



# Tableau Server Administrator Guide

Version 5.2

Welcome to Tableau Server. This guide will get you started using Tableau Server including installation and configuration, distributed servers, SSL, users and groups, licensing levels and permissions, managing the Tableau Services, backing-up and restoring the database, and embedding views into other applications.

In addition to this guide you will find more help on the server itself. Open Tableau Server and click Help in the upper right corner to open help specific to the page you are viewing.

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# Know before you start...

## The machine must:

- Run Windows Server 2003 (sp1 or higher), Windows Server 2008, Windows XP (sp2 or higher), Windows Vista, or Windows 7
- Have at least one dual core processor with 2GB of RAM  
*(Virtualization also supported when the virtual image meets the above requirements)*
- Not be running Internet Information Services (IIS) if you want to use the default port 80.  
*(You can modify the gateway port number to avoid conflict with IIS. Refer to [TCP/IP Ports](#) to learn how.)*
- Have an administrative account with permission to install the software and services.
- Have a user account that the service can use. **(Optional)**  
*(Useful if you're using NT Authentication with data sources, refer to [Appendix B](#) for more information.)*

## Configuration Information

When you install and configure Tableau Server you may be asked for the following information.

Configuration Option	Description	Your Information
<b>Server Account</b>	The server must have a user account that the service can use. We recommend using the default, which is the built-in Windows Network Service account. However, if you want to use a specific user account you will need to know the domain name, user name, and password for the account.	User Name: Password: Domain:
<b>Active Directory</b>	Instead of using Tableau's built-in user management system, you can choose to authenticate users through Active Directory. If so, you will need to know the domain name (refer to <a href="#">Appendix C</a> ).	Active Directory Domain:
<b>Open port in Windows firewall</b>	When selected Tableau Server will open the port used for http requests in the Windows Firewall software to allow other machines on your network to access the server.	<input type="checkbox"/> Yes <input type="checkbox"/> No

## Ports

By default Tableau Server requires the following TCP/IP ports to be available to the server: 80, 8080, 8085, 8060, 8200, 8000 (plus the specified number of application server processes), and 8100 (plus the specified number of VizQL server processes). The default configuration can be changed if there is a conflict. Refer to [TCP/IP Ports](#) to learn how.

## Drivers

You may need to install addition database drivers. Download drivers from:

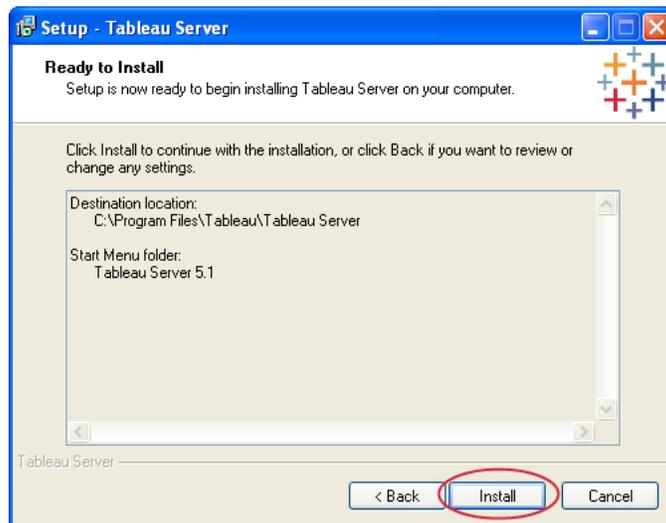
[www.tableausoftware.com/community/support/drivers](http://www.tableausoftware.com/community/support/drivers).

