onestream

Tableau Connector Content Block Guide

PV9.2.0 GV100 BV1.0.0

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Tableau Connector Overview

Tableau Connector is designed to move data from OneStream to Tableau. Our connector empowers you to easily transform the extensible data from OneStream into actionable insights in Tableau using interactive and shareable dashboards.

Tableau Connector enables you to do the following:

- Connect to Tableau using Analytic APIs.
- Leverage your familiarity of the OneStream interface to easily create connections that push data directly to Tableau.
- Maintain an audit trail of successful and failed extract executions.
- Establish and save credentials using tokens, ensuring efficient and secure logins.
- Set jobs to run asynchronously, ensuring your data remains up-to-date using the schedule that works for you.

This guide outlines how to connect OneStream to Tableau. It does not cover how to build Tableau reports. To learn how to build dashboards and reports in Tableau, see Tableau Help.

Dependencies

Component	Description
OneStream 9.2.0 or later	Minimum OneStream Platform version required.
Tableau subscription	To use the OneStream Tableau Connector, a subscription to Tableau is required.
Genesis	Users must be provisioned to any Genesis block specific to Tableau.
Environment APIs	Environment APIs must be enabled to use Tableau Connector. Please contact your Account Executive.

Security Considerations

OneStream security is not recognized in Tableau, only the data pushed is recognized.

> **IMPORTANT:** Data pushed to Tableau is generated based on the security of the user running the extract. If the same extract were scheduled with a user with different security permissions, the data pushed may be different.

Inject Tableau Connector

Tableau Connector is a Genesis content block. To use, you must install Genesis and Tableau Connector using these steps:

1. In OneStream Solution Exchange, go to **Genesis Collections**.
2. In the **Platform Version** and **Genesis Version** drop-down list, select the appropriate OneStream Platform and Genesis version. Click **Download**.
3. Log into OneStream.
4. On the **Application** tab, go to **Tools** > **Load/Extract**.
5. On the **Load** tab, use the **Select File** icons to locate the Genesis package. Click **Open**.
6. After it loads, the following Genesis dashboard profiles will appear in the **OnePlace** tab > **Dashboards**:
    - Genesis Designer

      > **NOTE:** To configure your connector, you will be using Genesis Designer. See Genesis Designer.

    - Genesis Navigation

      > **NOTE:** If needed, restrict access to these dashboards in **Workspaces** > **Dashboard Profiles**.

7. Open **Genesis Designer** and navigate to the **Settings** button to enable access to the Exchange Store:

   a. Click the **Settings** button > **Library Management** > **Settings**

   b. Set the radio button to **Yes**

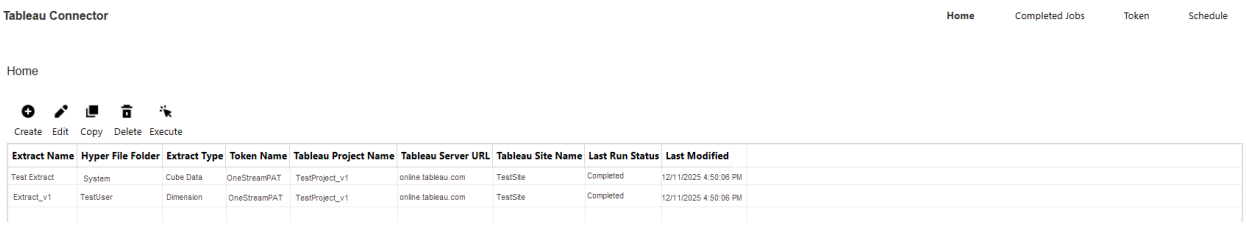
8. Navigate back to the Designer and click the **Content Management** button.
9. Click **Inject Block** and search for **Tableau Connector**. Then click the **Add** button.
10. Select the block in the Content Management pane and configure it using the Designer tab.

Navigate Tableau Connector

Tableau Connector consists of these pages:

- **Home**: Use this page to create and modify extracts.
- **Completed Jobs**: View successful and failed extract pushes.
- **Token**: Manage user tokens.
- **Schedule**: Set one time or recurring extract pushes to Tableau.

Home



Use the Home page to create extract connections and manually execute extract pushes to Tableau. The Home page contains action icons and a grid displaying all extract information.

Use the tool bar to perform these actions:

- **Create**: Add a new extract to the grid. See Create Extracts.
- **Edit**: Use to edit an existing extract.
- **Copy**: Create a duplicate of an existing extract. When clicked, you are prompted to update the information before saving.

- **Delete**: Removes an extract from the grid.
- **Execute**: Initiates an extract push from OneStream to Tableau.

The grid contains these columns:

- **Extract Name**: The name of the extract.
- **Hyperfile Path**: The folder location where the Hyperfile is stored in OneStream.
- **Extract Type**: Data type of the extract. Options include: Cube Data, Custom Adapter, Dimension, or Member Properties. See Extract Types.
- **Token Name**: The name of the token used for login. This must match the token name in Tableau.
- **Tableau Project Name**: The name of the Tableau project where your workbooks or data sources are stored. This must match the project name exactly as it appears in Tableau.
- **Tableau Server URL**: The URL of your Tableau Server. This is the address you use to access Tableau in your browser.

  > **Example:** The bolded text in this URL is the Tableau server URL: https://**tableau.mycompany.com**/#/site/tableau-sitename/projects/12

- **Tableau Site Name**: The Tableau site you want to connect to. This is the site identifier shown in the URL after /site/.

