

Purdue Tableau Server Fundamentals

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Business Intelligence Competency Center



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ALL USERS

This manual is designed to help navigate and answer questions for users consuming the *Purdue Tableau Server*. Additional information can be found on the Tableau corporate site at www.tableau.com.

- Previous knowledge of Tableau Desktop and its uses is expected.
- See below for additional information regarding Tableau Desktop training.
- If Tableau Desktop licensing is required, send a request to BICC@purdue.edu.
 - o Tableau Server does NOT require a separate user license.

For additional help or questions about the Purdue Tableau Server not contained in this document, please contact the BICC Tableau Server Administrators at BICC@purdue.edu.

Where Can I Get Tableau Desktop Training?

Tableau Server uses workbooks and worksheets created within the Tableau Desktop software.

On-line training for Tableau Desktop can be found at https://www.tableau.com/learn/training.

Users can also access Tableau Desktop training within Tableau Desktop by using the *Discover* links on the home page of Tableau Desktop. Use the links found in the upper right corner.

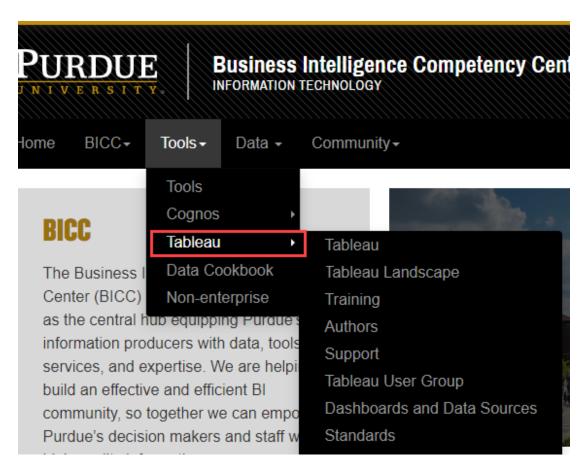
Some editing within Tableau Server (generally done in Tableau Desktop) is available in the server and has been activated for use.

Discover Training Getting Started Connecting to Data Visual Analytics Understanding Tableau More training videos...



Where Can I Find Purdue Tableau Resources?

Additional documentation about Tableau software at Purdue is located on the <u>Purdue BICC website</u>. Select the **Tools** dropdown for information on Tableau including <u>author links and resources</u>, <u>Tableau User Groups</u>, including <u>Slack</u>, and <u>project access</u> to Tableau Server.



Check www.tableau.com as a great resource in finding additional documentation.



What Is Tableau Server?

Tableau Server is a server based resource anyone can use via browser or mobile solutions. Tableau Desktop is used to publish worksheets and dashboards to Tableau Server to share throughout the enterprise, or for your use only. It provides live interactive dashboards which can be embedded into enterprise portals.

- Tableau Server is required to share visual images and dashboards across the enterprise
- Tableau Server is an Enterprise Site License
- Tableau Server is Licensed and Maintained by the Purdue Business Intelligence Competency Center

How Do I Access Tableau Server Projects?

BICC Administrators set up project folders, usually by department, and assign project leaders. Project leaders then handle permissions for authors and consumers of the departmental project folder. New users can contact their project leaders for access to Tableau Server. Users can check for current <u>project folders and leaders</u> by department. It is recommended each department have *two* project leaders.

If there is no project folder and/or project leader for your department, <u>contact the BICC</u> to request an account be created. Please provide a project leader name and alternate name, if available.

How Do I Connect To Purdue Tableau Server?

Tableau Server is available for Purdue users to store data sources and Tableau Workbooks. Websites can be linked to the content and dashboards stored in the server for shared use internally and/or externally. Please contact the BICC@purdue.edu with any questions you may have on connecting data sources or servers to the Purdue Tableau Server.

