

Publishing Visualizations to the Tableau Transitional Server

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Introduction

This document describes the process to publish visualizations from Tableau Desktop to the Tableau Transitional Server instance (Appendix: Fig. 1). The Tableau Transitional Server provides an environment which allows multiple business groups to share visualizations within as well as outside of their group(s) prior to publishing those visualizations on the Tableau Enterprise Server.

Audience

This document is for UW faculty and staff who are [active Tableau Desktop license](#) holders interested in publishing visualizations on UW's Tableau Server to share with others.

What You Need to Know Before You Publish

- [What is the Tableau Transitional Server?](#)
- [What the Tableau Transitional Server is not](#)
- [How to get access to the Transitional Server](#)
- [How long a visualization may live on the Transitional Server](#)
- [How the Transitional Server is structured](#)
- [Who has access to the Transitional Server](#)
- [Where Tableau workbooks may be published](#)
- [What's permitted to be published to the Transitional Server](#)

What is the Tableau Transitional Server?

The Transitional Server is an independent Tableau Server instance that:

- Enables collaboration during development of a visualization
- Enables sharing of visualizations within each group of users and between groups
- Allows each unit/group to publish visualizations to the Tableau Server and share these visualizations with others
- Provides an environment to preview visualizations before the final version is promoted to the Enterprise Server
- Allows short-lived visualizations to be published and shared with a specific audience

What the Tableau Transitional Server is not

- A production Server for publishing visualizations for a wider audience or long-term consumption
 - A business critical environment, which means it will not be immediately restored after any major outage

- A load balanced environment, and therefore not set up for high availability

How to get access to the Transitional Server

There are two options for gaining access to the transitional server.

Centrally managed

To obtain access to the UW Tableau Transitional Server, send a request, along with the name of the [project](#) and [Tableau security group](#) to which you are requesting access, to the [Tableau Administrator](#) at tableau@uw.edu

Self-managed

Using free [Active Directory \(AD\) Groups](#), you can assign people directly to the publisher, editor and viewer security groups within your Tableau projects.

1. Use [UW Groups Service](#) to identify existing Groups or create new Groups. Review these Groups to make sure they have the membership you expect.
2. Send an email to tableau@uw.edu with your **project name** and the **Group names** to be assigned to each security role (publisher, editor, viewer).
3. You will receive an email confirming the addition of the Groups. Group members will have access to your project's visualizations at that time.
4. To manage Group membership, use the **Groups Service** to add or remove members from the Group(s). Note that changes you make to Group membership will take effect on the Tableau Transitional Server the following day.

Additional Information

- Group members must have Enterprise Data Warehouse (EDW) access in order to view the visualizations in your project that use EDW data.
- [Learn more](#) about Groups Service

How long a visualization may live on the Transitional Server

The Transitional Server is not a permanent home for visualizations. Visualizations published to the Transitional Server are monitored for usage and update activity. The visualization is flagged and its author and the Tableau Administrators are notified if one of the following conditions is true:

- Visualization has been published but has not been viewed, and has not been modified within the past 60 days
- Visualization is viewed frequently and has not been modified in the past 30 days
- Visualization has been on the Transitional Server for more than 90 days

The Tableau Administrator will request that the author either remove the flagged visualization from the Transitional Server or publish it to the Enterprise Server.

After three unsuccessful attempts to contact the author of the visualization, the visualization will be permanently removed from the Transitional Server.

How the Transitional Server is structured

The Server is structured to ensure:

- Each business unit has its own separate logical [project](#) space to ensure that the workbooks in one project are accessible by the members of a group which has access to that project space
- Ease of management of multiple projects, groups, and members
- That users without appropriate privileges do not access/change the content of a project space and/or Server settings

The setup of the Transitional Server leverages the Tableau Server concepts of:

- Project
- Group
- User

The Tableau Administrator creates project space on the Transitional Server for every business unit using the Server. Each project space has three groups assigned to it: Publisher, Editor, and Viewer. Each group has individual members assigned to it, as follows:

- Publisher group - People who have permissions to publish visualizations
- Editor group - People who edit and create visualizations
- Viewer group - People who are allowed to view visualizations, but cannot edit or publish

