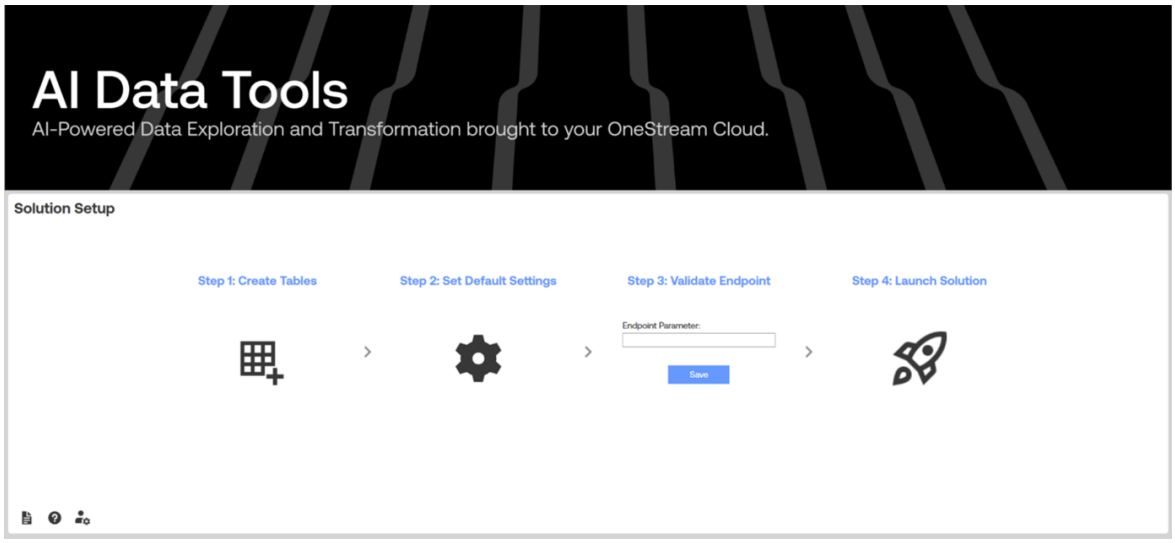
Dependencies

Component	Description
OneStream 9.1.0 or later	Minimum OneStream Platform version required to install this version of AI Data Tools.
Xperiflow 4.1.0 or later	Minimum version required to install this version of AI Data Tools.
Xperiflow Business Rules V220 (XBR)	External API client library to allow AI Data Tools to interface with the Xperiflow Engine. The required version of XBR is packaged with all AI Data Tools versions.

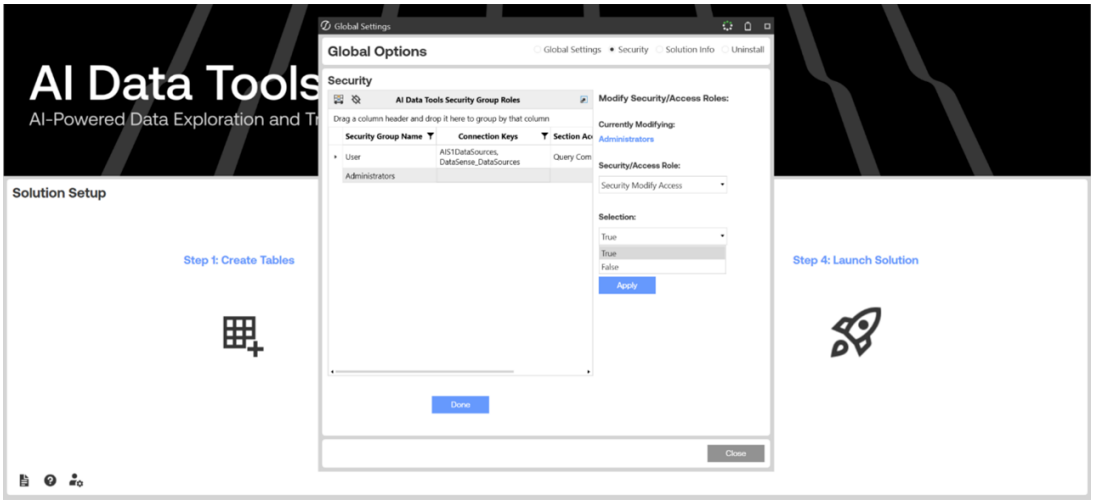
Set Up AI Data Tools

There are multiple steps to set up AI Data Tools:

1. Download the AI Data Tools Solution from the OneStream Solution Exchange.
2. After the OneStream support team ensures that the proper contract is in place, a link is sent to download the AI Data Tools solution. To complete the setup, the user must set the proper endpoint parameter and launch the solution.
3. Follow the outlined Solution Setup steps:



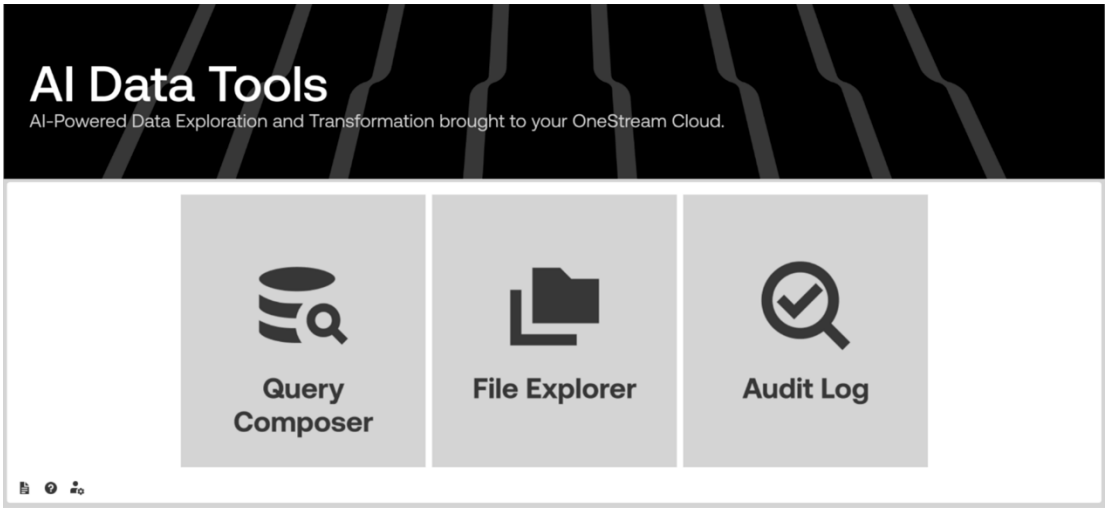
   a. Create Tables
   b. Set Default Settings
      i. It is advised that when setting up the solution at least one security group is given **Modify Security** access (**True**).