# Installation

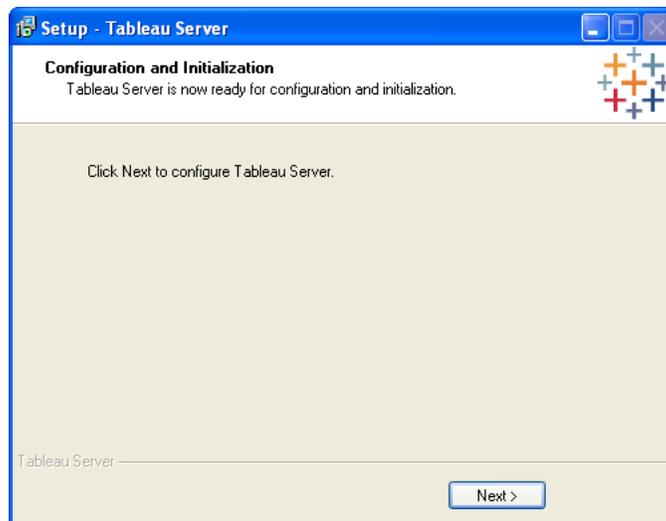
After you download the Tableau Server installation file, follow the instructions below to install the server.

## To install Tableau Server:

1. Double-click the installation file.
2. Follow the on-screen instructions to complete the Setup wizard and **Install** the application.



After the installation completes, click **Next** to open the Tableau Server Configuration window.



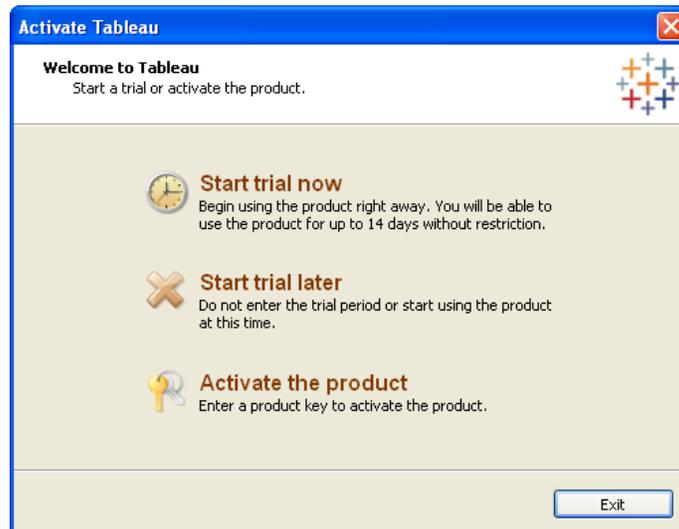
**Note:** If you need to support foreign characters, make sure to install the Windows Language Packs via Control Panel > Regional and Language Options. The language packs will need to be installed on the primary server as well as any worker machines.

# Product Activation

Tableau Server requires at least one product key that both activates the server and specifies the number of license levels you can assign to users. You can access your product keys from the [Tableau Customer Account Center](#).

## Activate and Register

After installing and configuring the server, the product key manager automatically opens so you can enter your product key and register the product. Select, **Activate** and then paste in your product key.



Refer to the [download help](#) page on the web site for step-by-step instructions. If you need to activate the product on a computer that is offline, please refer to the [Appendix D](#).

# Configuration

## General Configuration

1. By default, Tableau Server runs using the Network Service account. If you want to use another user account to accommodate NT Authentication with data sources, specify the user name and password in the appropriate text boxes. The user name should include the domain name. Refer to [Appendix B](#) to learn more about using a specific user account.

**Server Account**

Tableau Server requires a Windows account that it can run under.

User:  Password:

*Example: DOMAIN\username*

2. Select whether to use **Active Directory** to authenticate users on the server. Select **Use Local Authentication** to create users and assign passwords using Tableau Server’s internal user management system.

If you are using Active Directory you can optionally **Enable Automatic Login**, which uses Microsoft SSPI to automatically log your users in based on their Windows username and password.

**User Authentication**

Tableau Server can manage user names and passwords or use an existing Active Directory.