The Tableau Transitional Server setup is illustrated below

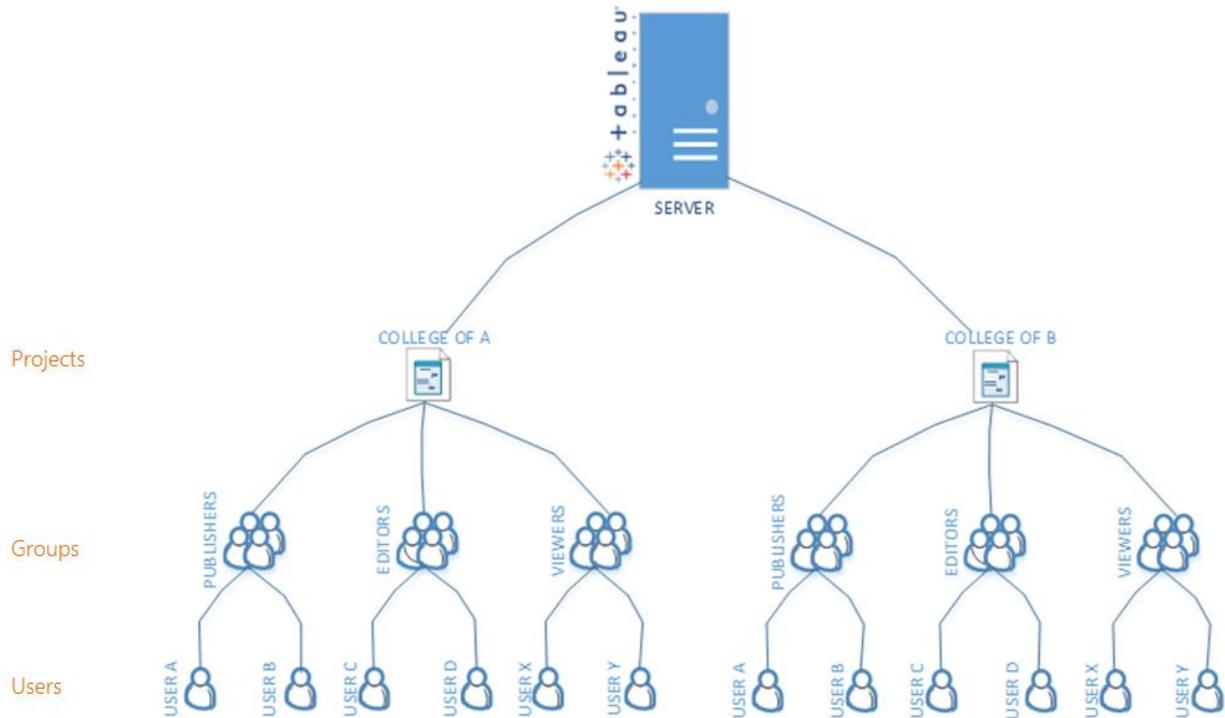


Figure 1 – A graphical representation business units, users and their roles on the Tableau Transitional Server

An Example

College of Public Health would like to take advantage of the Tableau Server to publish a Tableau visualization to share with a wider audience, such as Academic Advisors and/or Deans. A project for College of Public Health is created on the Transitional Server with three groups:

- College of Public Health Publisher Group
- College of Public Health Editor Group
- College of Public Health Viewer Group

During the setup of the project space and associated groups, the College of Public Health provides a list of users to be added to the Server: User A (Publisher), User C and User D (Editors), and five additional users who will be viewing these visualizations in their browser (Viewers). These users are assigned to the appropriate groups and their permissions are automatically set to that group’s default permissions.

Who has access to the Transitional Server

Anybody with a valid NETID can obtain access to view, edit/download, or publish visualizations.