c. Validate Endpoint

d. Launch Solution

4. When a user can reach the Home page after clicking Launch, AI Data Tools has been successfully set up correctly:



Settings

To access the Global Settings page, click **Settings** in the bottom left corner any application page.

Global Settings include:

- Solution Info
- Security
- Uninstall

Solution Info

Solution Version: Displays the current version of AI Data Tools that is installed.

Security

The Security section allows Administrators to configure which databases OneStream Security Groups can use within the application, control access to the various AI Data Tools sections, and permit use of specific query statements. Administrators can also grant other user groups access to be able to modify these security roles.

Steps to Modify Security Roles:

1. Click the **Modify** button.
2. Select a security group from the grid.
3. Select the type of security permissions to edit:
    a. Database Connections:
        i. The databases this user group will have access to within AI Data Tools.

> **NOTE:** The databases visible within this drop-down are determined by your environment's Database Server Connections and their Maintenance Groups. Any user group can be granted access to a database server that has the Maintenance Group **Administrators**. However, a database server with Maintenance Group **Group B** for example is eligible to grant access only to the **Administrators** user group, the **Group B** user group, and any child groups of the aforementioned.

    b. Section Access:
        i. The sections this user group will have access to within AI Data Tools.
    c. Database Query Permission:

i. The query statements this user group will have access to when querying over a database. Options include Read (standard **SELECT** statements), Write (queries that modify an object like **INSERT**, **UPDATE**, **ALTER**, **CREATE**) and Admin (destructive, role-altering, or otherwise unsafe queries like **DROP**, **DELETE**, **TRUNCATE**).

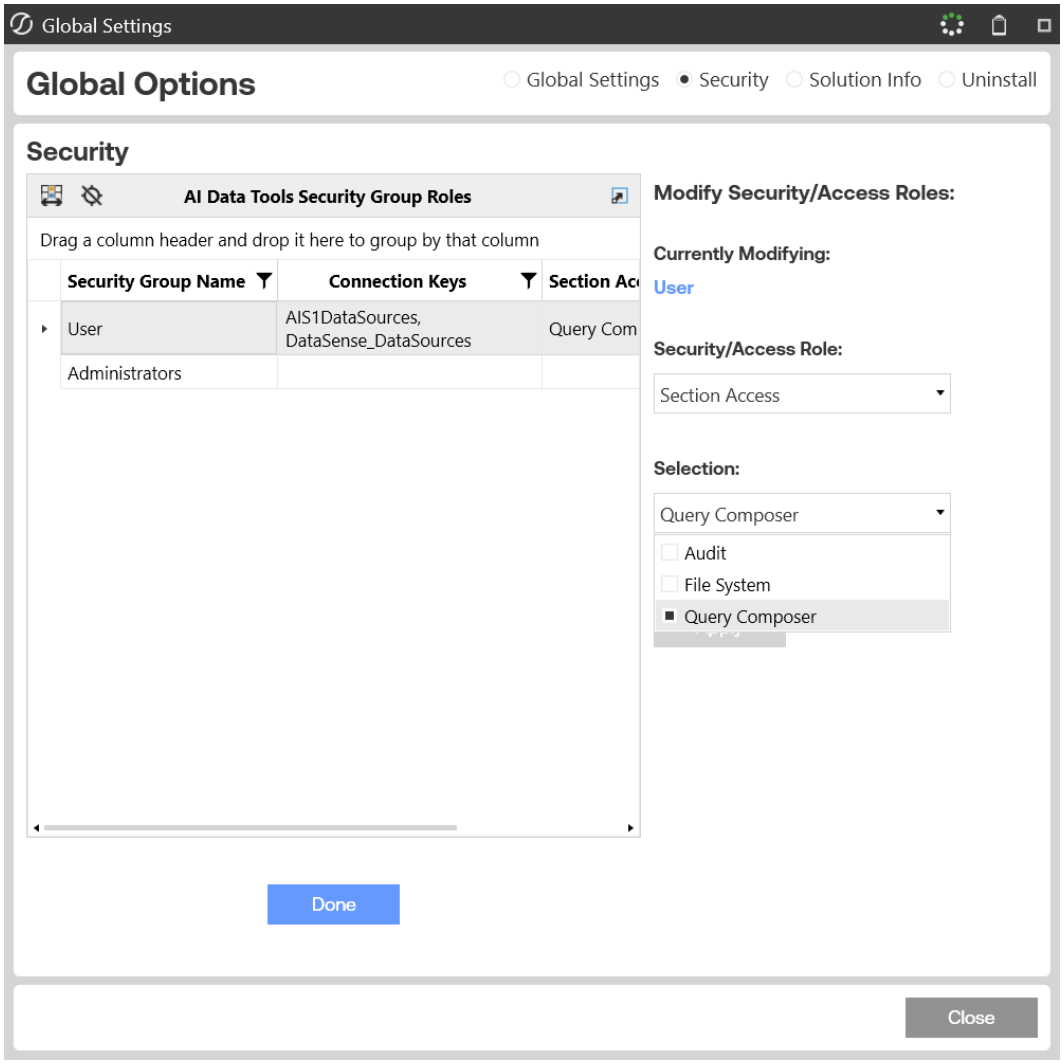
d. Filesystem Query Permission:

i. The query statements this user group will have access to when querying over the Meta FileSystem. Options include Read, Write, and Admin.

e. Security Modify Access:

i. Whether or not this user group has access to configure security roles for their group or other groups.