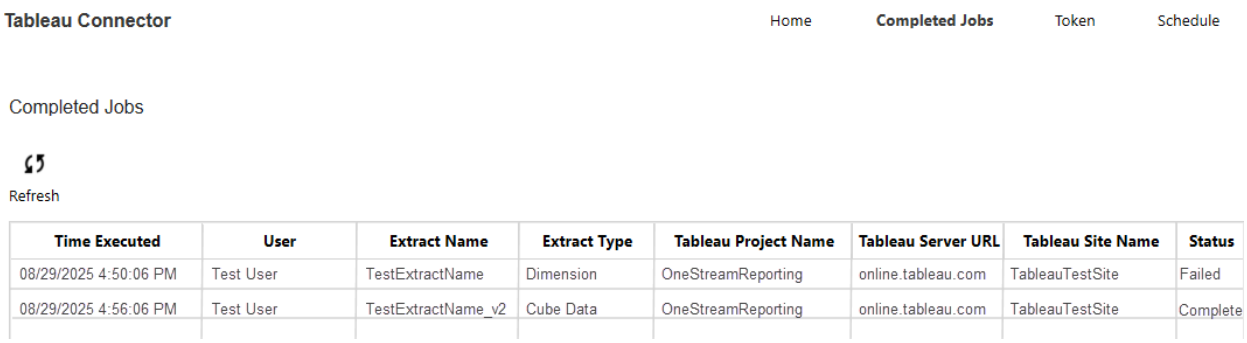
  > **Example:** The bolded text in this URL is the Tableau site name: https://tableau.mycompany.com/#/site/**tableau-sitename**/projects/12

- **Last Run Status**: Displays whether the execution was successful. Statuses include: Completed, Not Executed, and Failed.

  > **NOTE:** Details for the Failed executions can be found in the Error Log. You must have access to the log to view this additional information.

- **Last Modified**: Displays the date and time the extract was last updated.

Completed Jobs



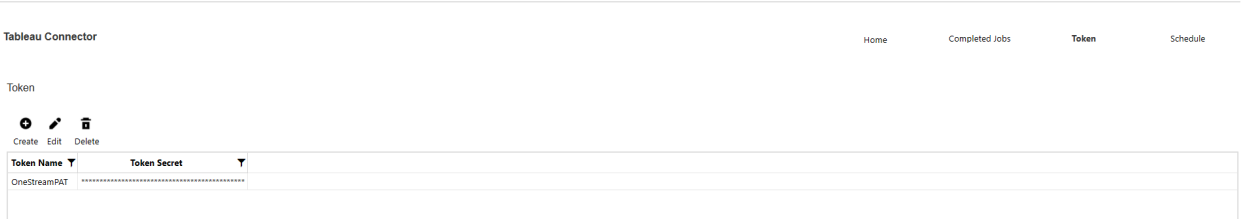
The Completed Jobs page serves as an audit trail for successful and failed extract pushes. The grid helps you clearly identify where to expect to see the extract in Tableau, what the data contains, who pushed it, and the time it was pushed. Use the Refresh icon at any time to update the grid.

The grid contains the following information:

- **Time Executed**: The date and time the extract was pushed to Tableau.
- **User**: The name of the user who generated the push.
- **Extract Name**: The name of the extract.

- **Extract Type**: Data type of the extract. Options include: Cube Data, Custom Adapter, Dimension, or Member Properties. See Extract Types.
- **Tableau Project Name**: The name of the project the extract is connected to in Tableau.
- **Tableau Server URL**: The domain portion of the URL for Tableau. See Home for an example.
- **Tableau Site Name**: The name of the site as listed in Tableau. See Home for an example.
- **Status**: Displays whether the execution was successful or if it failed.

Token



The Token page enables you to establish and save credentials after they are created in Tableau Server. When the token is saved, it is masked and encrypted. You are unable to reveal the token. Saving tokens ensures you can seamlessly access both platforms without spending additional time logging in. This page contains action icons and a grid displaying all token information.

> **IMPORTANT:** Tableau Personal Access Tokens (PATs) must be created and managed through Tableau Server or Tableau Cloud.

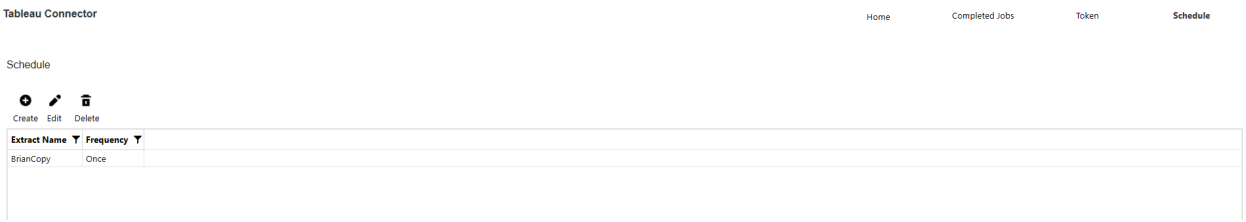
Use the tool bar to perform these actions:

- **Create**: Add a new token to the grid. See Create Tokens.
- **Edit**: Update an existing token.
- **Delete**: Removes a token from the grid. Tokens with referenced extracts cannot be deleted. To remove a token, you must first remap or delete the extract tied to it.

The grid contains these columns:

- **Token Name**: The name of the token.
- **Token Secret**: Displays a masked view of the secret.

Schedule



The Schedule page helps streamline your data refreshes by setting up recurring or one time extract pushes to Tableau. This page contains action icons and a grid displaying all extract and frequency information.

