

# Tableau Web Data Connector Tutorial:

Compatible with Tableau 10.0 and later

Supported file types: CSV, TXT, XLS, TAB, HTML, JSON

Tableau is a powerful data visualization tool that allows for interactive and visual analysis of data. It makes common, yet complex tasks such as joins, unions, pivots and aggregations of data simple and visual, with the ability to share your visualizations in the form of a dashboard or worksheet.

Global lot Datathon provides a Web Data Connector tool to supply data sets found in the lotDatathons.io system directly to Tableau. To utilize this tool, follow these steps:

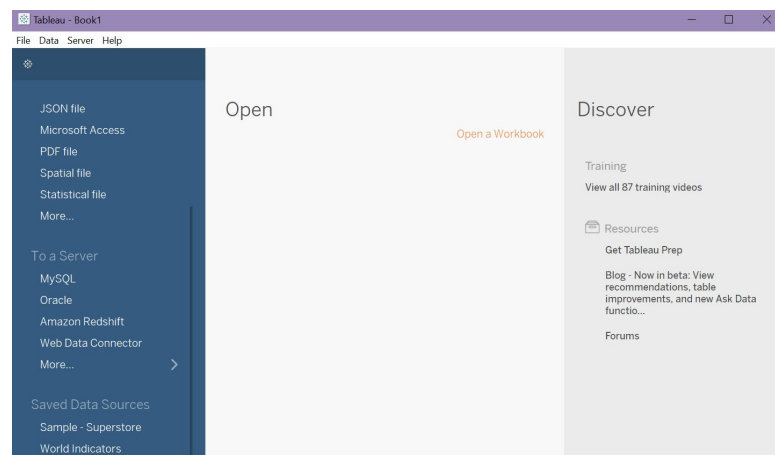
## 1. Start Tableau Desktop or Tableau Public

To download Tableau, you can click on the following links:

- [Tableau Desktop](#) - Full Features/Paid Version (For students, Tableau offers free one-year licenses to those attending an accredited academic institution through their [Tableau for Students](#) program)
- [Tableau Public](#) - Free to use, saves workbooks publicly

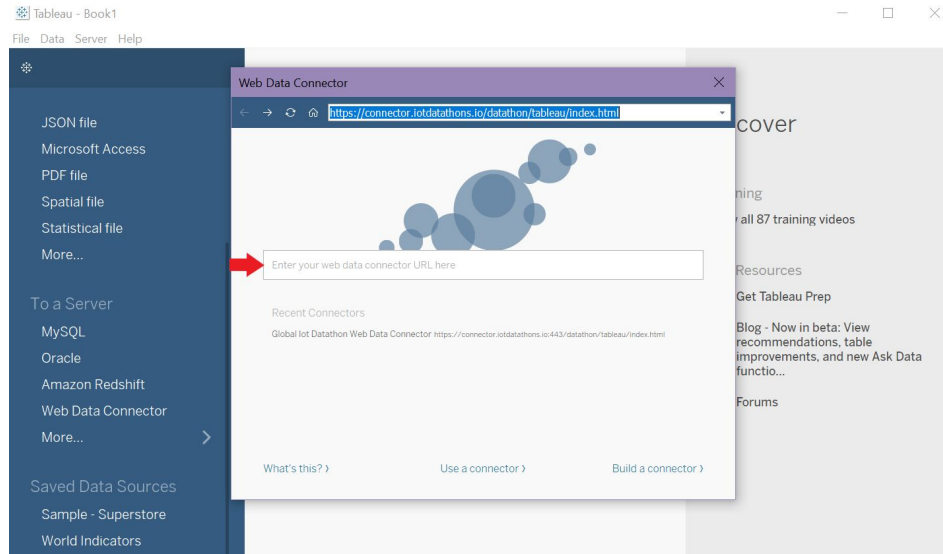
## 2. Connect to the Web Data Connector

To the left is a Connect Menu with the option to connect **To a Server**. If this is your first time connecting via Web Data Connector, the web connector option can be found by clicking **More...** and scrolling to the Web Data Connector Option. This option will then appear under **To a Server** for easier access the next time you use Tableau.