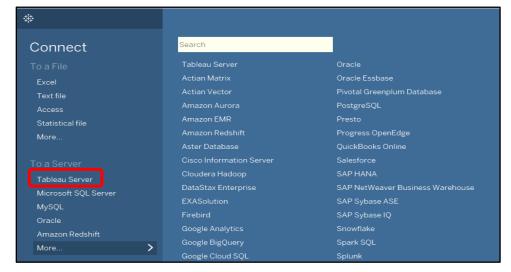
There are three server instances:

TABLEAU SERVER INSTANCE	PURPOSE	USES
https://tableaudev.itap.purdue.edu	Database and Tableau upgrades and	Generally ITaP Use Only
ittps://tableaudev.itap.purdue.edu	testing	
https://tableauga.itap.purdue.edu	Develop and store dashboards and	All Tableau developers
ittps://tabieauqa.itap.purdue.edu	PROD dataset testing	
https://tableau.itap.purdue.edu	Final storage solution for dashboards	All users with access to data and
https://tableau.itap.purdue.edu	and PROD data sets	dashboards

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You can log into the server by using the URL's listed above **or** by selecting Tableau Server on the Tableau Desktop home page.



How Do I Use Tableau Server?

Navigating through the Tableau Server you will see the content page, projects, workbooks, views and data sources. Below are quick guides to help you understand the portal and its features.

Get Around
Create, Interact with, and Embed Views
Create Views and Dashboards
Manager Your User Settings and Profile
Access and Manage Your Content



AUTHORS

What Are The Purdue Tableau Authoring Standards?

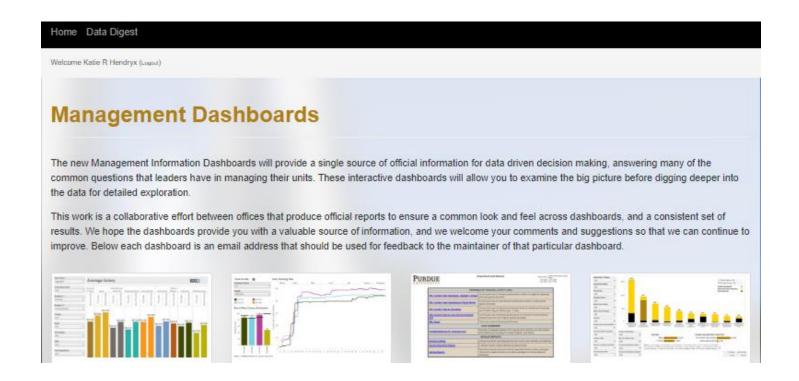
The <u>Management Dashboards</u> will provide a single source of useful data in a dashboard format for Deans, Directors, Department Heads, and Executives of the university. To ensure that the appropriate information is placed on the site, Purdue has set up a governance committee to oversee content, security, and access.

Additionally, to ensure the content maintains a consistent and high quality look and feel, the standards committee oversees the development of the dashboards held on the site. Any individual wishing to publish a dashboard to the site must gain approval of the standards committee.

It is highly recommended any content planning to be consumed via Tableau, be approved by the standards committee.

The Standards and Best Practices page contains an overview of the process flow for dashboard production and publication as well as a user guide for dashboard standards. A template has been stored on the tableau production server for use as a guide https://tableau.itap.purdue.edu/#/projects/28/workbooks.

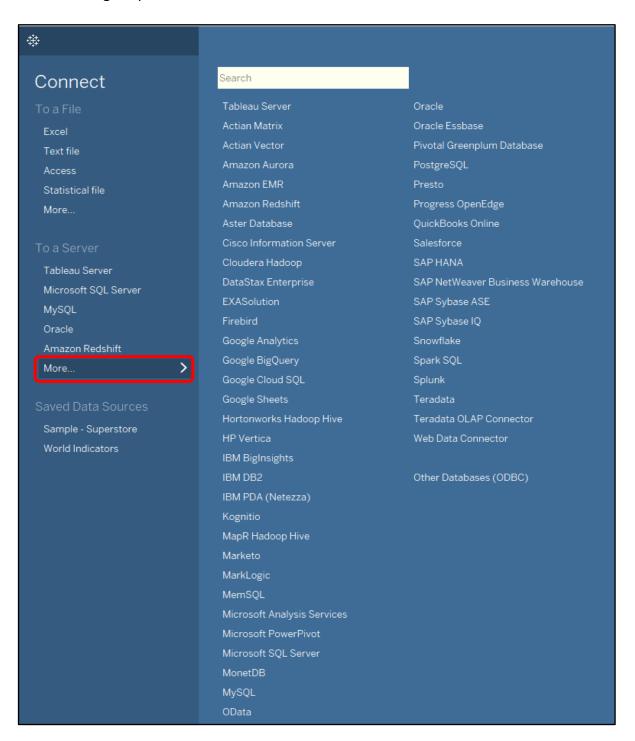
If you are interested in publishing a dashboard to the site or have questions about your own dashboards, please contact a member of the standards committee for more information.