Use the tool bar to perform these actions:

- **Create**: Add a schedule to the grid. See Create Schedules.
- **Edit**: Use to edit an existing extract schedule.
- **Delete**: Removes schedule from the grid and Task Scheduler.

The grid contains these columns:

- **Extract Name**: The name of the extract.
- **Frequency**: Displays the frequency of the refresh. Options include: One Time, Minutes, Daily, Weekly, Monthly. See Create Schedules.

Connect to Tableau

Tableau Connector enables you to push OneStream data to Tableau using hyperfiles. Begin sending data to Tableau using these steps:

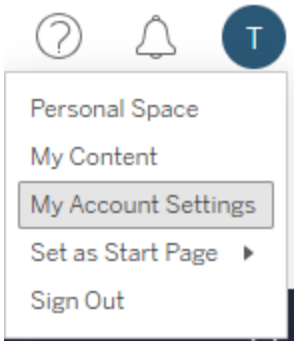
1. Create a token in Tableau and transfer it to Tableau Connector. See Create Tokens.
2. Create a project in Tableau. See Create Project. See Create Projects
3. Create an extract in Tableau Connector. See Create Extracts.
4. Execute an extract and verify the project in Tableau successfully received the data. See Execute Extracts.
5. Optionally, you can set up schedules for your extracts to ensure your data in Tableau remains up-to-date. See Create Schedules.

Create Tokens

Personal Access Tokens (PATs) keep your data secure and streamline how you access your data by enabling you to log in without hard-coded credentials.

To create a token, begin in Tableau and then transfer the token information to OneStream.

1. In Tableau, hover over your user profile.
2. In the menu, click **My Account Settings**.



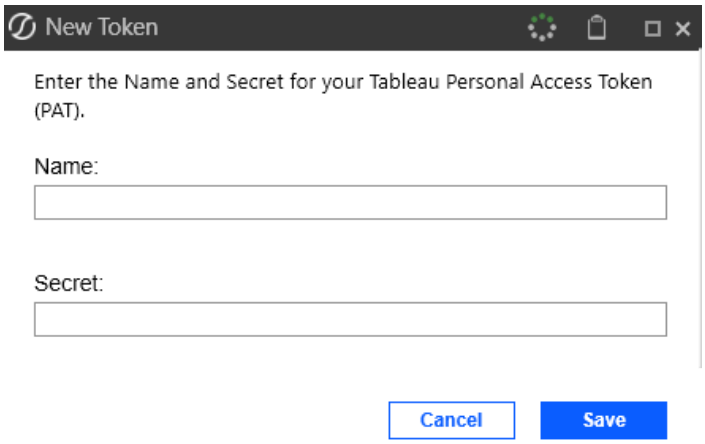
3. On the **Settings** page, scroll to locate the **Personal Access Tokens** section. View all existing tokens and create new tokens in this section.
4. In the text box, enter a **Token Name**.
5. Click the **Create Token** button.

6. In the **Personal Access Token** dialog box, click the **Copy Secret** button.

> **IMPORTANT:** Do not close the dialog box until your secret is successfully created in OneStream Tableau Connector. The secret displays one time and disappears after you close the dialog. Store the secret in a safe location. After saving it to OneStream, the token is masked and cannot be viewed again.

7. Open Tableau Connector. From the **Home** page, click **Token** to navigate to the Token page.
8. Click the **Create** button.

9. In the **New Token** dialog box, populate these fields:



   - **Name**: Enter the exact name of the token you created in Tableau.
   - **Secret**: Paste the secret you copied from Tableau into this text field.

10. Click the **Save** button. Your token and masked secret appear in your list of tokens.

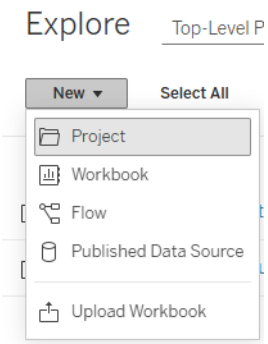
Create Projects

Tableau projects are used for navigation, organization, and access management. A project is required to house the data pushed from OneStream to Tableau. See Use Projects to Manage Content Access for more information on

Tableau projects.

Create a project using these steps:

1. In Tableau, open the side navigation side bar and click **Explore**.
2. On the **Explore** page, click the **New** drop-down menu and select **Project** .



3. In the **New Project** dialog box, enter this information:
    - **Enter a name for the new project**: Specify a project name.

      > **NOTE:** The project name you enter here must be used when you create extracts in Tableau Connector.

    - **Description** (optional): Enter a description for the project.
4. Click the **Create** button. The project appears in your list of available projects.