Multiple roles are used to ensure:

- Users have the appropriate level of access to the Server

- Published workbooks and data sources are protected with the proper level of authorization
- Appropriate security is applied to published workbooks and data sources

To address the above, the Transitional Server employs three security roles: one each for viewing, creating, and publishing workbooks:

- **Viewer** – the least privileged role; allows viewing workbooks and views, adding comments and tags, filtering, and exporting visualizations to pdf, cross-tab, and images
- **Editor** (creator) – includes all the permissions of the Viewer role, and can create views/workbooks/dashboards, download existing views/workbooks from the Server, use Web editor mode to change, but not publish changes to the Server
- **Publisher** – most privileged role; can do everything an Editor can do; can also publish views/workbooks to the Server, modify existing visualizations and re-publish these visualizations to the Server; manage content (move/delete)

The Permissions Diagram below illustrates the permissions granted to each role.

Viewer				Editor				Publisher			
	Allow	Deny	Inherit		Allow	Deny	Inherit		Allow	Deny	Inherit
View:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web Edit:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Web Edit:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Web Edit:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write/Web Save:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Write/Web Save:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Write/Web Save:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Download/Web Save As:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Download/Web Save As:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Download/Web Save As:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delete:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Delete:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Delete:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filter:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Filter:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Filter:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Add Comment:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Add Comment:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Add Comment:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
View Comments:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Comments:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Comments:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
View Summary Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Summary Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Summary Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
View Underlying Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Underlying Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	View Underlying Data:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Export Image:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Export Image:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Export Image:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Share Customized:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Share Customized:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Share Customized:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Move:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Move:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Move:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set Permissions:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Set Permissions:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Set Permissions:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

The business use case for each security role follows.

- **Viewer** – Viewers can be regarded as the consumer of visualizations that are made available to them. These users typically do not create visualizations with Tableau Desktop, however are viewing visualizations on a regular basis using a web browser. Access to the Tableau Server for these users is required. More information on getting access to the Server can be found [here](#).
- **Editor** – Editors are creators of visualizations for their group or other groups at UW. An Editor must have a licensed copy of Tableau Desktop and the version of the software must be compatible with the Tableau Server. More information about compatibility mode can be found [here](#).

An Editor must have access to the data sources that are used to create any visualization. An Editor does not have permission to publish visualizations to the Server and therefore must coordinate with the Publisher(s) in their group.

- **Publisher** – User responsible for content published to the Server. A Publisher must have a licensed copy of Tableau Desktop and the version of the software must be compatible with the Tableau Server. Each project space on the Server should have at least one Publisher, and there may be more than one Publisher in each group.

Where Tableau workbooks may be published

Tableau Desktop visualizations can be published by individual users with Publish permissions to the Tableau Transitional Server, located at:

<https://bitools.uw.edu>

What's permitted to be published to the Transitional Server

Any workbook that:

- Uses a live connection to Enterprise Data Warehouse data (non-EDW data sources will be supported after April 2014)
- Is a packaged workbook (using Excel/CSV as its data source)

Any workbook that uses the following data sources without prior consultation with the Tableau Administrator, will be subject to deletion from the Tableau Transitional Server:

- Non-EDW data source
- Large Excel files (larger than 1 GB)
- Tableau Extracts (Tableau extracts will be supported after April 2014)

Publishing to the Tableau Transitional Server

This section draws heavily on Tableau-delivered instruction about how to Publish Workbooks, as well as other topics, though we have also added some UW-specific rules and guidelines. In addition, you can download and watch the Tableau Software Training Video for the generic guidelines for this process at this URL: <http://www.tableau.com/ondemand/training/data-connections>

Publishing Workbooks

You can publish views of your data to the Tableau Server by publishing the workbook. Workbooks can be organized into projects and assigned tags, which are keywords that are used for searching. When you publish a workbook, you can add it to existing projects, hide individual sheets, add tags, specify permissions to regulate access to the workbook on the Server, and choose to embed database passwords for automatic authentication on the web.