4. Configure the security permissions.
5. Click apply and confirm that they are displayed in the grid on the left:


Global Settings
Global Options
Global Settings
Security
Solution Info
Uninstall
Security
AI Data Tools Security Group Roles
Drag a column header and drop it here to group by that column
Security Group Name
Connection Keys
Section Ac
User
AIS1DataSources, DataSense_DataSources
Query Com
Administrators
Modify Security/Access Roles:
Currently Modifying:
User
Security/Access Role:
Section Access
Selection:
Query Composer
Audit
File System
Query Composer
Done
Close

AI Data Tools Security – Best Practice Quick Summary

Purpose

Use the Security configuration to control which OneStream Security Groups can access databases, AI Data Tools sections, and query capabilities. Always follow **least-privilege principles** when assigning permissions.

Core Best Practices

1. **Grant Database Access Carefully**
    - Only grant security groups access to the databases they require.
    - Database visibility is controlled by **Database Server Connection Maintenance Groups**.
    - A group can only access databases whose **Maintenance Group includes that security group** or **its parent groups**.
2. **Restrict Section Access**
    - Limit access to AI Data Tools sections based on job responsibilities.
    - Enable only the sections necessary for a group's operational tasks.
3. **Apply Query Permissions Conservatively**

    Use the lowest permission level required:

- **Read** – SELECT queries only (recommended default).
- **Write** – Allows modification queries (INSERT, UPDATE, CREATE, ALTER).
- **Admin** – Allows destructive or sensitive queries (DROP, DELETE, TRUNCATE).
    - Grant only to trusted administrators.

4. **Protect Security Administration**
    - **Security Modify Access** should be restricted to a **small number of trusted administrators**.
    - Avoid granting this permission broadly since it allows modifying security roles and permissions.
5. **Validate Changes**

    After configuring permissions:

    - Apply the changes.
    - Confirm the updated permissions appear correctly in the security grid.

Key Principle

Always assign the minimum permissions necessary for the group to perform its function. Restrict administrative capabilities, destructive query permissions, and security modification rights to **trusted administrators only**.

Uninstall

There are two uninstall options:

- **Uninstall UI** removes AI Data Tools, including related dashboards and business rules but leaves the database and related tables in place.

Choose this option if you want to accept an AI Data Tools update without removing data tables.

- **Uninstall Full** removes most related data tables, along with all data, AI Data Tools dashboards, and business rules. By default, this option creates a Security backup and preserves all Audit information. You have the option to remove this information if you so choose.

  Choose this option to completely remove AI Data Tools or to perform an upgrade that is so significant in its changes to the data tables that this method is required.


Global Settings
Global Options
Global Settings
Security
Solution Info
Uninstall
Uninstall
Global Settings
Uninstall Full Solution
Are you sure you would like to uninstall the full OMA Solution?
Some data will be lost. Security and Audit information is preserved as a backup when uninstalled. If you would like to remove the backups as well, check the box below.
Remove ALL Data
Uninstall
Close
Close

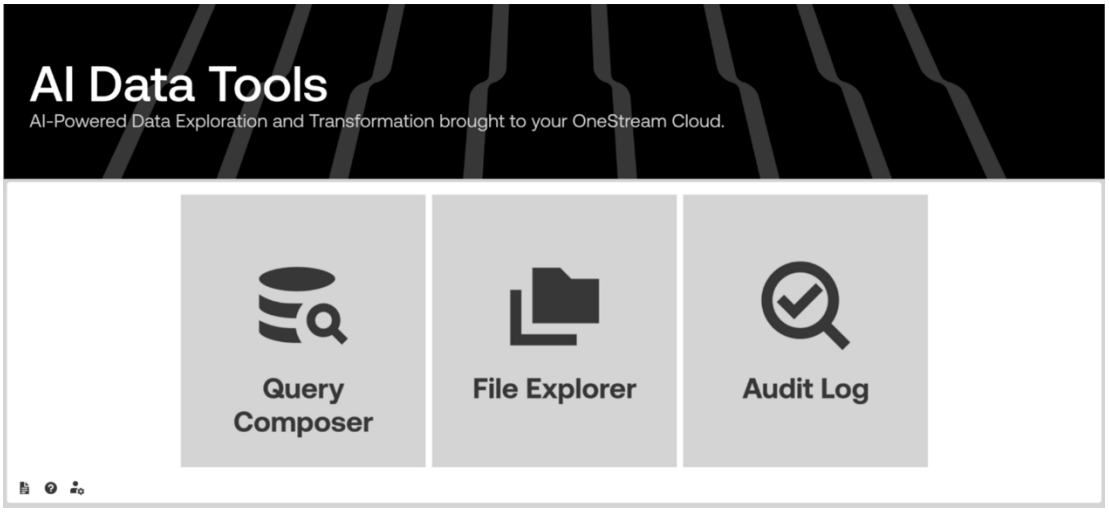
Navigate in AI Data Tools

The following sections describe the ways to navigate in AI Data Tools.