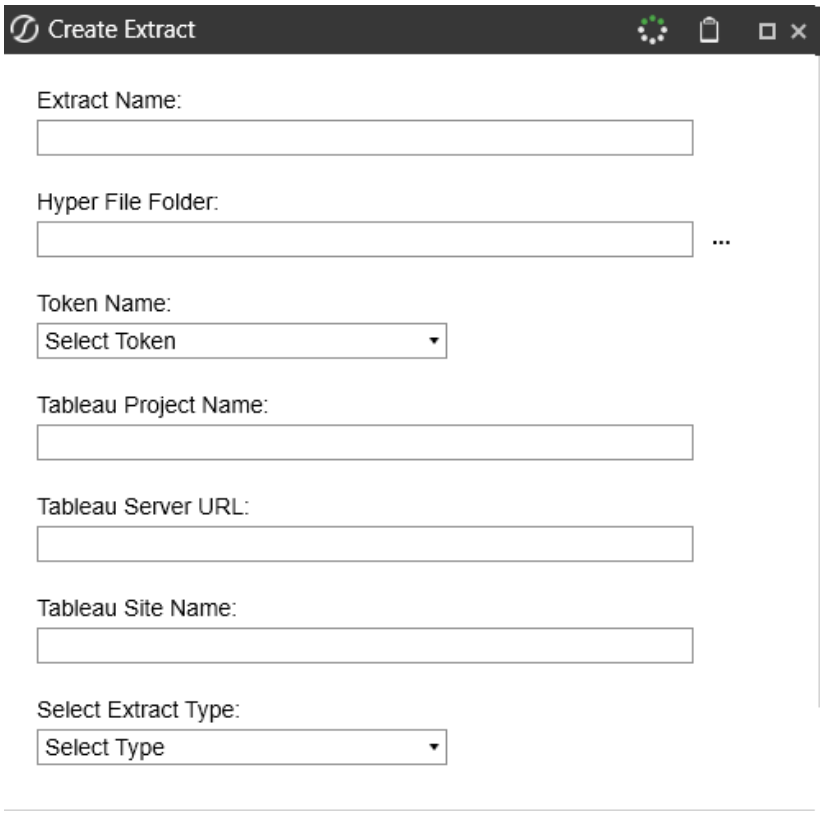
Create Extracts

A data extract is a snapshot of a filtered data set at a specific point in time. Extracts enable you to work with your data with increased efficiency by reducing the data volume using filters and other limitations. Since the data is a snapshot in time, you can set up regular refreshes of your extract to ensure your data remains accurate and up-to-date on a schedule that works best for you. See Create Schedules.

> **NOTE:** You can create extracts by copying existing extracts. To copy, select an extract, click the Copy button, update the fields accordingly, and click the Save button.

To create an extract, use these steps:

1. In **Tableau Connector**, navigate to the **Home** page. Use the Home page to view existing extracts and create new ones.
2. Click the **Create** button.
3. In the **Create Extract** dialog box, populate these fields:



- **Extract Name**: Enter a name for the extract.
- **Hyper File Folder**: Use the ellipsis to choose a file location to store the Hyperfile.
- **Token Name**: Use the drop-down to select the token to use with this extract.
- **Tableau Project Name**: Enter the name of the project created in Tableau. Hyperfiles will be stored here after extracts are created and executed.

> **NOTE:** If a project name is entered and it does not exist in Tableau, the extract connection will automatically fail.

- **Tableau Server URL**: Copy and paste this information from the URL in Tableau, or enter it manually. Include only the text after http:// and before the next backslash.

> **Example:** The bolded text in this URL is the Tableau server URL: https://**tableau.mycompany.com**/#/site/tableau-sitename/projects/12

- **Tableau Site Name**: Copy and paste this information from the URL in Tableau, or enter it manually. Include only the text after site/ and before the next backslash.

> **Example:** The bolded text in this URL is the Tableau site name: https://tableau.mycompany.com/#/site/**tableau-sitename**/projects/12

> **IMPORTANT:** If you cannot find Site URL or Tableau Site Name, reach out to your Tableau administrator.

- **Select Extract Type**: Choose how the extract should pull data from these options:

- Cube Data

  > **NOTE:** This selection supports large data volume extracts.

- Custom Data Adapter

  > **NOTE:** Only CubeView MD and SQL data adapters are suited for large data volumes.

- Dimension
- Member Properties

  > **NOTE:** When using a custom data adapter, Results Table Name must be set when editing an extract in the block or in Workspaces.

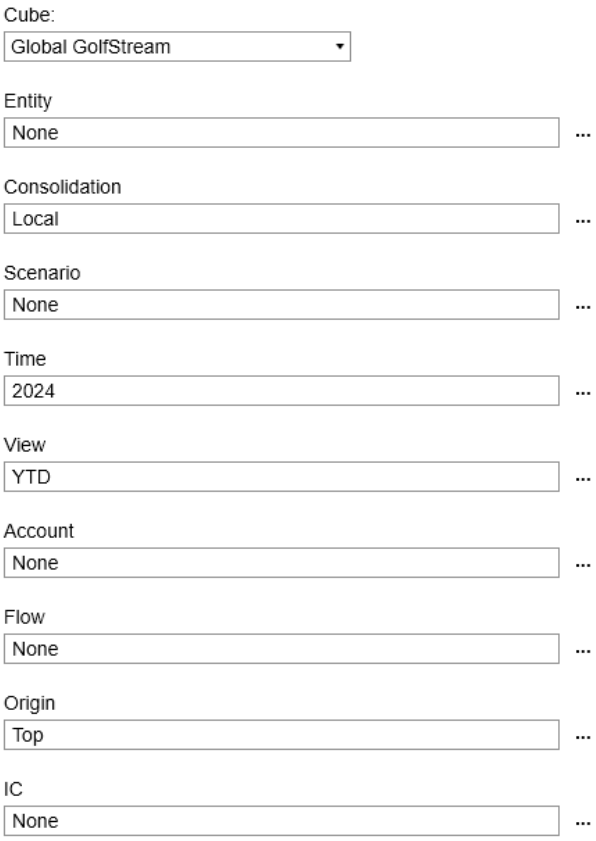
4. After choosing an extract type, populate the fields associated with your selection. See Extract Types for more information on the fields available for each type.
5. Click the **Save** button.
6. Finally, you must execute your extract to push the data to Tableau. See Execute Extracts.