Can I Connect Tableau Desktop To Other Servers?

Tableau Desktop can be connected directly to servers like MySQL, Oracle, Google Sheets, etc. Connection instructions for the specific servers can be found on the home page of Tableau Desktop. Click on the desired server type name and complete the required information. Contact bicc@purdue.edu if you experience any issues with connecting to specific servers.





How Do I Publish My Tableau Workbook To Tableau Server?

Below are informative links on publishing workbooks from Tableau Desktop to the Tableau server for sharing information. Dashboards can be displayed or embedded on websites and in other tools like SharePoint (*Note: You must have access to publish to the departmental folder.* <u>Project leaders</u> provide the access.

Contact <u>bicc@purdue.edu</u> if you do not have a Project leader for your department).

Prepare for Publishing a Workbook

Publish a Workbook

Set Permissions as You Publish a Workbook

How Do I Publish My Data Sources to Tableau Server?

Data sources can be published to the server to:

- allow other users consuming the dashboards to connect to the data
- allow other users to use the data source to create their own visualizations
- allow the updates made to the published data source to be captured and flow to the workbooks consuming it

Review <u>Publish a Data Source to Tableau Server</u> to discover how the process works. If you need further assistance with data sources in for Tableau server, contact <u>BICC@purdue.edu</u>.



How Do I Make My Tableau Dashboards Run Faster?

Below are recommendations from Tableau on best practices for keeping your workbooks efficient.

- There are no silver bullets for inefficient workbooks. Start by looking at the <u>performance recorder</u> to understand where the time is going. Long-running queries? Lots of queries? Slow calculations? Complex rendering? Use this insight to focus your efforts in the right direction.
- The recommendations in this document are just that recommendations. While they represent a level of best practice, you need to test if they will improve performance in your specific case. Many of them can be dependent on structure of your data, and the data source you are using (e.g. flat file vs. RDBMS vs. data extract).
- Extracts are a quick and easy way to make most workbooks run faster.
- The cleaner your data is and the better it matches the structure of your questions (i.e. the less preparation and manipulation required), the faster your workbooks will run.
- The majority of slow dashboards are caused by poor design in particular, too many charts on a single dashboard, or trying to show too much data at once. Keep it simple. Allow your users to incrementally drill down to details, rather than trying to show everything then filter.
- Work with the data you need and no more both in terms of the fields you reference as well as the
 granularity of the records you return. It allows Tableau to generate fewer, better, faster queries and
 reduces the amount of data that needs to be moved from the data source to Tableau's engine. It also
 reduces the size of your workbooks so they are easier to share and open faster.
- While reducing the data, make sure you use filters efficiently.
- Strings and dates are slow, numbers and Booleans are fast.

From <u>Best Practices for Designing Efficient Tableau Workbooks</u>
Tableau 10 Edition, TL;DR, Page 3, Alan Eldridge, Tableau Software



PROJECT LEADERS

What Is A Tableau Project Leader?

If you have been designated as a project leader, you have a unique set of responsibilities for your project/department folder. Project leaders are responsible for maintaining the content and user security within the department folder and works with the BICC on upgrades and any changes related to Tableau Server.

Please review the training information included below on how to administer your content and assist your coworkers with Tableau Server usage.

How Do I Manage Department Folder Access And Content?

Create Projects to Organize Content

Content Access and Ownership

Manage Data

View or Edit permission Rules and User Permissions

Manage Content Ownership

Quick Start: Permissions

Create Project-Based Permissions

Set Default Permissions at the Project Level

Set Permissions for a Project

Quick Start: Lock Content Permissions to a Project

Set Permissions for a Data Source

Set Permissions for Workbooks and Views

Grant Web Edit, Save, and Download Permissions

Set a Site's Web Authoring Access