Use Active Directory

Use Local Authentication

**Active Directory**

Domain:

Nickname:

Enable Automatic Login

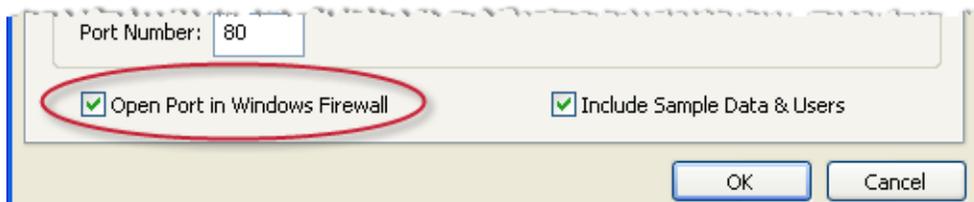
If you are using Active Directory, make sure to type the fully qualified domain name and nickname (refer to [Appendix C](#) to learn how to find your domain name). You cannot switch between Active Directory and Local Authentication later.

**Caution:** You cannot switch between Active Directory and Local Authentication later.

- The default port for web access to Tableau Server (via HTTP) is port 80. You may need to change the port number if you have another server running on port 80 or other networking needs. For example, you may need to change the port number if you have a hardware firewall or proxy in front of the Tableau Server host and don't want the back-end system running on port 80. Do not change the port number unless you have a clear and specific reason to do so.



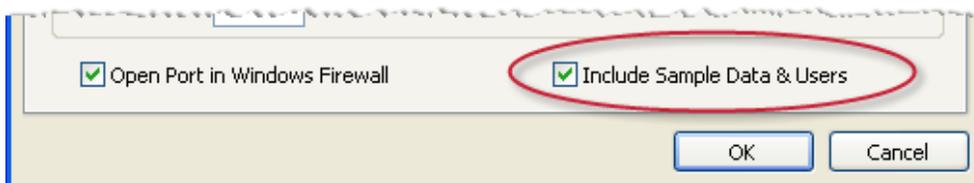
- Select whether to open a port in Windows Firewall. If you do not open this port, users on other machines may not be able to access the server.



- Select whether to include Sample Data & Users. The samples can help you get familiar with Tableau Server, especially if you are installing a trial version of the product. Initially the sample users use one reader and one interactor license. After you get started you can change these users to unlicensed in order to reclaim the license levels. Refer to [License Levels & Permissions](#) to learn how.

If you select to include sample users, several users are installed. Their usernames and passwords are shown below:

Username	Password
Tableau Guest	viewer
Tableau User	interactor
Tableau Software	gr8toUSEtableAU



- Optionally continue to the next page to configure extract storage. If you do not want to configure extract storage click **OK** to continue to Startup Tasks.

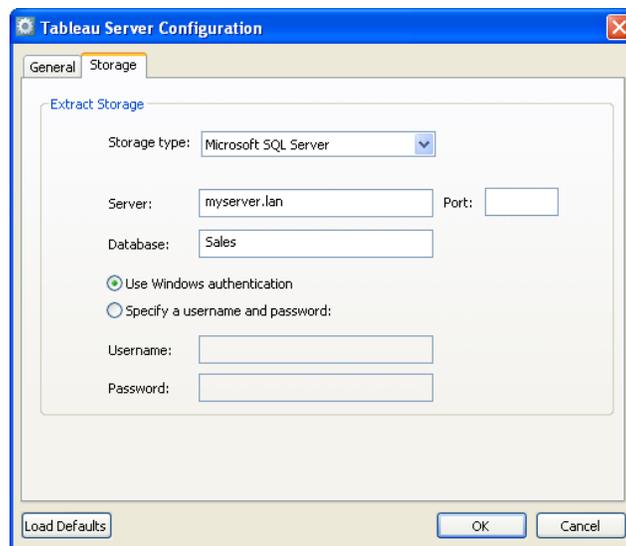
## Extract Storage Configuration

Tableau Desktop allows authors to create a data extract, which is a copy or a subset of data from the original data source. Data extracts are useful for improving performance, minimizing packaged workbook sizes, and increasing functionality. When workbooks that use extracts are published to the server, you can automatically refresh the extract with data from the original data source on a recurring schedule. That way authors don't have to republish the workbook every time the underlying data has updated and you can still get the performance of a data extract. For example, let's say you have a workbook that connects to a large data warehouse that is updated weekly. Instead of publishing a workbook that queries the live data, you can create an extract including just the data necessary for the specific Tableau view. This increases performance and minimizes queries to the live database. Then you can add that workbook to a schedule so that the extract gets refreshed each week with the updated data from the data warehouse.

