Analytics

Handbook for Users and Administrators

Product Version: 25.2

Last Updated: 06.16.25

Table of Contents

Welcome

Objectives

The purpose of this handbook is to familiarize users with tasks related to Analytics.

- The **Basics** section contains an overview of Analytics.
- The **Analytics** section contains information and instructions on how to use the default Analytics dashboards, as well as create and view custom Analytics reports.
- The **Administration** section contains information and instructions on how to manage analytics content, data, and security.

Supplier Validation

JAGGAER's solution provides buyers with access to a network of suppliers and enables buyers to engage with and validate its supplier counterparties. Validating suppliers and their offerings and contracting with those suppliers remains the buyers' sole responsibility.

Key Points

The goal of this handbook is to educate users about using JAGGAER's Analytics solution. Keep in mind that much of the how, when, and why the system is used is determined by your organization's business practices. We suggest that you supplement this document with your organization's business practices, goals, and policies.

Understanding the Format

A lesson is created for each major functional area of the system. Within each lesson, there are two sections:

- Background and conceptual information about the lesson. The concepts will help you better understand why and when you perform tasks in the system and how they relate to other parts of the system.
- Step-by-step instructions detailing specific tasks in the system. These instructions provide background information about the task, details about the typical user, step-by-step instructions, and in many cases, a results screen to compare your work.

Basics

Basics

JAGGAER ONE Analytics pulls data from all of JAGGAER's solutions and allows them to be converted into easy-to-use, editable, and exportable formats, including reports and dashboards. This allows Analytics users to quickly and easily process enormous amounts of data from throughout their JAGGAER environment and use that data in a variety of ways, from gleaning insights from data trends to presenting data to critical stakeholders.

Dashboards

The most essential component of Analytics is its dashboards. These dashboards are used to collect and display the data that Analytics pulls from other JAGGAER solutions. These dashboards can be customized, edited, and exported by users to achieve their data objectives. Analytics is comprised of a number of standard report dashboards, as well as the tools for building your own content.

- Standard report dashboards--which can be customized if needed--allow you to view and investigate different areas of your procurement process through automatically configured graphs and data.
- Custom content allow you to build and edit reports, then save them for private or public access.
- Analytics content is typically developed for one of three user types:
    - Executive - Very high-level, simplified visualization covering strategic data, typically across an entire organization
    - Operational - Guided analytics focused on a particular module tailored for a specialist in a particular area
    - Analyst - Simple, editable visualization designed for a data-literate user who wishes to explore the data in their own way

Permissions

Roles

Access to the Analytics solution is controlled through roles, which are managed by JAGGAER One administrators. Roles are created to manage users who perform similar tasks and who need access to similar reports and dashboards in the application.

Permissions

Name	Description	Values
Access to Analytics and Spend Management	Gives the user permission to access Spend Analysis+	Yes / No
Analytics and Spend Profiles	This drop-down contains a list of roles for your organization	Select the appropriate role from the drop-down
AnalyticsNewUI	Enables the Analytics Launchpad UI for the selected user.	Yes/No
RPT Contract Compliance	Grants the user access to the Contract Compliance dashboard.	Yes/No

Navigation

Overview

Analytics is designed to support two distinct functional areas:

1. **Spend Analysis+** – Analytics is the front-end interface of the embedded Spend Analysis+ solution (available as part of JAGGAER One). This module is a tool for loading, cleansing, and enriching spend data. For full information on this solution, refer to the Spend Analysis+ handbook.
2. **Platform Wide Analysis** – Analytics provides dashboards for a wide range of functional areas within the JAGGAER One suite. These dashboards help users to visualize, explore and understand their procurement data in new ways.

Analytics performs this function through four different types of tools:

1. **Curated Data Sources**: Data Source Manager (DSM) is JAGGAER's tool to allow users to create and curate their own data sources in the JAGGAER ONE Data Lake.
2. **Guided Analytics**: Provides category managers and executives with visually rich interactive dashboards that allow them to quickly view, explore, and understand their spend data.
3. **Web Edit**: If configured, you can leverage JAGGAER's Web Edit functionality, which grants access to additional underlying data and enables you to create new reports and share them with colleagues.
4. **Data Exports**: Provides a number of data export options, including bulk data export (BDE), to allow users to extract that data and integrate it into their own reporting tools.

Accessing Analytics

To access Analytics, perform the following process:

1. Log into JAGGAER.
2. Click the **Reporting** button and select **Analytics**.
3. Select **Analytics Launchpad**.

Analytics as a Landing Page

In addition to the typical way of accessing Analytics, users can configure a specific Analytics dashboard to be their landing page. If a dashboard is configured as a landing page, each time you click the **Home** button in the top navigation bar to access the Analytics landing page, you will be taken to the configured dashboard.

- The **Standard Landing** page selected for your site is the top (default) choice.
- If you select a report that is no longer available to you, you will be navigated to the main **Reports** page, with no report selected.

Follow these steps to configure an Analytics landing page:

1. Click the user icon in the top right corner of the page and select **User Profile**.
2. Scroll to the **User Preferences** section and click the **Edit** button located in that section.
3. Expand the **Landing Page** drop-down and select the appropriate report.
4. Click **Save**.

Reports

The Analytics **Reports** page is used to view and update reports. Users can build or edit reports and save them as private or share them and make public reports based on permissions. The specifics of accessing and managing reports are covered in more detail elsewhere in this guide.

Standard and Summary Dashboards

The Analytics **Menu** page for summary dashboards includes links to each of the functional areas that are available to you. Clicking on navigation icons takes you to their associated dashboards.

Depending on configuration and your user rights, you may have access to some or all of the dashboards created by JAGGAER. For a full and up-to-date reference of all currently available dashboards, including basics of using the dashboards, contact a JAGGAER representative and request a copy of the **JAGGAER One Analytics Dashboard Overview Guide**.

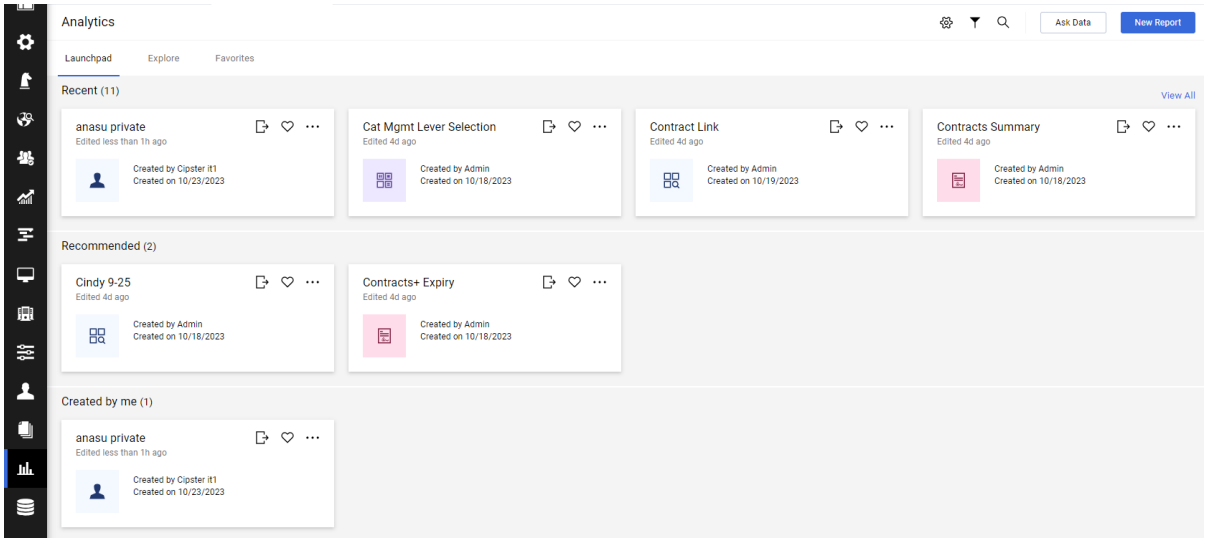
The Analytics Launchpad

The **Analytics Launchpad** is used to explore data when using the Analytics solution. The Analytics Launchpad offers quick access to reports via pinned dashboards, allowing users to quickly access information with just a few clicks.

> **Important Note**: Some organizations may be using JAGGAER's legacy UI. Some actions may be different when using the legacy UI. For those instances, refer to the **Legacy UI** section of this handbook.

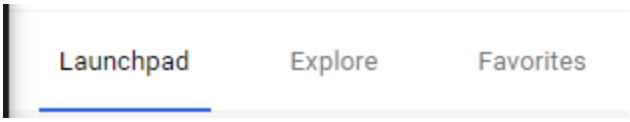
Accessing the Analytics Launchpad

The Analytics Launchpad is accessed by navigating to **Reporting** > **Analytics** > **Analytics Launchpad**.

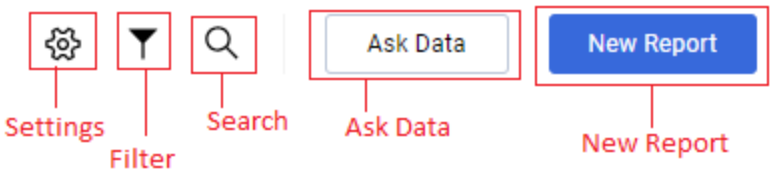


Navigating the Analytics Launchpad

The Analytics Launchpad is divided into five areas (known as collections): the **Launchpad** (default page), **Explore**, **Favorites**, **Report Subscriptions**, and **Executed Subscriptions**. Each collection is accessible from the header bar by clicking on the corresponding tab. The default tab that users will see when accessing Analytics Launchpad can be configured within the settings as outlined in the options overview below.



In addition to these collections, users also have access to several other options:



Note: The visible options are dependent on which collection you are viewing and what permissions are available. The screenshot above reflects the default options for the Launchpad collection.

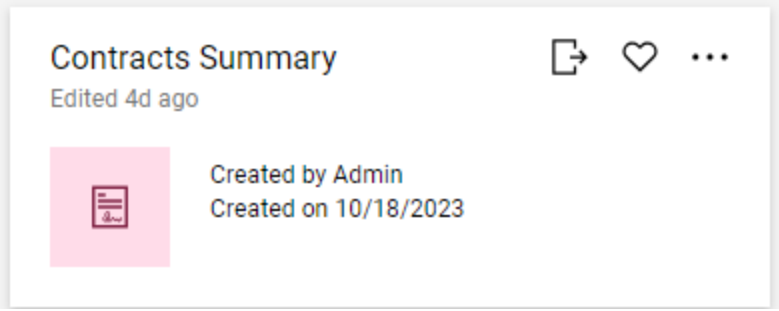
- **Settings** - Opens the Settings pop-up window. The **Sections** area controls visibility options for the currently viewed collection. This allows the user to decide which sections will be displayed. The **Tabs** area controls which collection will be the default view when opening the Analytics Launchpad.
- **Filter** - Opens the **Quick Filter** sidebar.
- **Search** - Opens the search bar in the header to perform a report search.
- **Ask Data** - Opens the Ask Data pop-up. Refer to the "Ask Data" on page 20 section for more information.
- **New Report** - Opens the New Report pop-up, allowing users to create a new report from the desired data source.

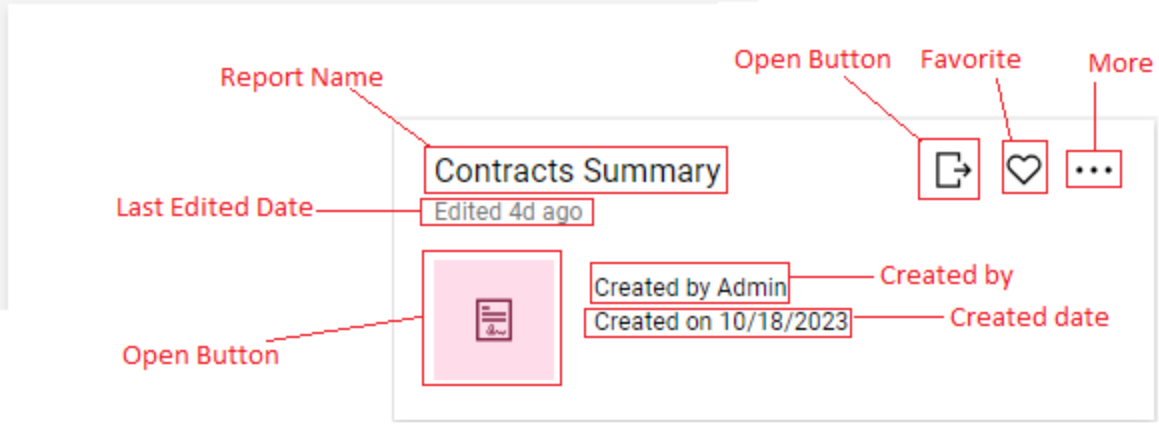
Sections

Reports in collections are organized into discrete sections to make navigating easier. Users can expand or collapse sections as desired. If no report has been placed into a section, that section will not appear in a collection, even if it is a section managed by the system rather than configured by an administrator.

The Launchpad Collection

The initial default collection of the Analytics Launchpad, displayed when a user accesses the Analytics Launchpad, is simply titled "Launchpad." This page is divided into four sections: **Recent**, **Favorites**, **Recommended**, **Created by me**, and **Shared With Me**. Each section will display tiles representing reports, unless there are no reports in the section for the user. An example follows:





- **Report Name** - The name of the report.
- **Shared/Private** - Indicates whether the report is shared with other users or only available to its creator and administrators.
- **Last Edited Date** - The last time the report was edited.
- **Open Button** - Click this button to open the report. Each report can be opened by either clicking the large button on the left (which will include an icon) or the standardized button in the upper right of the tile.
- **Description** - A description of the report provided by the creator.
- **Favorite** - Click this button to add the report to the list of favorites.
- **More** - Click this button for more options, usually **Edit** (to edit the report) and **Share/Unshare** (to grant other users access to the report/restrict access). The available options may vary based on user permissions. Common options include **New Subscription**, **Delete**, and **Settings**. **Note**: The Settings option on a report refers to report-specific settings. It is **NOT** the same as the Settings option for sections.

> **Note**: The reports in the Favorites section of the Launchpad Collection are the same as those found in the Favorites Collection. Any changes to sorting in **either** the Favorites section or the Favorites Collection will be reflected in **both** locations.

The sections of the Launchpad collection are as follows:

- **Recent** - Recently viewed reports.
- **Favorites** - Reports that have been saved as favorites.
- **Recommended** - Reports that are recommended for the user by the system.
- **Created by me** - Reports that have been created by the user. This includes reports that have and have not been shared with other users.
- **Shared with me** - Reports that have been created by other users and shared with the user.

The Explore Collection

The **Explore Collection** is a customizable space that allows the user to organize reports into customized categories. To facilitate this, a new button appears in the header: the **Section Admin**

button  . Section Admin allows the user to create, edit, and delete sections for the Explore collection. This does **NOT** have any bearing on the reports themselves, only the categories that reports can be displayed in within the Explore collection.

To swap between the default List View and Card View, perform the following procedure:

1. Navigate to the **Analytics Launchpad**.
2. Select the **Explore** tab.
3. In the upper-right corner, next to the **Sort By** button, click the **View** button to swap the view. By default, **Card View** is enabled. Clicking the button will swap to the **List View** option. The Explore collection will change to List View, and the icon for the View button will change to the Card icon.

> **Note**: The Analytics Launchpad will preserve the chosen view and apply it to the search results on the Report screen. This change will **not** be preserved when the user logs out of the application.

To add a report to a category in the Explore section, perform the following procedure:

1. Navigate to **Reporting**  **> Analytics Administration > Content Management**.
2. Locate the desired report in the **Analytics Content** section.
3. Click the **Action** button for the report and select **Edit** to open the **Report Feature Maintenance** pop-up window.
4. Locate the **Report Category** field and use the drop-down to select the desired category. **Note**: A category must first be configured using the Section Admin functionality as described above.
5. Click the **Save** button.
6. Return to the Explore section of the Analytics Launchpad. The report will now be displayed in the configured category.

The Favorites Collection

The **Favorites Collection** displays all reports that the user has marked as a favorite. By default, the Favorites Collection is sorted by **Most Recently Viewed**. In the collection, the sort can be changed by users with the **Section Admin** permission. Users with the Section Admin permission may also use drag-and-drop to rearrange the reports in the Favorites Collection.

> **Note**: These reports are the same as those found in the Favorites section in the Launchpad Collection. Any changes to sorting in either the Favorites Collection or the Favorites section will be reflected in both locations.

The Report Subscriptions Collection

The **Report Subscriptions Collection** displays all report subscriptions currently available to the user. These are displayed in table format. The table can be sorted by any of the available columns by clicking on the column. The sort arrow will display. Clicking on the options button on the column will allow the user to filter by the column.

Adding a New Subscription

To add a new subscription directly from this page, perform the following procedure:

1. Click the **New Subscription** button in the upper-right of the screen. This will open the **New Subscription** overlay
2. Provide the desired parameters of the subscription. **Note**: The **Start Date** must be provided, but the **End Date** is not required. If no end date is configured, the subscription will continue indefinitely.
3. Click **Save**. If desired, **Run Now** can be clicked to immediately begin the report subscription process. **Note**: No subscription will appear in the list until at least one report is available for viewing.

> **Note**: Users may add a new subscription from the Executed Subscriptions collection, as well.

The Executed Subscriptions Collection

The **Executed Subscriptions Collection** displays all report subscription activities that have been performed. These are displayed in table format. The table can be sorted by any of the available columns by clicking on the column. The sort arrow will display. Clicking on the options button on the column will allow the user to filter by the column.

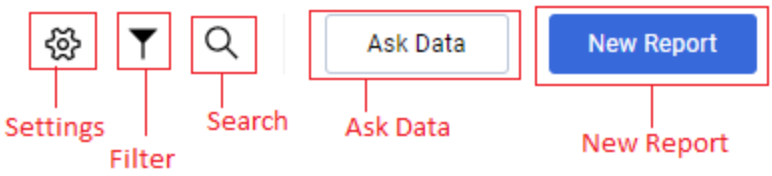
The Launchpad Collection

The **Launchpad** collection is accessible as a tab in the Analytics Launchpad. It displays an array of pre-defined sections that the system has identified as most relevant for the user. These sections are **Recent**, **Favorites**, **Recommended**, **Created by Me**, and **Shared with Me**. For more information on these sections, refer to the "The Analytics Launchpad" on page 10 section.

> **Note**: Reports in the Favorites section are the same as those found in the Favorites collection in the Analytics Launchpad. Any changes to sorting in either the Favorites collection or the Favorites section will be reflected in both locations.

Launchpad Options

When viewing the Launchpad collection, users have access to several specific options:



Note: The visible options are dependent on which collection you are viewing and what permissions are available.

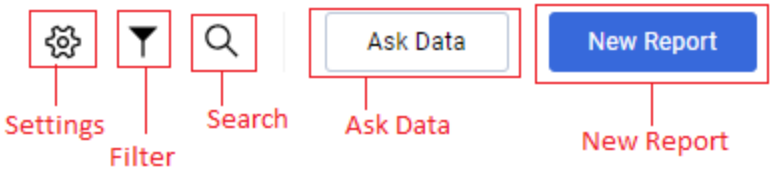
- **Settings** - Opens the **Section Visibility** settings for the currently viewed section (Launchpad, Explore, or Favorites). This allows the user to decide which sub-sections will be displayed.
- **Filter** - Opens the **Filter** sidebar for the current section.
- **Search** - Opens the search bar in the header to locate a specific report.
- **Ask Data** - Opens the Ask Data pop-up. Refer to the "Ask Data" on page 20 section for more information.
- **New Report** - Opens the New Report pop-up, allowing users to create a new report from the desired data source.

The Explore Collection

The **Explore** collection is accessible as a tab in the Analytics Launchpad. It displays administrator-configured sections containing specific reports that have been selected by the administrator for quick access. The Explore collection will display all reports that are available to the user within the configured sections, unlike the Launchpad collection that only displays a subset of available reports.

Explore Options

When viewing the Explore collection, users have access to several specific options:



Note: The visible options are dependent on which collection you are viewing and what permissions are available.

- **Settings** - Opens the **Section Visibility** settings for the currently viewed section (Launchpad, Explore, or Favorites). This allows the user to decide which sub-sections will

be displayed.

- **Filter** - Opens the **Filter** sidebar for the current section.
- **Search** - Opens the search bar in the header to locate a specific report.
- **List View** - Changes the report view from card view to list view.
- **Ask Data** - Opens the Ask Data pop-up. Refer to the "Ask Data" on page 20 section for more information.
- **New Report** - Opens the New Report pop-up, allowing users to create a new report from the desired data source.

Administrator Actions

In addition to the options above, administrators will have access to a special action:

- **Section Admin** - Allows administrators to configure the sections that will be displayed to users in the Explore section.

When using the Section Admin action, administrators can create new sections, delete sections, and reorder sections. The Section Admin action does **NOT** allow administrators to create or delete reports. Any reports that are not placed within a designated section will be placed in the **Uncategorized** section located at the bottom of the list (this section cannot be configured).

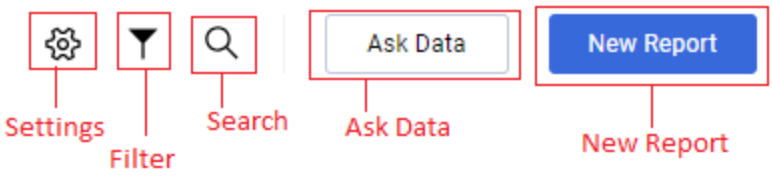
The Favorites Section

The **Favorites** section is accessible as a tab in the Analytics Launchpad. It displays all reports that the user has marked as a favorite. By default, the Favorites section is sorted by **Most Recently Viewed**. In this section, the sort can be changed by users with the **Section Admin** permission. Users with the Section Admin permission may also use drag-and-drop to rearrange the reports in the Favorites Collection.

> **Note**: These reports are the same as those found in the Favorites Collection in the Analytics Launchpad. Any changes to sorting in either the Favorites Collection or the Favorites section will be reflected in both locations.

Favorites Options

When viewing the Favorites collection, users have access to several specific options:



Note: The visible options are dependent on which collection you are viewing and what permissions are available.

- **Settings** - Opens the **Section Visibility** settings for the currently viewed section (Launchpad, Explore, or Favorites). This allows the user to decide which sub-sections will be displayed.
- **Favorites Settings** - Allows the user to reorder reports within the Favorites section using a drag-and-drop interface.
- **Filter** - Opens the **Filter** sidebar for the current section.
- **Search** - Opens the search bar in the header to locate a specific report.
- **Ask Data** - Opens the Ask Data pop-up. Refer to the "Ask Data" on page 20 section for more information.
- **New Report** - Opens the New Report pop-up, allowing users to create a new report from the desired data source.

Report Subscriptions and Executed Subscriptions Collections

Users may create and manage subscriptions directly from Analytics Launchpad using the **Report Subscriptions** and **Executed Subscriptions** areas.

Report Subscriptions

This collection displays a list of available report subscriptions. Users may reorder this list by clicking on the headings. Users may also reorder the columns in the list by clicking and dragging the column headings. Users may edit or delete reports by clicking the options **...** button and selecting either the **Edit** or **Delete** options.

Report Subscriptions Options

When viewing the Report Subscriptions collection, users have access to several specific options:

- **Search** - Opens the search bar in the header to locate a specific report.
- **New Subscription** - Opens the New Subscription window, allowing the user to create a new report subscription.

Executed Subscriptions

The Executed Subscriptions collection is similar to the Report Subscriptions collection, but limited only to the list of report subscriptions that have run (including those that have returned an error message). This collection displays a list of available report subscriptions. Users may reorder this list by clicking on the headings. Users may also reorder the columns in the list by clicking and dragging the column headings.

Executed Subscriptions Options

When viewing the Executed Subscriptions collection, users have access to only one options:

- **Search** - Opens the search bar in the header to locate a specific report.

Subscribing to Reports

Subscribing to a Report from Analytics Launchpad

1. Open **Analytics Launchpad**.
2. Navigate to the **Report Subscriptions** tab.
3. Click the **New Subscription** button.
4. Configure the subscription in the **New Subscription** overlay.

Subscribing to a Report from an Analytics Launchpad Report Card

1. Open **Analytics Launchpad**.
2. Locate the desired report card in any of the valid locations where it may be located.
3. On the report card, click **...** and select **New Subscription** from the drop-down list.
4. Configure the subscription in the **New Subscription** overlay.

Subscribing to a Report Directly from a Report

1. Open **Analytics Launchpad**.
2. Locate the desired report card in any of the valid locations where it may be located.
3. Open the report.
4. In the report view, click **...** and select **New Subscription** from the drop-down list.
5. Configure the subscription in the **New Subscription** overlay.

Report Search

When working with the Analytics Launchpad, users may click the Search button in the upper-right of the screen at any time to search for Analytics reports. This search function includes dynamic suggestions (up to four may be displayed) to help users auto-complete their search parameters if desired. When searching, Analytics will return one of the following results:

1. The exact report desired. If Analytics can identify a report with the precise name provided by the user **AND** there is only one report with that name, the user will be taken directly to the report.
2. A list of reports containing elements of the search query. This list will be provided **ONLY** if Analytics cannot provide a report with an exactly matching name **OR** there is more than one report with the same name. By default, the returned reports are displayed in Grid View, but users may click the Change View button located next to the Search button to switch to List View.

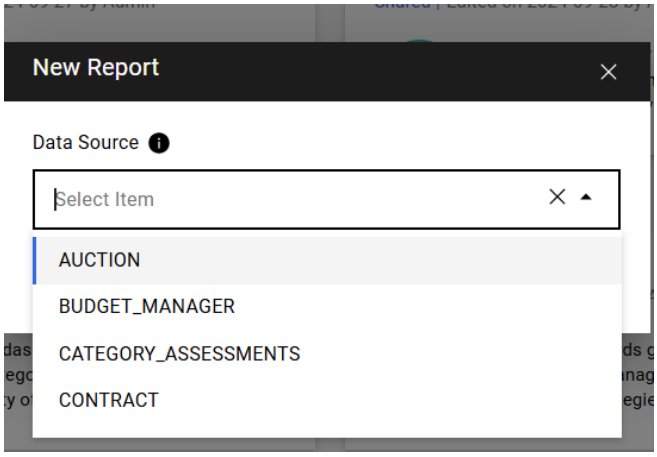
> **Note**: If the user is presented with a list of potential matches, they may interact with the returned reports exactly as they can elsewhere in the Analytics Launchpad. This includes opening, favoriting, editing, sharing, and more.

If using the dynamic suggestion capability while searching, users may click on a suggestion to be taken directly to the suggested report, or press **Enter** to perform the search as normal and be taken to the search results page.

New Report

The **New Report** button is located in the upper-right corner of the Launchpad Explore and Favorite collections. Pressing this button allows users to create their own reports from a blank canvas from the data source of their choice.

W hen users click on this button, they will be prompted to select a data source. These data sources are defined by the **Data Source Manager (DSM)** tool.



Once a data source has been selected, users will be guided to create their report using standard Web Edit functionality. Here, users can use drag-and-drop functionality to add desired fields to the report before providing a name and saving the report.

All reports created this way will appear in the **Created by Me** section in the launchpad.

> **Note**: Once a report has been created, it defaults to being a private report that is only visible to themselves and Analytics administrator users. Users must share the report to make it visible to other non-administrator users. They can do this by clicking the **...** menu on the report card and selecting **Share with All**. Once shared in this way, the report will be visible to all Analytics users within the organization.

Ask Data

Ask Data leverages a natural language processing tool. Ask Data allows users to type an English language question and receive an automatic data visualization in response.

> **Important Note**: In order to use this functionality, data sources must have the Explore Data function enabled within the **Data Source Manager (DSM)** tool. Refer to the Data Source Manager section for full details.