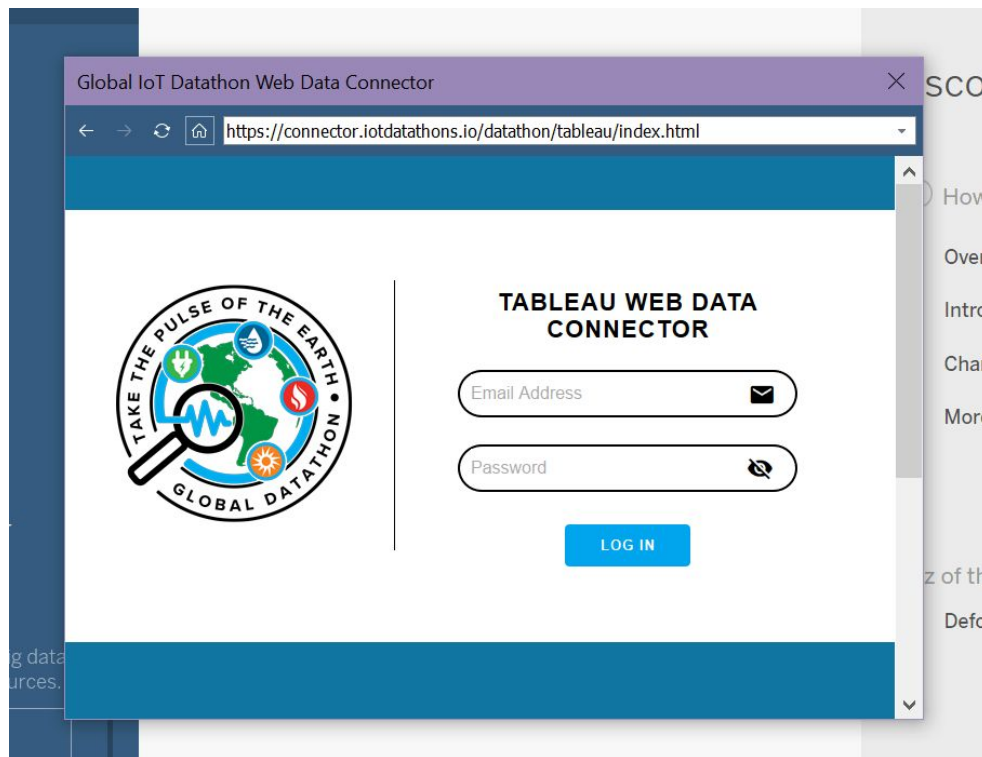
A pop up window will open with the Web Data Connector Browser. Enter the following URL to navigate to the Global lot Datathon Connector