How to Publish Workbooks to the Server

Publishing a workbook to Tableau Server consists of two steps:

1. Connecting to Tableau Transitional Server

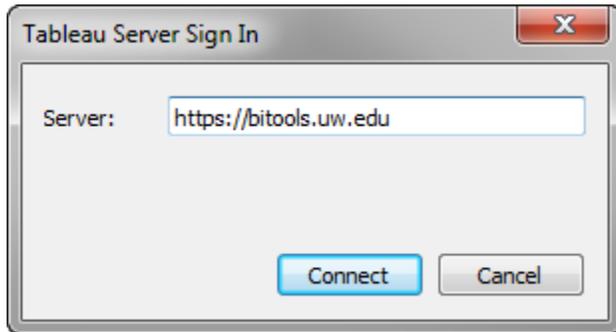
2. Publishing your workbook to Tableau Server

What you need to publish a workbook to Tableau Server:

- Access to EDW (if your visualization uses EDW as data source) Learn more about [EDW access](#)
- Address of Tableau Transitional Server
- Your UW NetID and password
- Permissions to publish to the Server

Connect to Tableau Transitional Server

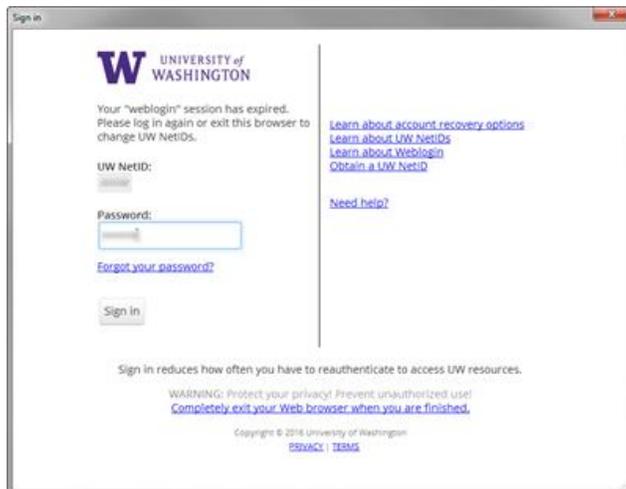
1. In Tableau Desktop Professional select **Server > Sign In...**



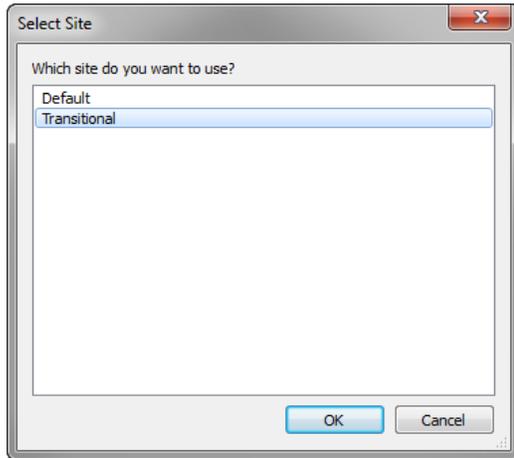
2. Type the following into the Tableau Server Sign In dialog box, then select **Connect**

- **Server:** the Server name or URL <https://bitools.uw.edu>

3. Enter your **UW NetID** and **password**, then select **Sign in**

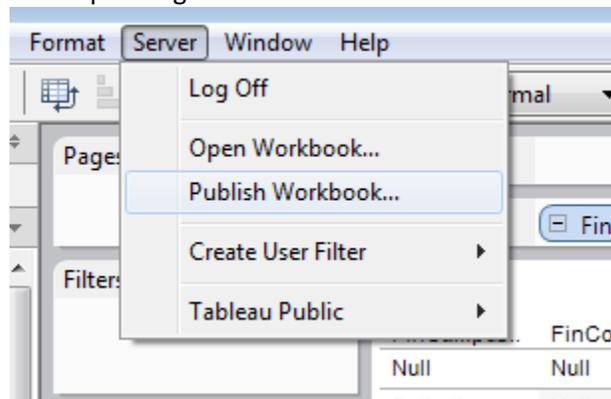


4. Select the **Transitional** site, then **OK**

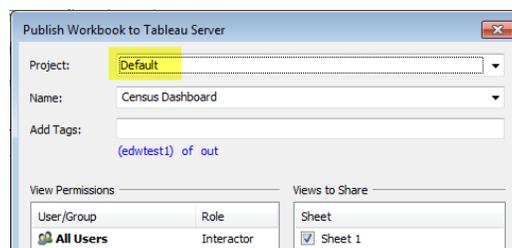


Publish a workbook to the Tableau Transitional Server

1. Select the **Server** menu option again and select **Publish Workbook...**



2. In the **Publish Workbook to Tableau Server** dialog box, select a **Project** into which you will publish the workbook. All workbooks must be published to a Project and those not assigned to a specific project are published to the [Default project](#), Tableau's built-in project. You should be assigned to your group's project, thus, the name of the project should show up in the Project drop down. Depending on your role and level of access you may belong to more than one project, in which case you will see more than one project in the project drop down.