Configuring Ask Data from Analytics Launchpad

Prior to using Ask Data, it must be configured. To do so from Analytics Launchpad, perform the following procedure:

1. Click the **Ask Data** button, located next to the New Report button in the upper-right of the screen. This will open the **Ask Data** overlay.

2. Use the drop-down selector to select the desired data source (as configured in the **Data Source Manager (DSM)** tool) and click **Confirm**. **Note**: The selected data source will be the source of any information provided by the Ask Data function.
3. Users are presented with a text box. They can use this text box to ask a question and receive a response from the natural language model that powers Ask Data. Users may ask follow up questions as needed based on Ask Data's response.

Accessing Ask Data Directly from a Report or Dashboard

- If any of the data sources that are accessed through a report or dashboard have Explore Data enabled, an **Ask Data** option appears in the report toolbar at the bottom of the page.
- Selecting this option will enable Ask Data as described above.

CPO Dashboard

The Chief Procurement Officer (CPO) dashboard is a specialized, cross-modular dashboard designed for executive users to review KPI metrics across JAGGAER modules for their organization.

> **Note**: To use the CPO dashboard, users must have the **DashboardCPO** permission enabled. To have administrative control over the CPO dashboard, users must have the **DashboardCPOAdmin** permission enabled.

Feature Overview

- Each KPI contains a value for the current month.
- Each KPI includes a rolling, twelve-month trend.
- A target KPI value that the dashboard can use to show if the organization is currently below or above the target.
- The user can define if being above or below the target KPI is a good, bad, or neutral outcome, with color-coded indicators for easy reference.
- A drill-down function for each KPI to view additional visualizations breaking the KPI into commonly used dimensions. These dimensions include category business unit and more.
- The ability to create custom KPIs.
- A KPI library is available for administrative users that allows them to manage all KPIs.
- KPIs can be organized into sections. Each section can be configured by an administrative user.

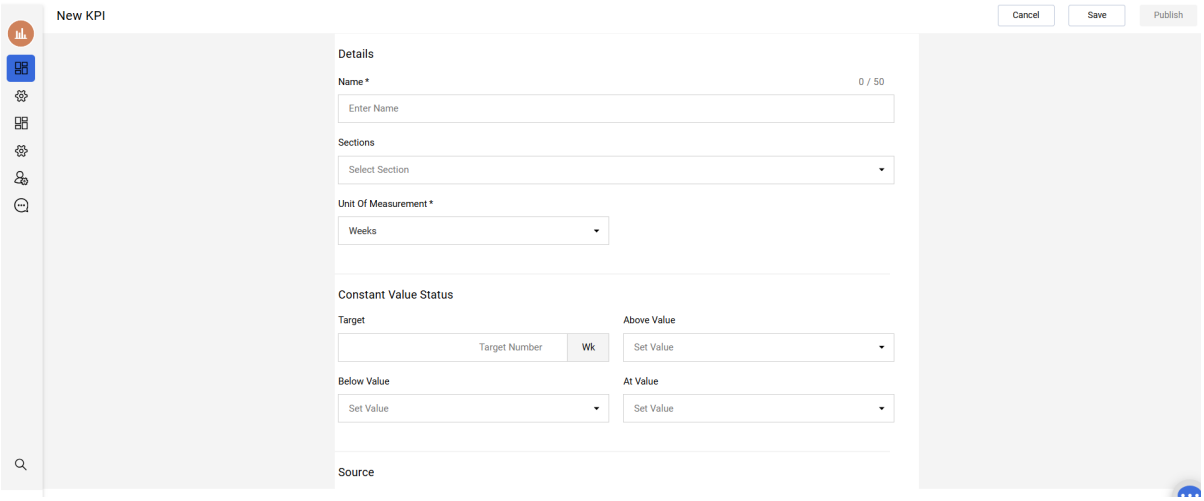
Accessing the CPO Dashboard

To access the CPO dashboard, navigate to **Reporting > Analytics > CPO Dashboard**.

Creating a KPI

To create a KPI:

1. Open the CPO dashboard.
2. Click the **New KPI** button in the upper right corner. This will open the New KPI overlay.
3. In the overlay, users can provide the details of their KPI. Of particular interest are:
    - The section where the KPI will be displayed on a dashboard. If none is selected, the KPI will not be shown.
    - The unit of measurement that the KPI will use.
    - The target for the KPI.
    - For each of the Above Value, Below Value, and At Value fields, users may select whether these are good, bad, or neutral.
    - The data source that the KPI will be based on.
    - The date field for the trendline of the KPI.
    - The list of fields in the data source which will be used for KPI calculations. Users may use drag-and-drop to modify these fields.
    - A KPI value preview.
    - Save and/or publish the KPI. The KPI **MUST** be saved **AND** published to be visible on the CPO dashboard. Otherwise, it will only be visible in the KPI library.



Editing a KPI

To edit a KPI, open the **KPI Library** (refer to the following section for full details) and locate the KPI in the list. Click the **Actions ...** button and select **Edit**.

The KPI Library

The KPI library is a space that allows KPIs to be managed, including KPIs that have not yet been included in a dashboard. To access the KPI library, navigate to **Reporting > Analytics > CPO**

Dashboard and click the **KPI Library** button in the upper-right corner.

> **Note**: To access the KPI Library, users must have the **DashboardCPOAdmin** permission.

The KPI Library lists all KPIs available to the user, including those not shown on the CPO Dashboard. The **Section** the KPI is assigned to and the KPI's **Target** value are also displayed. The cloud icon to the far left of the list shows whether the KPI has been published or not.
Note: The KPI **MUST** be assigned to a section **AND** published to be visible on the CPO dashboard. Otherwise, it will only be visible in the KPI library.

> **Note**: KPIs are divided into two broad categories. The first is **System KPIs**, which are default KPIs produced by JAGGAER. These are indicated by the globe icon to the left of the KPI Name. The second is **User KPIs**, which are KPIs which have been created by a user. These are indicated by the user icon to the left of the KPI Name. The degree to which a KPI can be edited is determined by its category. System KPIs are much more limited in terms of how much they can be edited than User KPIs. User KPIs can be edited in their entirety. System KPIs cannot have their defining characteristics, such as calculations and data source, changed, but their non-defining characteristics, such as name, section, or target, can be changed.

The **Action ...** button for each KPI allows the user to select available actions (based on their permissions) for the KPI. These include editing and deleting the KPI.

Users can mouse over the header for each column to reorder the columns using grab-and-drop. Mousing over the header also displays a filter button to control what KPIs are shown.

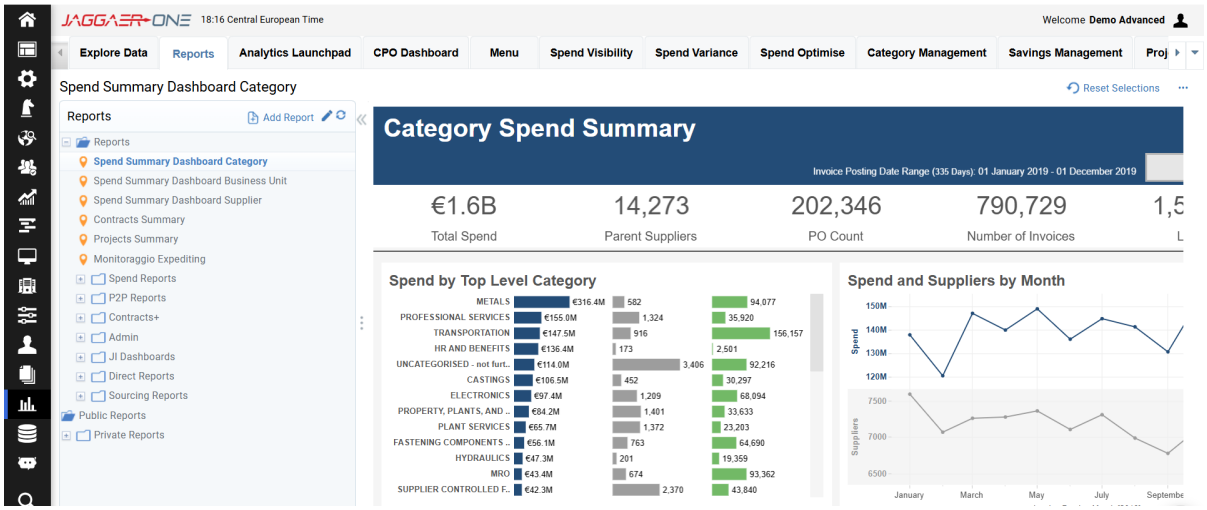
Legacy UI

Report Tree

Analytics users can use a report tree for organizing their reports. Report trees can be customized as needed by the user. Users can create nested folder structures to further organize their reports.

To view a report tree, navigate to **Reporting > Analytics > Reports**.

> **Note**: Report Trees are essentially vertical lists of dashboards that are an alternate form of Dashboard Tabs, which are horizontal lists of tabs. Refer to the Dashboard Tabs section for more information.



In addition to the reports that are created in the report tree, there are also Private and Public Reports folders. A Private report is a user that the user has created themselves and not shared while a Public report is a Private report that has been shared with all Analytics users. Private and Public report folders can also contain nested folder structures.

Create a Report Tree

> **Note**: This section only applies to administrator users.

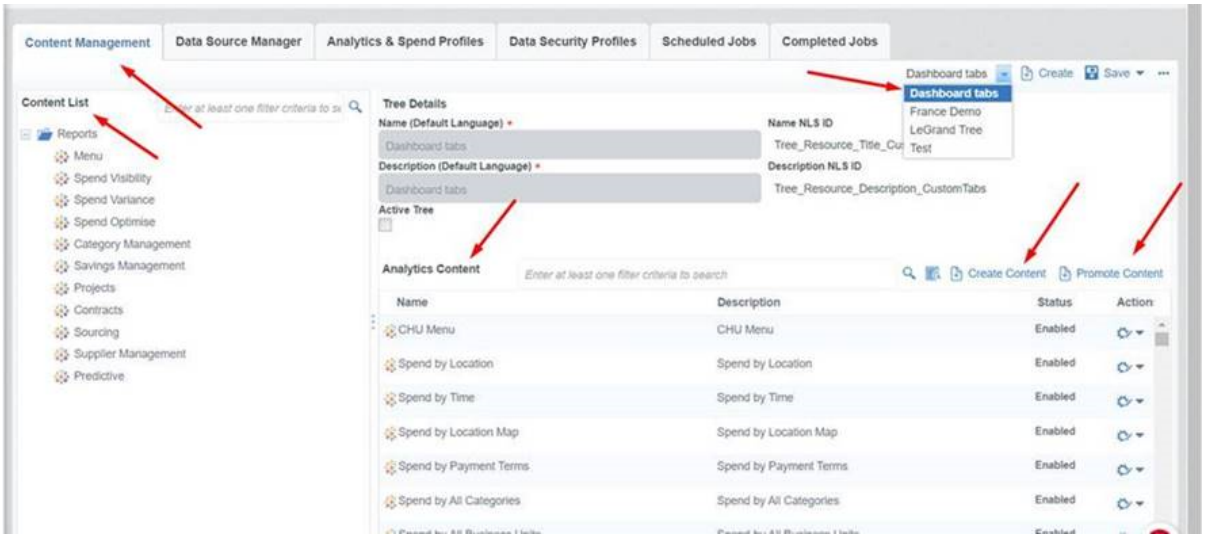
1. Navigate to **Reporting > Analytics Administration > Content Management**.
2. Click the **Create** link in the upper right corner of the page. The **New Report Tree** overlay opens.
3. Enter a **Name** and **Description** for the report tree.
4. Click **Save**. An overlay displays informing you that the report tree has been created.

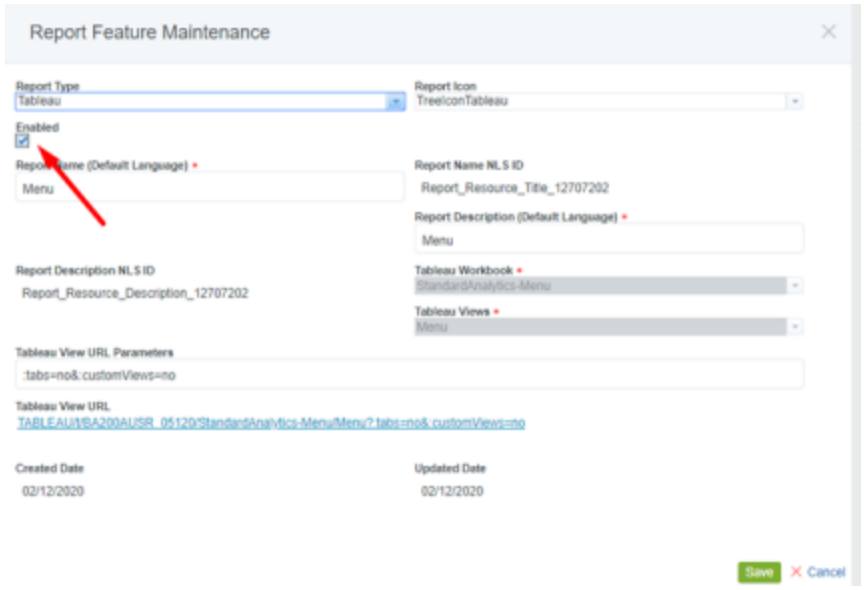
5. Click **OK**. The overlay closes and you are returned to the **Content Management** page with the new report tree open.

Manage a Report Tree

The **ReportTreeManagement** feature must be enabled for the user roles that will have the ability to manage report trees.

1. Navigate to **Reporting** > **Analytics Administration** > **Content Management**.
2. Select the tree you want to update from the **Dashboard Tabs** drop-down in the upper right corner of the page. The report tree loads.
3. You can update the report tree **Name** and **Description** under the **Tree Details** section.
4. The reports available to be included in the report tree are listed under the **Analytics Content** section.
5. Drag and drop reports from the list of **Analytics Content** to the report tree to add them to the tree. You can also rearrange the reports in the report tree's folders by dragging and dropping them.
6. To view other report tree management options, right-click folders and reports in the report tree. The available options are:
    - **Add** - Add a new report folder to the tree.
    - **Remove** - Remove the report or folder to the tree.
    - **Cut & Paste** - Move a report or folder to a different location in the tree.
    - **Copy & Paste** - Copy a report or folder and duplicate it in a different location in the tree.
    - **Rename** - Only available for folders. Change the name of the selected folder.
7. To make the tree available to users, select the **Active Tree** checkbox under the **Tree Details** section.
8. Click the **Save** dropdown and select **Save Tree** to save your changes. An overlay displays informing you that the report tree has been saved.
9. Click **OK**. The overlay closes and you are returned to the **Content Management** page.

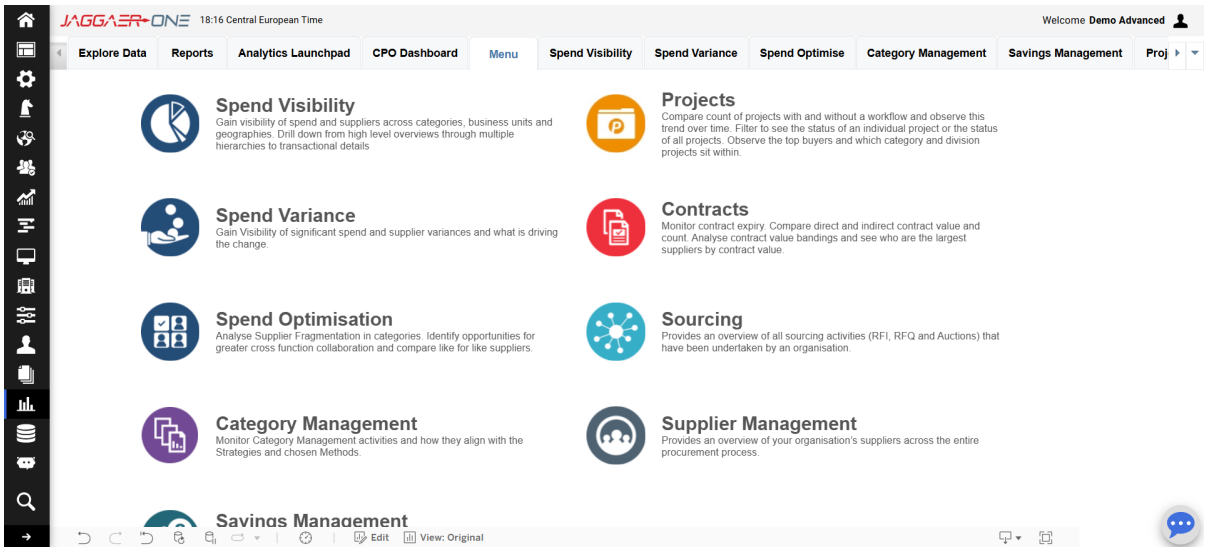




Dashboard Tabs

In the legacy UI, there are two ways of accessing dashboards. The first is through the **Report Tree** (refer to the Report Tree section for further information). The second is through **Dashboard Tabs**. Users can access Dashboard Tabs by navigating to **Reporting > Analytics > [Dashboard Name]**. The exact name of the tab will vary depending on the dashboard in question.

Once a dashboard tab has been selected, users will be taken directly to the dashboard view. All dashboard tabs will be displayed horizontally above the currently viewed dashboard, as shown in the following screenshot.



In the above screenshot, the user selected the Menu dashboard tab. The user can navigate directly to any of the other available dashboards by clicking the tabs above the viewed dashboard.

> **Note**: The Menu dashboard is a special case. Each icon in the Menu dashboard corresponds to another dashboard. Users may click on either the corresponding tab or the icon in the Menu dashboard to navigate to another dashboard.

> **Note**: Administrators configure the Dashboard tabs as a Dashboard "tree." Refer to the **Administration** section for relevant details.

Manage Dashboard Tabs

> **Note**: This section only applies to administrative users.

Users with user roles that have the **ReportTreeManagement** feature enabled can manage their **Dashboard Tabs** in the **Content Management** area within their JAGGAER ONE site. These tabs can be configured using drag-and-drop functionality in a manner similar to configuring a Report Tree (which is simply a vertical organization of dashboards into a list rather than a horizontal arrangement of tabs).

- Select the **Dashboard Tabs** option from the **Report Tree List** drop-down in the upper right corner of the **Content Management** tab.
- Users can create and re-order Custom Tabs using standard Report Tree management functionality.
- The **Active Tree** checkbox **MUST** be enabled for the Dashboard Tabs to be visible. Users may still configure the Dashboard Tabs even if they have not yet been made active.

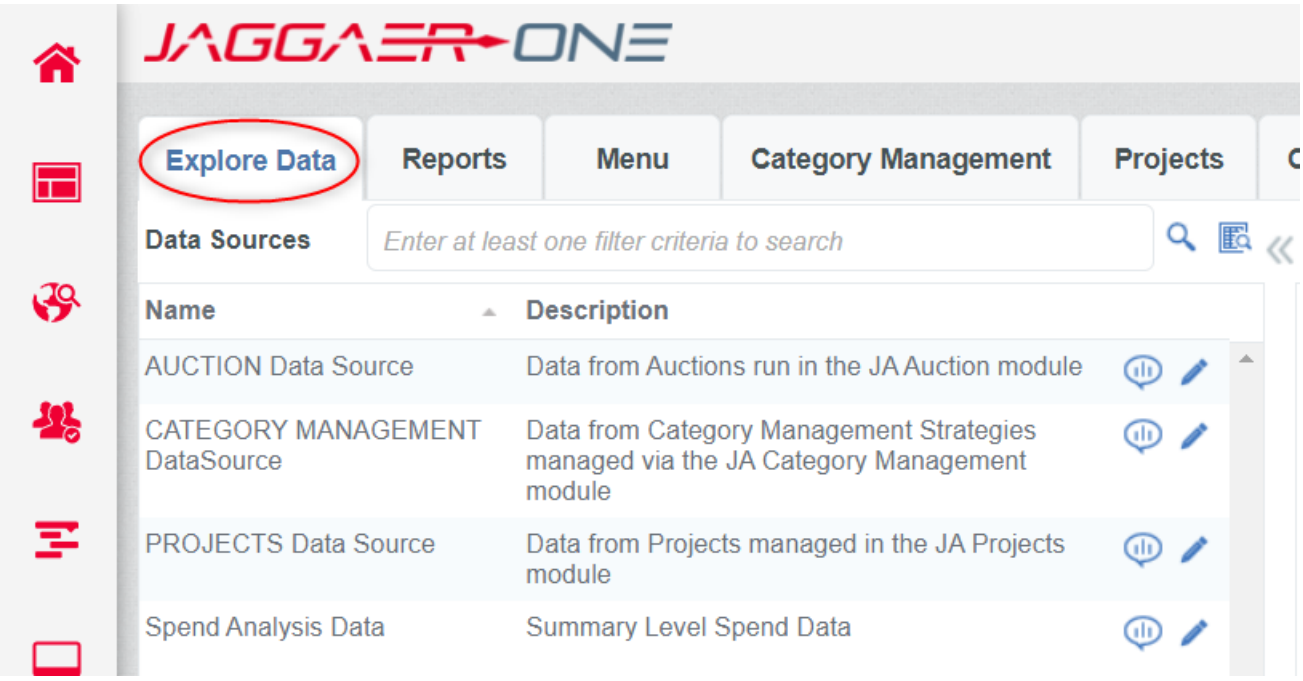
> **Important Note**: When configuring Dashboard Tabs, the tree **MUST** be named Dashboard Tabs. The system requires this name in order to display the dashboards as tabs.

Explore Data

The Analytics **Explore Data** page is used to enable fast and easy data exploration capabilities for users via Tableau's **Ask Data** and **Web Edit** features. Within the **Explore Data** tab, users have the option to proceed with Ask Data to run queries, or with Web Edit to build and save new reports.

Accessing Explore Data

The Explore Data page is accessed by navigating to **Reporting**  **> Analytics > Explore Data**.



A list of data sources is displayed on the left side of the page. These data sources meet the following criteria:

- The data source is in *Published* or *Draft Published* status.
- The **Create Tableau Data Source** checkbox has been selected in Data Source Manager.
- The **Enabled Explore Data** checkbox has been selected in Data Source Manager.

The list can be searched/filtered with standard search functionality. It can also be resized or hidden with standard functionality found in the Analytics solution.

The following icons appear beside each data source. Click the appropriate icon to open the data source in either Web Edit or Ask Data:

- - Launches **Web Edit**
- - Launches **Ask Data**

> **Note:** Search results from **Ask Data** cannot currently be saved. This is a limitation of Tableau functionality. As before, the results of a **Web Edit** session can be saved as a new workbook and added to the report tree as a public or private report.

Making a Data Source Available in Explore Data

Users can create a new data source or update an existing data source to be used in the Explore Data tab.

Step-by-Step

1. Navigate to **Reporting** **> Analytics Administration > Data Source Manager**.
2. Select an existing data source to update or create a new one.
3. Click the **Publish Tableau Data Source** button on the Details page to reveal a checkbox called **Enable Explore Data**.
4. Select the **Enable Explore Data** checkbox.
5. Click the **Draft Publish** button.

> **Note**: Users may click the **Publish** button if they would prefer, but doing so will lock the data source for editing, requiring it to be deleted by a guru user and then recreated.

Web Edit

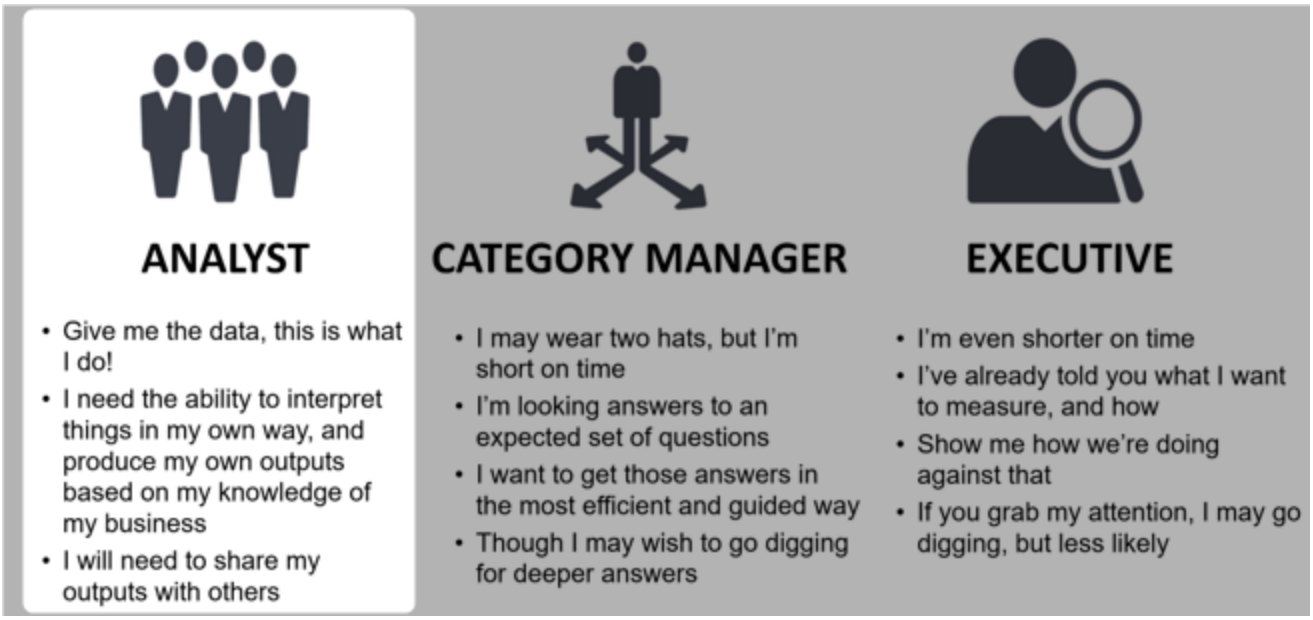
If configured, you can leverage JAGGAER's **Web Edit** functionality, which grants access to additional underlying data and enables you to create new reports and share them with colleagues.

Web Edit enables you to update your own reports directly in the JAGGAER One portal. You do not need any additional specialist software; the Web Edit allows you to leverage Tableau's native Web Editing capabilities. You can build or edit simple reports and save them as Private reports, share them, or make reports based on permissions.

> **Note:** Typically, Web Edit is used to create and edit simple reports rather than guided dashboards. The guided dashboards normally consist of several multi-faceted dashboards with guided navigation routes and interconnected filters pre-configured. The Tableau Web Edit functionality does allow for these navigation routes to be edited or created, but attempting to use the Web Edit functionality to edit the guided dashboard may result in errors.

Web Edit's self-service capability provides additional analytical capability to compliment the guided dashboards. Web Edit allows you to ask more questions about the data and answer these questions using a simple drag and drop interface.