- <https://connector.iotdatathons.io/datathon/tableau/index.html>



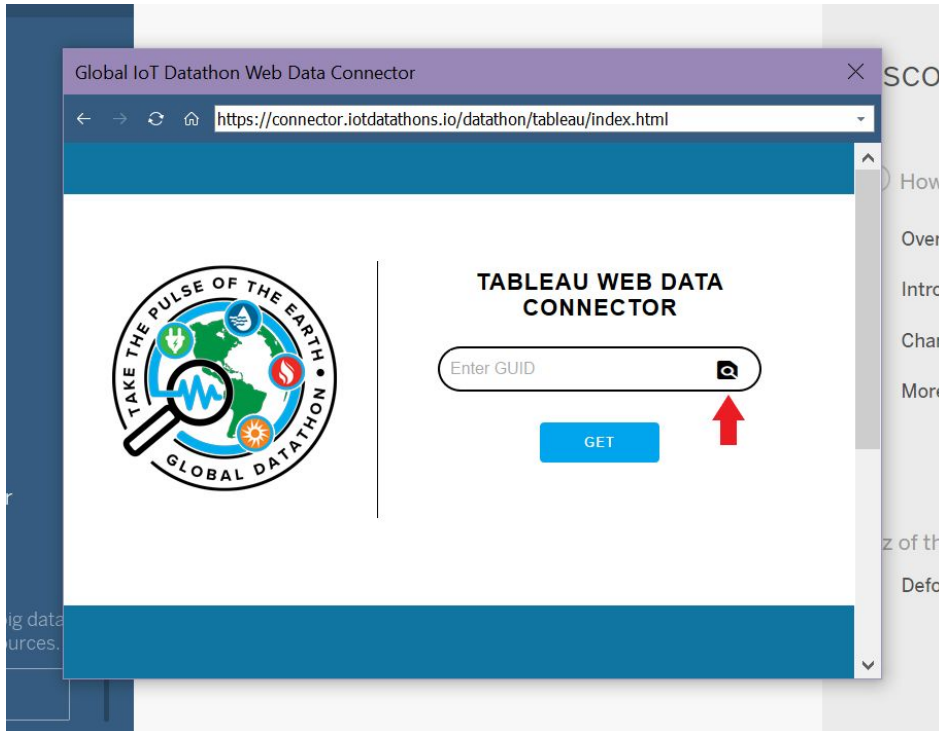
### 3. Log In

Log in to the Web Data Connector using the email address and password associated with your Global IoT Datathon account.

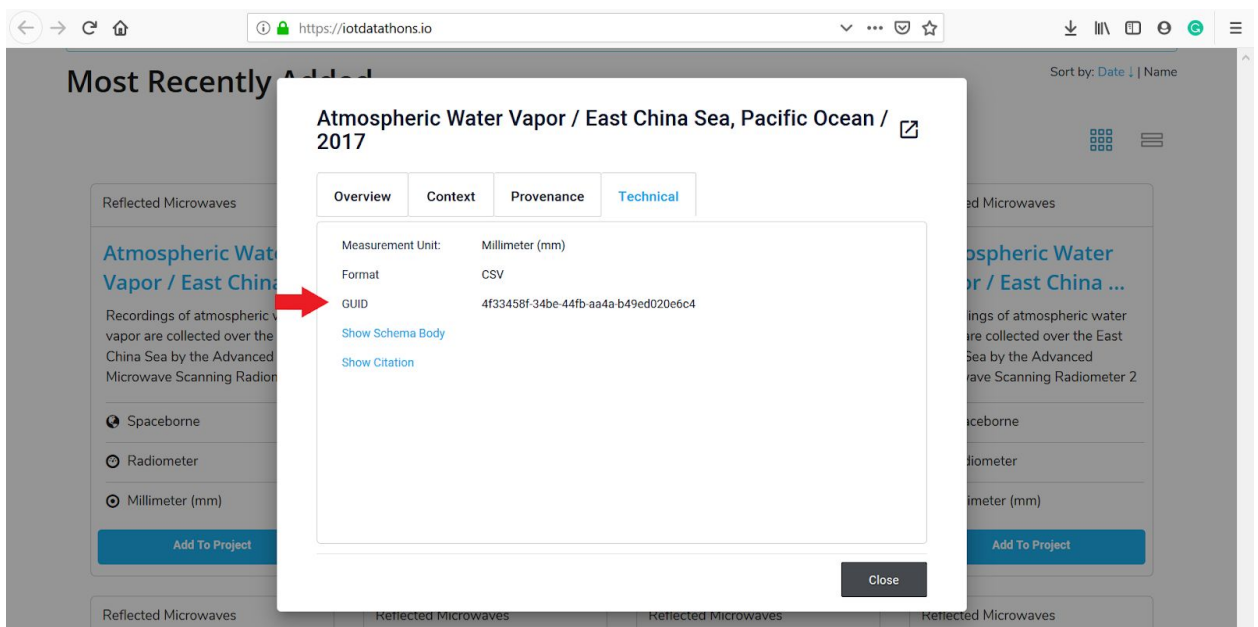


### 4. Enter GUID

A GUID is a unique identifier for a metadata instance found on IoTDatathons.io. From the Web Data Connector, you can connect to IoTDatathons.io by clicking the Find in Page button marked by the red arrow.