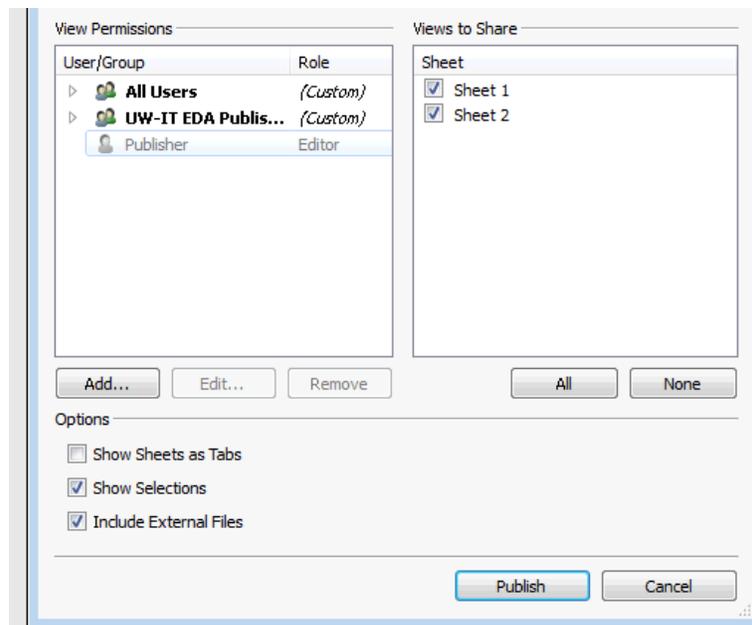


3. Type a name for the workbook in the **Name** text box. This name will be used to identify the visualization on the Server. If you are uploading a workbook that was previously uploaded to the Server, you can use the drop down list to select the name. When you publish using an existing workbook name, the workbook on the Server is overwritten with your workbook. You must have **Write** permissions to overwrite workbooks on the Server.

Type one or more keywords that describe the workbook into the **Tags** text box. This step is optional and recommended. Tags help you and others find related workbooks when browsing the Server. Separate each tag by a comma or a space. If the tag contains a space, surround the tag with quotes (e.g., "Student", "Degree", "Student Retention").

4. By default, all users with access to your group's project can interact with the workbook and you, as the publisher, are allowed all capabilities. Refer to the [permissions diagram](#) for more information about specific permissions for the Publisher role.

On a weekly basis, standard project permissions will be applied to all workbooks and views within the project. If custom permissions are needed, please contact the Tableau Server Administrator at tableau@uw.edu.



5. Select the sheets you want to share on the Tableau Transitional Server. Any sheets not selected are hidden on the Server.
6. If the workbook contains one or more user filters, you can specify what the thumbnail on the Server will look like using the **Generate Thumbnails as User** drop-down list. Refer to Tableau's [Publishing with User Filters](#) documentation for more information.
7. Select whether to **Show Selections**. When this option is selected, any selections (filters) you've made in the workbook will be published to the Server.

8. For visualizations using data sources that may link to external files, such as Excel and Access, select whether to **Include External Files**. When you include external files, a copy of any referenced external file data sources or background images are published along with the workbook. External files include Excel, Access, Text, Data Extract, and image files. If you don't include these files, others may not be able to see the worksheets online.

9. When finished, select **Publish**.

Note: If you are publishing a workbook that references data sources or images on a mapped drive, make sure to check the **Include External Files** option when publishing. If you do not want to publish the external files to the Server, change the connection information so that the workbook references a full Universal Naming Convention (UNC) path. For example rather than connecting to D:\datasource.xls you would connect to \\filesrv\datasource.xls.