Uses for Web Edit

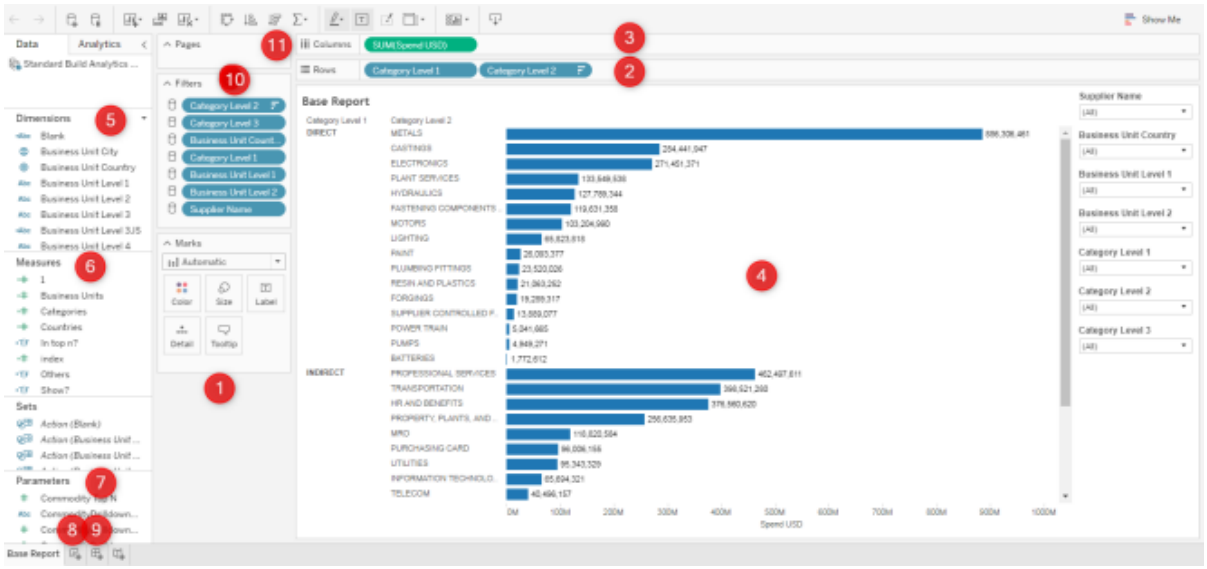


Links to Training Material

- https://www.tableau.com/learn/tutorials/on-demand/getting-started-visual-analytics?signin=2a5a82a4cda33d0ef43c68aba1a594e6
- https://www.tableau.com/learn/starter-kits

Introduction to Web Edit Tools

Report configurations can be edited using the following Web Edit tool features:



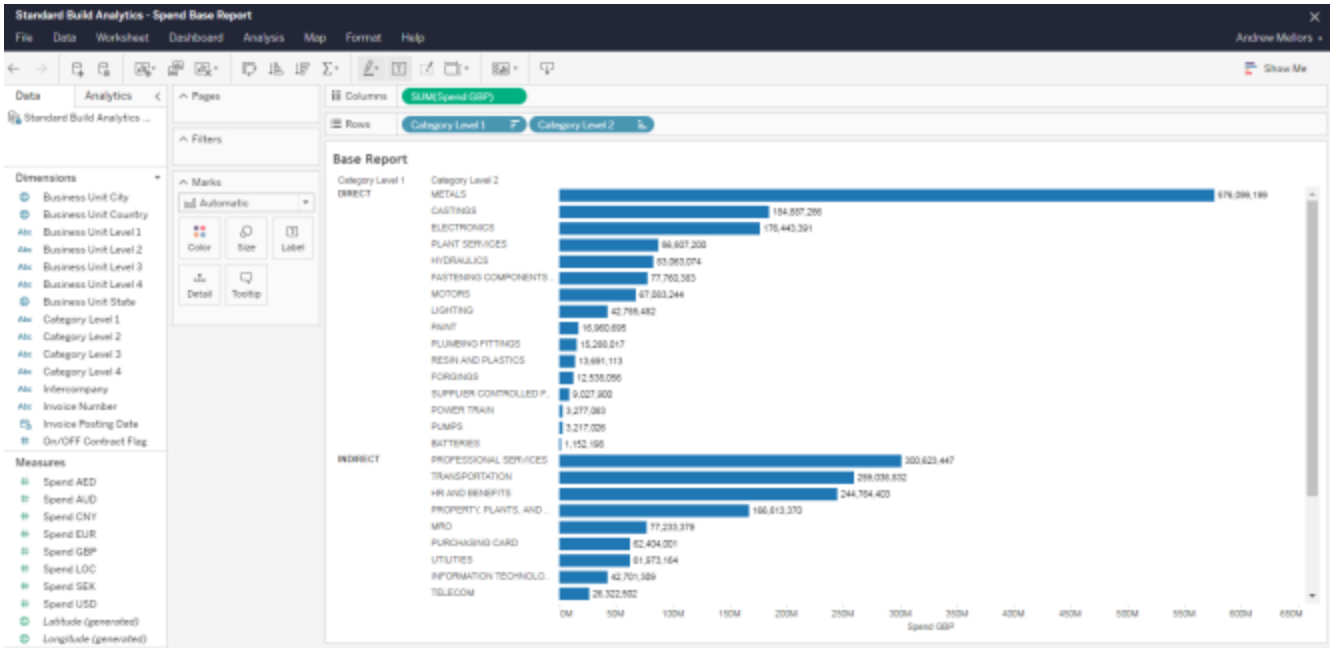
1. **Marks** – a mark represents a data point visible on the report. For example, a bar in a bar chart. A mark is typically an aggregated set of data, e.g. spend in a category. The marks card allows the end-user to configure features related to these marks such as the color of the marks, their size, the labels, the level of detail in the view and what data is shown in the tool tip (the hover-over).
2. **Rows** – fields that go on here represent what is shown on the rows. Typically, a dimension or several are placed here creating a list.
3. **Columns** – fields that go here represent what is shown on the columns. Often this will be a measure, for example, spend. Putting a dimension on rows will then split the spend out by the dimension.
4. **Canvas** – this is what is shown in the report.
5. **Dimensions** – this is what the data can be partitioned by. Often (but not always) these are discrete fields such as strings, integer values and true/false fields. The icons to the left of the dimension name indicate whether the dimension is discrete or continuous. A blue pill indicates a discrete field, which is usually (but not always) a dimension. Refer to the pill table below for further details.
6. **Measures** – these are the values in the data and are split up by the dimensions. These are often (but not always) quantitative, continuous variables. A measure is **ALWAYS** aggregated. The icons to the left of the measure name indicate whether the dimension is discrete or continuous. A green pill indicates a continuous field, which is usually (but not always) a measure. Refer to the pill table below for further details.
7. **Parameters** – these allow designers to create dynamic user driven inputs into the reports for example selecting different dates, limits, filters etc.
8. Create a new worksheet
9. Create a new dashboard
10. **Filters** – add/remove fields to filters and specify which worksheets they should apply to.
11. **Sort** – for example to sort by largest value at the top.

Building a Report with Web Edit

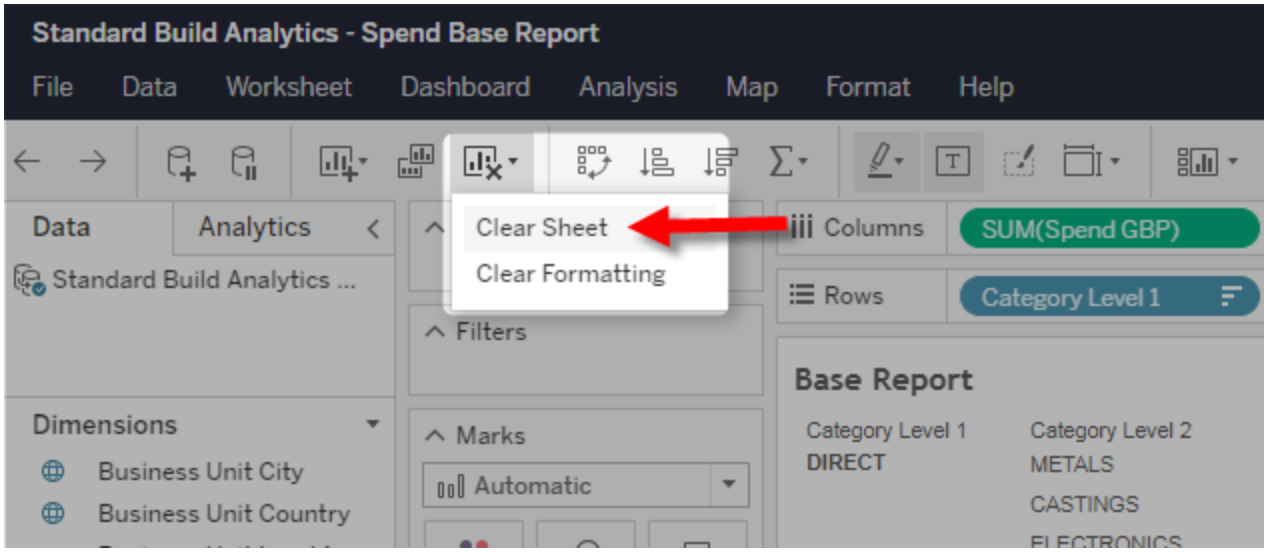
> **Note:** Each example below is based on a report called **Spend Base Report**, which is located in the JAGGAER ONE test site.

Exploring the Data

The screenshot below displays what you see when you enter Web Edit mode from the **Spend Base Report**:



You can explore the data from this screen, or you can begin the exploration from a blank worksheet. To access a blank worksheet, click **Clear Sheet**:

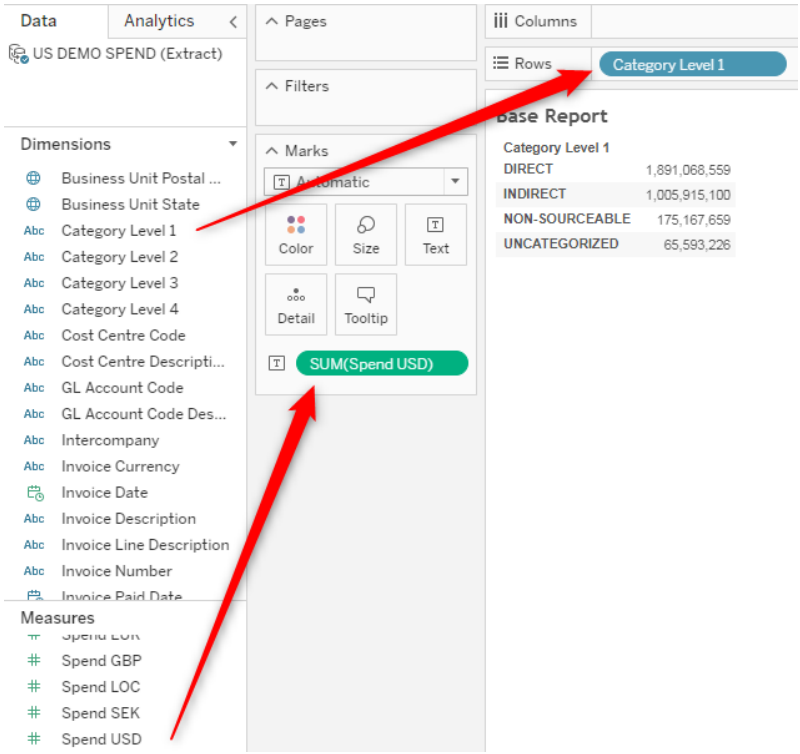


Before starting to build / edit reports, it is important to understand the concept of pills in Web Edit. Tableau visually represents dimensions and measures of data as 'pills' as shown in the below table. These can be dragged and dropped onto the canvas to create visualizations.

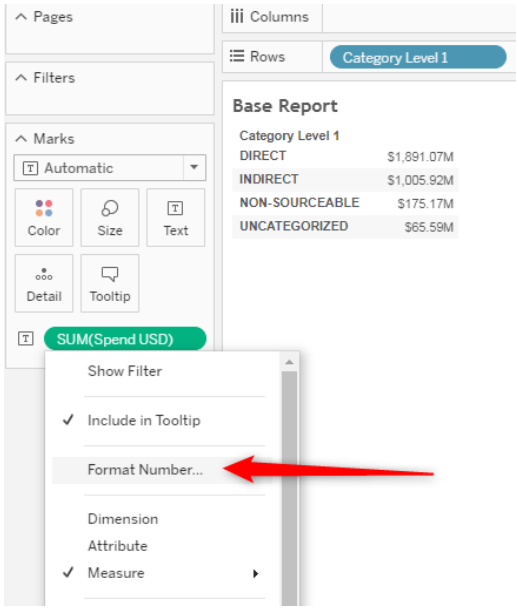
Pill	Pill Colour	Description
Category Level 1	Blue	Discrete, typically a dimension, added to a row/column will slice the data, added to colour will give discrete colours.
SUM(Spend USD)	Green	Continuous, typically a measure, added to a row/column will create a chart axis, added to colour will give a colour spectrum
AGG(Spend per Suppl...	Red	Error in the field, for example incorrect aggregation level or error in calculation. The report will be blank until the error is resolved.

Example 1: How much Spend is there in the level 1 Category: 'Direct'?

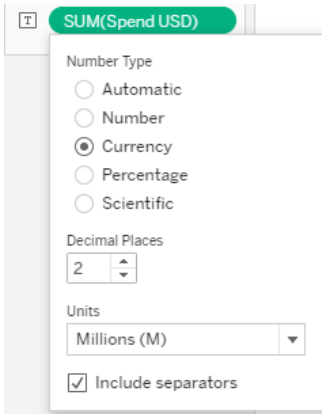
Drag **Category Level 1** to Rows and **Spend (USD)** to label to create a grid.



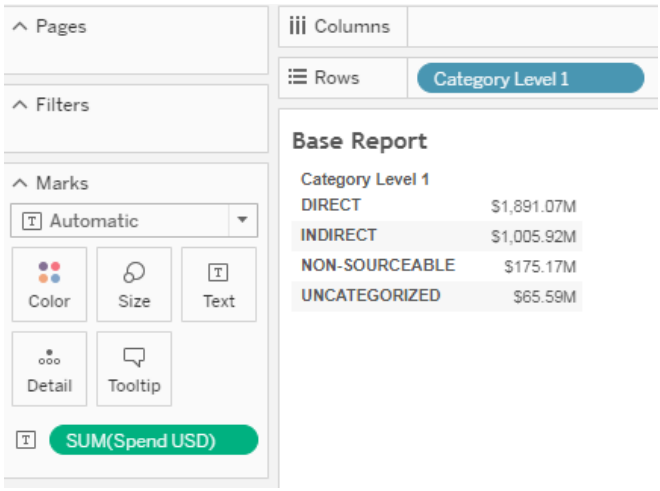
Format the numbers by clicking the drop down arrow on the right hand side of the **Sum(Spend USD)** green pill and selecting **Format Number** as shown in the screenshot below:



The **Web Edit Number Formatting** menu is displayed. You can format the figures as a currency, add/remove decimal places, and customize the units the figures are shown in



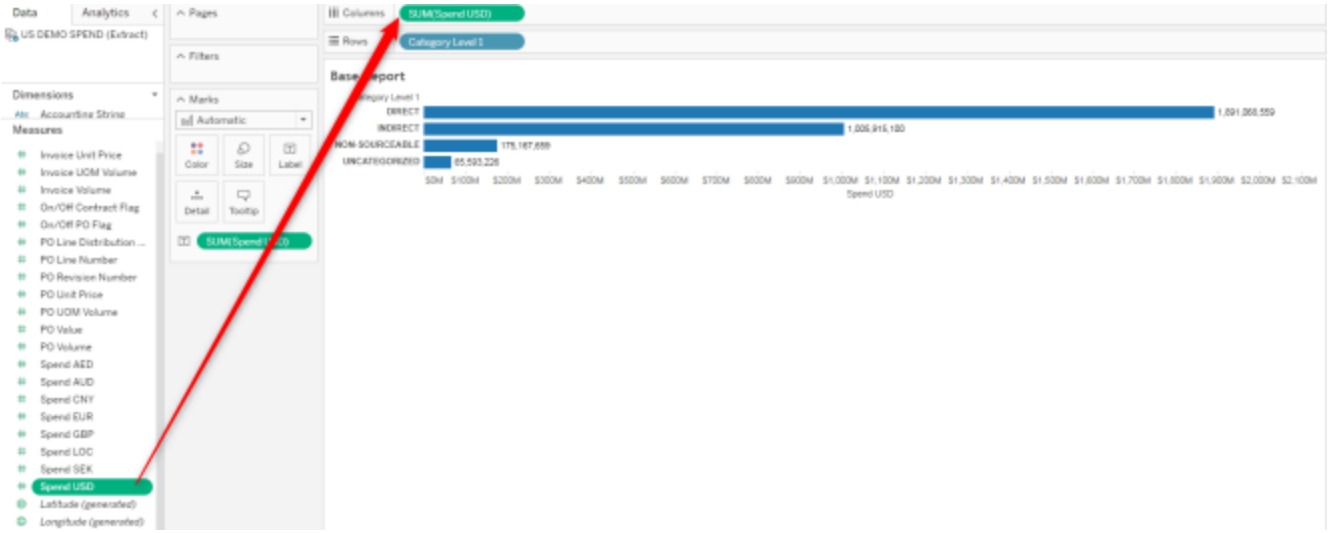
The end result is displayed below. For the question *How much Spend is in Direct?*, the answer is: $1,891.07M.



Example 2: Is there an easier way to see how much Spend is there in the level 1 Category: 'Direct'?

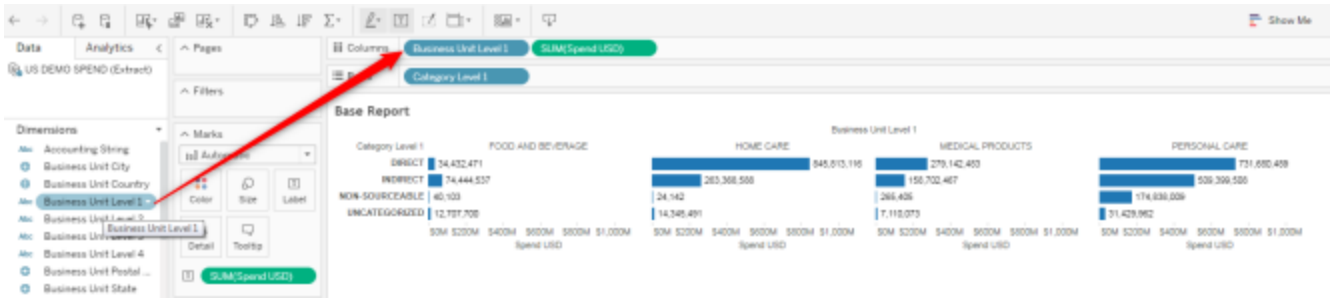
This grid answers the original question, but you can use the functionality in Web Edit to apply data visualization principles to make it easier to compare the numbers.

Taking the final output from the previous example, you can convert the grid to a bar chart by dragging **Spend (USD)** to columns. This makes it much easier to compare the spend in distinct categories:



Example 3: In which Category and Business Unit is the highest Spend?

Continuing from the example above, drag **Business Unit** to columns. The screenshot below shows how the **Spend** breaks down by **Category** and **Business Unit**:



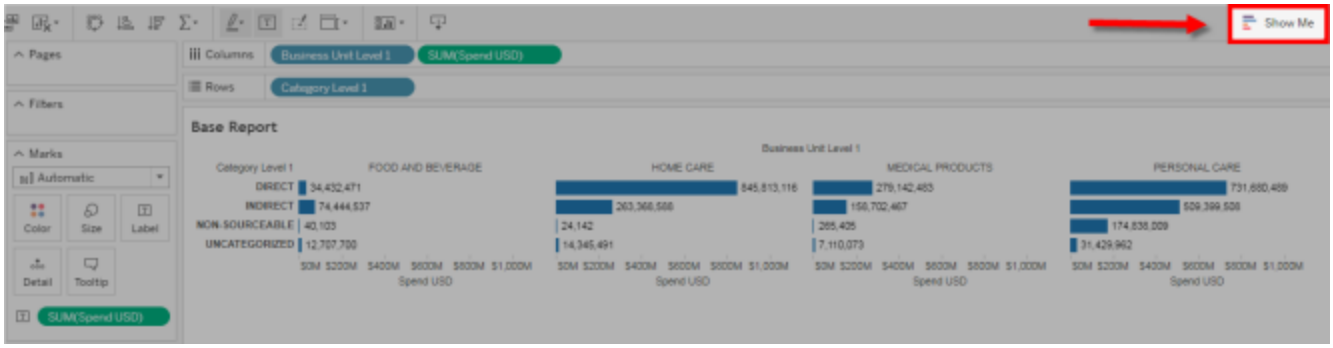
The Show Me Tool

The Show Me tool suggests potential visualizations for the data selected.

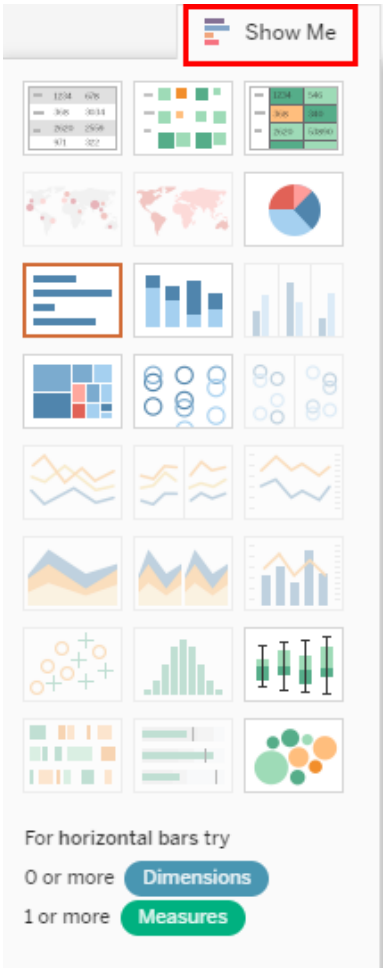
> **Note**: The Show Me tool will display visualization options for the currently selected data. The exact options it presents will vary based on the selection.

Example 4: Is there an easier way to see in which Category and Business Unit is the highest Spend?

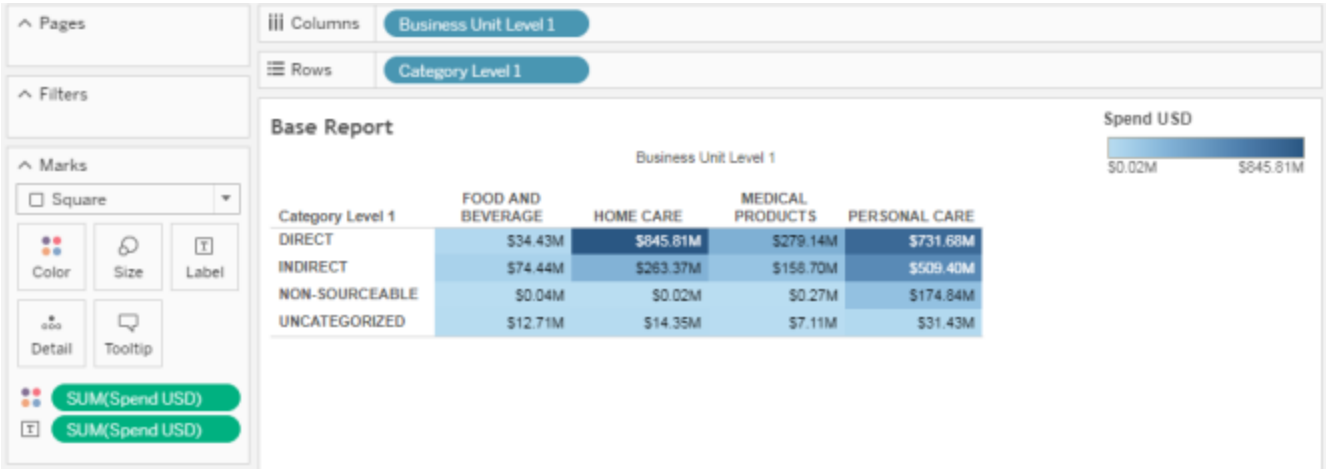
You can click **Show Me** to leverage the Show Me tool, which suggests potential visualizations for the data selected:



Within the Show Me tool, select the desired chart. **Note:** The chart you highlight is displayed as the top right option in the **Show Me** menu.



The resulting **Highlight** table allows for easier comparison of the distribution of **Spend** within **Categories** and **Business Units**. The answer to the initial question of *Which Category and Business Unit has the highest Spend?* is displayed in the square with the darkest shade of blue - the answer is the level 1 Business Unit: Home Care in the level 1 Category: Direct with Spend of $845.81M.



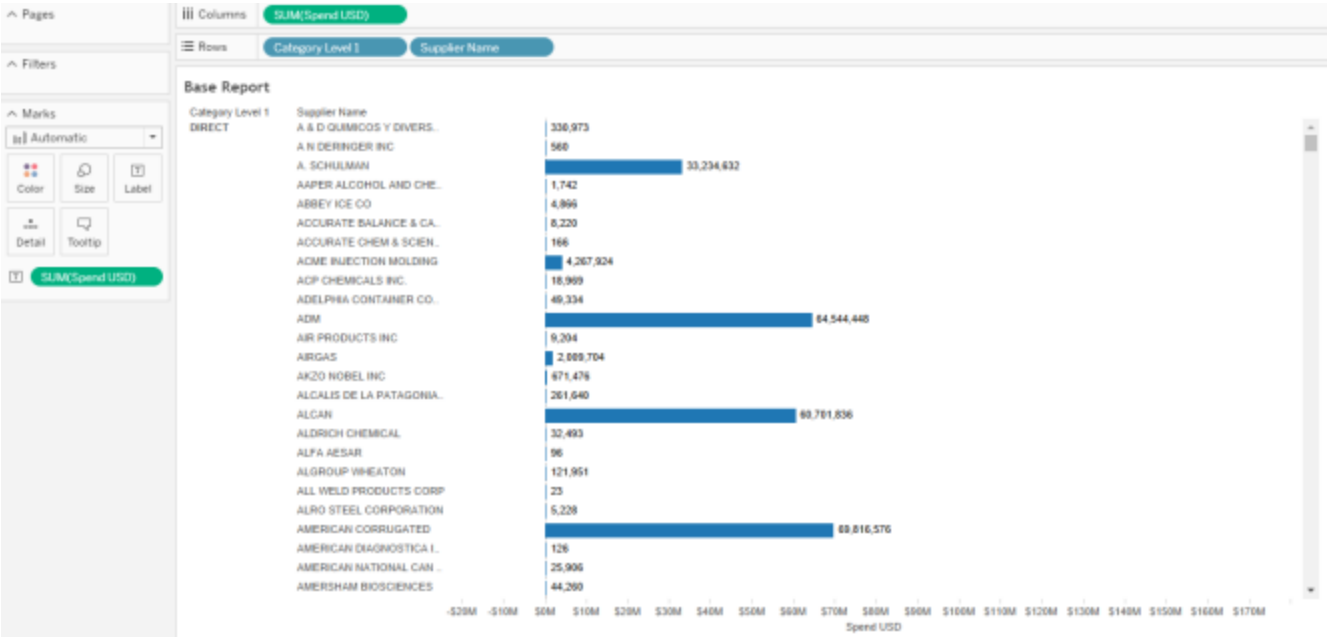
Selecting an option on the **Show Me** rearranges the pills to create the visualization. You don't actually need to use **Show Me** to create particular charts, but it is a useful starting point.

The illustration below shows how the placement of pills varies and how this affects the visualization shown before and after selecting the highlight table option in the **Show Me** menu:

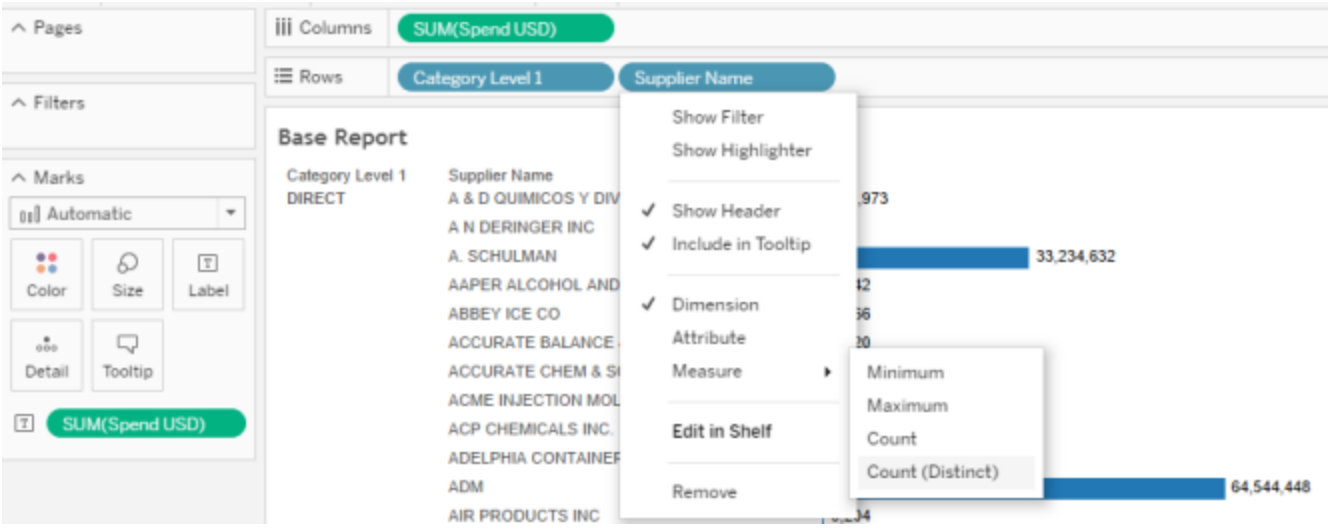
Converting a Dimension to a Measure

Example 5: Which Category has the most suppliers?