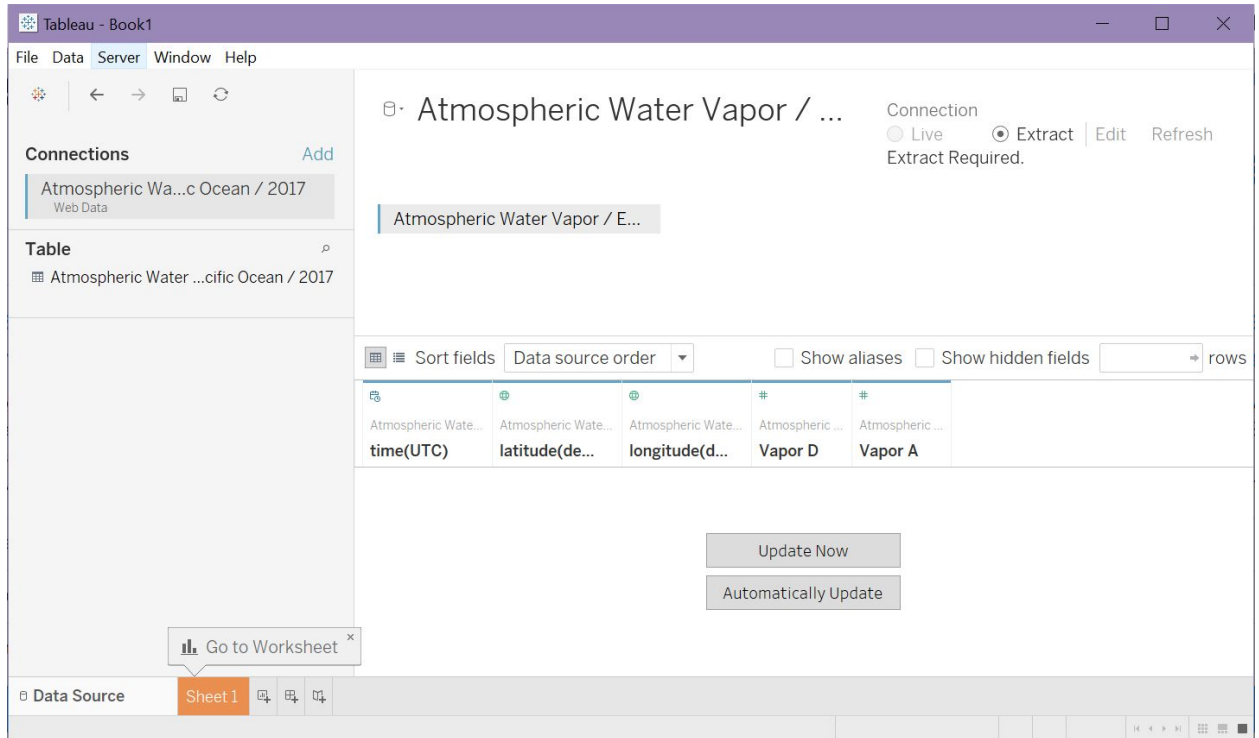


You can then search for a data set you would like to retrieve. Once chosen, click on the name in the tile to show a pop up window containing the metadata for that instance. The **GUID** can be found in the Technical Tab. The **file format** is also viewable from this tab (refer to the beginning of the tutorial to see which file types are supported). Copy and paste the GUID into the Web Data Connector, then submit.



## 5. Update the Data

Once you submit the GUID, Tableau will bring in the schema of the data set and give the option to **Update Now** or **Automatically Update**. Update Now allows you to choose when to update to improve performance, while Automatically Update will query the data source for each view.



After clicking on one of the options, the data set is placed in a table and is now ready for visualization!

The screenshot shows the Tableau interface with a data table displayed. The table has the following columns: time(UTC), latitude(de...), longitude(d...), Vapor D, and Vapor A. The data rows are as follows:

time(UTC)	latitude(de...)	longitude(d...)	Vapor D	Vapor A
1/1/2017 12:...	24.1250	120.1250	24.3000	28.2000
1/1/2017 12:...	24.1250	120.3750	nan	nan
1/1/2017 12:...	24.1250	120.6250	nan	nan
1/1/2017 12:...	24.1250	120.8750	nan	nan
1/1/2017 12:...	24.1250	121.1250	nan	nan

The interface also shows a 'Connections' pane on the left with 'Atmospheric Wa...c Ocean / 2017' selected, and a 'Table' pane below it. The main view title is 'Atmospheric Water Vapor / ...'. The connection type is set to 'Extract'. The table is sorted by 'Data source order' and shows 1,000 rows.

Tableau offers many resources including [free training videos](#) to get you started in manipulating data and creating visualizations!