Publishing FAQ

What permissions are assigned by default?

At UW, the default permissions for a specific project, and thereby specific groups allowed access to that project, are the Viewer permissions with the 'View Underlying Data' component removed. These permissions can be overwritten at a workbook level by those whom have been granted Publisher rights to the specific project.

What is the process to modify the membership of an existing Tableau security group?

There are two options for modifying membership to your projects on the transitional server.

Centrally managed

Membership can be modified by the [Tableau Administrator](#). Request modifications by sending an email to tableau@uw.edu

Self-managed

Using free [Active Directory \(AD\) Groups](#), you can modify membership directly for the publisher, editor and viewer security groups within your Tableau projects.

To manage Group membership, use the [UW Groups Service](#) to add or remove members from the Group(s). Note that changes you make to Group membership will take effect on the Tableau Transitional Server the following day.

- [Learn more](#) about connecting UW Groups to your Tableau project
- [Learn more](#) about UW's Groups Service.

If I have a large number of people in a group, do I need to set permission for each member of the group?

Groups do not have security associated with them by themselves. Security is assigned in group/project pairs, individual user/project pairs, group/workbook pairs, individual/workbook pairs. Permissions for projects and workbooks are set up and managed by the Tableau Administrator. Publishers can publish a workbook to a specific project, inheriting the security already assigned to that project, or they can overwrite the security for groups or specific users at the workbook level for a project.

Can I associate groups or people to individual workbooks or do I always need to create a Project?

A project must be selected when publishing a workbook. If the workbook doesn't need to be in a particular project, then it can be published to the Default project, which all users can access. The [Default project](#) is meant to be the "Public Reports" project.

How do I control permissions at the workbook level? If I assign different permissions to a Project and a workbook in the Project, which one trumps the other?

Workbook permissions overrule project permissions, when they are assigned by a person that has the permission to publish reports inside a particular project or the Default project.