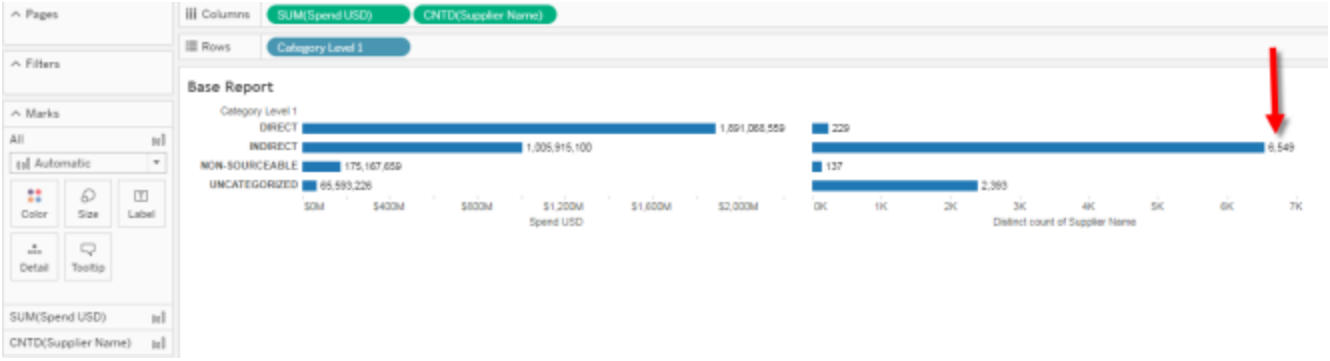
Begin with a blank worksheet and drag **Category Level 1** and **Supplier Name** to rows and **Sum (Spend)** to columns. The report at this point will look like this:



Select the **Supplier Name** pill and in the drop-down, select **Measure > Count (Distinct)**. The pill can then be moved to columns so that the values are displayed horizontally:



The end result is a side-by-side chart showing the number of **Suppliers** and **Spend** in each **Category Level 1**, Within this chart is the answer to the initial question *Which Category has the largest number of Suppliers?* The answer is Indirect with 6,549 Suppliers.

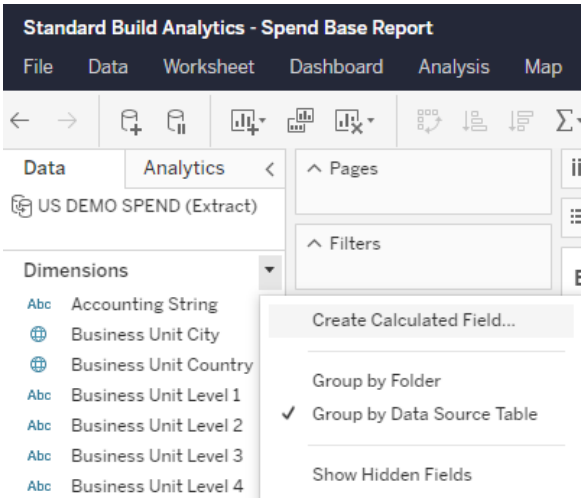


Create / Edit a Calculation

Example 6: Which Category has the highest average spend per supplier?

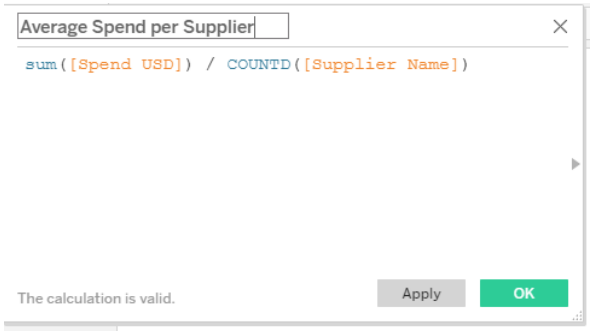
Average supplier spend is not a raw field in the data set, so a new calculation is needed to create a calculated field. There are several ways to do this:

- Select **Analysis > Create Calculated Field** on the Web Edit top toolbar
- Expand the drop-down in the top-right corner of the **Dimensions** list and select **Create Calculated Field**. You can also select a grouping for the new field:

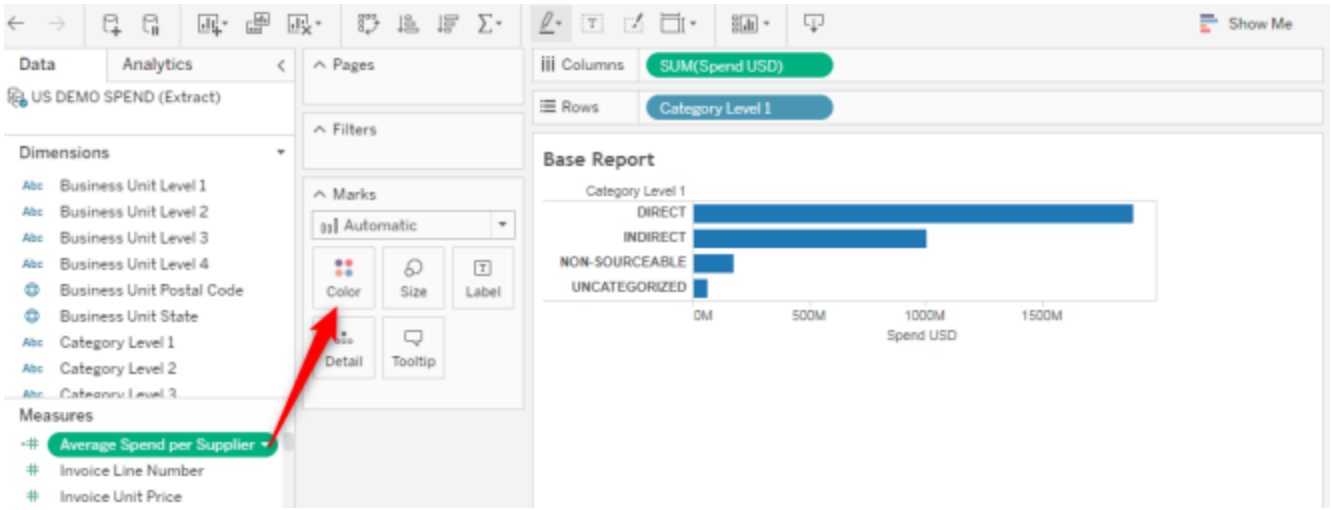


After either option is selected, a screen overlay appears in which you will enter a field name and calculation. Fill in the fields as directed below and click **OK** to close the overlay.

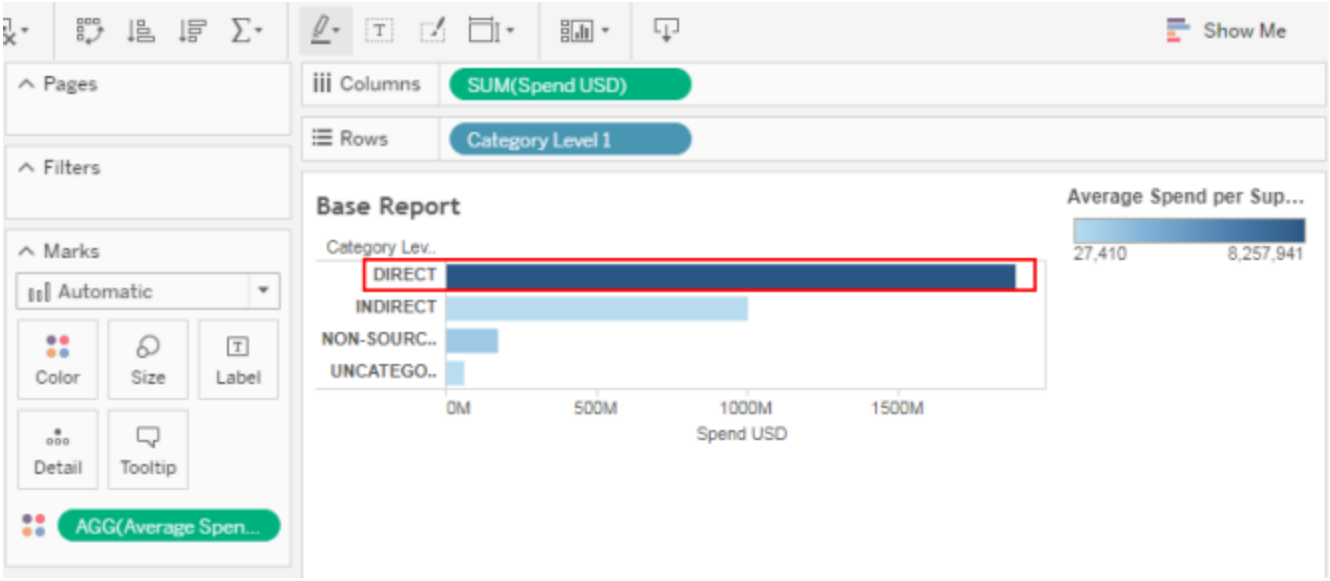
- **Field Name** = **Average Spend per Supplier**
- **Calculation** = **SUM([Spend_USD]) / COUNTD([Supplier Name])**



The new field appears in the **Measures** list. Drag **Average Spend per Supplier** onto **Color**:



With the **Average Spend per Supplier** field in place, you have the answer to the question *Which Category has the highest Spend per supplier?* The answer is **Direct. Note**: If you need to know the specific value, you can hold CTRL and drag the pill from the marks card to the columns shelf. This will copy the pill to the shelf.



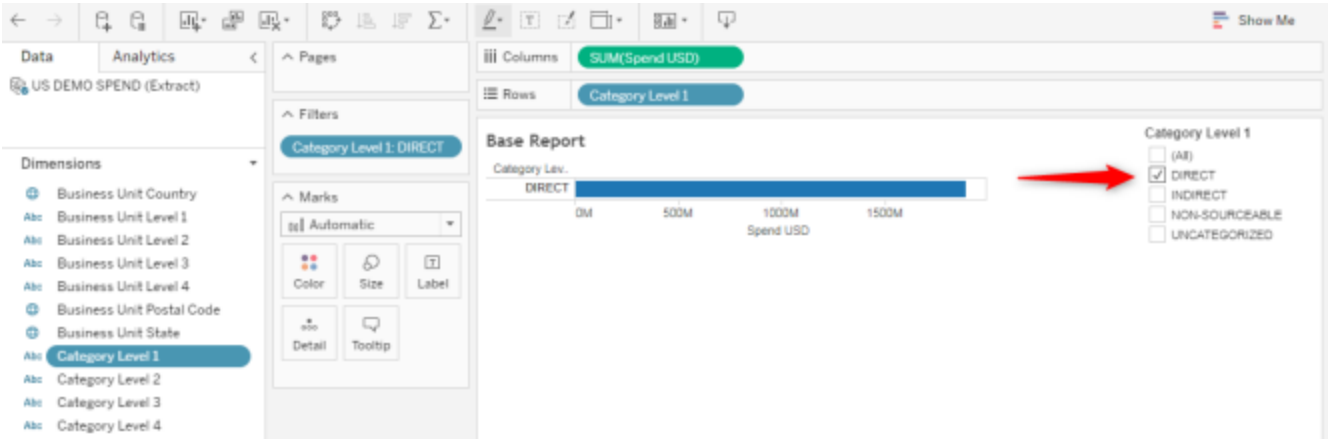
Filtering Data

Example 7: Is GE Plastics in the top 10 suppliers in the level 2 category 'Raw Materials'?

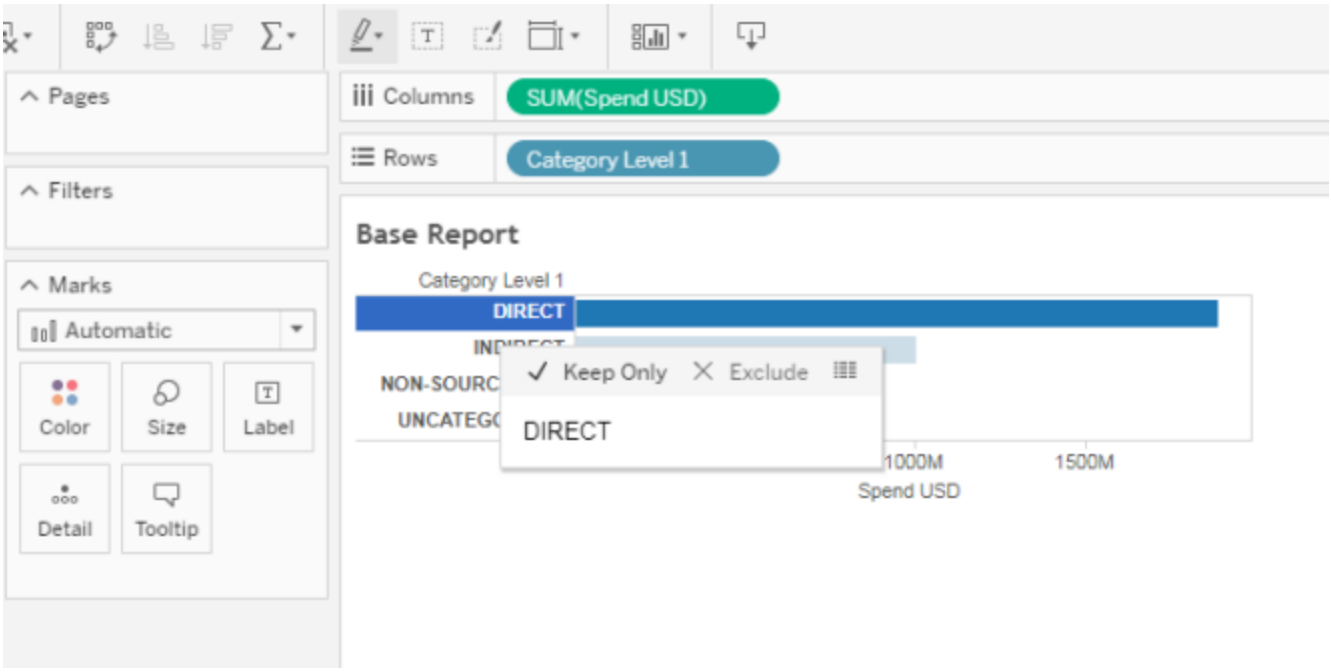
You can filter the data to focus on a particular area of interest.

Starting from a blank worksheet. Drag **Category Level 1** to rows and **Sum(Spend USD)** to columns.

To show **Category Level 1** = **Direct**, drag the field **Category Level 1** onto the filter shelf and select **Direct** in the filter list:

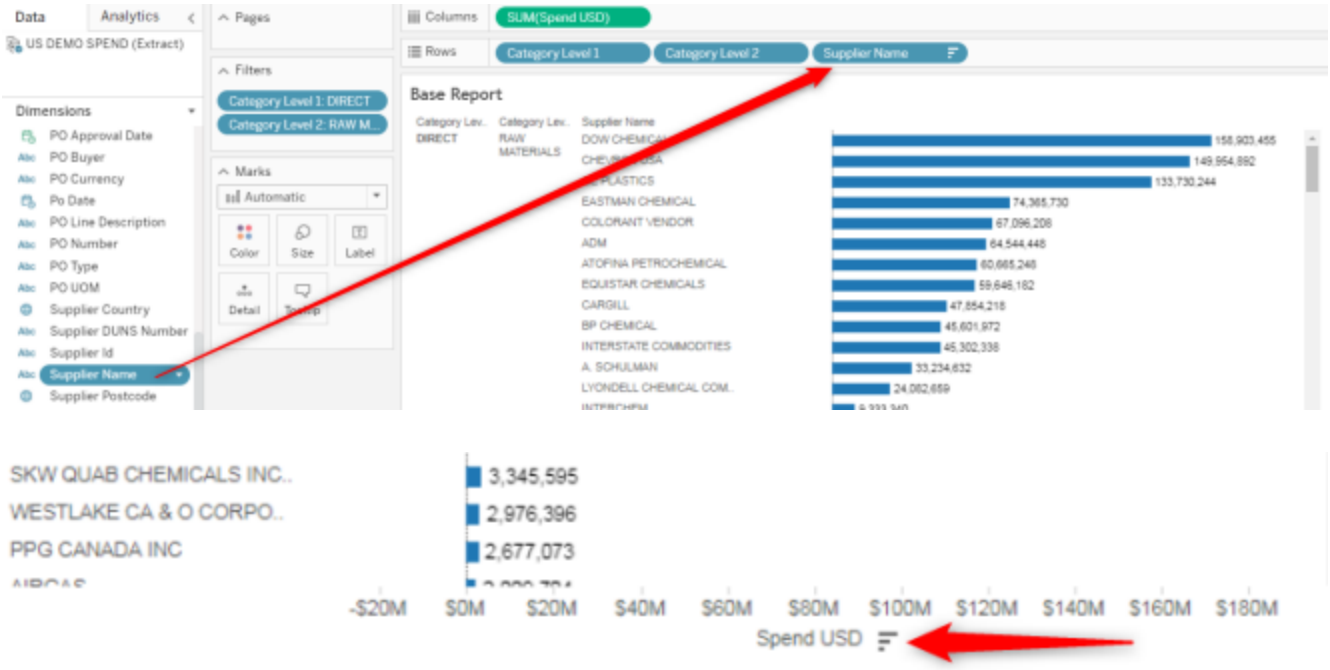


Alternatively, you can click on a **Category** and select **Keep Only** or **Exclude**by filtering on **Direct**:



Add **Category Level 2** to rows to see which level 2 categories are in **Direct**. Filter again on the Level 2 Category called **Raw Materials**.

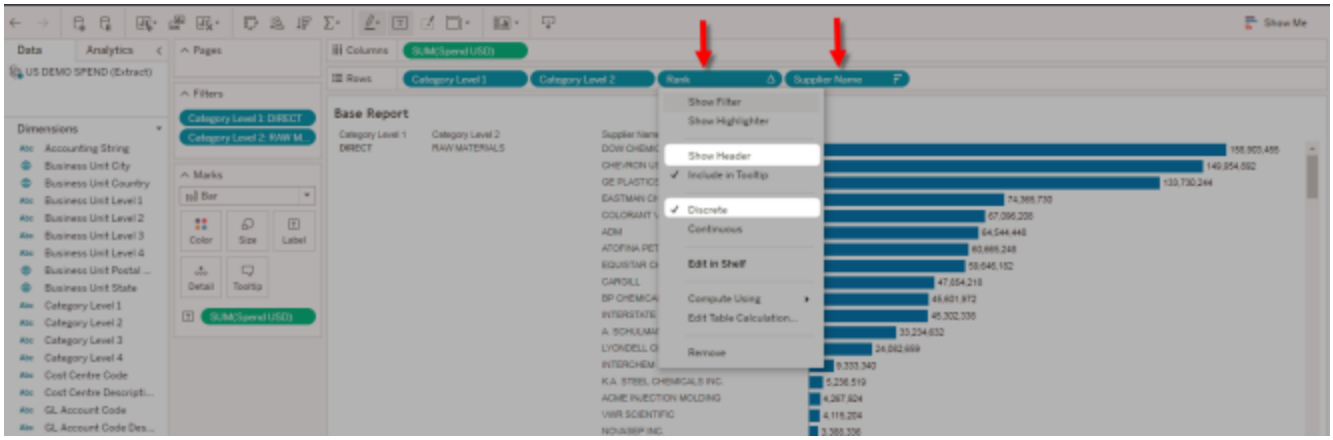
To show just the suppliers associated with **Direct** and **Raw Materials**, drag and drop **Supplier Name** on to rows. Click the **Sort** button on the axis to display the suppliers by Spend:



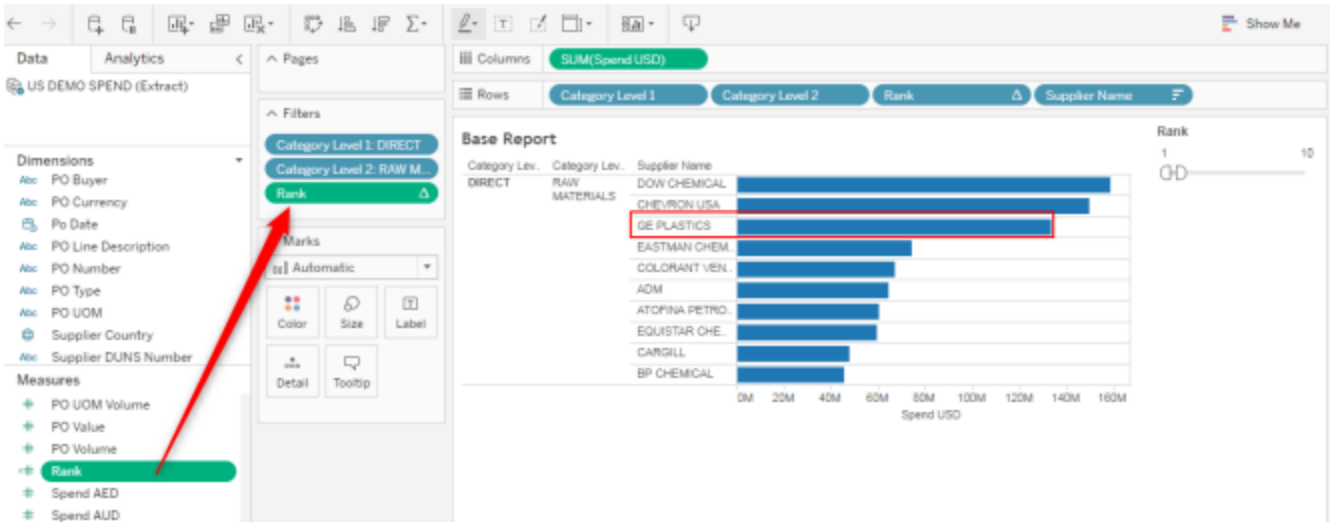
Another calculated field is required in order to see the top 10 Suppliers by Spend for Direct. Create a new calculated field (directions available above in **Example 6**) and fill in the fields as directed below:

- **Field Name** = **Rank**
- **Calculation** = **Rank(sum([Spend USD]))**

Drag and drop the new **Rank** field onto rows and make the field **Discrete**. Then drag it to the left of **Supplier Name**. The field can then be hidden by deselecting **Show Header**.



With Rank on the filter shelf, you can select the top N suppliers, which displays the answer to the question *Is GE Plastics in the top 10 suppliers (by Spend) in the level 2 category 'Raw Materials'?* – The answer is yes. They are ranked third in the level 2 Category by Spend:



Connecting to Multiple Data Sources in Web-Edit Mode

While in web-edit mode, users can add multiple data sources to a data set so long as they have access to those sources while in web-edit mode.

Step-by-Step

1. Navigate to **Reporting > Analytics > Reports**.
2. Select a report in the report tree that has web-edit enabled.
3. Click the **Edit** button.
4. In the web-edit UI, click on **Data > New Data Source**.
5. Select your desired data source and click **Connect**. The data source will be added to the report, and you can use this new data source as well as the original data source.
6. Repeat the preceding steps for all additional data sources you wish to add to the report.
7. Save the report to finalize your updates.

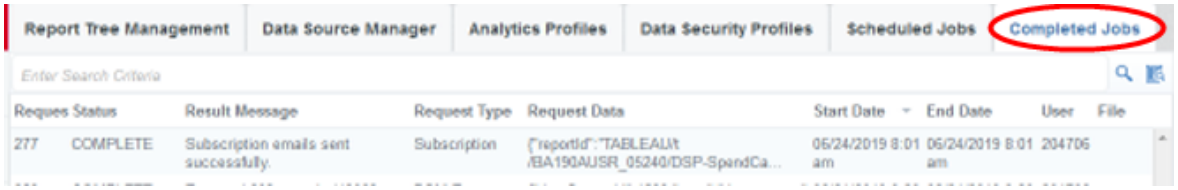
Accessing Subscriptions from a Report

Analytics users can "subscribe" to an Analytics reports or to dashboards. Users can create a schedule for receiving email updates for the related reports to which they have access.

Accessing the Subscription from a Report

Users can access the **Scheduled Jobs** tab directly from a report. On the report UI, click on the **More** ••• drop-down and select **Manage Subscriptions**. You will be redirected to the **Schedule Jobs** tab.

The **Completed Jobs** tab displays an entry each time a subscription email is sent. Search functionality is available to locate the appropriate job.



Refer to the **Administration** section of this handbook for further details on subscribing to reports.

Administration

Content Management

The **Content Management** page is where System Analytics reports are configured. System reports include standard JAGGAER reports, standard reports that have been customized, and bespoke reports. System reports do not include any reports that have been configured as private or public (a private report that has been shared with "everybody").

To view this page, navigate to **Reporting** > **Analytics Administration** > **Content Management**.

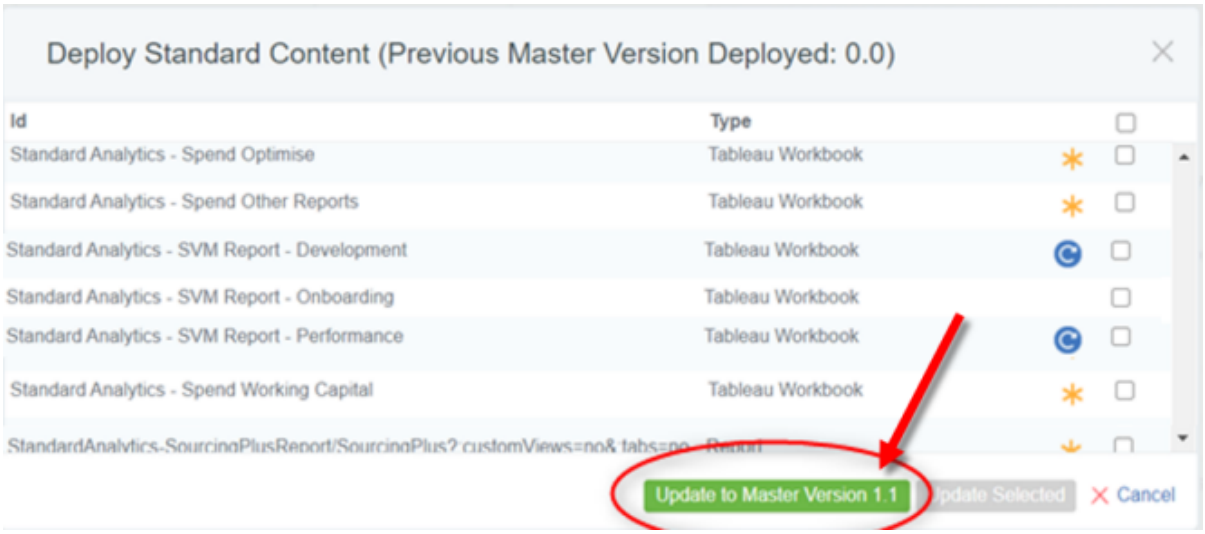
> **Note**: To access this page, users must have the **ReportTreeManagement** permission.

Deploy Standard Analytics Content

Guru-level administrators can use the standard deploy tool to deploy standard Analytics content. The content is available in two forms: a locked-for-editing Standard Version and a customizable copy of the Standard Version.