AI Data Tools Home Page

The Home page displays the three different tools available to the user:

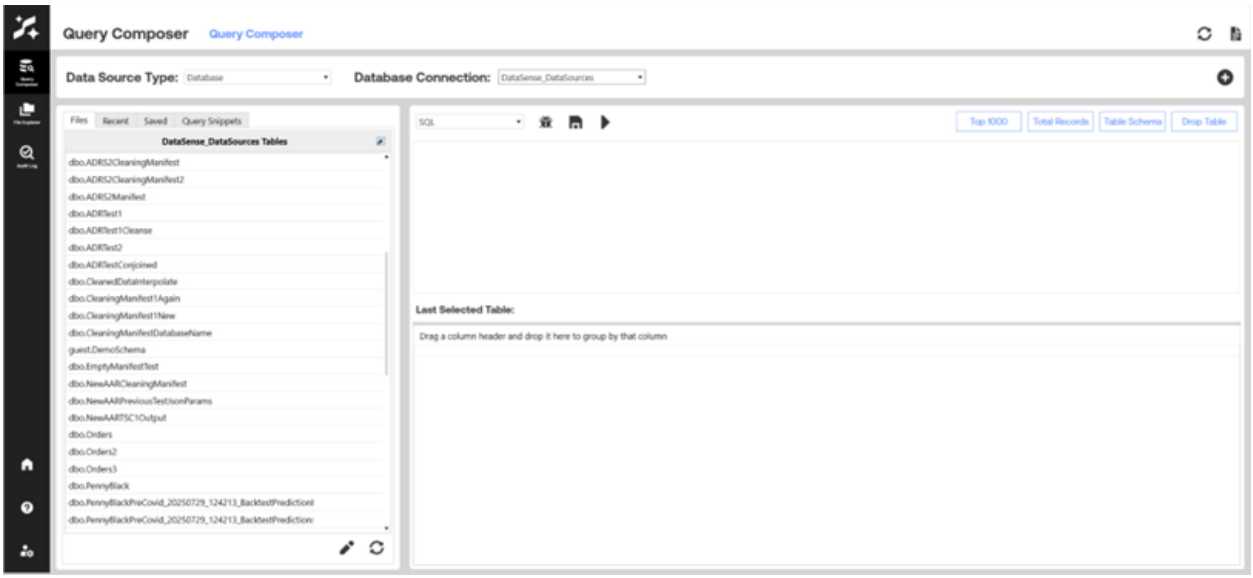
- Query Composer (QC)
- File Explorer (FE)
- Audit Log (AL)



Query Composer (QC) Section

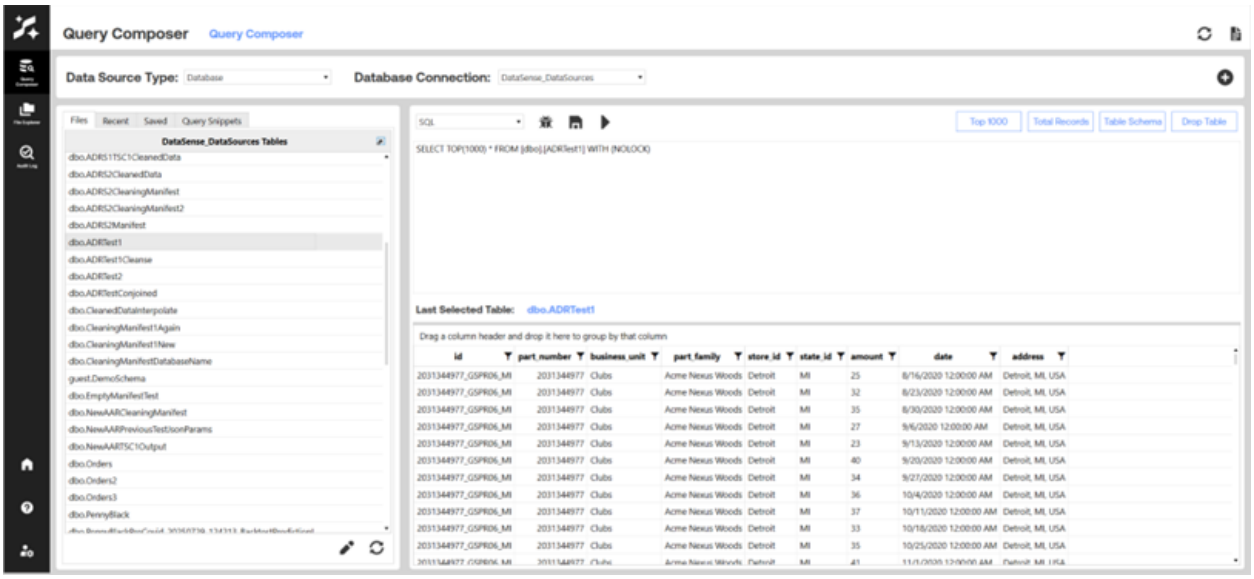
The Query Composer section of the solution allows the user to:

- Write custom queries to pull data directly from a database or the Meta FileSystem.
- Quickly generate queries on the selected table or file using available quick action buttons.
    - **Top 1000**: Get the first 1000 entries from a table or file.
    - **Total Records**: Get the row count of a table or file.
    - **Table Schema**: Get schema information about the table or file.
    - **Drop Table**: Drop the table from the database (SQL-only).
- Convert natural language prompts into SQL or DuckDB queries.



Query Composer Drop-downs, Buttons and Requirements for Use:

The first step that should be taken before using any of the buttons at the top of the screen is to select a table from the grid in the bottom left corner. You will know that a table has been selected if you see the name of it displayed above the text editor:



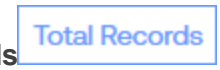
Drop-downs

- **Data Source Type**
  - Select the type of source on which to query.
  - Options: Database, Meta FileSystem.
- **Database Connection**
  - Select the database on which to query.
  - Options: All available databases.
- **Metadata Connection Key**
  - Select the Meta FileSystem folder on which to query.
  - Options: Routine, Shared.

- **Query Type**
  - Select the kind of query to build.
  - Database Options: SQL, Natural Language.
  - Meta FileSystem Options: DuckDB, Natural Language.