Extract Types

Tableau Connector offers the following methods to pull data and metadata. Each extract type has required and optional fields.

Cube Data

This function retrieves data from a OneStream Cube. After you choose Cube, follow these steps:



1. Use the **Cube** drop-down menu to select a cube from which to pull data.
2. Populate the remaining fields by typing directly in the text box or using the ellipsis to use the Member Filter Builder
    - Entity
    - Consolidation
    - Scenario
    - Time
    - View

- Account
- Flow
- Origin
- IC
- UD1-UD8

> **NOTE:** Expansion members can be used for all inputs except View and Currency/Consolidation which require a single member. For example, the time dimension could use 2023.Base.

Custom Data Adapter

This function retrieves data using a custom data adapter. A Custom Data Adapter is an item in a Dashboard Maintenance Unit that queries data populating the dashboard components. After you choose Custom Data Adapter, follow these steps:

1. Locate and select the data adapter using the Filter field, or scrolling through the available list.
2. Populate the **Result Data Table Name** field with the name of the table to include in your query.
3. Optionally, populate the **Custom Subst Vars As Comma Separated Pairs** field. If the data adapter contains custom substitution variables, use this field to set the substitution variables. If passing more than one substitution variable, separate using a comma.

   > **Example:** prm_SelectEntity_RPTFIN=EUS01,prm_SelectWFPeriod_RPTFIN=2025M6

> **NOTE:** You cannot set a parameter to reference another parameter. For example: prm_ParameterA=|!prm_ParameterB!|.

Dimension and Member Properties

After selecting Dimension or Member Properties, populate these fields:

- **Cube**: Use the drop-down menu to select a cube from which to pull data.
- **Dimension Type**: Use the drop-down menu to specify the dimension to retrieve.
- **Include Descriptions**: Turn on to include dimension descriptions with your data.
- **Scenario Type**: Use the drop-down menu to choose a scenario type.

Execute Extracts

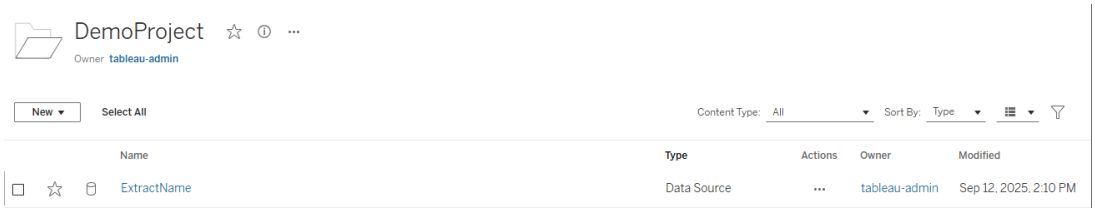
After creating an extract, you need to execute it to push the data to Tableau and then navigate to Tableau to verify the data was received.

1. From the **Home** page, select an extract from the grid.
2. Click the **Execute** button.
3. In the **Execute Extract** dialog box, click the **Execute** button.
4. When the task successfully completes, the **Task Progress** dialog box closes and the **Last Run Status** for the extract changes to **Completed**.

   > **NOTE:** When an execution fails, verify the Tableau Site Name and Tableau Server URL are accurate and ensure the project has been created in Tableau.

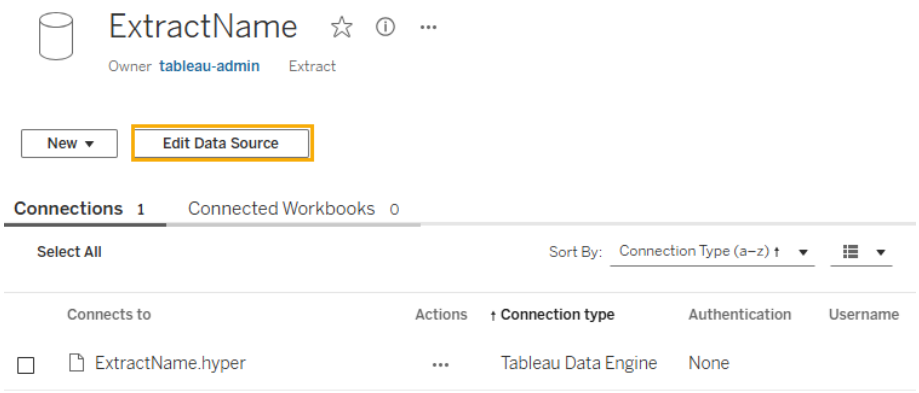
5. To verify the extract is in Tableau, follow these steps:

a. Navigate to the project folder in Tableau where the extract is stored. You should see the name of the extract you executed. If you do not, refresh the page.