1. Navigate to **Reporting** > **Analytics Administration** > **Content Management**.
2. Expand the **More** drop-down menu at the top of a page and click **Deploy Standard Content**. A screen overlay containing a list of all available standard data sources, Tableau workbooks, and reports are displayed. At the top-left corner of the pop-up, users can select whether to deploy the locked-for-editing Standard Version or a customizable version of the Standard Version.
    - Only content that is related to modules that have been enabled for that customer instance are displayed within this list.
    - The following icons appear beside a content object in the following scenarios:
        - - New content available to be deployed
        - - An update to the respective content is available
3. To deploy all new or updated content (and any dependencies) that have been added or updated since the last time a full update was processed on that instance, click the **Update to Master Version** button.

> **Note:** Only existing standard Tableau Workbooks and data sources will be overwritten if an update is available in the latest master version. The customizable copies of data sources and workbooks will not be overwritten.



4. Alternatively, users can manually select specific content to deploy. Use the checkboxes on the right side of the list to select the content to deploy or update.
5. Click the **Update Selected** button to deploy the selected content and any dependencies.

> **Note:** Only existing standard Tableau Workbooks will be overwritten if selected to be updated. All other content types will not be overwritten.

For every Tableau Workbook that is deployed using this feature, the corresponding translated language version(s) of the workbook are also deployed for all other available languages that are enabled for that instance.

Configure Reports and Dashboards

When content in a report/dashboard is updated, administrators can edit the values in the **Tableau Workbook**, **Tableau Views**, and **Tableau View URL Parameters** fields, which are combined to generate the Tableau URL. As a result, it is possible to update a report by changing the Tableau workbook and view and its corresponding Tableau URL field(s).

Step-by-Step

1. Navigate to **Reporting** > **Analytics Administration** > **Content Management**.
2. Locate the appropriate dashboard/report in the **Analytics Content** list and click the corresponding arrow in the **Actions** column. Click **Edit**.
3. Make changes to the report name and/or URL:
    - **Report Name**: Change the entry in the **Report Name (Default Language)** field.
    - **Report Description**: Change the entry in the **Report Description (Default Language)** field.
    - **Workbook** or **Worksheet**: Users can select a different **Tableau Workbook** or **Tableau Views** from these drop-down lists. **Note:** Any URL parameters that were set on the original URL remain unchanged.
    - **URL:** Add any **Tableau View URL Parameters** that are needed at the end of the report URL. You may use the provided checkboxes to add commonly used parameters without having to enter them manually.
4. Save the changes.

Activate the Real-Time and Usage Overview Dashboards

Like the existing Advanced Scenario Analysis excel report, the **RFX Advanced Scenario Analysis**, **Dashboard Usage Overview**, and **Data Source Usage** dashboard suites load from within an RFX rather than in the Analytics solution. If enabled, the dashboards are deployed using the **Deploy Real-time Dashboards** function in the Content Management area of the Analytics module.

1. Navigate to **Reporting** > **Analytics Administration** > **Content Management**.
2. Expand the **More** drop-down menu on the right and select **Deploy Real-Time Dashboards**.

Automatically Produce Translated Reports from a Master Report

Analytics provides the ability to automatically create translated reports from a tokenized master workbook. Available languages depend on the languages configured for your organization.

Note: Prior to following these steps, you must have performed the following activities:

- Uploaded a strings file in the Strings Management Back Office
- Placed your tokenized workbook into the **Translatable** folder on the Tableau Server site for the relevant client.

Please contact the Analytical Services team to get more information about the workbook tokenization process.

Follow the steps below to run the workbook translation. You must have **Report Tree Management** rights in order to perform this task.

1. Navigate to **Reporting**  **> Analytics Administration > Content Management**.
2. Expand the **More** ••• drop-down menu on the right and select **Translate Workbooks**.
3. In the **Select Locales For Workbook Translation** section, select the languages into which the workbooks should be translated by clicking the appropriate checkboxes.
4. In the **Select Workbooks To Translate** section, select the workbooks to translate by clicking the appropriate checkboxes.
5. Click **OK**. When the process is completed, the translated workbooks will be available in the **Translated Projects** section of the Tableau site.

   Note: When available, reports are displayed in the language that is selected in the user's profile.

6. These dashboards can be added to the Report Tree or Dashboard tab using the same process as outlined for report creation.

Analytics User Sync

Whenever a user logs into the solution, Analytics checks the list of users registered on the JAGGAER site and updates the Tableau server to match. This means that users will be automatically added or deleted on the Tableu server as needed. This function is performed automatically and cannot be disabled.

Data Source Manager

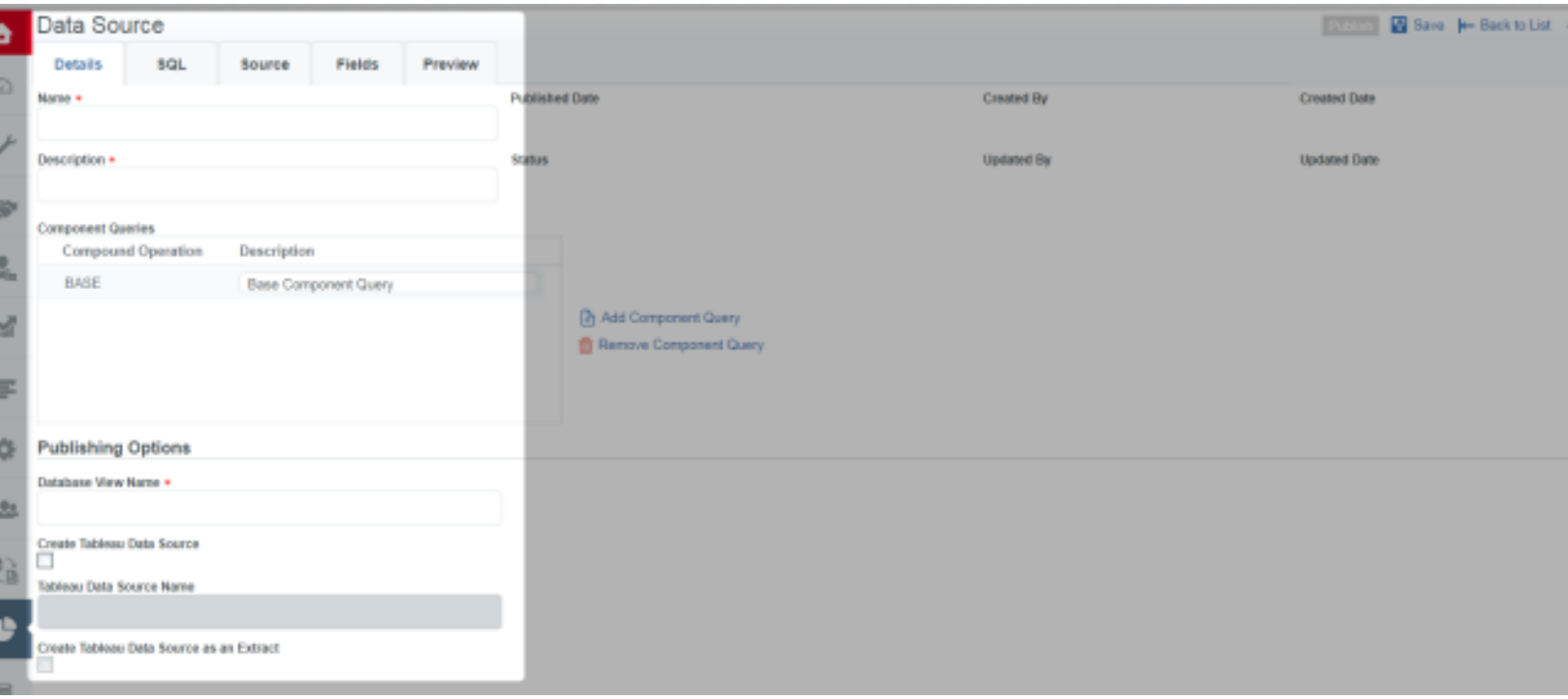
Data Source Manager (DSM) provides the ability to define data source configuration. These data sources are then used for Analytics and in Business Intelligence activities. Users can query and join tables, pivot fields, and create complex data sources. These data sources can then be published back to DSM and Tableau Server to drive the Analytics dashboards.

Creating a New Data Source

Prior to using other DSM functions, data sources must be available. Creating a new data source is therefore the first step for many organizations. Only a small subset of users (assumed to have a degree of data literacy, such as understanding the concept of joining data tables together) within an organization will typically be tasked with creating data sources. Users with any of the following permissions can create data sources in DSM: **DataSourceManager**, **DataSourceManagerCreator**, **DataSourceManagerSQLParse**, and **DataSourceManagerViewer**.

Step-by-Step

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. The Data Source Manager tab is displayed. Existing Data Sources are displayed in a list.
2. Click the **Create** button in the top-right corner. The data source configuration tabs display.
3. Select the database schema that the data source will rely on. For the typical organization, only one option will be available.
4. (Optional) Select a folder for the data source to be saved into.
5. Name and provide a short description for the data source. Provide a database view name for the data source (this is the name of the data source when saved back to the database schema). Refer to **Configuring the Data Source Details**, below, for complete information on this step as well as instructions for revising the details after creating the data source.



6. At this point, all mandatory fields have been populated and the data source can be saved. To do so, click the **Save** button in the top-right corner of the screen. **Note**: This is the **minimum** required effort to create a data source. For further information on configuring advanced details of data sources, refer to the remainder of this section.

Configuring the Data Source Details (The Details Tab)

The main details for the Data Source are configured on the **Details** tab, including the name and description of the Data Source. You can select the folder where the data source is saved. You can also choose whether or not to publish the data source to the Tableau server. If you choose to publish to the Tableau server, you will also be able to choose whether or not to publish the data source as an extract.

You can also create Component Queries (also known as unions) on this screen. A component query is where the results of two or more queries are combined (unioned) together. In other words, two or more data sources with the same set of columns are "stacked" to create a single data source encompassing all rows from the original data sources.

Step-by-Step

1. Navigate to **Reporting**  **> Analytics Administration > Data Source Manager**. Existing Data Sources are displayed in a list.
2. Click **Create** in the top-right corner of the page to create a new Data Source, or select an existing source by clicking on the **Name**. The Data Source opens with the **Details** tab active.
3. Enter or update information as described below:

    - **Name** - (required) Name of the data source in Data Source Manager.
    - **Description** - (required) Brief description of the data source.
    - **Component Queries** - A component query is a query where the results of two or more queries are combined. To create a query:

        - To create the components for the query:
        - Click **Add Component Query**, which appears beside the Component Queries box.
        - Expand the **Compound Operation** drop-down and select the appropriate action from the list.
        - Name the component. In this example the components have simply been called **Query 1** and **Query 2**, but actual component names should be descriptive and meaningful.
        - Click on the **Source** tab and select the tables for **Query 1**.
        - Expand the drop-down box marked **2** to switch to **Query 2** and select the tables for **Query 2**.
        - Click on the **Fields** tab and select the fields for **Query 1**. Then select **Query 2** and drag/drop the corresponding fields.

    - **Database View Name (Required)**- Give the underlying data source a name.
    - If relevant, select the **Create Optional Materialized View for Spend Data** checkbox. Materialized views are data snapshots that store data and cache queries based on remote tables. This is typically used on larger data sources, such as Spend data.

        > **Note:** Materialized views can be refreshed.

- **Create Tableau Data Source** - Select this to create a .tds data source containing the data source meta data. This can then be published to Tableau Server.
- **Tableau Data Source Name** - Name of the tableau data source. Only available when **Create Tableau Data Source** is selected.
- **Create Tableau Data Source as an Extract** - Select to create a .tdsx file. This is a .tds file with the actual data as well. A tableau data source should always be published as an extract unless there is a specific reason for not doing so. Users will be given the option to set up an automatic refresh schedule if they select the extract option.
- (Optional) In the **Publishing Options** section, select the **Enable Explore Data** toggle to allow the **Explore Data** feature on this data source. This enables both **Ask Data** and **Web Edit** functionality for the data set. If this toggle is **not** enabled, users will **not** be able to use the Explore Data functionality on this data set.

2. (Optional) Click **Save**.

Once the data source details have been entered, the data source can be set up by clicking through the tabs across the top of the page:

Tab	Purpose
Details	Name and describe the data source
SQL	Paste in a SQL query to save time creating data sources. Query builds the data source.
Source	Define the tables and table joins required in the data source.
Fields	Drag in fields from selected tables. Create calculated fields using Oracle SQL, filter and sort the data as well as apply a maximum records count.
Attributes	For pivoting the data. **Note**: This is a dynamic tab that will only appear when specific conditions are met.
Tableau Calculations	For creating Tableau calculations within the data source directly rather than within a dashboard. This allows the data source to be shared with many dashboards without having to configure each dashboard to perform the calculation. **Note**: This is a dynamic tab that will only appear when specific conditions are met.

Tab	Purpose
Data Security	Allows data security user profiles to be mapped to specific data fields. **Note**: This is a dynamic tab that will only appear when specific conditions are met.
Preview	Preview the output data as configured from the previous tabs. The SQL that generates the view based on the user's configuration is also shown.

> **Note:** Any errors created during the configuration process will trigger a message when users select the **Preview** tab. Errors must be corrected before users can view or publish the data.

Refreshing a Materialized View

If you publish or draft publish a data source with a materialized view, you can refresh the materialized view. This action does not bring over additional fields from Oracle; instead, it updates the materialized view fields with their current source data. If the user wishes to update a materialized view to include additional fields that have been added in Oracle since the view was created, they must recreate the materialized view.

1. Navigate to **Reporting**  **> Analytics Administration > Data Source Manager**. The Data Source Manager tab displays. Existing Data Sources are displayed in a list.
2. Select the appropriate view from the list.
3. Expand the **More** ••• drop-down menu in the upper right corner and select **Refresh Materialized View**.

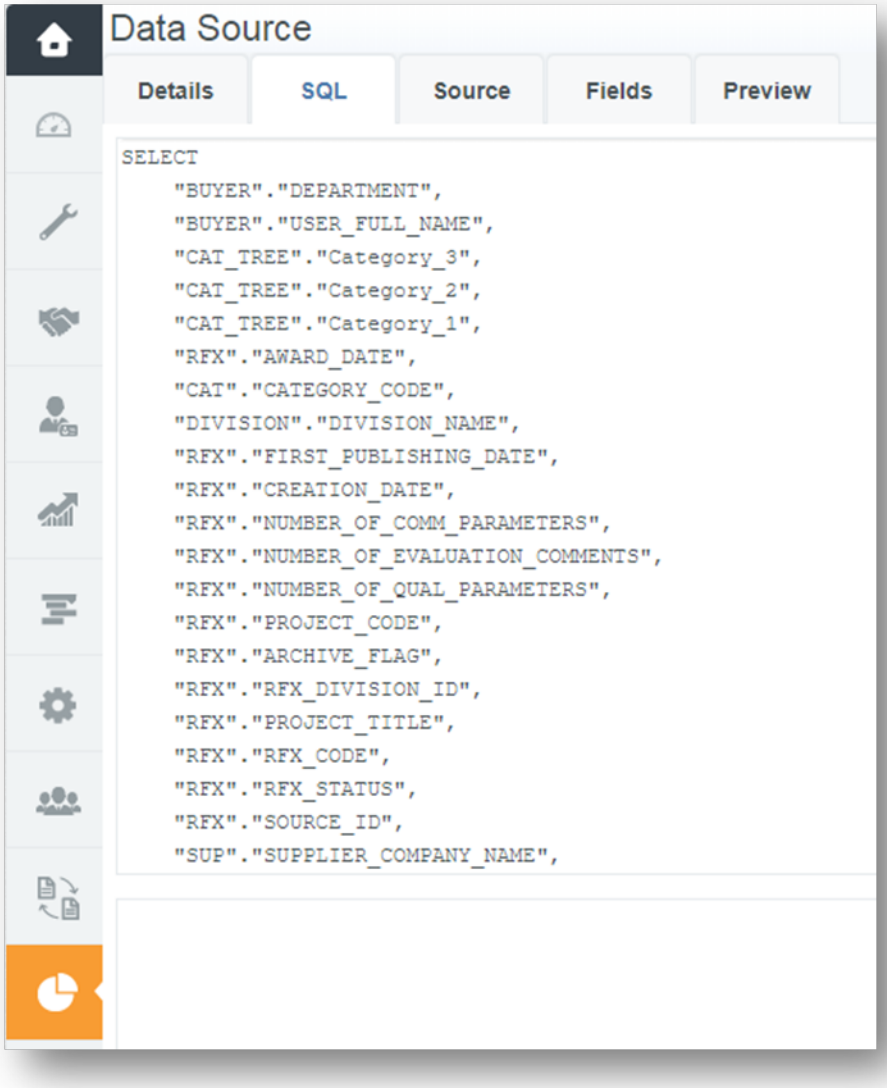
SQL Tab

DSM users primarily rely on user-friendly drag-and-drop functionality to build their data sources. However, users who are knowledgeable in SQL language can leverage the **SQL Tab** to create or edit a data source directly. The SQL Tab is divided into a canvas and two related buttons:

1. **Canvas** - The canvas is simply a blank space where the user can directly write SQL to build and edit the data source.
2. **Copy from Preview** - When a user previews a data source, the underlying SQL that generates the data source is also made available. The Copy from Preview button allows the user to copy SQL from the Preview Tab onto the canvas, where it can then be edited.
3. **Parse** - As long as the SQL on the canvas is error-free, the Parse button will execute the SQL to build the data source and take the user to the Preview Tab. If there are any errors in the SQL, an error message will be returned instead.

Step-by-Step

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. Existing Data Sources are displayed in a list.
2. Create a new Data Source or select an existing source by clicking on the **Name**.
3. Click on the **SQL** tab.
4. Type or copy in the SQL, as shown in the image below:



5. Click **Parse** to process the SQL.

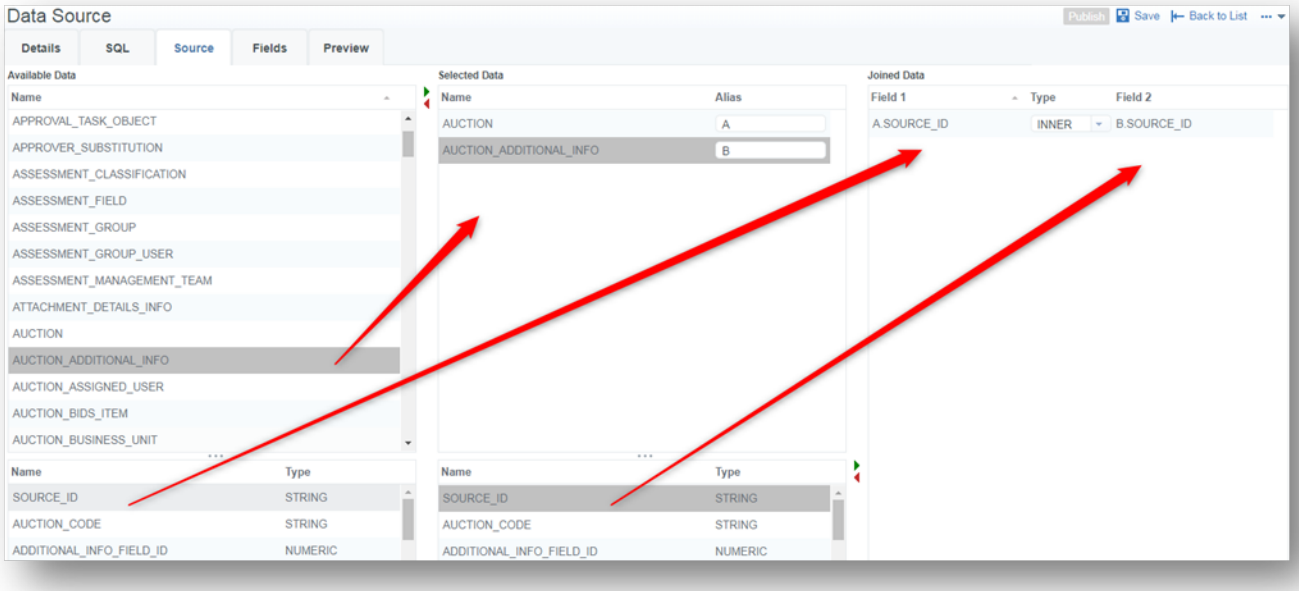
> **Important Note**: The user **MUST** click the Parse button to execute the SQL code in the canvas in order for the SQL code in the canvas to be used. If the Parse button is not clicked and the user progresses to the Preview Tab, the Preview Tab will ignore any SQL code changes made on the SQL Tab.

Selecting and Joining the Data Source Tables (The Source Tab)

The Source tab is where the user selects the source tables to build the data source from and to join them together as needed.

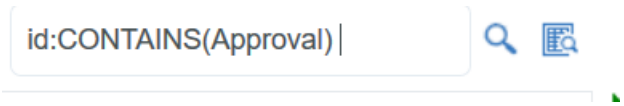
Example:

In the image below, the **AUCTION** and **AUCTION_ADDITIONAL_INFO** tables have been selected and joined with an inner join on the common field **SOURCE_ID**.

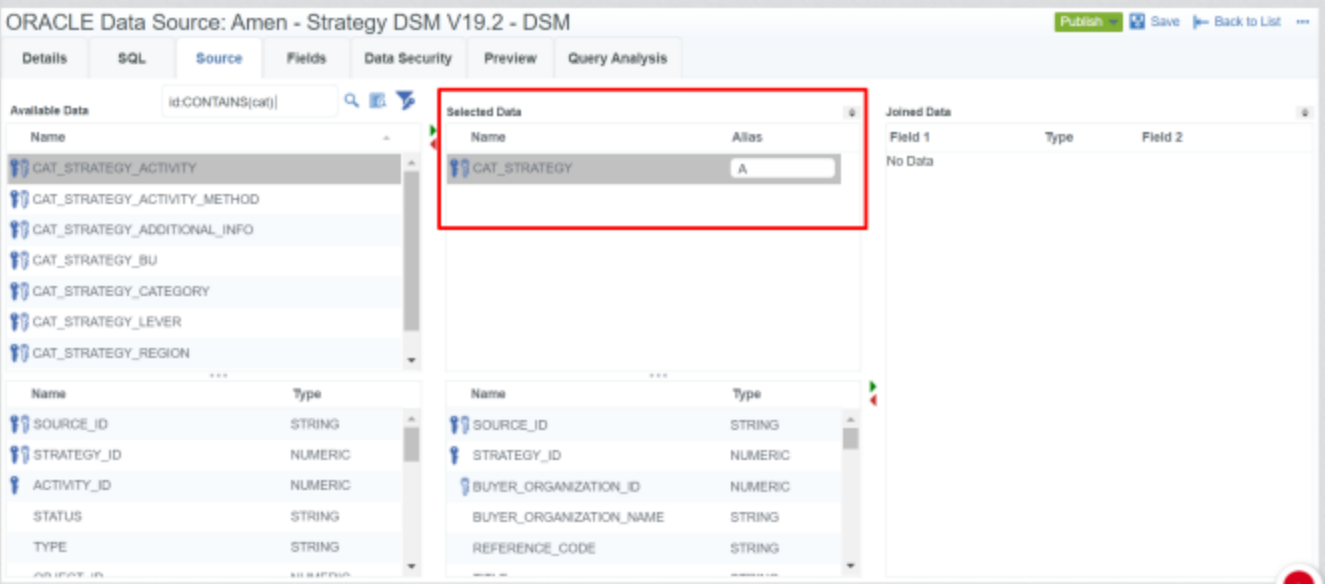


Step-by-Step: Select Tables

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. Existing Data Sources are displayed in a list.
2. Create a new Data Source or select an existing source by clicking on the **Name**.
3. Click on the **Source** tab.
4. Available tables display in the **Available Data** section. To filter the list of tables, enter a value in the filter field and click the or click the Advanced Search icon for additional search options.



5. To begin creating a join, click on a table name. Notice that the fields from that table display below the list of tables.
6. Drag the table to the **Selected Data** section:



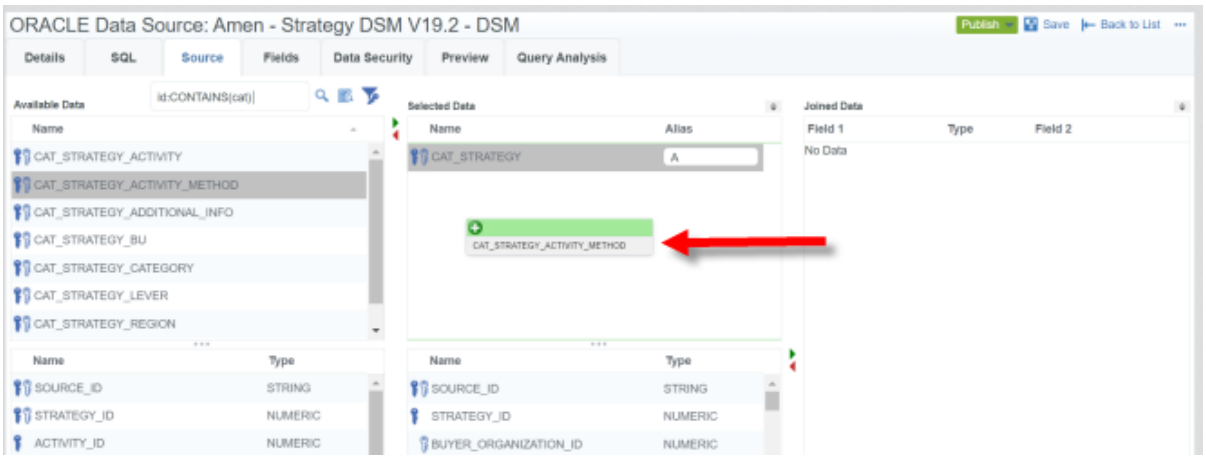
> **Note**: Beneath the Available Data and Selected Data sections, a grid will display the underlying fields in the table selected in the above section. This can be used to discover shared (common) fields across Available Data and Selected Data views.

Step-by-Step: Auto Generate Table Joins

When creating new Data Sources, data tables with matching primary or foreign keys can be joined automatically:

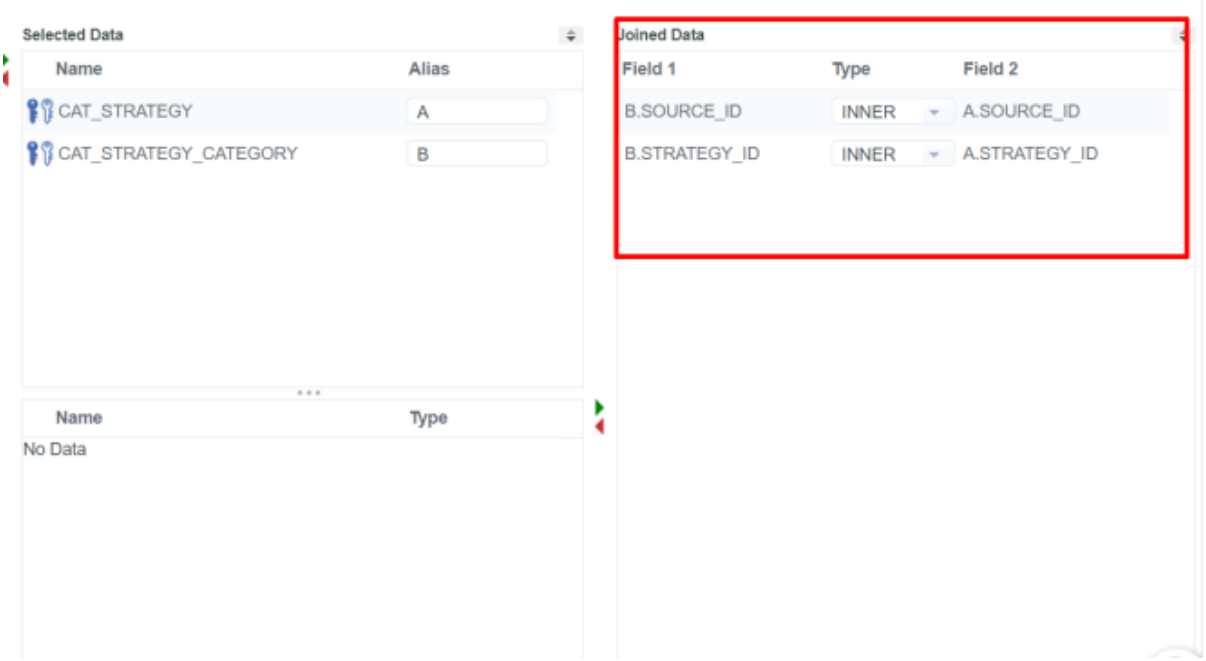
> **Note**: Auto-generated table joins are optional. Users may configure their own joins as desired.