Buttons

- **Debug Mode** 
  - Enter a special debug mode, supply a prompt and run a query-building assistance routine powered by Xperiflow to investigate any errors with your query.
- **Save Query** 
  - Save the current query with a custom name.
- **Run Query** 
  - Execute the current query against the selected database or Meta FileSystem folder.
- **Top 1000** 

  - Select the first 1000 rows from the selected table or file to display in the bottom grid.
- **Total Records** 

  - Retrieves the total row count from the selected table or file to display in the bottom grid.
- **Table Schema** 

- Retrieves the column schema of the selected table or file to display in the bottom grid.

- **Drop Table** 

  - Opens a dialog and allows the user to drop the currently selected table
    - Database source-only

Other Features:

- **ETL File Create** 
  - Use the ETL Dialog to add new tables and files to your databases or the Meta FileSystem. Utilize AI Data Tools to perform an initial exploration of your data and transform it how you see fit.
- **Query Snippets**
  - Prebuilt templated queries to help the user execute more complex database operations with ease.

> **NOTE:** User must replace table names, column names, and data types in queries before executing. Future releases of AI Data Tools will attempt to further enhance this feature.

- **Natural Language to SQL Query**

- Utilizes the Xperiflow engine to convert a natural language prompt into a valid SQL or DuckDB query.
  - Context must be provided to the routine by selecting tables or files.
    - For databases, select one or many tables from the database
    - For Meta FileSystem, select an individual file, or a folder to select all subfiles that are able to be queried with DuckDB.

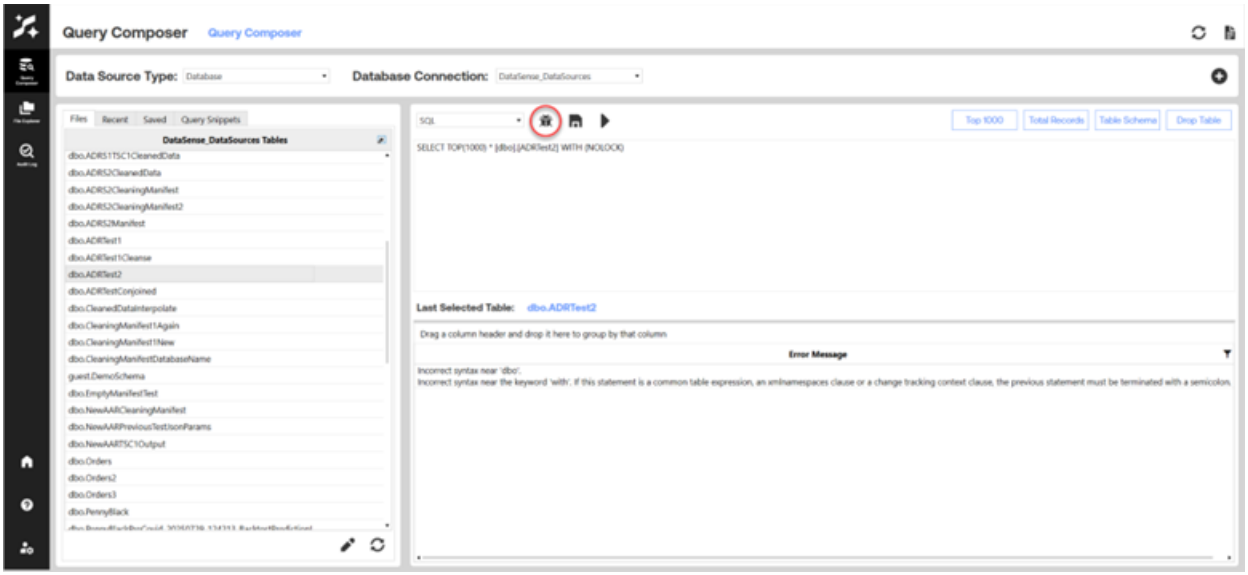
- **Edit Table or File** 
  - Alter the selected table or file by modifying its name or its column types.
    - Column type changes are not yet available for files.
    - Alter functionality is not yet available for tables with non-default schema.
  - Delete the selected table or file.

Natural Language Routine

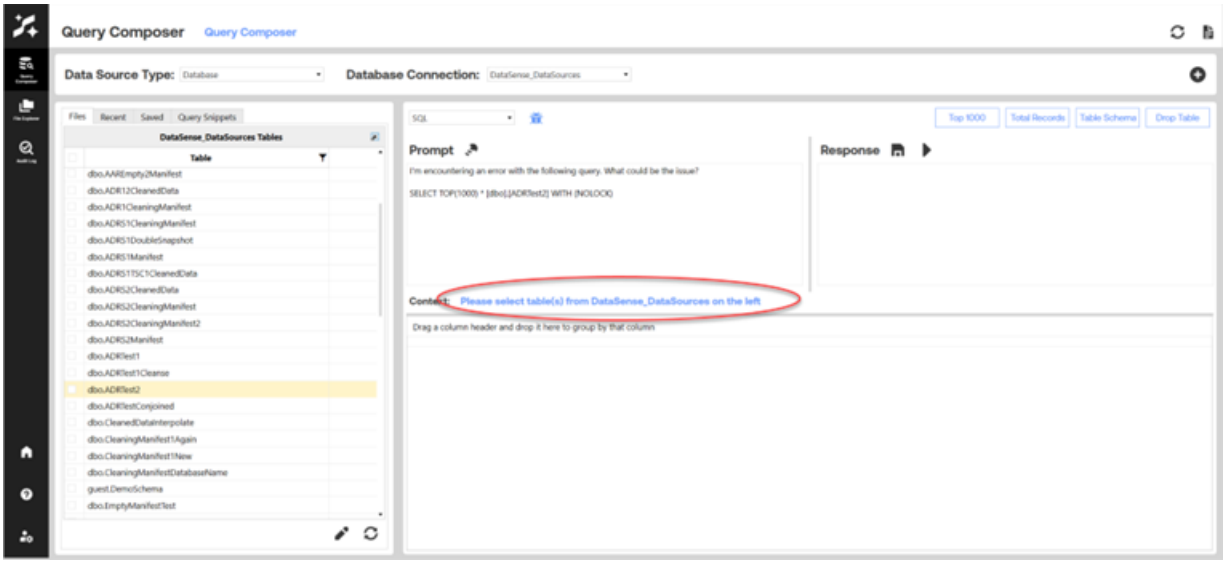
The Natural Language Routine appears in two forms: Debug Mode and Natural Language to Query. They are functionally equivalent, however they are presented in distinct contexts.