Before you can create refresh schedules you must configure the server for extract storage. You can use the built-in storage type or point the server at a PostgreSQL, MySQL, or Microsoft SQL Server database.

### To configure extract storage:

1. Select the **Storage** tab in the Server configuration dialog box.
2. Select the type of storage you would like to use. If you select one of the non-built in storage types you need to specify the server, database, port, and authentication information.
3. When finished, click **OK**.



**Note:** You can configure the extract storage later by running the Server Configuration utility. Also, you must enable the [Embedded Credentials](#) and [Scheduling Settings](#) on the server before the extract database is used. If you publish workbooks before configuring extract storage, you will need to republish the workbooks before they can be added to a refresh schedule.

## Startup Tasks

The final step in activating Tableau Server is to add an administrator account. If you are using Active Directory, simply type an existing username and password for the Active Directory user who will be the administrator. If you are using Local Authentication, create an administrative account by typing a username, name, and password (twice) of your choosing. Then click **Add User**.

### Tableau Server Setup Tasks

Add Administrator Account

Username:

Name:

Password:

Confirm:

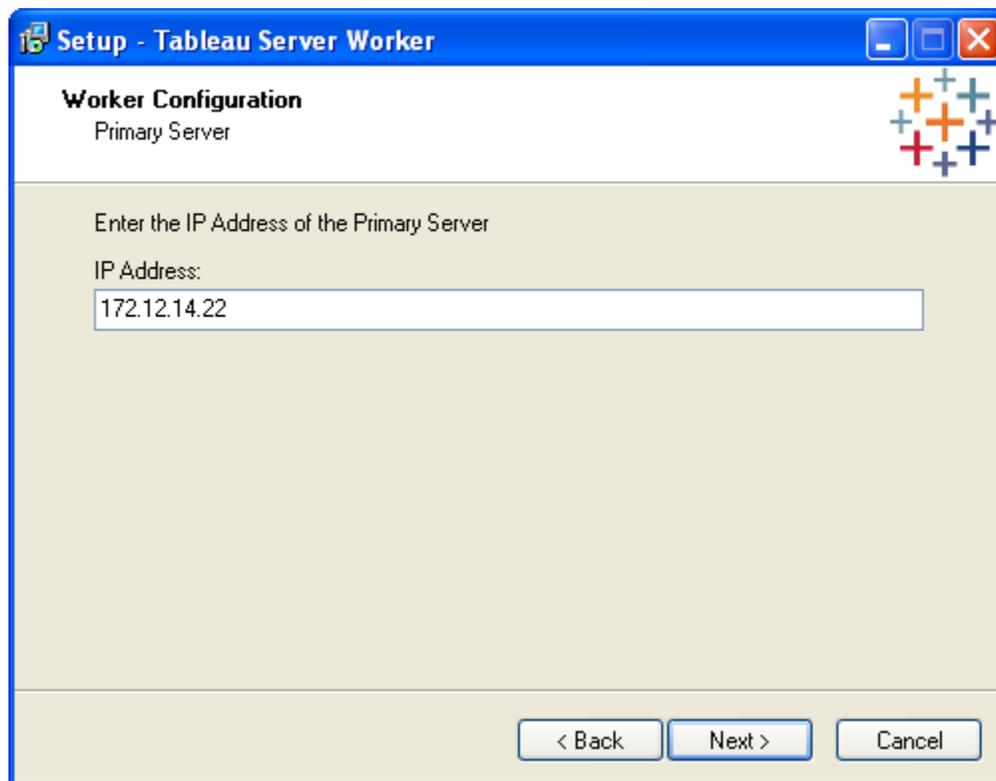
**Note:** By default, Tableau Server opens your web browser to <http://localhost> to complete the start up tasks. Depending on your security settings, this may cause a blocked content message in your browser.