1. A user can add a table to the **Selected Data** section. If it has a primary key / foreign key relationship to one or more tables already in the **Selected Data** list, a pop-up will appear with an auto-generated suggestion for joining the table to the existing data source:



2. In the pop-up, the user can see the suggested join, which includes the matching fields and the tables from which those fields are taken. Users can also choose which join type (left, right, inner, and outer) to use:

3. Click **OK** to close the overlay.
4. If you select the joins and the join types, all joins will be added automatically.



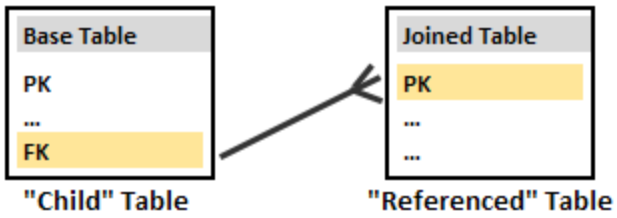
5. Users can continue to customize or add joins as needed. Auto-generated joins do not impede the user's ability to perform other join operations.

Identifying Primary and Foreign Keys

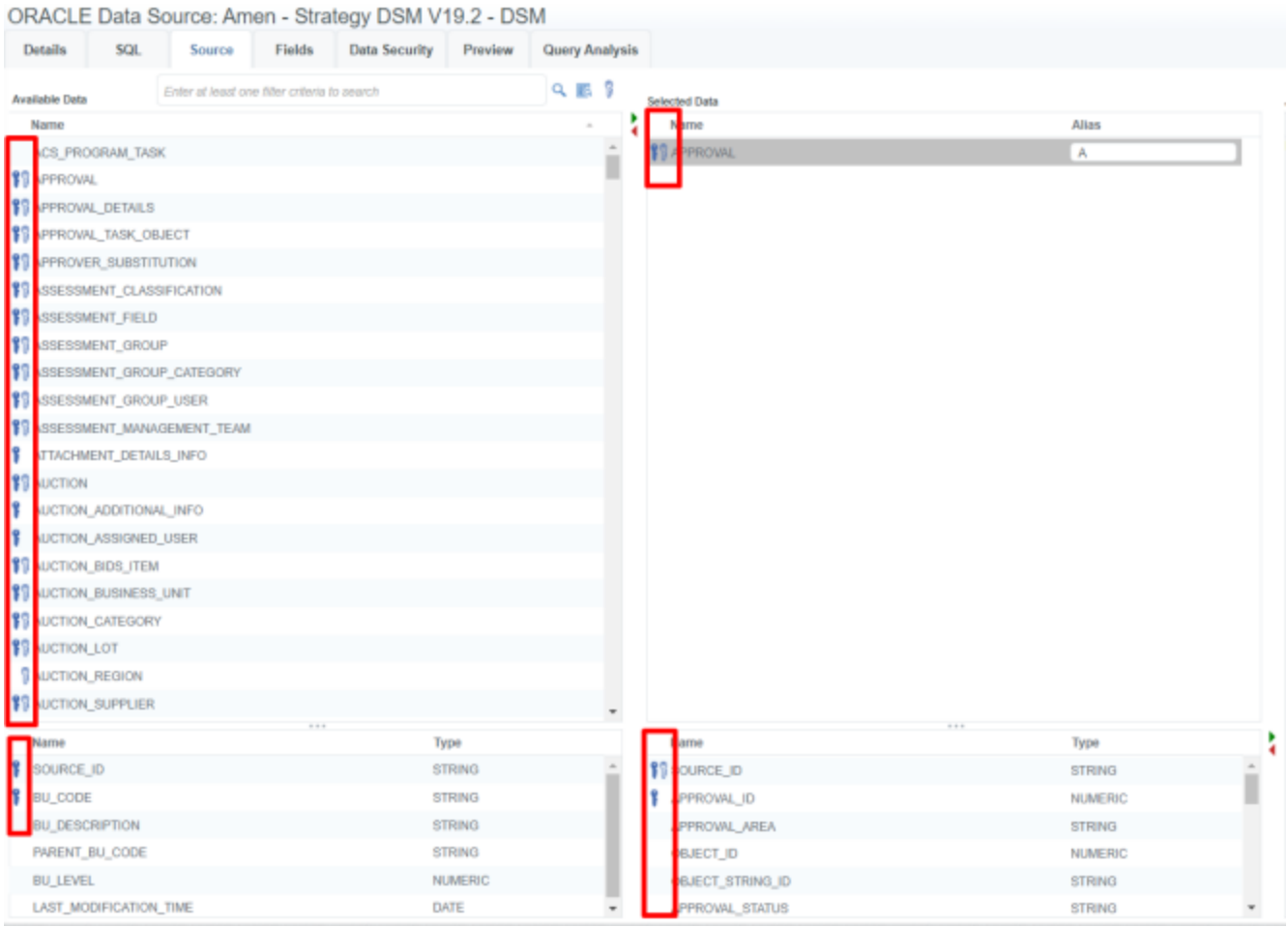
To join two tables together, matching fields across both tables must be identified. These matching fields are referred to as keys, and keys can be either "primary" or "foreign." The

following icons and information are displayed to identify the primary and foreign keys:

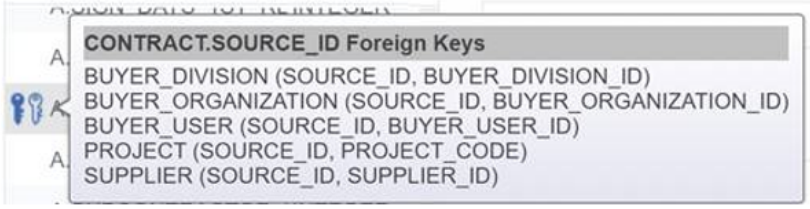
- **Primary** keys are identified by this key icon:
    - The PRIMARY KEY uniquely identifies each record in a table. Primary keys must contain UNIQUE values and cannot contain NULL values. A table can have only ONE primary key; and in the table, this primary key can consist of single or multiple columns (fields).
- **Foreign** keys are identified by this key icon:
    - A FOREIGN KEY is a field (or collection of fields) in one table that refers to the PRIMARY KEY in another table.
    - **Child Table** - This table contains the foreign key. The table containing the candidate key is called the **Referenced** or **Parent Table**:



- On the **Source** tab, **Primary** key and **Foreign** key icons are displayed for the tables and columns in the **Available Data** pane and the **Selected Data** pane.
    - In the top pane of the **Available Data** area, tables will display a **Primary** key indicator icon if the table has a primary key, and a **Foreign** key indicator icon if the table contains any foreign keys.
    - In the bottom panes of the **Available Data** and **Selected Data** panes, columns will display a **Primary** key indicator icon if the column is part of a primary key on the table, and a **Foreign** key indicator icon if the column is part of a foreign key on the table.



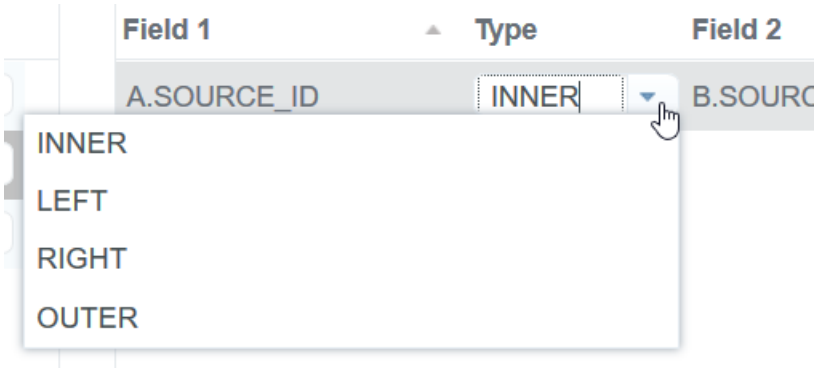
- A tooltip identifying **Primary** key and **Foreign** keys' view is visible when users mouse-over the keys:



Step-by-Step: Manual Table Joins

1. The **Alias** field indicates how the application will identify the table once joined with other tables. The alias defaults to a letter, A, B, C, etc. but can be updated. If necessary, change the value in the **Alias** field to something representative of the table name.

2. Repeat steps 4 and 5 for each table you would like to include in the join. To remove a table from this section, simply drag it back to the Available Data section.
3. Click on a table in the **Selected Data** section. The fields for that table display directly below the section.
4. Locate the field for the join and click on it. Drag the field to the **Joined Data** section.
5. Repeat steps 3 and 4 to choose the field to which the first table will join. To remove a field from the **Joined Data** section, simply drag it back to the **Selected Data** section.
6. By default, the type will be an **INNER** join. To choose a different type, make a selection from the drop-down options.



7. Using the steps above, create additional joins as necessary. Each table in the **Selected Data** section must have a join in order to save.
8. Click **Save**.
9. Click **OK** on the confirmation window.

Selecting and Configuring Data Source Fields (The Fields Tab)

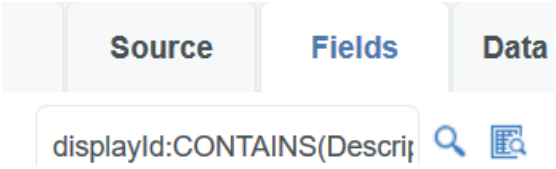
Select the fields from the Source tables to include in the Data Source. You then have the ability to create calculations and select criteria for the field values that will be included in the Data Source.

Step-by-Step

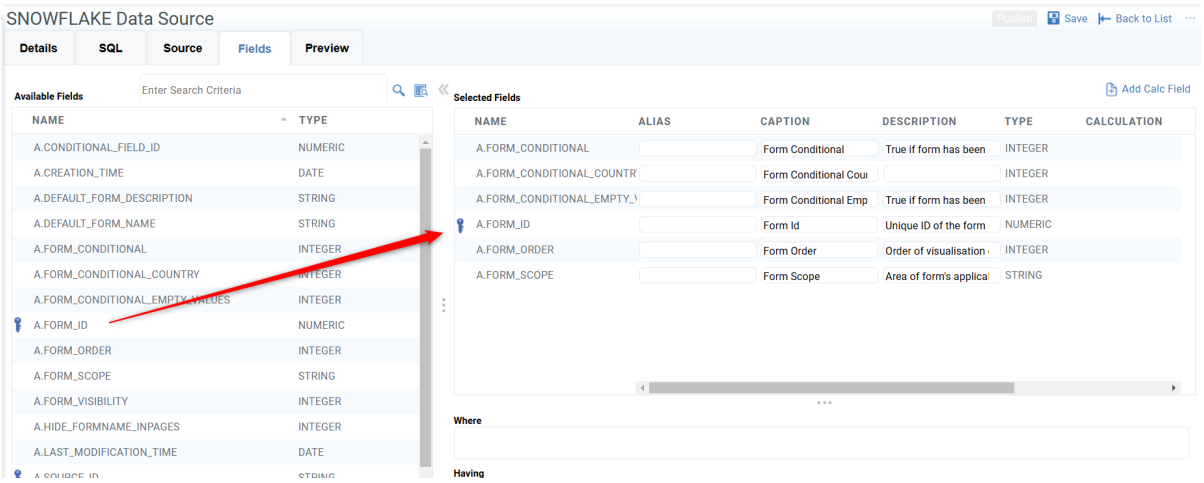
Selecting the Fields

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. Existing Data Sources are displayed in a list.
2. Create a new Data Source (refer to **Creating a New Data Source** above) or select an existing source by clicking on the **Name**.
3. Click the **Fields** tab.
4. The list of available fields displays. These are the fields from all of the joined tables as defined in the Source tab. The Alias (A, B, C, etc.) indicates the source table. To filter the

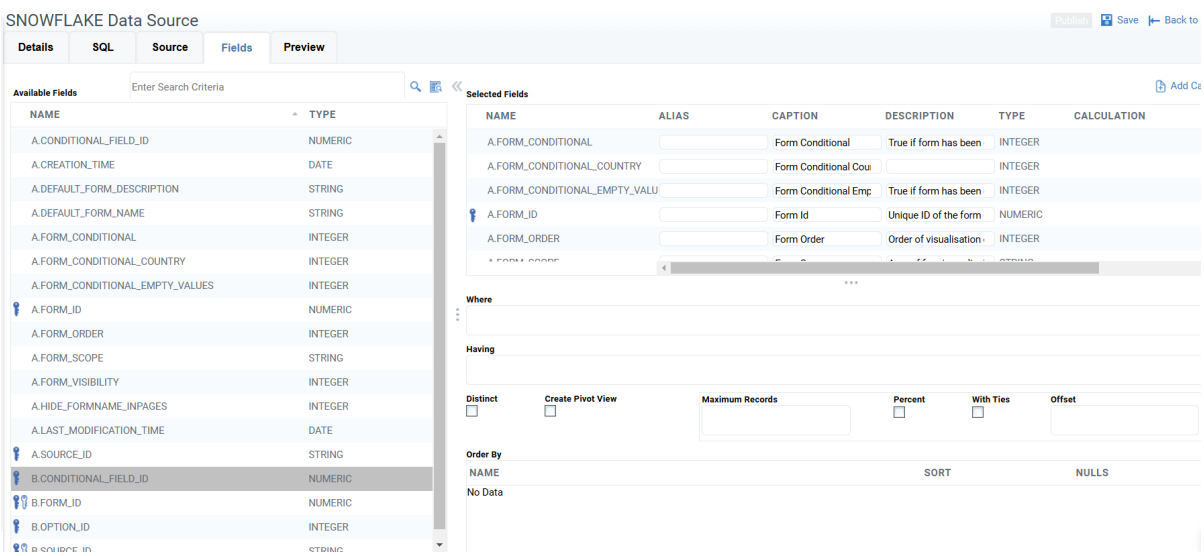
list of fields, enter a value in the filter field and click the or click the Advanced Search icon for additional search options.



5. To select fields for the Data Source, click on the field name in the list and drag it to the **Selected Fields** section.



In the lower right corner of the screen, users have access to several additional options for configuring fields:



1. **Where** - This allows users to filter non-aggregated data by stipulating a "where" clause. For example, "where" a specified field contains specified data.
2. **Having** - This allows users to filter aggregated data by stipulating a "having" clause. For example, fields "having" a specified value.

3. **Distinct** - This checkbox, if enabled, will produce a list view that removes all duplicate field values.
4. **Create Pivot View** - This checkbox, if enabled, will create a pivoted view of the data.
5. **Maximum Records** - This allows the user to set the maximum number of records in the data source.
6. **Percent** - This allows the user to set the display area of the records list to a percentage of the data set. For example, if there are 1,000 rows of data in a data set, setting Percent to 10 will display 10% (100 rows of data) per page.
7. **With Ties** - This checkbox **must** be used in conjunction with the Maximum Records **and** Order By fields. If enabled, data rows with the same value (tied values) will be listed separately. If it is not enabled, then each value will only be displayed once even if multiple data rows contain the same value.
   Note: When With Ties is enabled, the number of rows returned can exceed the value of the Maximum Records field due to the tied values.
8. **Offset** - This field **must** be used in conjunction with the Order By field. This field allows the user to omit a number of records from the query, beginning at the top of the data set. For example, an offset of five (5) will omit the first five rows of data from the data set when performing the query.
9. **Order By** - This field allows the user to determine the order of the data returned by the query using the entered field name as the sorting element. For example, if "Spend" is entered in the Order By field, the returned list of data rows will be sorted by the Spend value (either ascending or descending).

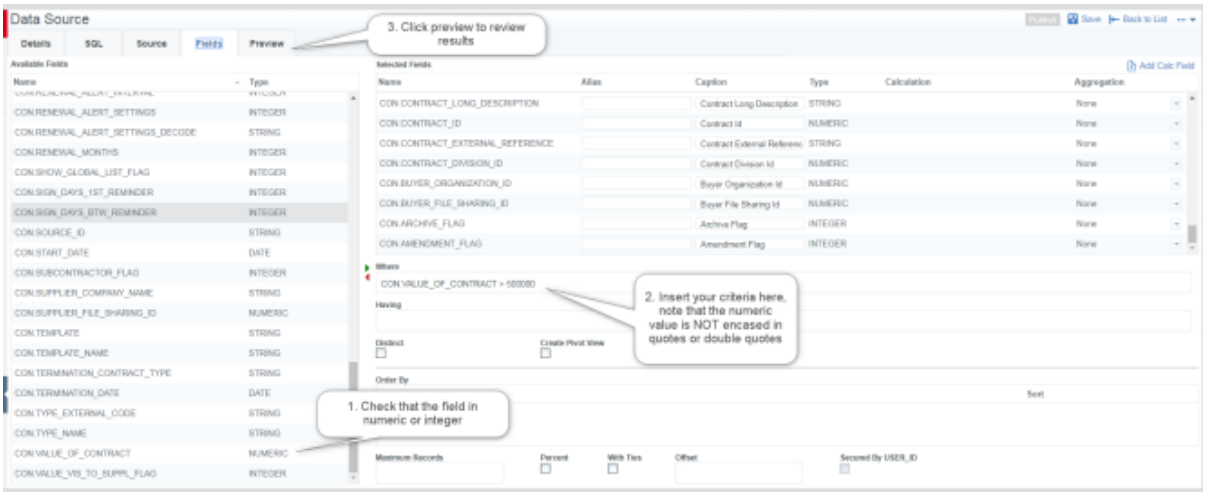
Calculations and Criteria Examples

There are two ways that calculations can be added to data sources. The first option is to add calculations directly into the data source by creating a new field and directly entering the calculation. This allows users with access to the data source to see the calculations. The second option is to navigate to the **Tableau Calculations** tab and add the calculations to the data source using the available Tableau logic. This method is only applicable to Tableau data sources and relies on Tableau-specific SQL logic.

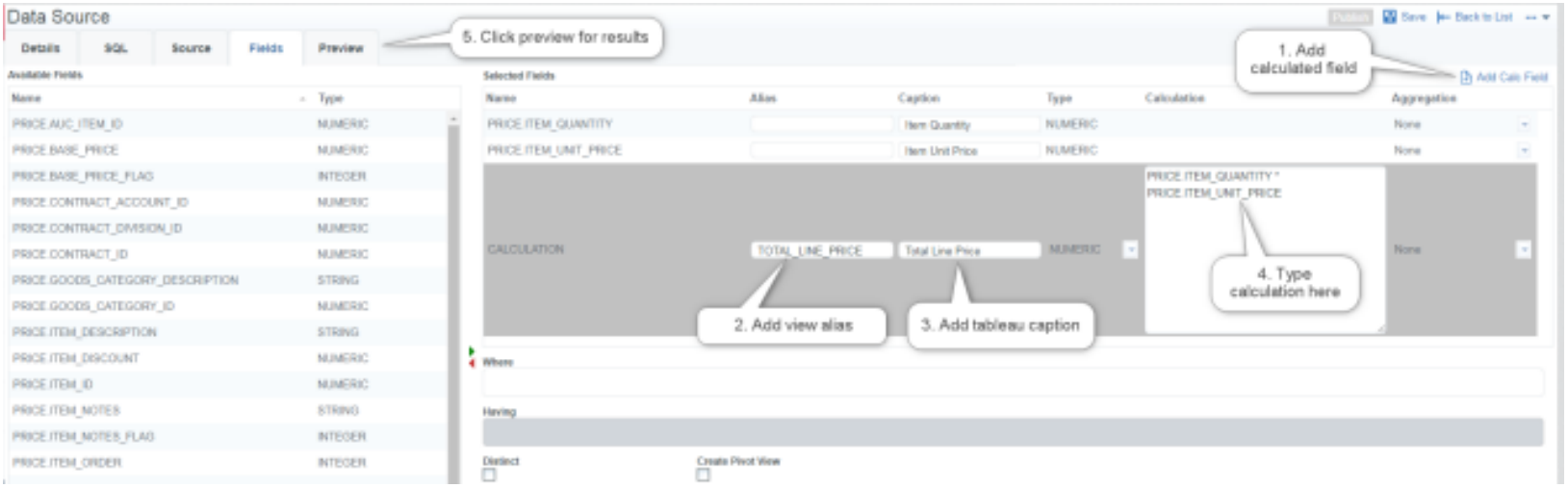
> **Note**: In this section, we will be providing examples of calculations provided using the direct input method, **NOT** using the Tableau Calculations tab.

There are three available calculation and criteria types*; Numeric, String* and *Date*. Below are some examples of each type.

Numeric Type Criteria Example – Contracts with a value > 500k

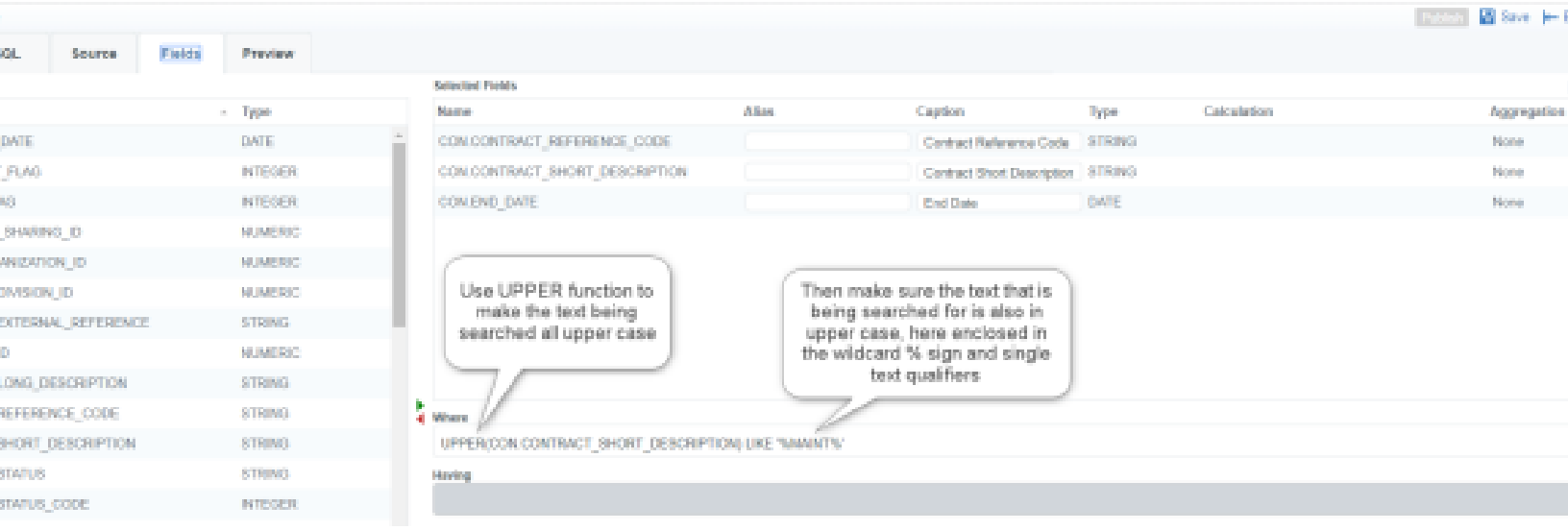


Numeric Type Calculation Example – multiply unit price by quantity

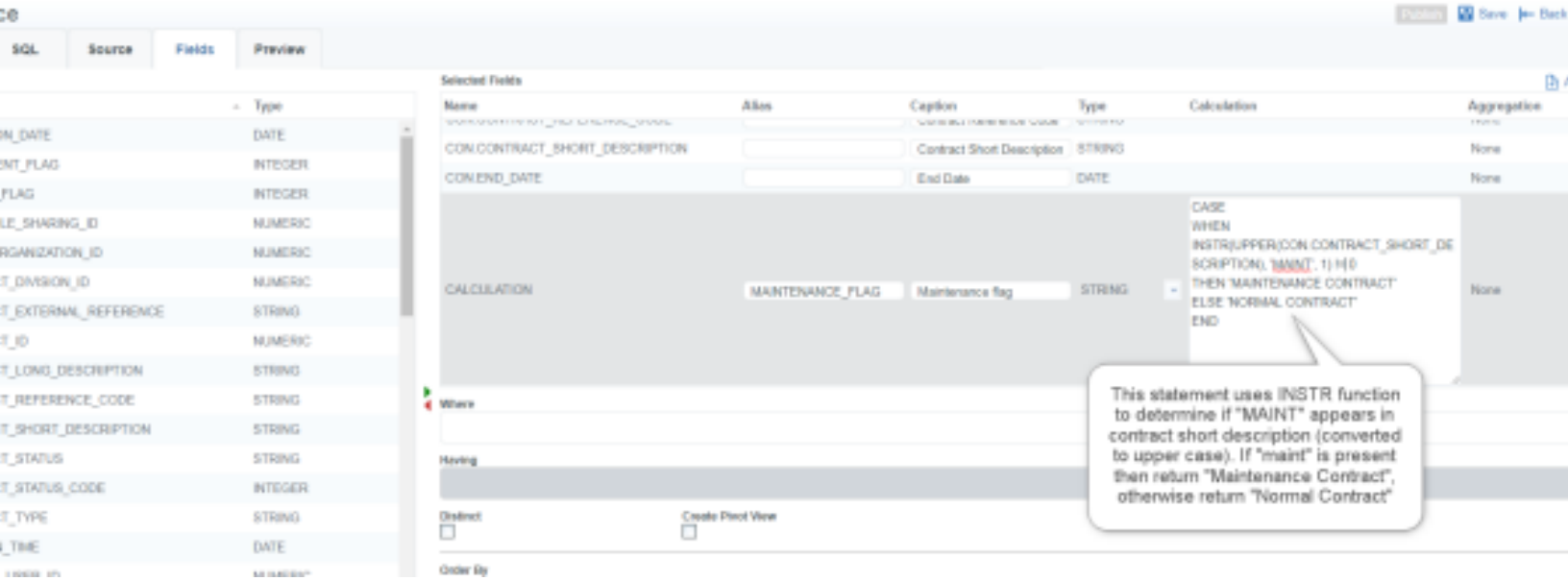


> **Important Note**: String criteria are case sensitive. You can use the **Upper** function to convert to one case and then set criteria/calculations in upper case.