Debug Mode

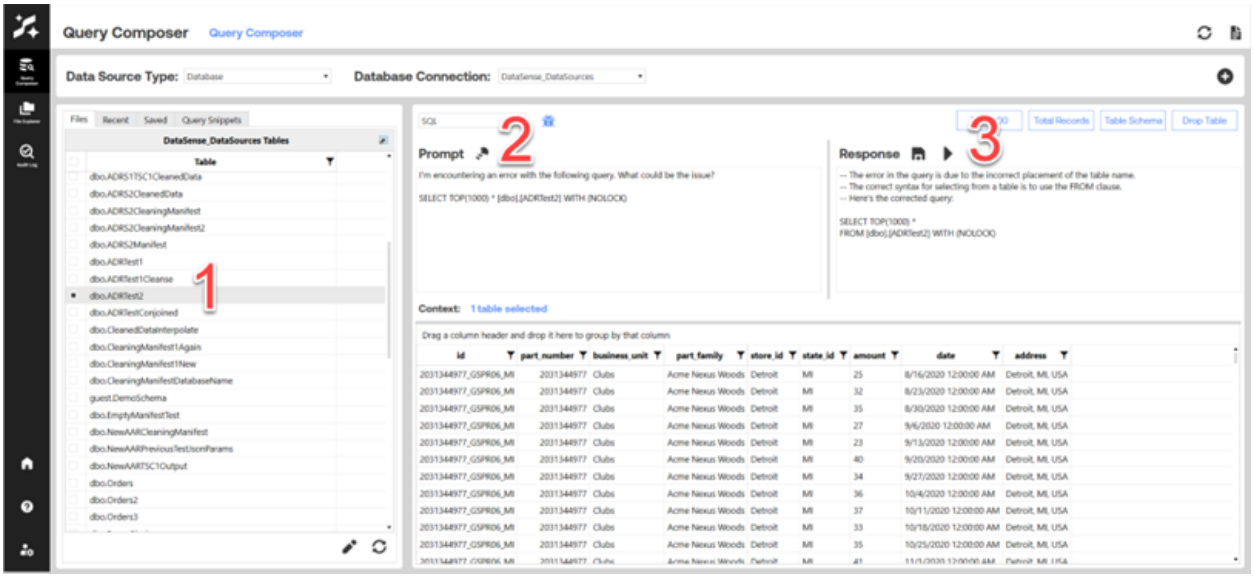
If a query is not functioning properly, you can select the Debug Mode button from the Query screen to begin query debugging.



When running this routine, context must be selected. This reduces the scope of tables or files the routine must search through when building your query.

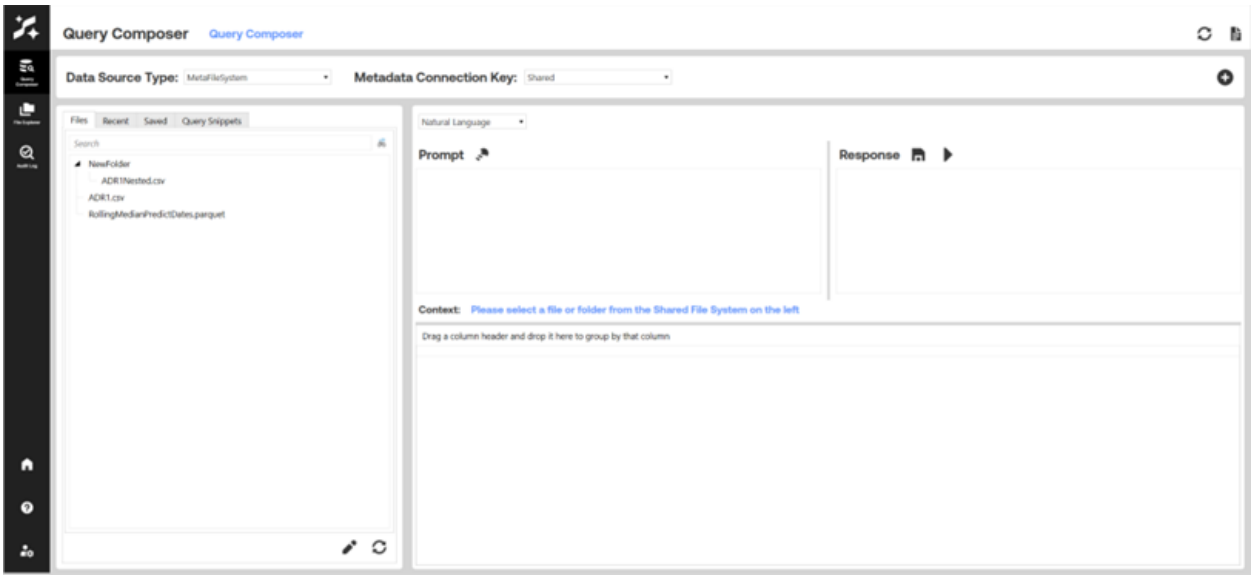


Once context has been selected, the query can be built against the context, and a response will be provided. That response can then be ran, and a result presented.