Appendix

Diagrams

The Publishing / Viewing Environment

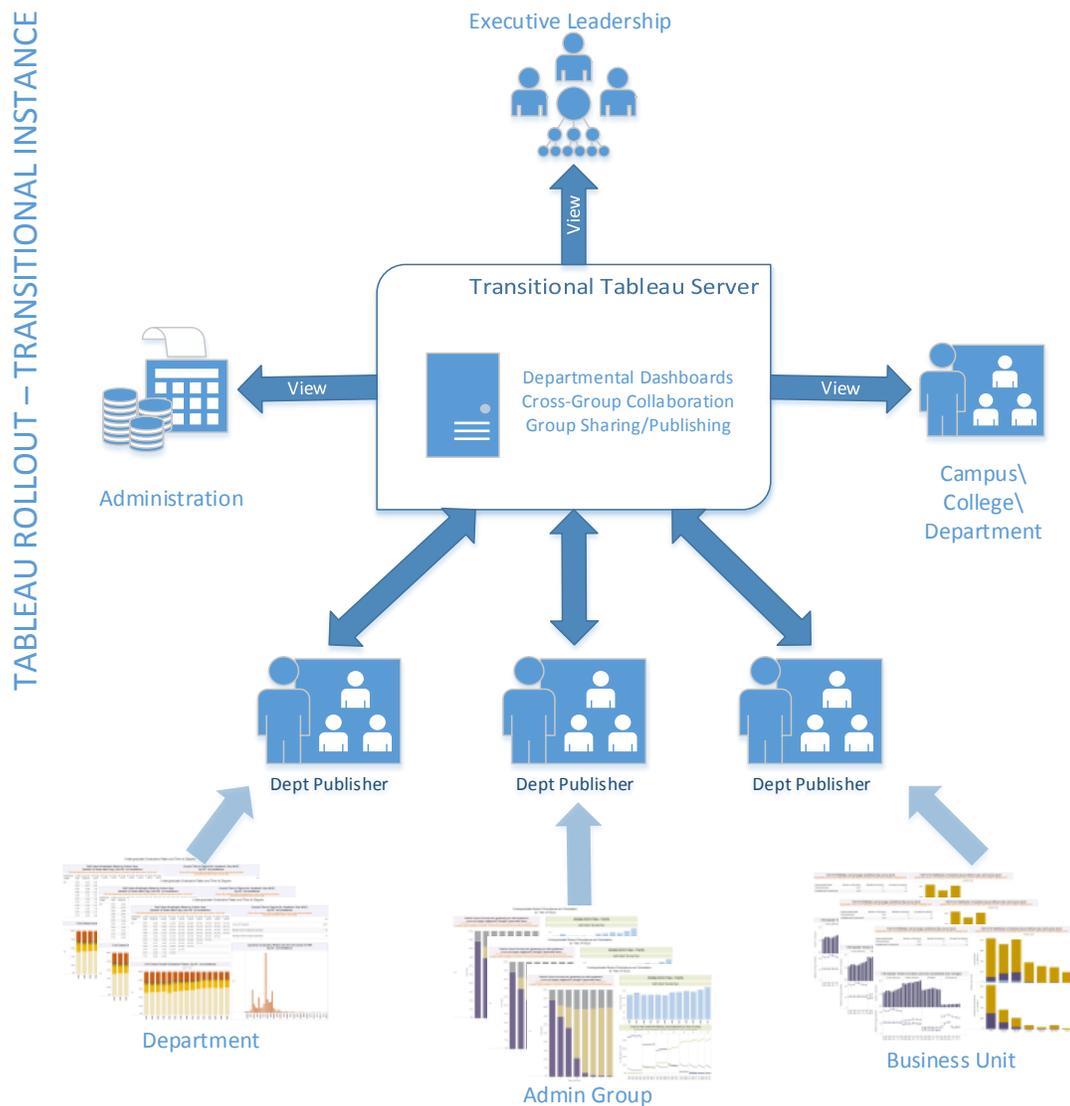


Figure 2 – Various groups create visualizations which are published by their departmental publishers to the Transitional Server, where they become available to view by administration, school/colleges, and leadership