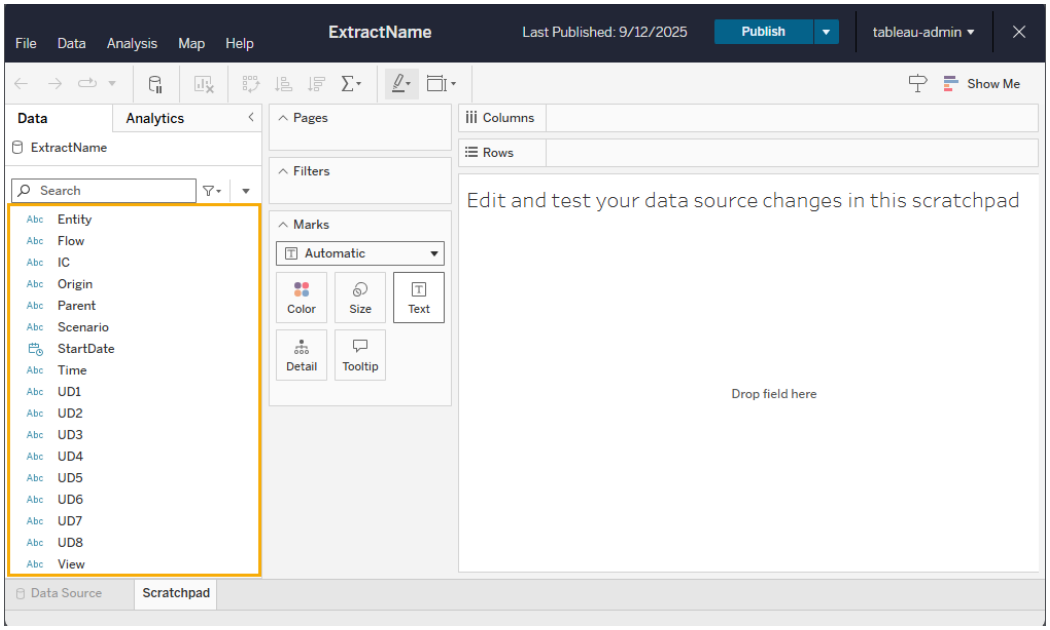
b. Click on the **extract name** to open it.

c. Click the **Edit Data Source** button.



d. In the **Data** tab, you should see the OneStream data you pushed.

> **NOTE:** If you do not see your data, verify the execution was successful in Tableau Connector, confirm the Tableau Site Name and Tableau Server URL, and Tableau Project Name are accurate in the extract.



6. Set up a schedule to regularly execute your available extracts, see Create Schedules.

Create Schedules

Scheduling extract pushes saves you time and ensures the data pushed from OneStream to Tableau remains up-to-date. Use these steps to create a schedule for an extract:

1. In Tableau Connector, from the **Home** page click **Schedule** to navigate to the **Schedule** page.
2. Click the **Create** button.
3. In the **Create Schedule** dialog box, use the **Select Extract** drop-down menu to choose the extract you want to schedule.
4. In the **Start Date/Time (UTC)** section, populate these fields:

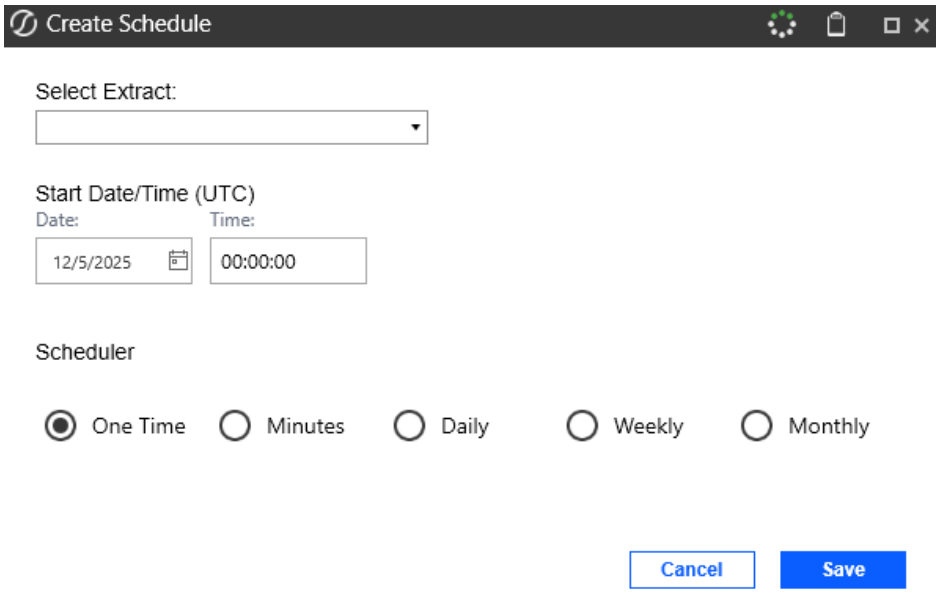
- **Date**: The day the data execution will occur. Use the date picker for easy selection, or type a date in the field using MM/DD/YYYY format.
- **Time**: Enter the time for the data execution. Use 00:00:00 format.

5. In the **Scheduler** section, select one of the following:
    - One Time
    - Minutes
    - Daily
    - Weekly
    - Monthly
6. After you make a selection, populate the fields associated with your choice, if applicable. See Schedule Types for more information on the fields.
7. Click the **Save** button. The schedule appears in the grid and displays in Task Scheduler.