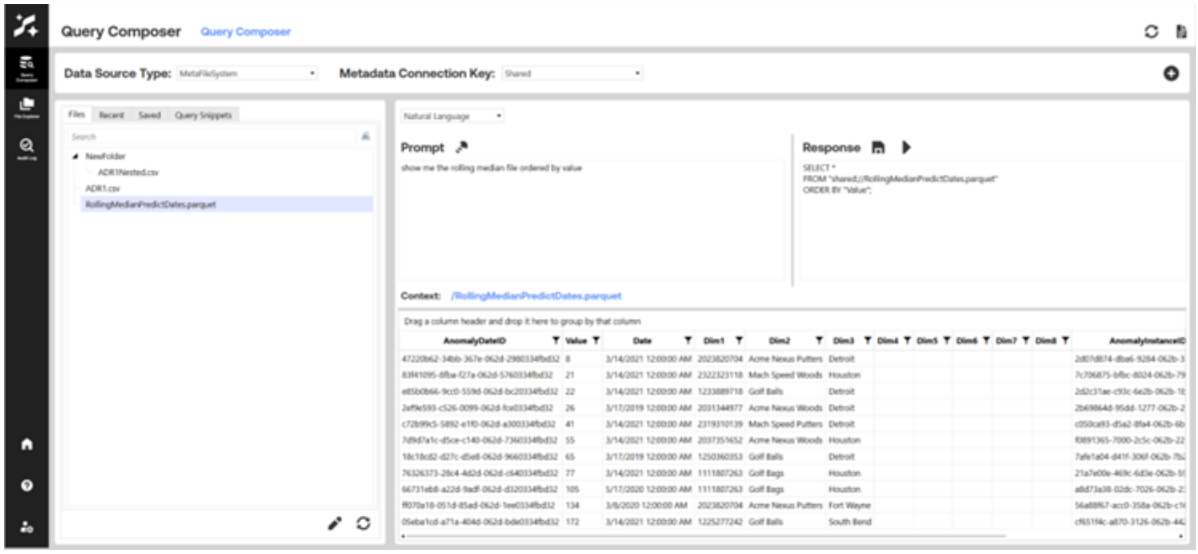


Natural Language to Query

The Natural Language mode can be accessed by the Query Type dropdown and presents in a similar manner.



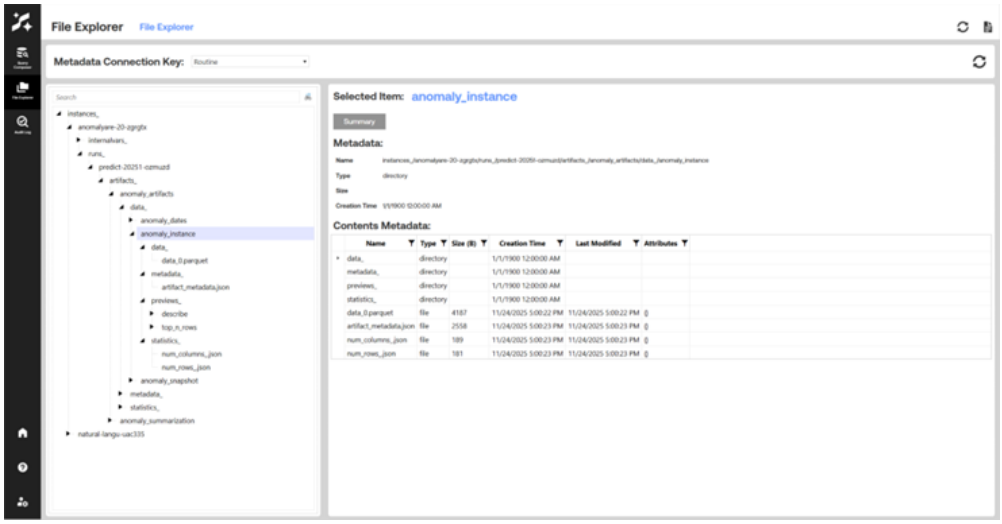
When selecting context on the Meta FileSystem, you can select either an individual file, or a folder to select all tabular files nested within the selected folder.



File Explorer (FE) Section

The File Explorer section of the solution allows the user to:

- Browse the Meta FileSystem, performing various actions.
    - **Save**
    - **Delete**
- Preview file contents



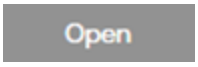
File Explorer Drop-downs and Buttons:

Drop-downs

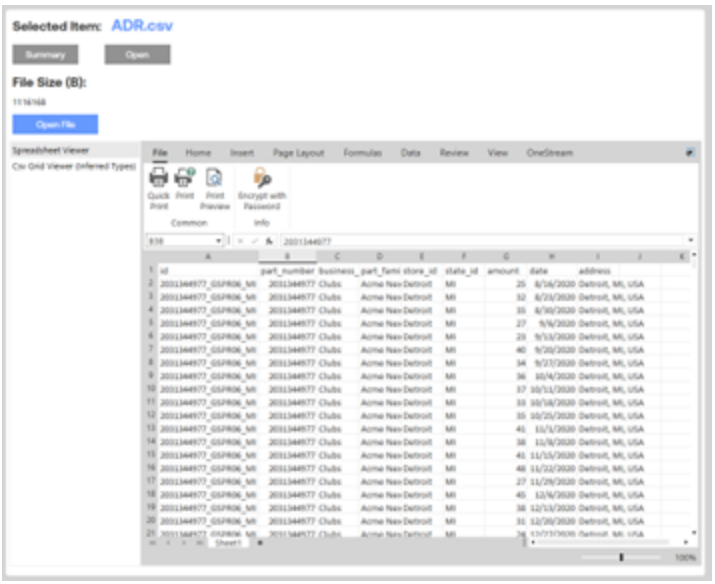
- **Metadata Connection Key**
    - Select the Meta FileSystem folder on which to explore
    - Options: Routine, Shared

Buttons

- **Save File** 
    - Copy the current file and save it to a new location.
- **Delete File** 
    - Delete the selected file from the Meta FileSystem
- **Summary** 

    - For files, view metadata such as name, size, and creation and modified times.
    - For folders, view folder metadata as well as contents metadata for all nested files and folders.
- **Open** 