The Inheritance of Permissions

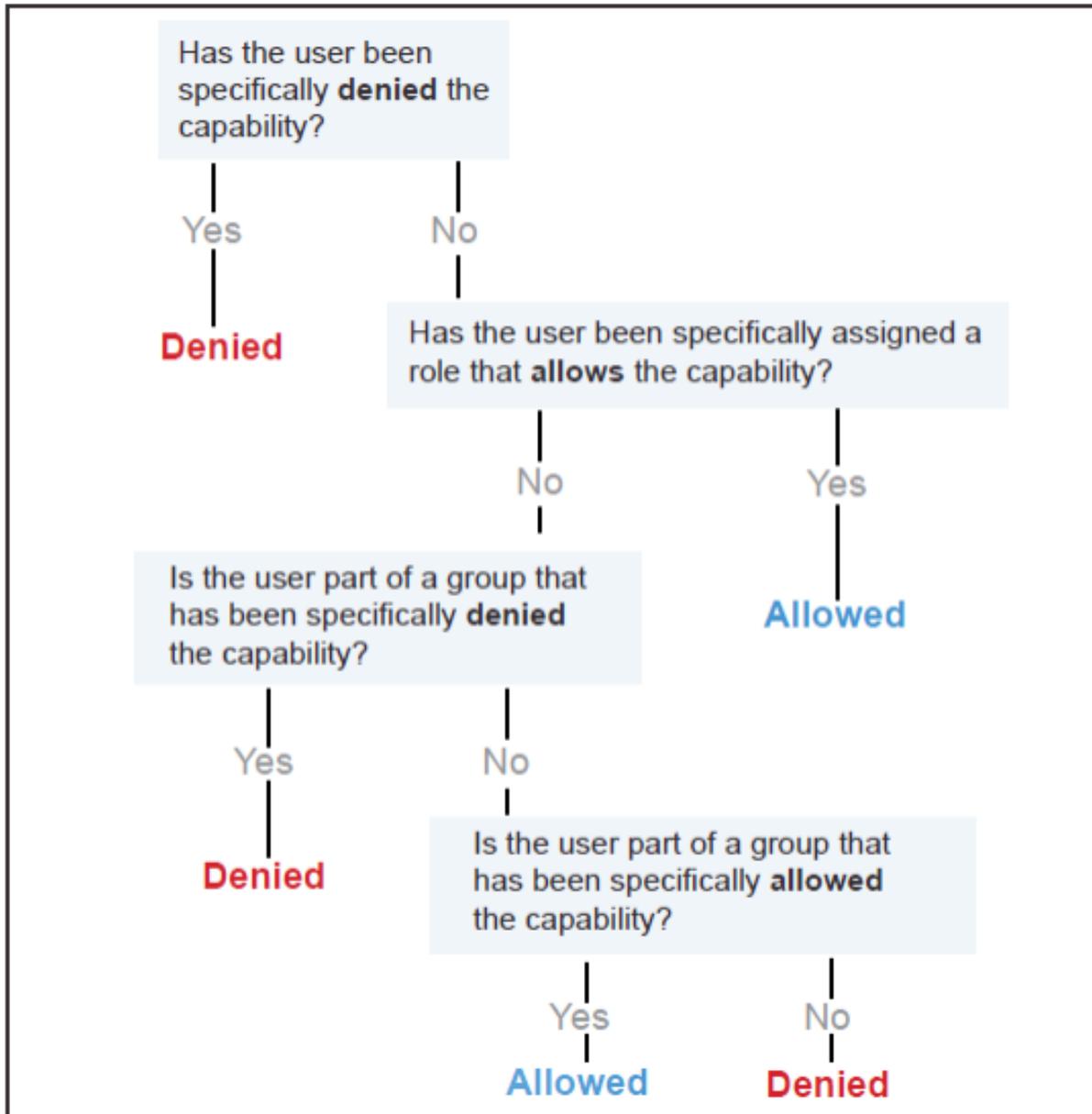


Figure 3 – The Inheritance of Permissions

Glossary

- **Active Directory Groups Service** - The UW Groups Service supports Groups usage throughout the institution by making it easier to define and manage the right groups, and then identify and reuse them in many systems and applications via UW Group ID. [Learn more](#).
- **Active Tableau Desktop license holder** - Users with a current version Tableau Desktop and whose Tableau license maintenance agreement is up-to-date
- **Default project** – Workbooks must be published to a project. Every Tableau Server comes with a Default project. If a workbook is not assigned to a project created by the Tableau Administrator, it is assigned automatically to the Default project.
- **Editor Role** – An Editor can create views/workbooks/dashboards, download existing views/workbooks from the Server, use Web editor mode to change, but not publish changes to the Server; includes all the permissions of the Viewer role as well
- **Enterprise Server** – The UW Tableau Server where visualizations are shared long-term and possibly widely across the University, depending on permissions applied.
- **Project** – A project is a collection of related workbooks.
- **Publisher Role** – The most privileged role; can do everything an Editor can do; can also publish views/workbooks to the Server, modify existing visualizations and re-publish these visualizations to the Server; manage content (move/delete)
- **Sheet** – A tab containing a visualization inside a Tableau workbook, similar to a tab in an Excel workbook.
- **Tableau Administrator** – UW-IT staff member(s) responsible for administering the Tableau Servers. The Tableau Administrator may be reached at tableau@uw.edu
- **Tableau Desktop** – the Tableau software installed locally and used to create Tableau visualizations.
- **Tableau Security Group** – three Tableau Security Roles exist to rights to Tableau visualization: Viewer Role, Editor Role, and Publisher Role.
- **Tag** - A tag is keyword that describes a view and can help you categorize and find views. You can add tags to any view on the Server that you have access to and you can delete any tags you have added.
- **Transitional Server** – See the [What is the Transitional Server](#) section.
- **Viewer Role** - The least privileged role; allows viewing workbooks/views, adding comments and tags, filtering and exporting to pdf, cross-tab, images
- **Workbook** - Tableau workbook files are much like Microsoft Excel workbooks. They contain one or more worksheets or dashboards and hold all of your work. They allow you to organize, save, and share your results.