Schedule Types

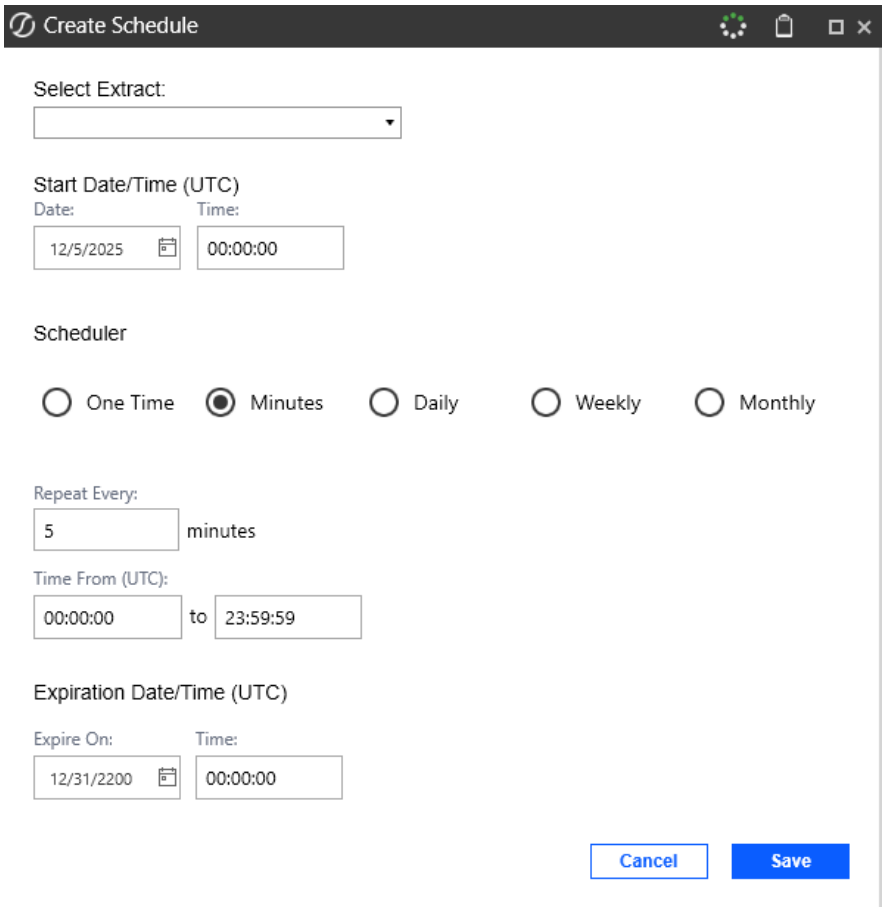
Set the schedule for your extract pushes using the following options.

One Time



Select One Time to push your extract data to Tableau once.

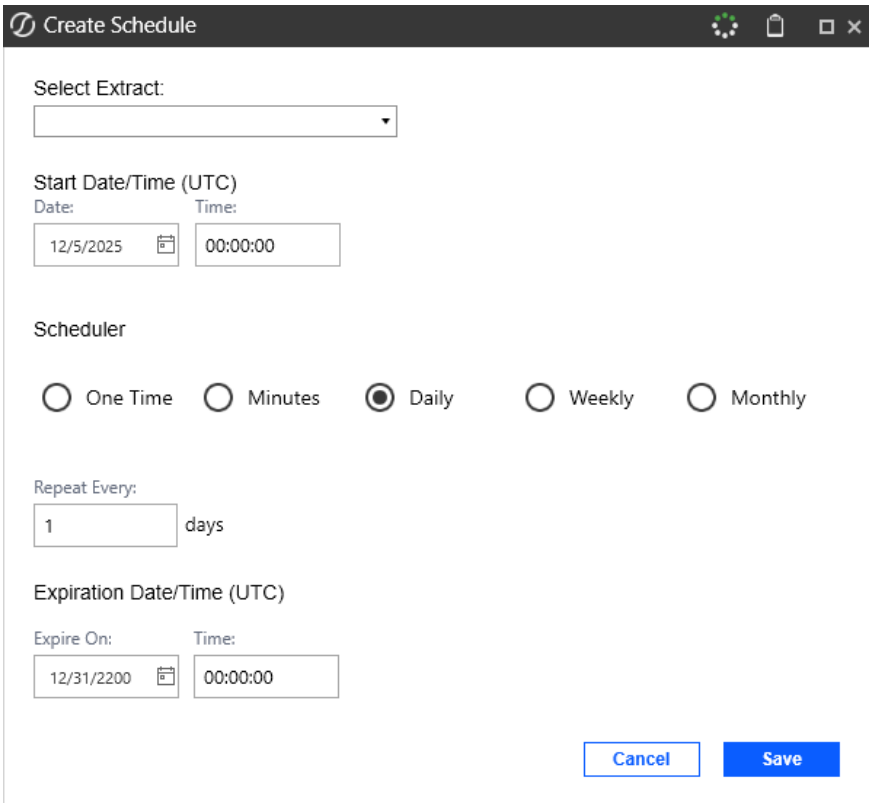
Minutes



Select Minutes to keep your data updated by the minute. Populate these fields:

- **Repeat Every**: Enter a number to set how frequently, measured in days, the data execution should occur.
- **Time From (UTC)**: Enter a time range the execution should occur.
- **Expire On**: Choose a date for the schedule of the selected extract to end.
- **Time**: Enter the time the extract schedule should end on the selected day.