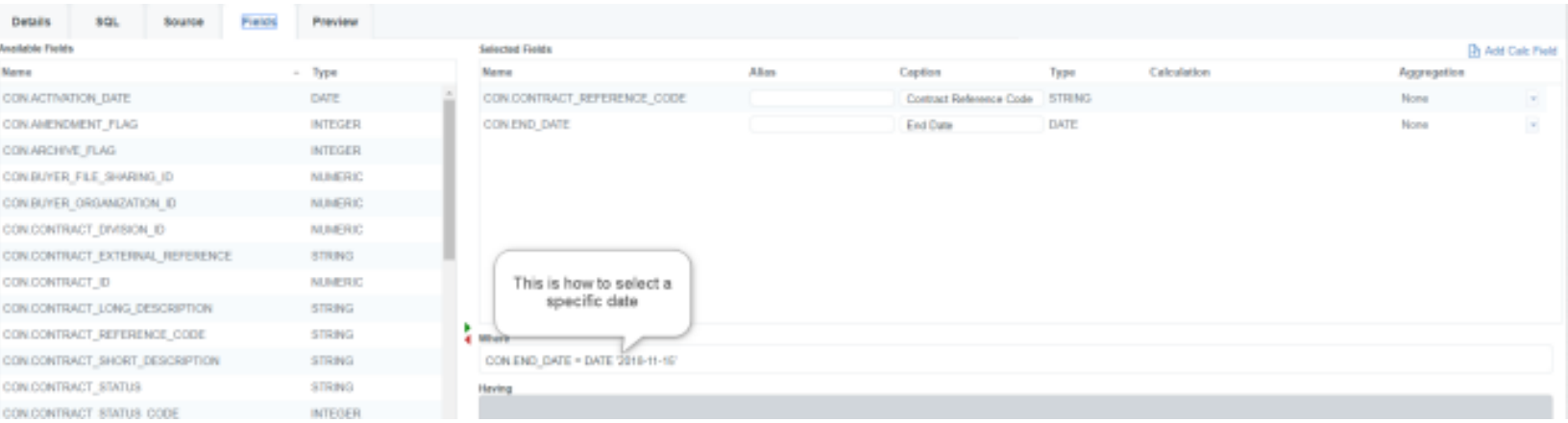
String Type Criteria Example – finding part of a word



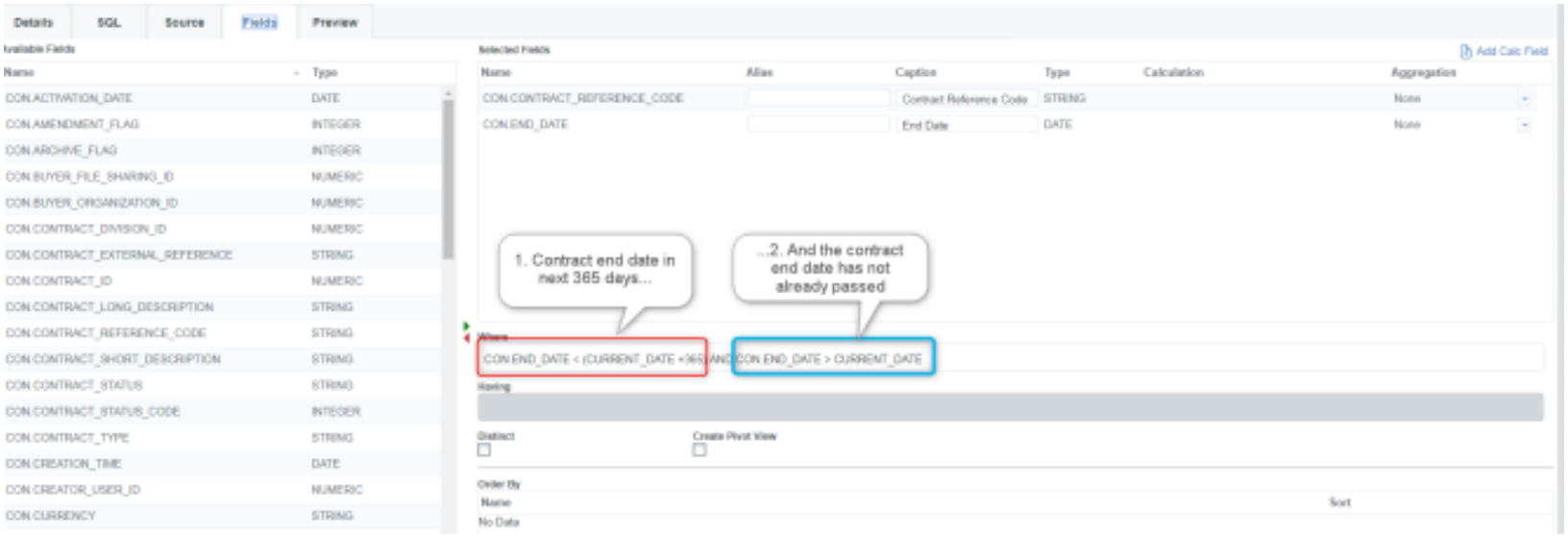
String Type Calculation Example – using part of a word to flag a record



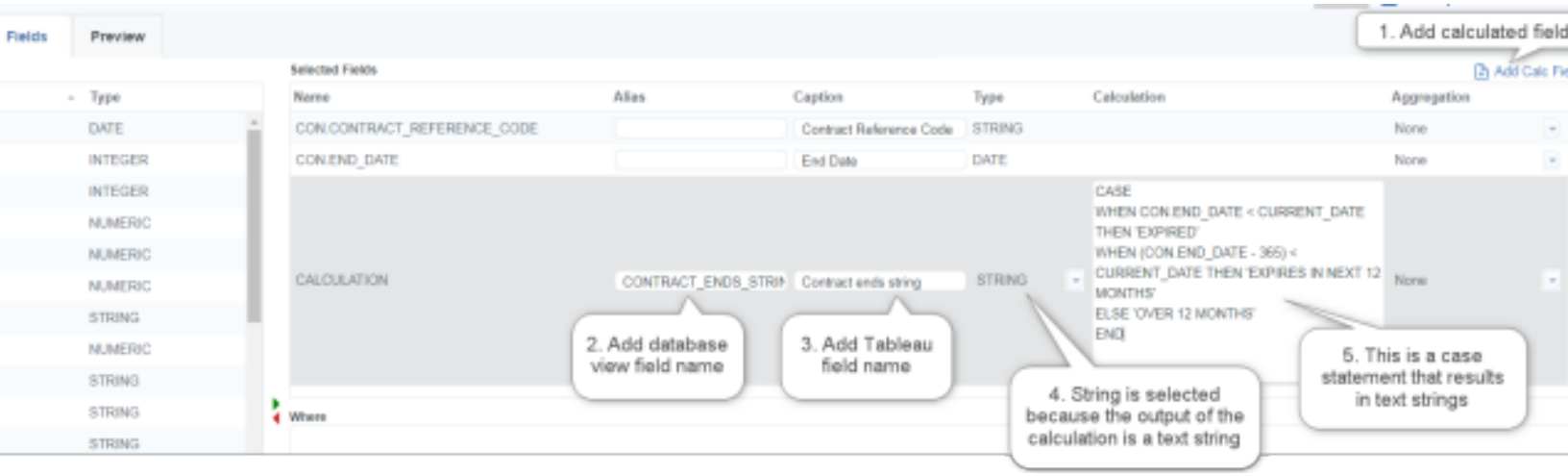
Date Type Criteria Example – finding records with an exact end date



Date Type Criteria Example – finding live contracts that expire in the next 365 days but have not already expired



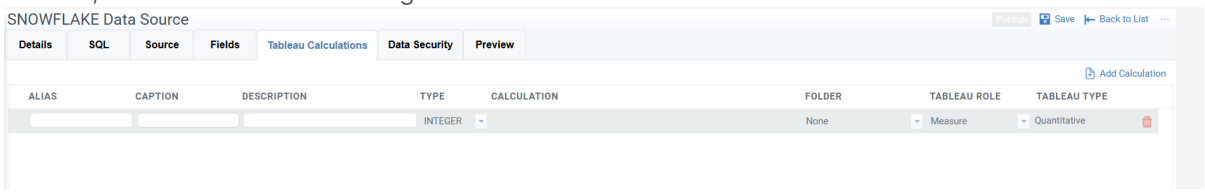
Date Type Calculation Example – Using a case statement



The Tableau Calculations Tab

The **Tableau Calculations** tab is used to add calculations to the data source using the available Tableau logic. This method is only applicable to Tableau data sources and relies on Tableau-specific SQL logic.

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**.
2. Create a new data source or open an existing data source.
3. Select the **Details** tab.
4. Ensure that the **Create Tableau Data Source** checkbox is enabled.
5. Select the **Tableau Calculations** tab. **Note**: This tab is not visible until step 4, above, has been completed.
6. Click **Add Calculation** in the top-right corner. This will make a new row visible in the canvas, as shown in the following screenshot:



7. In the row, enter a name for the calculation in the **Alias** box. By default, the Alias will be entirely uppercase.
8. **(Optional)** Provide an updated name for the data source in the **Caption** box. The contents of this field will be seen by users working with the data source in Web Edit mode. If left empty, they will see the Alias, but the Alias will be displayed in proper case. Anything entered in the Caption field will display as entered.
9. **(Optional)** Provide a description for the data source in the **Description** box.
10. Select the calculation type using the **Type** drop-down selector. The available types are Integer, Numeric, String, Date, Datetime, and Boolean. By default, this is set to Integer.
11. Define the calculation by entering it into the **Calculation** field using Tableau SQL logic. **Important Note**: Unlike with other calculations, there is no validation performed on Tableau calculations during the data source publishing process. Any errors in the calculation will not

be visible until attempting to open the data source in Web Edit mode or when viewing a report using the data source.

12. **(Optional)** Select a folder for the data source to be saved to using the **Folder** drop-down selector. By default, None is selected.
13. **(Optional)** Select the Tableau Role for the calculation using the **Tableau Role** drop-down selector. The available options are Measure or Dimension. By default, Measure is selected.
14. **(Optional)** Select the Tableau Type for the calculation using the **Tableau Type** drop-down selector. If the Tableau Role field is set to Measure, the Tableau type will automatically be set to Quantitative and cannot be changed. If the Tableau Role field is set to Dimension, the user may use the drop-down selector to select the desired Tableau type.
15. Use the **Add Calculation** button to add more calculations, repeating steps 1-14 as needed.
16. Click the **Delete** icon at the end of a row to delete that calculation if needed.
17. Click the **Save** button in the upper-right.

The Data Security Tab

The **Data Security** tab is used to manage security settings for the data source. This tab allows the user to map fields that have been defined as restricted to specific roles to the specific fields that exist within the data source, ensuring that the data source has appropriate restrictions on the data each user role can see.

The Preview Tab

The **Preview** tab allows users to preview a data source prior to publishing it. The main benefits for the user are:

- The ability to see a snapshot of the actual data of the data source
- The ability to see the row count of the data source
- The ability to view the SQL query that generates the data source (as seen on the SQL tab)
- The ability to export the data as a CSV or Excel file

Step-by-Step

Performing a Preview Action

1. Define the fields that should be included in the Data Source in the **Fields** tab.
2. Click the Preview tab. The query will be automatically performed. The data snapshot will be opened in the Preview tab once the query has finished.

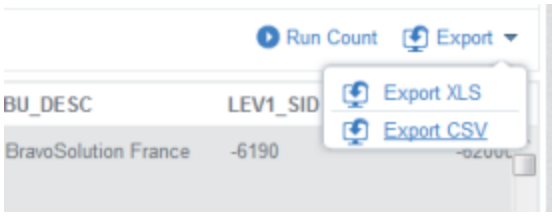
Note: The **Preview** tab shows the generated SQL query to produce the data and a preview of the data. The preview has a time (3 minutes) and size (100,000 records) limit to prevent long running scripts affecting performance. After running for 10 seconds, a pop-up window will appear to ask if you wish to complete the full preview process or if you wish to cancel. This can be used if you do not need to run a complete preview cycle, or if you have accidentally navigated to the Preview tab.

3. Click the **Save** button to save the results.
4. Click the **Publish** button to publish the data source.

Note: An error message will be returned while performing a preview action if anything has been misconfigured. This will also indicate that the data source cannot be published in its current state.

Exporting Data from a Data Source via the Preview Tab

For data sources in *Published* or *Draft Published* status, the data can be exported from the main Data Source screen. This will export all data for the data source. Data can also be exported via the **Preview** tab within each data source. This action will export the data as it is defined by the data source query.



Note: It is possible to perform a bulk data export. To do so, you must place a request with JAGGAER Professional Services.

The Query Analysis Tab

The **Query Analysis** tab is used to analyze the SQL query that generates the data source. This analysis is focused on improving the efficiency of the SQL query. Users may click the **Run Execution Plan** button to receive the relevant information about their query.

Note: It is recommended that users perform a preview before using Query Analysis.

Adding a Data Source to an Existing Tableau Server Refresh Schedule

Users can add data sources to an existing Tableau server refresh schedule. This allows users to have their data sources automatically updated on their preferred schedule.

Step-by-Step

1. Navigate to **Reporting** **> Analytics Administration > Data Source Manager**.
2. Select and open a data source from the list.
3. On the **Details** tab, you may review the data source's current publication settings in the **Publishing Options** section. The **Create Tableau Data Source as an Extract** field will tell you when the data was last refreshed as well as when it is next scheduled to be refreshed.
4. On the Details tab, click the **Publish** button in the top-right and select the **Draft Publish** option. This will open the **Manage Extract Refresh and Publish** window.
    - To add the data source to an existing refresh schedule, click on the desired refresh schedule in the list. This will enable the **Publish with Selected Schedule** button. Click this button to add the data source to the schedule.
    - To publish the data source without adding it to a refresh schedule, click the **Publish with No Schedule** button.
    - To immediately refresh the data and publish it regardless of schedule settings, click the **Publish and Refresh Now** button.
    - To exit without making any changes, click the **Cancel** button.
5. On the Details tab, the Publishing Options section will reflect any changes you have made.

Importing and Exporting a Data Source Structure

This feature allows Analytics users to create a new data source from an existing data source. The data is exported to JSON. It can be updated and then re-imported.

Step-by-Step

Exporting a Data Source Structure

1. Navigate to **Reporting** **> Analytics Administration > Data Source Manager**.
2. Locate the Data Source you would like to export and click on it to select it. **Note**: Do no open the Data Source. Simply select it by clicking on it.
3. In the top-right corner, click the Export button .
4. Save the file to your local system.

Importing a Data Source Structure

After you have updated the JSON, you can import the file to create a new data source structure. Follow the steps below.

1. In the top-right corner of the Data Source Manager screen, click on the Import button .
2. Select the import file from your local system.
3. Select the database that the JSON file will point to.
4. (Optional) Select a DSM folder that the data source will be stored in.
5. Click **Import**. You will receive a message if the file was imported successfully. Click **OK**. The file is imported and the data source structure is created.

If you don't update the name of the data source in the JSON, it will import using the same data source name as the data source that was exported. The name will be appended with a number, i.e. **Data Source 2**. The new data source is imported as *Not Published*, even if the original data source was published.

> **Note:** Oracle data sources are automatically converted to make them compatible with Snowflake.

Exporting Data

Step-by-Step

Exporting Directly from DSM

The simplest way to export a data source from DSM is to simply do so from the list of data sources.

1. Log into DSM.
2. In the list of data sources, locate the desired data source to export.
3. Click on the **Actions** button. From the drop-down menu, select one of the following export options:
    a. Export XLS - Exports an Excel file of the data
    b. Export CSV - Exports a CSV file of the data
    c. FTP Export XLS - Runs an Excel export to the organization's FTP server
    d. FTP Export CSV - Runs a CSV export to the organization's FTP server
    e. Scheduled Export - Allows the user to schedule an export of the data source (refer to **Scheduling a Data Source Export** below)

Retrieving the Export

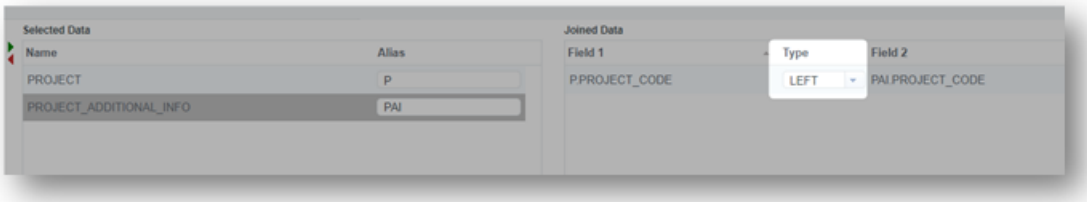
To retrieve the export, navigate to **Reporting** **> Analytics Administration > Completed Jobs**.

Pivoting a Data Source View

The pivot function is useful for including data from additional information tables of functional areas in the standard information sections of various sourcing areas of the tool.

Step-by-Step

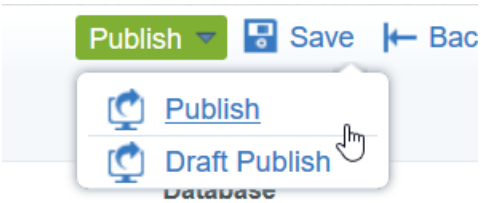
1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. The Data Source Manager tab displays. Existing Data Sources are displayed in a list.
2. Create a new Data Source or select an existing source by clicking on the **Name**.
3. On the **Source** tab, create a **LEFT** join from the standard table to its corresponding additional information table as shown below:



4. On the **Fields** tab, select the **Create Pivot View** checkbox. This action displays the **Attributes** tab
5. To pivot the required fields, drag in the 'DEFAULT_FIELD_NAME' column from the additional information table and select the pivot type to be 'Attribute'. Drag in the column 'FIELD_VALUE' and set the pivot value to be 'VALUE'.
6. On the **Attributes** tab, select the required columns for the pivoted data. Each column corresponds to a distinct value in the original, un-pivoted data.
7. **(Optional)** Add additional columns to the pivot that are not derived from the original, un-pivoted data by clicking the **Add Attribute** button.
8. Select **Preview** to confirm there are no errors. Click **Save**.

Publishing a Data Source

There are two options for publishing a data source: **Publish** and **Draft Publish**.



When developing a new data source, it is advisable to use **Draft Publish** as it enables the data source to be changed during set up and testing. Once the data source is tested and if it needs to be locked down, use **Publish**, which will lock the data source definition.

> **Note**: Only a guru user can delete a published data source. Any user with access to Data Source Manager can delete a draft published data source.

Copying a Data Source

Users can copy data sources as needed. Any data source can be copied. A copied data source will have the word "copy" added to its name by default, but the copied data source can be renamed as needed.

Step-by-Step

1. Navigate to **Reporting**  **> Analytics Administration > Data Source Manager**. The Data Source Manager tab displays. Existing Data Sources are displayed in a list.
2. Select the data source to be copied.
3. Click on the **Actions** button on the right side of the page and select **Copy Data Source**. The new copy will not appear in a folder even if the original data source did.

Searching for a Data Source

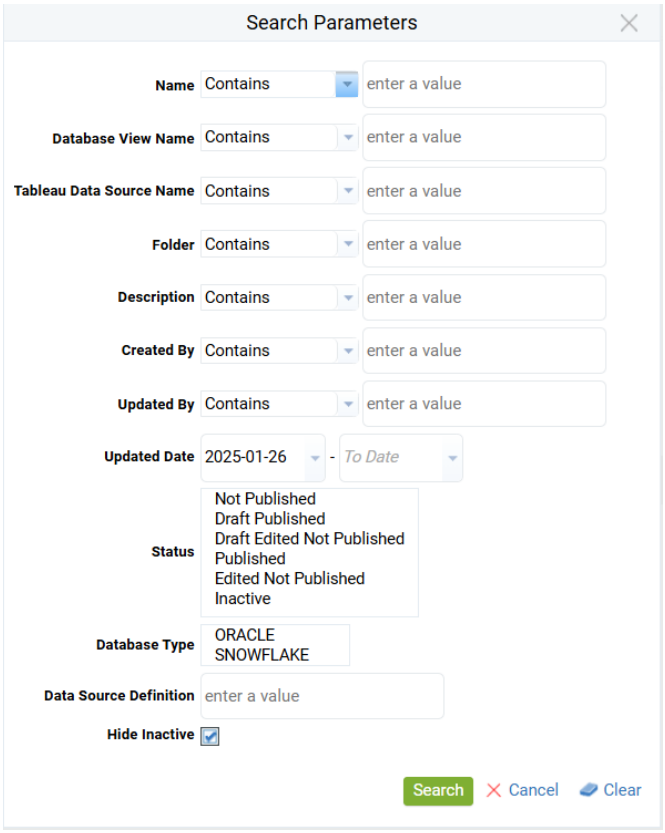
Users can search for a specific data source as needed. Users may perform both a basic search and an advanced search.

Basic Search Step-by-Step

1. Navigate to **Reporting**  **> Analytics Administration > Data Source Manager**. The Data Source Manager tab displays. Existing Data Sources are displayed in a list.
2. In the **Search** toolbar at the top of the screen, enter a data source name.
3. Click on the **Search** icon (magnifying glass) to search for data sources matching the entered name. The list of displayed data sources will filter to only show the relevant search results.

Advanced Search Step-by-Step

1. Navigate to **Reporting**  **> Analytics Administration > Data Source Manager**. The Data Source Manager tab displays. Existing Data Sources are displayed in a list.
2. Click the **Advanced Search** button. The **Search Parameters** pop-up displays.



> **Note**: **Database Type** refers to the underlying database that supports the data source. Analytics currently supports Oracle and Snowflake, although organizations typically use only one. **Data Source Definition** allows users to search for a word or words across all data source metadata, which is especially useful if the user has made a change to an underlying child data source and wants to locate all parent data sources that have been impacted. For searching purposes, nesting only applies to the first-level child data source.

3. Use the drop-down selectors to choose the parameters for the search for each desired field.
4. Click the **Search** button to perform the search. The list of displayed data sources will filter to only show the relevant search results.

Folder Management

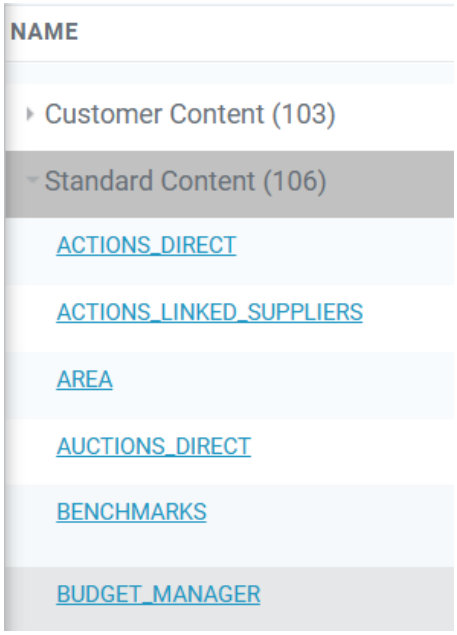
Users can manage the folder structure of DSM to allow them to organize their data sources into a customized folder structure. Data sources do not have to be organized into folders, but many organizations find a folder structure to be beneficial. By default, custom data sources are not saved into folders. The default way to access data sources is via the list displayed upon logging into DSM.

> **Note**: There are no permissions associated with folder management in DSM. Any user with access to DSM can create, edit, and access any folders that are created.

There are two system-generated folders available: **Standard Content** and **Customer Content**. These folders are associated with standard dashboards, and the data sources for these dashboards (and **ONLY** these data sources) are automatically saved to these folders. Users cannot save their own data sources to these system-level folders.

Step-by-Step

1. Navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**.
2. In the top-right corner, click the **Create** drop-down button. Select **Folder** from the drop-down. The **Create Folder** pop-up window will appear.
3. In the Create Folder pop-up, provide the folder **Name** and **Description**. Both fields are mandatory.
4. Click **OK**. The user will be returned to the DSM homepage.
5. Open a data source to be added to the newly created folder.
6. On the **Details** tab of the data source, click the **Folder** drop-down button and select the newly created folder. The data source will be saved to the selected folder. **Note**: A data source cannot be saved to more than one folder.
7. To access the data source from the folder, navigate to **Reporting** > **Analytics Administration** > **Data Source Manager**. Available folders are displayed at the top of the data source list. Expand this list to view the available folders.
8. Locate the new folder and expand it. The data source that was saved can be accessed from this location.



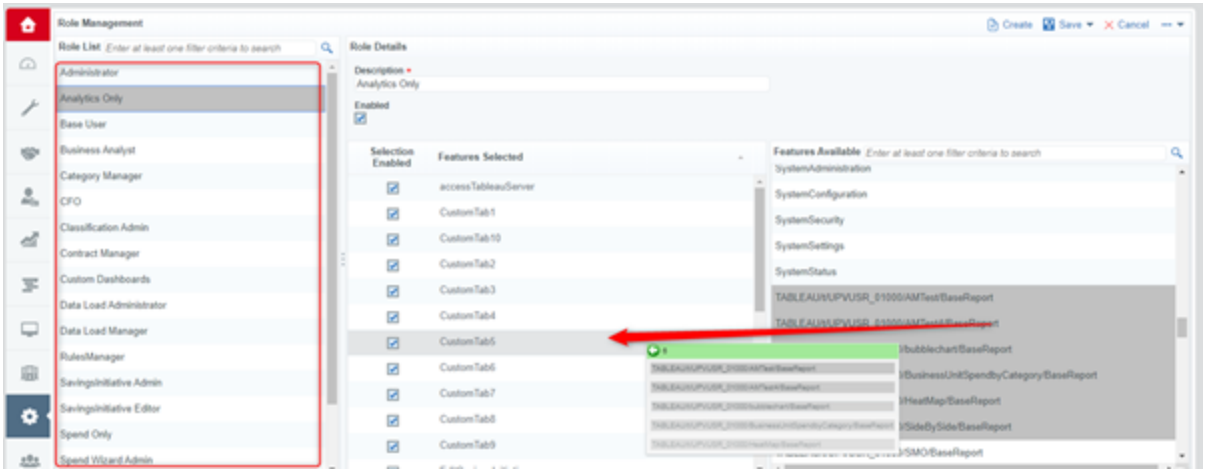
Analytics Profiles

The **Analytics & Spend Profiles** page contains a set of default profiles that are used to give users access to specific features in the Analytics and Spend solutions. If needed, custom roles can also be configured on this page.

The user profiles that are defined on this page are assigned to users through the customary user management tasks in JAGGAER.

Create Analytics Role

1. Navigate to **Reporting** > **Analytics Administration** > **Analytics & Spend Profiles**.
2. Click **Create**. The **New Role** overlay displays.
3. Enter a **Role Name**.
4. Click **Save**. An overlay displays confirming the role saved.
5. Click **OK**. The overlay closes and you are returned to the **Analytics & Spend Profiles** page with the new role listed.
6. Ensure the new role is selected in the role list.
7. Drag and drop features from the **Features Available** list to the **Features Selected** list.



   - Drag multiple permissions simultaneously by selecting one permission and then holding the **Shift** key and selecting a second permission to select all permissions in between.
   - Alternately, drag multiple permissions simultaneously by holding the **CTRL** key and selecting multiple permissions.
8. Selected features are enabled on the role by default. You can deselect the checkbox beside features to disable them for the role.
9. Expand the **Save** drop-down and select **Save Role**. The role is saved.

Configured roles can be assigned to users and user roles on the **Analytics and Spend Profiles** user right.

In addition to creating roles, users may also update role descriptions by modifying the text in the **Description** button in the Role Details section.

Users may enable or disable roles by toggling the **Enabled** checkbox in the Role Details section. By default, roles are enabled.

Users may delete a profile by clicking on the **Actions**  drop-down button in the top-right and selecting **Delete**.

Data Security

Data Security Overview

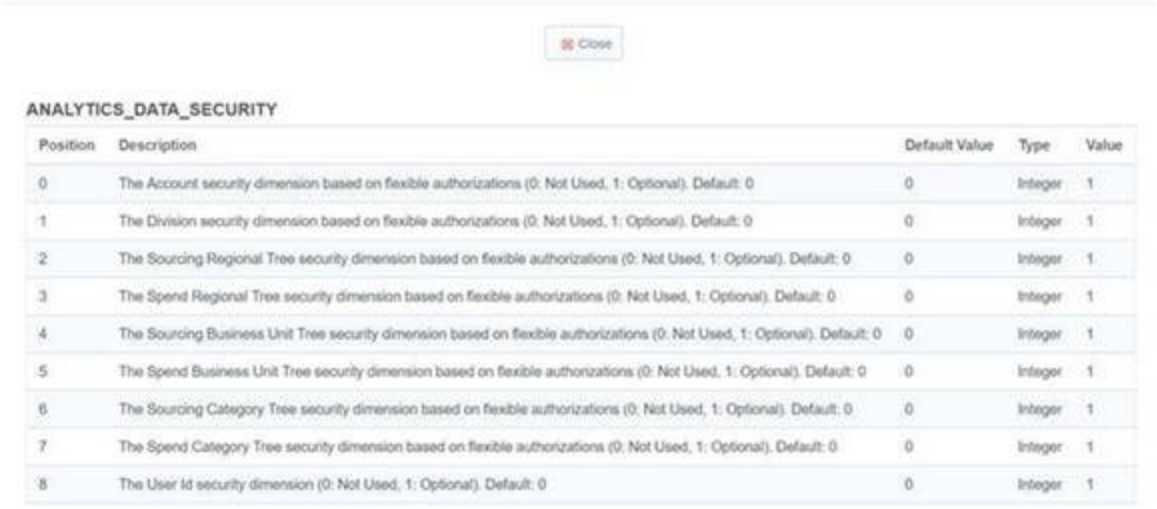
All data security in the Analytics solution is managed on the Tableau side with data source filters. The underlying Oracle / Snowflake database doesn't matter. Administrators create data sources in DSM. Filters are created automatically when DSM publishes the data source.

