

# Tableau Write-Back Documentation Home

## Overview



# WRITEBACK

Tableau is an amazing tool to analyze and explore data but have you ever come across a use case where you would need users to input data? There are many examples such as: forecasting, planning, adding comments or any actionable process. Most of the time you'll use another tool to input the data which comes with important disadvantages: a separate tool is needed, so you won't be on the Tableau flow anymore, no security and no auditing.

The Tableau Write Back Extension solves these challenges by allowing you to submit the data directly from your Tableau dashboard and with all the features that make it an enterprise grade extension:

- To start, check out the product [Demo Video](#) or give it a try yourself on our [Public Demo](#).
- To get more in-depth information, continue with the documentation below or jump right into the [extension details](#).
- The extension is commercialized as a yearly subscription, use these links to [purchase a license](#) or [request a trial](#) (signup and login in the marketplace are necessary).

## Main Features

- Back end: Write the data to your data base technology of choice.
- Usability: Intuitive UI allowing any user to submit his data and easily configure new use cases.
- Security: The communication between Tableau and the extension is secured and authenticated and you the extension is deployed on your own infrastructure so you have full control on security policies.
- Audit tracking: Historical actions performed by the users are fully traceable in a relational database so you know exactly who did what.

## Detailed Features

Feature	Supported
<b>Usability</b>	
Intuitive UI configurable for many use cases	✓
Add, edit and delete entries	✓
No need to know SQL, all database management tasks, including creating tables, are handled automatically.	✓
Write to a separate data set, original data is never changed	✓
<b>Security</b>	
Local deployment (on-premise or cloud) *	✓
Local authentication	✓
Kerberos authentication	✓
Active Directory authentication	✓
Tableau Server authentication	✓
SAML Single-Sign-On	✓
OpenID Single-Sign-On	✓
<b>Audit Tracking</b>	

Any action regarding data or configuration is audited	✓
<b>Databases</b>	
PostgreSQL	✓
Oracle	✓
MySQL	✓
SAP Hana	✓
SQL Server	✓
Snowflake*	✓
Amazon Redshift *	✓
Hyper Files (BETA)	✓
<b>Rest API</b>	
Available REST API to submit data automatically	✓

\* Although these analytical databases are fully supported they are not ideal for the Write-Back use case that is more operational (OLTP), using them can lead to performance issues.

## Additional Notes

### Networked vs Sandboxed

Tableau has defined the concept of [Networked vs Sandboxed](#) extensions:

- *Network-enabled extensions* run on web servers located outside of your local network.
- *Sandboxed extensions* run in a protected environment without access to any other resource or service on the web.

Write-Back does not fit directly on any of these categories in the sense that it runs on your local environment, and thus in a protected environment, but it does require access to another resource namely the database, that is used to store data sets. For you this means you have total control on what the extension can access as you can apply your own network policies.

### Why writing to a separate dataset?

Write-Back goal is to enable any user to submit data directly on a dashboard, this means we have to make some compromises to ensure its correct usage. By writing to a separate dataset and with the audit mechanism we are sure that, even though we are giving freedom for the Creators and Explorers to be creative and use Write-Back in different ways, the original data is never touched and we can always keep track of who did what. This detailed tracking can be very important in different reasons:

- Along time users might introduce inaccurate inputs, and you want to know what was the original submission
- Any possible mistakes that might arise can always be fixed, no data is overlapped
- To ensure compliance, you know who did what

That is why a separate dataset is the best choice, since the extension is fully managing it Write-Back can ensure all the premises above despite of user actions. However this doesn't mean you cannot choose to blend these inputs with existing data by leveraging different mechanisms:

- Tableau
  - Data blending can be used to associate the Write-Back dataset entries with existing data, the fields chosen from the source sheet can be used as linking fields. For more information check the Tableau [documentation](#).
  - Data source joins allow combining data from different tables that might even be on different databases and thus connect the dataset with exiting data. For more information check the Tableau [documentation](#).
- Database
  - Create a database view that overlaps existing data with manual data, analytical functions can be used to give preference to manual data.
  - Use database triggers that based on the Write-Back dataset update or insert data on other table. \*
- Extract Transform and Load (ETL)
  - On your organization an ETL tool might be used for other purposes and be re-used here to update or insert data on other tables. \*

\* Please be aware that these mechanisms can overlap existing data that might not be recoverable without restoring a data base backup, use them wisely implementing any particular validations required to ensure no data is lost inadvertently.