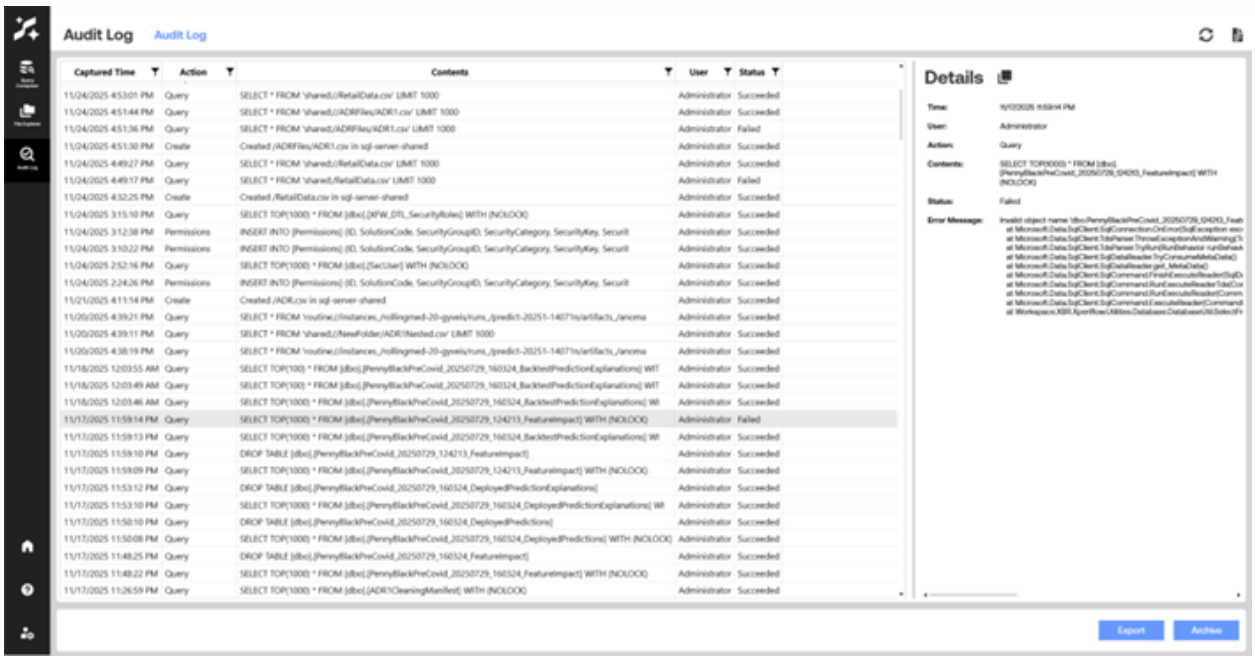
    - For files, interact via the Data Previewer to see your files within the Meta FileSystem.



Audit Log (AL) Section

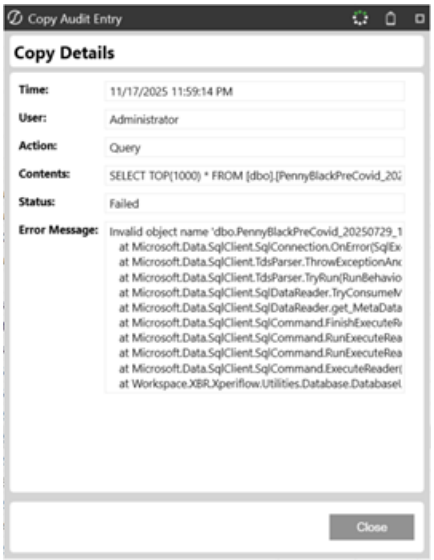
The Audit Log section of the solution allows the user to:

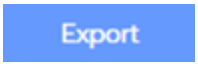
- Observe all significant actions taken by users within AI Data Tools. Significant actions include:
    - Creating, deleting, altering or querying a file or table
    - Building a query using the Natural Language routine
    - Modifying AI Data Tools permissions via the Security dialog
- Export or Archive the Audit Log to an external location

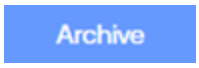


Audit Log Buttons

- **Audit Select**
  - Select an individual entry within the Audit grid to view an external location.
- **Copy Details** 
  - Open a dialog box to enable the copying of the selected audit entry's details (standalone client-only).



- **Export** 

  - Export all audit entries within the supplied date range to an external location.
- **Archive** 

- Export all audit entries within the supplied date range to an external location, **removing their existence** from the Audit Log.

Help and Miscellaneous Information

Display Settings

OneStream Solutions frequently require the display of multiple data elements for proper data entry and analysis. Therefore, the recommended screen resolution is a minimum of 1920 x 1080 for optimal rendering of forms and reports.

Additionally, OneStream recommends that you adjust the Windows System Display text setting to 100% and do not apply any Custom Scaling options.

Package Contents and Naming Conventions

The package file name contains multiple identifiers that correspond with the platform. Renaming any of the elements contained in a package is discouraged in order to preserve the integrity of the naming conventions.

Example Package Name: DTL_SV110_PV910_PackageContents.zip

Identifier	Description
DTL	Solution ID
SV110	Solution Version

Identifier	Description
PV910	Minimum Platform version required to run solution
PackageContents	File name

OneStream Solution Modification Considerations

A few cautions and considerations regarding the modification of OneStream Solutions:

- Major changes to business rules or custom tables within a OneStream Solution will not be supported through normal channels as the resulting solution is significantly different from the core solution.
- If changes are made to any dashboard object or business rule, consider renaming it or copying it to a new object first. This is important because if there is an upgrade to the OneStream Solution in the future and the customer applies the upgrade, this will overlay and wipe out the changes. This also applies when updating any of the standard reports and dashboards.
- If modifications are made to a OneStream Solution, upgrading to later versions will be more complex depending on the degree of customization. Simple changes such as changing a logo or colors on a dashboard do not impact upgrades significantly. Making changes to the custom database tables and business rules, which should be avoided, will make an upgrade even more complicated.