Data Security is not enabled by default. Instead, it is driven by two toolkit parameters:

1. **ANALYTICS_CONFIG**:
    - **Position 18** must be configured with one of the following values:
        - **0** - No Data Security (Default)
        - **1** - DMR - Account and Division
        - **2** - Flexible Data Security Profiles

        Note: If the you select **option 1**, the PSM or the person who is enabling this parameter must ensure that the DataMart module is enabled and that all the associated configuration are done correctly.
2. **ANALYTICS_DATA_SECURITY**- This parameter controls the dimensions that are enabled

for data security (see screenshot below):



Close

ANALYTICS_DATA_SECURITY

Position	Description	Default Value	Type	Value
0	The Account security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
1	The Division security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
2	The Sourcing Regional Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
3	The Spend Regional Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
4	The Sourcing Business Unit Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
5	The Spend Business Unit Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
6	The Sourcing Category Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
7	The Spend Category Tree security dimension based on flexible authorizations (0: Not Used, 1: Optional). Default: 0	0	Integer	1
8	The User Id security dimension (0: Not Used, 1: Optional). Default: 0	0	Integer	1

Data security only happens at the data source level, not the workbooks. You should be able to add data security to existing data sources and leave your workbooks unchanged. We limit access to edit published data sources in DSM, but you can still join in additional tables and modify data security settings.

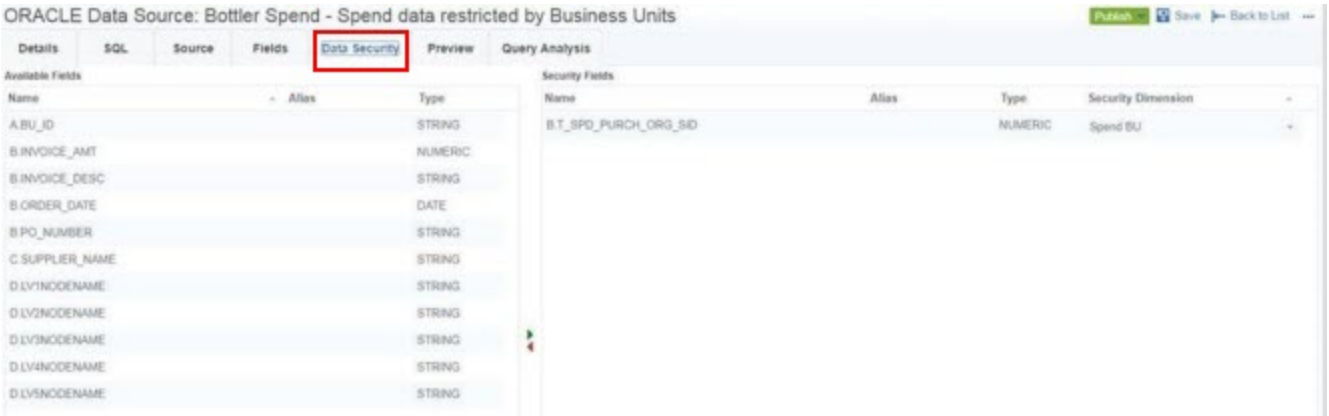
In order to be able to see the dimension Spend Category, the user must have the role to manage the spend categories.

The screen you need is **Manage ACLs**, if you click on your user, you will see you are not authorized to the category tree. Click on the top level **Technical Ontology** to be authorized to the tree.

The data security profiles are not currently on the JA user management page.

Spend Dimensions

If Data Security is enabled (through an Instance Configuration Parameter), there will be a **Data Security** tab in the Data Source Manager Area as shown below:

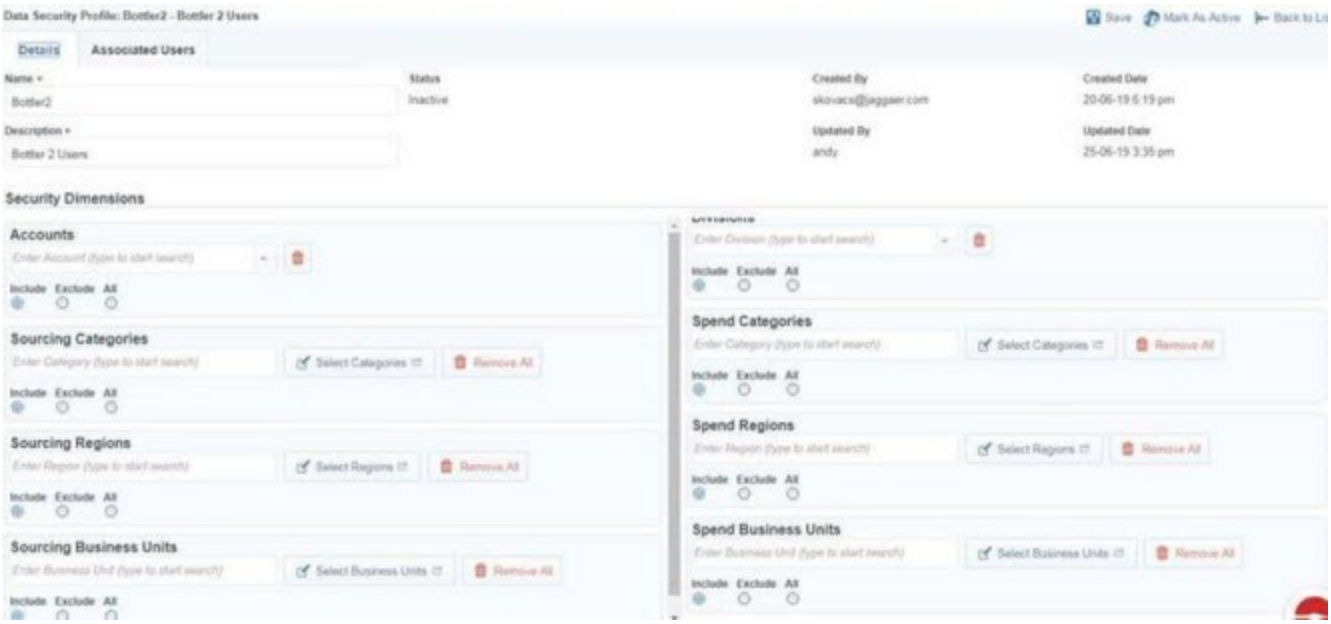


You can set Data Security based upon **Spend Region (Geography Master)**, and **Spend Business Unit (Purch Org Master)** in addition to the **Category (Category Tree)**.

1. Apply a column from the **Data Source** as the lookup against the **Security Dimension**.
    - In this case the **T_SPD_PURCH_ORG_SID** is the key from the Data Source that is used to look up against the **SPEND BU** security setting
2. You can have more than one **Security Field**.
    - In this example **Spend BU** is the security field. if you had **SPEND REGION** and the appropriate column/field in your data source, you could apply that to Data Source as well
3. This is your **OLAP Data Role** setup with multiple dimension security

Spend-Based Security Elements

On the **Data Security Profiles** tab, you can see the Spend-based security elements as shown below:



You can create multiple security profiles based upon multiple security dimensions, or keep it simple and create one security profile per security dimension and the variants necessary.

- This is completely up to user preference OR guidance from Customer Operations.

You can use your selection to include this data in the security profile and therefore display the data matching this dimension value OR exclude the matching data or use the ALL option to enable ALL the data for that security profile.

Step-by-Step

1. Go to the **Associated Users** tab
2. Assign the appropriate users to this security profile
3. **Save** to enable data security for the Data Source using the Data Security Profile functionality

Publish the data from Spend to Analytics & DSM

This 'publish' is in effect publishing the **PURCH_ORG, GEOGRAPHY AND CATEGORY_TREE** tables to Analytics and DSM in a 'flattened' structure

There are 2 engine steps required to publish the Data Security information from Spend to Analytics:

1. **TreeBuilderStep:**

   This identifies what you want to publish as well as provides the ability to run in 'test' or 'report' mode to see what is being added to the security profile data

   > **Note:** Please refer to http://devwiki.bravosolution.net:6080/BravoUSRnDWiki/index.php/TreeBuilder for additional instructions:

   Below is an example of a TreeBuilderStep:

   {

   "levelFieldNames": [--this is the data that will be published from the PURCH_ORG master

   "BU_LEVEL1",

   "BU_LEVEL2",

   "BU_LEVEL3",

   "BU_LEVEL4"

   ],

   "clearTargetTable": true, --Delete all the data from the target table before generating the new data, i.e. replace

   "treeType": "BU", --What security dimension is this? Options are BU or GEO

   "reportMode": false, --This allows you to see the impact of re-publishing the security dimension without actually generating the data

   "symbolType": "TransformStep", --Mandatory

"flatTableName": "~.SDB.T_SPD_PURCH_ORG" –What table should be used as the source of data to build the security dimension

}

2. **TreePublisher:**

   This step publishes the data to Analytics and DSM

   Note: Please refer to http://devwiki.bravosolution.net:6080/BravoUSRnDWiki/index.php/TreePublisher for additional instructions

   Below is an example TreePublisher Step:

   {

   "levelNodeContentOptions": [

   "NAME", --The data from the TreeBuilder step (i.e. BU_LEVEL1 BU_LEVEL2, BU_LEVEL3 BU_LEVEL4)

   "ID" –This will generate a unique id for every unique name value at every level. The lowest level in the tree will get the SID value from the master table

   ],

   "ifNodeNotInTree": "TERMINATE", --TERMINATE OR IGNORE

   "minNumberOfLevelFields": 9, --This is the maximum number of levels you want the tree to be built out to

   "treeType": "BU", -- BU or GEO depending on the security dimension

   "levelNodeSize": 255, --The max width of the name columns

   "symbolType": "TransformStep", --Mandatory

   "referencingFieldName": "T_SPD_PURCH_ORG_SID", --Unique ID for each of the Master Table (source table) rows

   "referencingTableName": "~.SDM.T_SPD_FCT_BA",

   "multilingualEnabled": false, --If this is a multi-lingual table like CATEGORY_TREE then specify true, in most cases this will be false

   "targetTableName": "~.SDM.T_SPD_DIM_BA_BU_TREE" –What

   }

Flexible Permissions

When this option is active, data access within the report will follow flexible permissions as configured in the Analytics profile. When these permissions are selected for a role, they will override any other existing security settings. Options include:

- JA Account Organization (buyer accounts)
- Sourcing Division
- Sourcing Regional Tree
- Sourcing Business Unit Tree
- Sourcing Category Tree
- Spend Category Tree
- Spend Region Tree
- Spend Business Unit Tree
- JI Departments
- JI Business Units

When Data Security is active, the **Data Security** tab displays in the Data Source. This is where the Data Security Profiles are defined for the Data Source. Refer to the "Data Source Manager" on page 48 section for full details.

Create Security Profile

1. Navigate to **Reporting**  **> Analytics Administration > Data Security Profiles**.
2. Click **Create**. The Details screen displays.
3. Complete the main information for the security profile:
    - **Name** - Enter a meaningful name for the profile.
    - **Description** - Enter a meaningful description.
    - **Status** - Select a status for the profile. **Note:** Profiles in *Active* status cannot be deleted.
    - **Creation Date**, **Created By** - Read-only fields generated when the profile is created.
4. Define the security dimensions for the profile. For each dimension there are three options. If you select **Include** or **Exclude**, you can choose the values by clicking on the associated **Select** button. Users can select values at various levels to which to apply these settings.
    - **Include** (allows you to select specific values for the dimension to which the profile has access).
    - **Exclude** (allows you to select specific values for the dimension to which the profile does NOT have access).
    - **All** (gives the profile access to all values for the dimension). Choose an option for each dimension.

5. Click on the **Associated Users** tab. This is where you will assign users to the profile. A list of available users displays on the left. To assign a user, click on the user name and drag it to the **Selected Users** section on the right.
6. Click **Save**.

Once saved, a data security profile's status will display as *Inactive*. To activate the profile, click the **Mark as Active** link on the profile. Profiles in *Active* status cannot be deleted.

Scheduled Jobs

Bulk Data Export

Bulk Data Export (BDE) provides predefined sets of data for use as CSV files which can be tailored to individual user needs. This improves the ability for users to engage with their data sources outside of the JAGGAER application.

- To use this feature, you must put in a request with JAGGAER Professional Services.
- When requesting a bulk data export, you have the choice between SFTP and S3 export locations. You may create an SFTP for use or use one provided by JAGGAER. If you wish to use an S3 export location, you must provide one and grant JAGGAER access permissions.
- Bulk data exports can only be received once per day.
- When performing a bulk data export, Analytics will trigger the export as soon as it sees the PSD has finished refreshing each instance. Analytics aims to deliver the export by 7 AM server time, although this time is dependent on when the instance was refreshed. Some outlier instances may refresh after 7 AM server time as a result.

> **Note**: Once Bulk Data Export has been configured, users can schedule a Bulk Data Export job using the standard Schedule Job functionality.

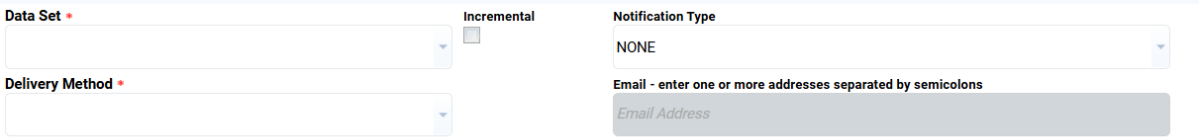
Performing a Bulk Data Export

Users may perform a bulk data export from within the existing scheduled jobs area.

1. Navigate to **Reporting**  **> Analytics Administration > Scheduled Jobs**.
2. Click the **Create New Schedule** button, indicated by the **+**, in the right-hand corner.
3. Select **Bulk Data Export**.
4. The **Data Set, Delivery Method, and Notification Type** UI opens in the bottom pane. Use the drop-down selectors to select desired data set, delivery method, and notification type. If a notification type is selected, users must also provide email addresses that will receive the selected notification.
    - **Data Set** is simply the data set to be exported. Most of these data sets are reporting schema tables stored in the JAGGAER ONE Data Lake. However,

one option, **Custom**, allows users to select a data source that has been created in Data Source Manager (DSM) instead.

- **Delivery Method** allows the user to select how the export file will be delivered. The options are SFTP or S3. Refer to **Configuring BDE Recipient Location** for full details. **Note**: If BDE Recipient Location has not been configured, users cannot complete this step.
- The **Incremental** checkbox allows users to limit the export to only the new data that has been added since the last export.
- **Notification Type** can be set to **Success** (the export succeeds), **Failure** (the export fails), or **All** (both successful and failed jobs).



Scheduling a Bulk Data Export

1. Navigate to **Reporting** > **Analytics Administration** > **Scheduled Jobs**.
2. Click on the schedule icon in the top-right corner and select **Bulk Data Export**. The lower portion of the screen becomes active for editing.
3. Configure the scheduled export. **Note**: The lower part of the screen is split. The first several fields display on the left. Data Source and file format options display on the right.
    - **Description** - Enter a meaningful description for the export.
    - **Enabled** - Click the checkbox to enable the job immediately.
    - **Start Date** - Enter the date to begin running the scheduled job.
    - **End Date (optional)** - Enter the date to end the scheduled job.**Time of Day** - Select the time of day to run the scheduled job.
    - **Time Zone** - This field is not configurable but will reflect the time zone of the user who is scheduling the job.
    - **Frequency** - This field is not configurable for BDE jobs. It is set to **Daily** and cannot be changed.
    - **Days of the Week** - This multi-select field allows users to determine what day(s) of the week the job will be performed.
    - **Last Day of the Month** - This optional checkbox allows users to schedule the job to be performed on the last day of the month. This can be enabled in addition to any other recurring operation.
    - **Data Source** - Select the appropriate data source from the drop-down options.
    - **File Format** - Click the **CSV** or **XLS** radio button. **Note**: If configured for your organization, there will also be an **FTP** checkbox that allows you to send the export to an FTP site. Please contact your system administrator for additional information.
4. Click **Save**.

Deleting or Stopping the Scheduled Bulk Data Export Job

- You can stop a scheduled job from running. Click on the job in the list and de-select the **Enabled** field.
- You can delete a schedule job. Click on the job in the list and select delete in the top-right corner.

Exporting Custom Views via Bulk Data Export

Users may use bulk data export to export custom views from data sets created in DSM. To do so, they must configure their desired output as part of the bulk data export job.

1. Navigate to **Reporting > Analytics Administration > Scheduled Jobs**.
2. Select an existing bulk data export job or create a new one.
3. In the **Data Set** field, use the drop-down selector to select **CUSTOM**. This will allow the job to access custom views. The **Available Data Sources** section will appear beneath the Data Set field.
4. In the Available Data Sources section, the available custom views are displayed. Drag-and-drop the desired custom views from the Available Data Sources section to the **Selected Data Sources** section.
5. Click the **Save** button.

Configuring BDE Recipient Location

In order for a BDE job to be received, the recipient location must be configured. This ensures that the exported file arrives at the desired location where it can be accessed by the intended recipients.

> **Note**: Only a guru-level user can configure the BDE recipient location.

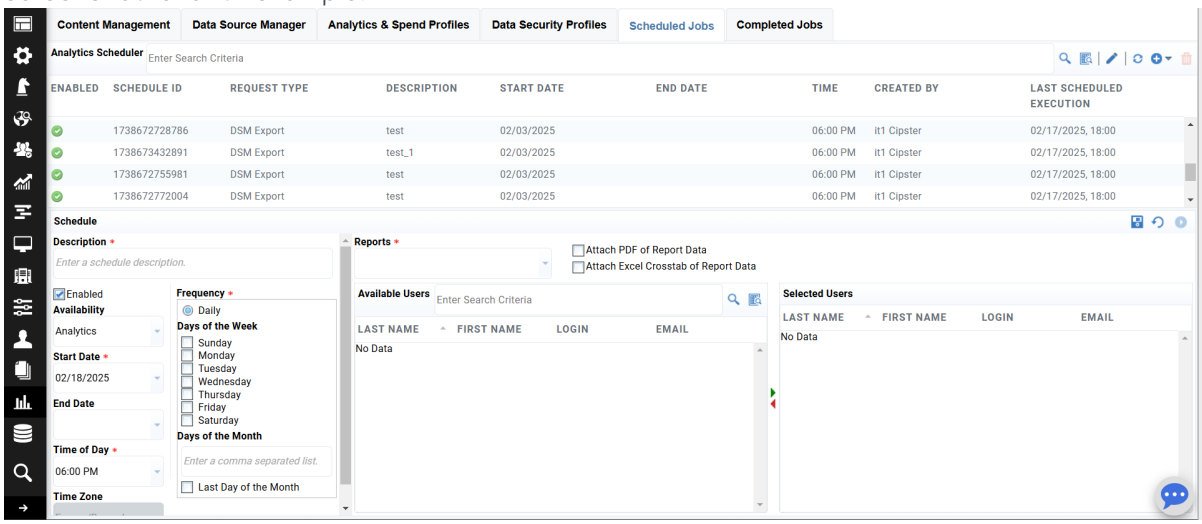
1. Navigate to **Reporting > Analytics Administration > Scheduled Jobs**.
2. In the top-right corner, click the **Edit** button. This opens the **BDE Admin** pop-up.
3. In the BDE Admin pop-up, users may configure both SFTP and S3 settings. SFTP settings are configured in the top half of the pop-up, while S3 settings are configured in the bottom half. If desired, JAGGAER Professional Services can configure this to be the JAGGAER SFTP location when initially enabling BDE functionality. **Note**: At least one of these settings **MUST** be configured for users to be able to schedule BDE jobs.

Report Subscription

Users may subscribe to a report in several ways. A subscription contains both a link to the subscribed dashboard as well as, optionally, a PDF and/or Excel attachment of the dashboard/the dashboard data.

Subscribing to Dashboards

1. Navigate to **Reporting** > **Analytics Administration** > **Scheduled Jobs**.
2. Click on the schedule icon in the top-right corner and select **Subscription**. The lower portion of the screen becomes active for editing.
3. Configure the subscription. **Note**: The lower part of the screen is split. The first several fields display on the left. Report options display on the right. Refer to the following screenshot for a full example.



- **Description** - Enter a meaningful description for the subscription.
- **Enabled** - Click the checkbox to enable the job immediately.
- **Start Date** - Enter the date to begin running the scheduled job.
- **End Date (optional)** - Enter the date to end the scheduled job.
- **Time of Day** - Select the time of day to run the scheduled job.
- **Time Zone** - This field is not configurable on this page, but will reflect the time zone of the user who is scheduling the job. Users may change their time zone settings from the User Profile page if needed.
- **Frequency** - You have multiple options for frequency. Select **Daily** to run the job daily. To run the job on a specific day of the week, click the checkbox for the appropriate day. To run the job on a specific day of the month, enter the day in the **Days of the Month** field. For example, if you would like to run the job on the 1st and 15th of the month, you would enter **1,15** in the field. To run the job on the last day of the month, select the **Last Day of the Month** checkbox.
- **Reports** - Select the appropriate report from the drop-down options. Only the reports to which the user has access will be available.

- **Attach PDF** - Enable this checkbox to attach a PDF copy of the dashboard to the report. This is optional and can be selected at the same time as Attach Excel.
- **Attach Excel** - Enable this checkbox to attach an Excel export of the data contained in the dashboard to the report. This is **NOT** a complete collection of the data, but a snapshot. For the full list of data in the data source, a Data Source Export should be scheduled. This is optional and can be selected at the same time as Attach PDF.
- **Distribution List** - Select the users that you would like to add in the distribution list and who will receive the notification email of the subscription. To do this, drag users from the **Available Users** pane to the **Selected Users** pane. The Selected Users will receive the notification.

4. Click **Save** to save the job.
5. **(Optional)** Click **Cancel** to cancel the job.
6. **(Optional)** Click the **Run Now** button to run the job immediately, notifying all currently selected users. This is especially useful for testing purposes.

Subscribing to a Report from Analytics Launchpad

1. Open **Analytics Launchpad**.
2. Navigate to the **Report Subscriptions** tab.
3. Click the **New Subscription** button.
4. Configure the subscription in the **New Subscription** pop-up.

Subscribing to a Report from an Analytics Launchpad Report Card

1. Open **Analytics Launchpad**.
2. Locate the desired report card in any of the valid locations where it may be located.
3. On the report card, click **...** and select **New Subscription** from the drop-down list.
4. Configure the subscription in the **New Subscription** overlay.

Subscribing to a Report Directly from a Report

1. Open **Analytics Launchpad**.
2. Locate the desired report card in any of the valid locations where it may be located.
3. Open the report.
4. In the report view, click **...** and select **New Subscription** from the drop-down list.
5. Configure the subscription in the **New Subscription** overlay.

Stopping or Deleting a Scheduled Job

- You can stop a scheduled job from running.
    - To do this from the Scheduled Jobs page, click on the job in the list and de-select the **Enabled** field.
    - If stopping a scheduled job from Analytics Launchpad, the option is labeled as **Active** rather than Enabled.
- You can delete a schedule job.
    - To do this from the Scheduled Jobs page, click on the job in the list and select **Delete** in the top-right corner.
    - To delete a scheduled job from the Analytics Launchpad, navigate to the **Report Subscriptions** tab, locate the desired job in the list, click on the **Options ...** menu, and select **Delete**.

Scheduling a Data Source Export

Scheduling a Data Source Export is very similar to scheduling a Report Subscription. The key difference is that a Data Source Export will provide a full list of the underlying data in the data source rather than a dashboard visualizing the data.

1. Navigate to **Reporting** > **Analytics Administration** > **Scheduled Jobs**.
2. Click on the schedule icon in the top-right corner and select **DSM Export**. The lower portion of the screen becomes active for editing.
3. Configure the scheduled export. **Note**: The lower part of the screen is split. The first several fields display on the left. Data Source and file format options display on the right.
    - **Description** - Enter a meaningful description for the export.
    - **Enabled** - Click the checkbox to enable the job immediately.
    - **Start Date** - Enter the date to begin running the scheduled job.
    - **End Date (optional)** - Enter the date to end the scheduled job.**Time of Day** - Select the time of day to run the scheduled job.
    - **Time Zone** - This field is not configurable but will reflect the time zone of the user who is scheduling the job.
    - **Frequency** - You have multiple options for frequency. Select **Daily** to run the job daily. To run the job on a specific day of the week, click the checkbox for the appropriate day. To run the job on a specific day of the month, enter the day in the **Days of the Month** field. For example, if you would like to run the job on the 1st and 15th of the month, you would enter **1,15** in the field. To run the job on the last day of the month, select the **Last Day of the Month** checkbox.
    - **Data Source** - Select the appropriate data source from the drop-down options.

- **File Format** - Click the **CSV** or **XLS** radio button. **Note**: If configured for your organization, there will also be an **FTP** checkbox that allows you to send the export to an FTP site. Please contact your system administrator for additional information.
- **Add Date/Time Stamp to File Name** - Enable this checkbox to add the date and time to the file name.

4. Click **Save**.
5. **(Optional)** Click **Cancel** to cancel the job.
6. **(Optional)** Click the **Run Now** button to run the job immediately, notifying all currently selected users. This is especially useful for testing purposes.

Stopping or Deleting the Scheduled Job

- You can stop a scheduled job from running. Click on the job in the list and de-select the **Enabled** field.
- You can delete a schedule job. Click on the job in the list and select delete in the top-right corner.

Completed Jobs

Once a job has been completed (successfully or unsuccessfully), it will be viewable in the **Completed Jobs** section. This is useful for validating that jobs have successfully run and for diagnosing why a job was unsuccessful.

Step-by-Step

To view completed jobs from the Completed Jobs page:

1. Navigate to **Reporting > Analytics Administration > Completed Jobs**. Completed jobs will be displayed in a list. There are only three available actions:
    - Search for a completed job. Click the **Advanced Search** button in the top-right corner to launch the search function.
    - If the job is a DSM export, users can download the export file by locating the job in the list and clicking on the download icon on the far-right side.
    - Refresh the list. Click the **Refresh** button in the top-right corner to refresh the list.

When viewing jobs on the Completed Jobs page, users will see the following columns in the list:

1. **Request ID** - The ID associated with the job.
2. **Status** - The current status of the job.
3. **Result Message** - A message stating if the job finished successfully or if it encountered an error.

4. **Request Type** - Whether the request is a bulk data export, DSM export, or a report subscription.
5. **Request Data** - The file name of the export file.
6. **Start Date** - The date the job began.
7. **End Date** - The date the job finished. This will appear regardless of whether or not the job completed successfully.
8. **User** - The user who created the job.
9. **File** - If the request type is a DSM export, this column allows the user to download the DSM export directly. If the job is not a DSM export, the column is empty.

To view completed jobs from the Analytics Launchpad:

1. Navigate to the **Analytics Launchpad**.
2. Click on the **Executed Subscriptions** tab. The completed jobs will display. The **ONLY** jobs that will be displayed here will be report subscriptions. For DSM exports and bulk data exports, the user must go to the Completed Jobs page.