# Distributed Servers

After completing the initial configuration, you can set up Tableau Server to run on multiple machines. A distributed environment can help you support more users and improve view interaction and browsing performance. For example, if you expect your users will spend more time interacting with views than browsing and searching you could set up an environment with several machines dedicated as VizQL servers. On the other hand, if you expect more browsing and searching you could dedicate a number of machines to the Server Web Application processes. Follow the steps below to set up a distributed environment.

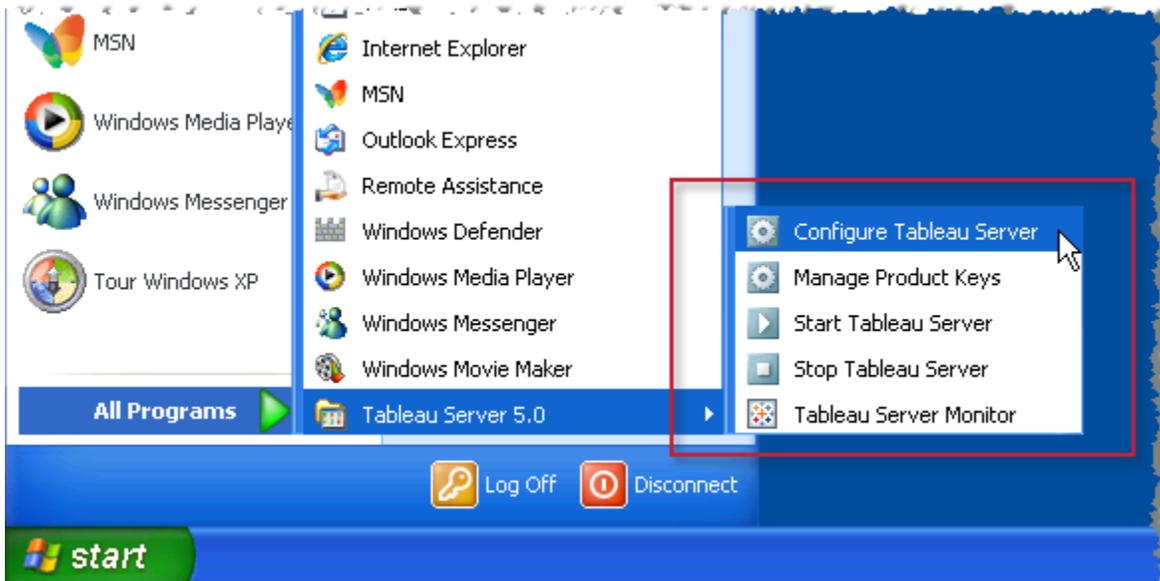
## To set up distributed servers:

1. Make sure you've installed Tableau Server on the primary machine.
2. Download the Tableau Server Worker software from the [Customer Account Center](#).
3. Run the Tableau Server Worker Software installer on all additional machines that you want to add to the Tableau Server cluster. During installation you will be asked to provide the IP Address of the primary server.