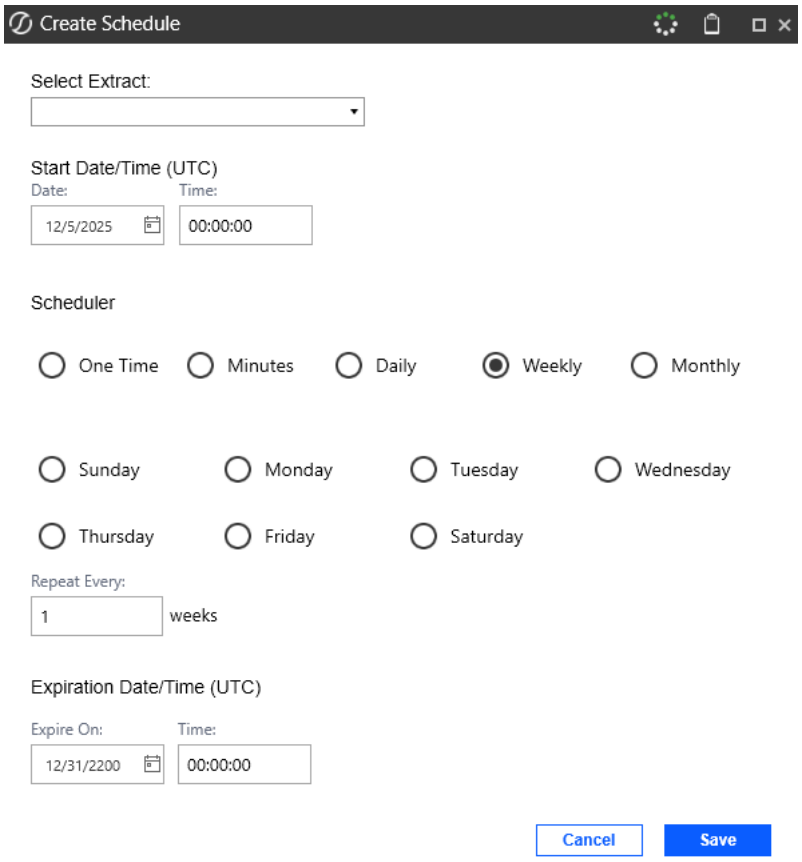
Daily



Select Daily for more frequent data updates. Populate these fields:

- **Repeat Every**: Enter a number to set how frequently, measured in days, the data execution should occur.
- **Expire On**: Choose a date for the schedule of the selected extract to end.
- **Time**: Enter the time the extract schedule should end on the selected day.

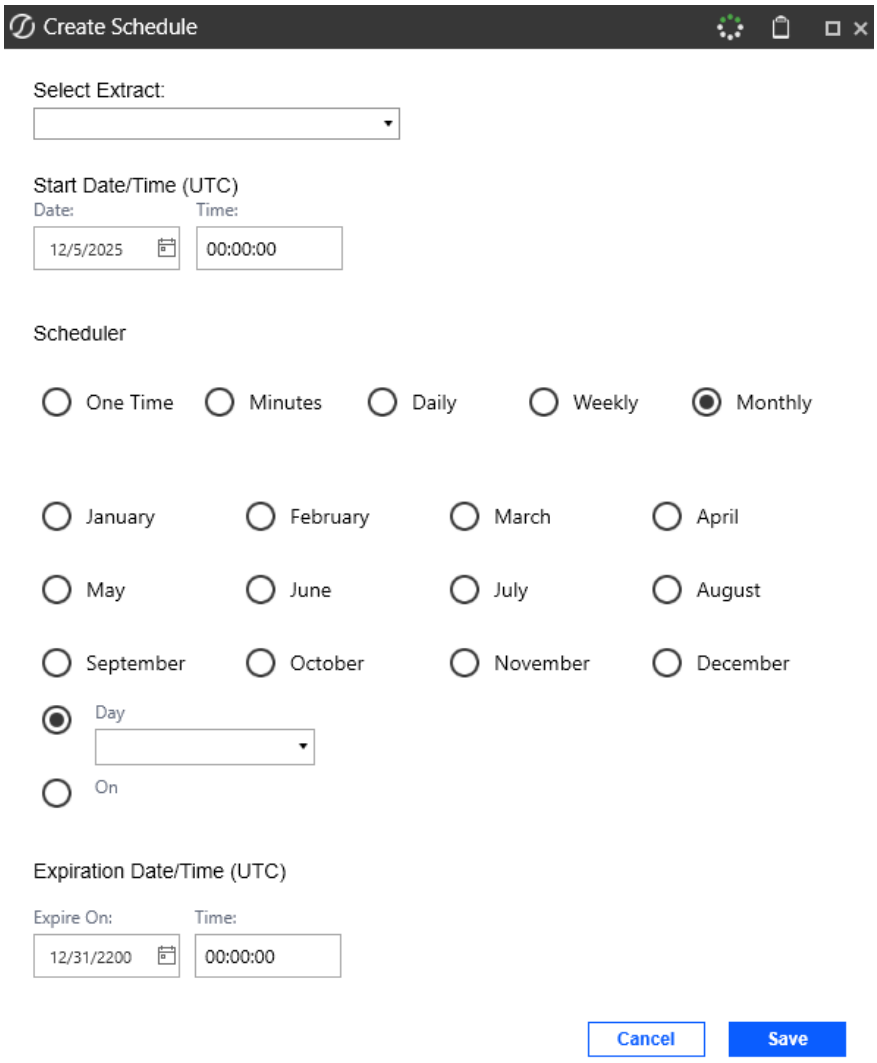
Weekly



Select Weekly if you only want to update your data semi-regularly on certain days or weeks. Populate these fields:

- **Days of Week**: Choose one or multiple days of the week to execute your data.
- **Repeat Every**: Enter a number to set how frequently, measured in weeks, the data execution should occur.
- **Expire On**: Choose a date for the schedule of the selected extract to end.
- **Time**: Enter the time the extract schedule should end on the selected day.

Monthly



Select Monthly if you only need the data for the selected extract updated infrequently, such as for bi-annual or annual reporting. Populate these fields:

- **Months**: Choose one or multiple months to execute your data.
- **Day**: Choose a specific day of the month the data execution should occur.
- **On**: Choose this option if you want your data to execute on the same days and weeks every month. For example, the first Monday every month, or the first and third Tuesday.
- **Expire On**: Choose a date for the schedule of the selected extract to end.
- **Time**: Enter the time the extract schedule should end on the selected day.