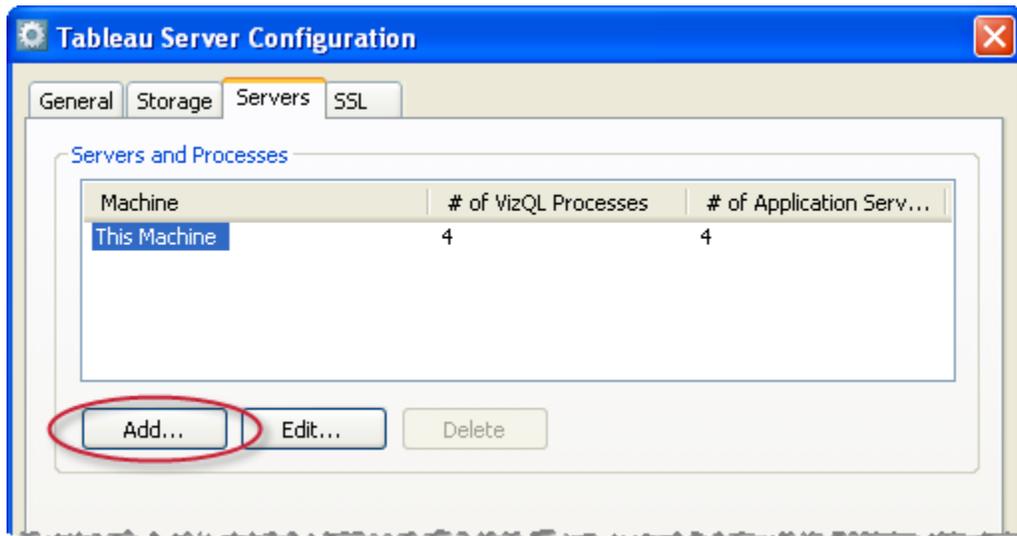


**Note:** Installing the Worker software requires that port 3730 on the machine be open. If that port is in use, the install will fail. Also on the Primary machine, ports 1070-1821 need to be open for the distributed Ruby and ports 27000-27009 need to be open for licensing communication.

- Once the Worker software is installed on worker machines, return to the primary server and open the configuration utility by selecting **Tableau Server 5.2 > Configure Tableau Server** on the Start menu.

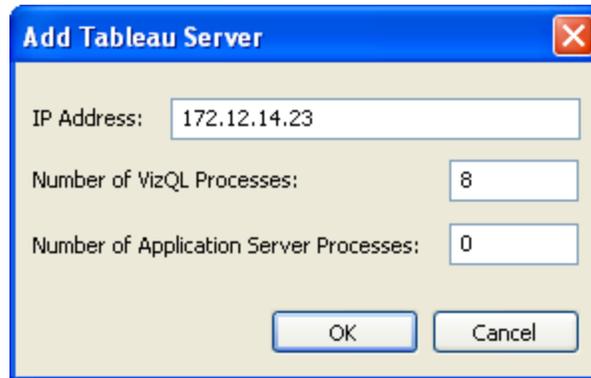


- In the Configuration Utility, select the **Servers** tab and click the **Add** button.



**Note:** You can also use this dialog to modify the number of processes assigned to the primary server.

- In the subsequent dialog box, type the **IP Address** for one of the worker machines and specify the number of **VizQL** and **Application Server** processes to allocate to the machine.



- When finished, click **OK**.
- Repeat these steps for each machine you want added to the distributed environment.

### Server Updates and Maintenance

After you set up the workers the first time you can perform all configuration and updates on the primary machine. Specifically, you should make changes using the command line tools and configuration utility on the primary server. Updates will be pushed to the workers automatically.

### Database Drivers

The Tableau Server and Tableau Server Worker installers automatically install drivers for Oracle and Oracle Essbase databases. If you plan to publish workbooks that connect to other databases you will need to ensure that both primary and worker machines have the corresponding drivers. Additionally, if you have configured the server to use an external extract storage type (e.g., PostgreSQL, MySQL, or SQL Server), the primary and worker machines must have the database drivers for the storage database you have chosen.

Only workers that have VizQL processes need these database drivers. For example, if you have a worker dedicated as a VizQL server and another one dedicated as an Application server, you only need to install drivers onto the VizQL server.

You can monitor the status of the distributed machines on the Server Maintenance page. Refer to Manage Tableau Services to learn more about maintaining the server.

Machine	Repository	Server Web Application	VizQL Server	Background Tasks	Web Server
172.24.15.23	✓	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✓	
172.24.15.24		✓✓✓✓	✓✓✓✓	✓	✓
172.24.15.25		✓✓✓✓	✓✓✓✓	✓	✓

# Configuring SSL

You can configure Tableau Server to use Secure Sockets Layer (SSL) encrypted communications on all HTTP traffic. Setting up SSL ensures that access to the web application is secure and that sensitive information passed between the web browser and the server or Tableau Desktop and the server is protected. To configure the server for SSL you must first acquire a certificate from a trusted authority then import the certificate files into Tableau Server. Follow the steps below to configure Tableau Server to use SSL.

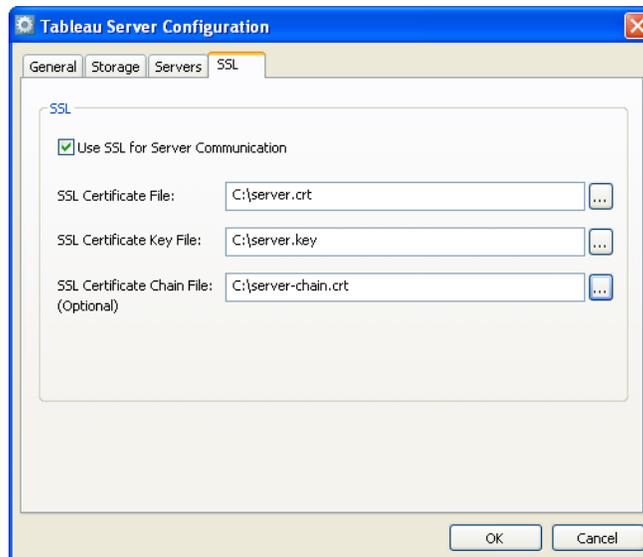
## To configure Tableau Server to use SSL:

1. Acquire an Apache SSL certificate from a trusted authority (e.g., Verisign, Thawte, Comodo, GoDaddy, etc.). You can also use an internal certificate issued by your company. Some browsers will require additional configuration to accept certificates from certain providers. Please refer to documentation provided by your certificate authority.
2. Open the Tableau Server Configuration Utility by selecting **Tableau Server 5.2 > Configure Tableau Server** on the Start menu.
3. In the Configuration Utility select the **SSL** tab.
4. Select the option to Use SSL for Server Communication. Then specify a location for each of the following certificate files. These files should be located on the local machine.

**SSL Certificate File** - must be a valid PEM encoded x509 certificate with the extension .crt

**SSL Certificate Key File** - must be a valid RSA or DSA key that is not password protected with the file extension .key

**SSL Certificate Chain File (Optional)** - Some certificate providers issue two certificates for Apache. The second certificate is the chain file that contains information about the provider. If your provider has issued this second certificate you can enter it here.



5. When finished, click **OK**.

The changes will take effect the next time the server is restarted. When the server is configured for SSL, it will accept requests to the non-SSL port (default is port 80) and automatically redirects to the SSL port 443.

SSL errors are logged in the install directory at the following location. Use this log to trouble-shoot validation and encryption issues.

C:\Program Files\Tableau\Tableau Server\data\tabsvc\logs\httpd\error.log

**Note:** Tableau Server only supports port 443 as the secure port. It cannot run on a machine where any other application is using port 443.

# Add Users

Everyone who needs to access Tableau Server, whether it's to publish, browse, or administer, must be added as a user. In addition, users must be assigned a [license level](#). Depending on how the server has been configured you can add users using the internal user management system (local authentication) or you can import from Active Directory.

## Adding Local Users

If the server is configured to use Local Authentication, you can add individual users or import several users from a comma separated value (CSV) file. You cannot add local users to a server that is configured to use Active Directory.

### To add local users:

1. Log into Tableau Server using your administrator user name and password.
2. Click **Users** in the Administration area on the left side of the page.



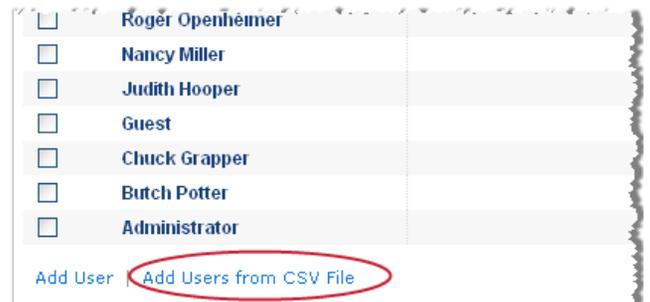
3. Click one of the following links at the bottom of the list of users:

**Add User** - to add users one at a time by specifying a user name and password.

**Add Users From CSV File** - to add multiple users contained in a CSV file.



OR



4. If you are adding a single user, type a username, full name, and password, then click **Add User**. Otherwise, if you are importing a CSV file, **Browse** and select the file, then click **Import File**.

**Note:** If you are adding users one at a time, you also have the option to assign license levels and grant special rights. Refer to [License Levels & Permissions](#) to learn more.

## Adding Users from Active Directory

The *easiest* way to add users when using Active Directory authentication is to import an Active Directory group. Refer to the *Managing Groups* topic in the online help to learn more about groups on Tableau Server. You can also add users one at a time as described below.

### To add users from Active Directory:

1. Log into Tableau Server using your administrator user name and password.
2. Click **Users** in the Administration area on the left side of the page.



3. Click **Add User** at the bottom of the list of users.



4. Type the Active Directory User Name for the person you want to add.

**Note:** If you are adding a user that is from the same Active Directory domain that the server is running on you can simply type the user name. In addition, if there is a two way trust set up between the domain the server is using and another domain you can add users from both domains. The first time you add users from a different domain than the one the server is using you need to include the fully qualified domain name with the username. For example, domain.lan\username or username@domain.lan. Any subsequent users can be added using the domain's nickname. Refer to [Managing Domains on the Server](#) to learn how to modify the nickname.

5. Optionally assign a license level and user rights (refer to [License Levels & Permissions](#)).
6. Click **Add User** to add the user to Tableau Server.

Required User Information:

Username:

License Level for this user:

Unlicensed  
 Viewer  
 Interactor

Assign user rights:

Publish  
 Administrator

**Add User**

# License Levels & Permissions

All users on Tableau Server must be assigned a license level. License Levels control how much access the user has on the server. For example, users with the Viewer license level cannot interact with views (even if they've been given permission by the author of the view).

## License Levels

Your product key gives you a set of license levels that, as an administrator, you can distribute to your users. You can assign the following license levels:

**Unlicensed** - the user cannot log in to the server. All users are added as unlicensed by default.

**Viewer** - the user can log in and see published views on the server but cannot interact with the views. Users with this level can only be given permission to view, add comment, and view comments.

**Interactor** - the user can log in, browse the server, and interact with the published views.

**Guest** - the guest license level is available to allow users without an account on the server see and interact with an embedded view. When enabled, the user can load a webpage containing an embedded visualization without logging in. This option is only available with a core-based server license.

## User Rights

In addition to the license levels, you can also assign the following user rights:

**Publish** - allows the user to connect to Tableau Server from Tableau Professional so that she can publish and download workbooks and data sources.

**Admin** - makes the user an administrator, which means that they have unlimited access to the server including managing projects, workbooks, groups, and users. This right can only be assigned to users with the Interactor license level.

## Permissions

Finally, when someone publishes a workbook to the server, he or she can allow and deny specific capabilities to further control who can access the workbook. The following capabilities can be allowed or denied to individual users or entire groups:

**View** - see the workbook on the server

**Write** - edit and republish

**Delete** - delete the workbook from Tableau Server

**Filter** - see and interact with filters that are published with each view

**Add Comment** - add comments to the view

**View Comments** - see comments associated with the view

**View Underlying Data** - see the raw data behind each view

**Export Image** - export and save the view as an image file

**Export Data** - export the aggregated data as a comma separated value (CSV) file

**Share Customized** - make your saved customizations to a view public for others to see.

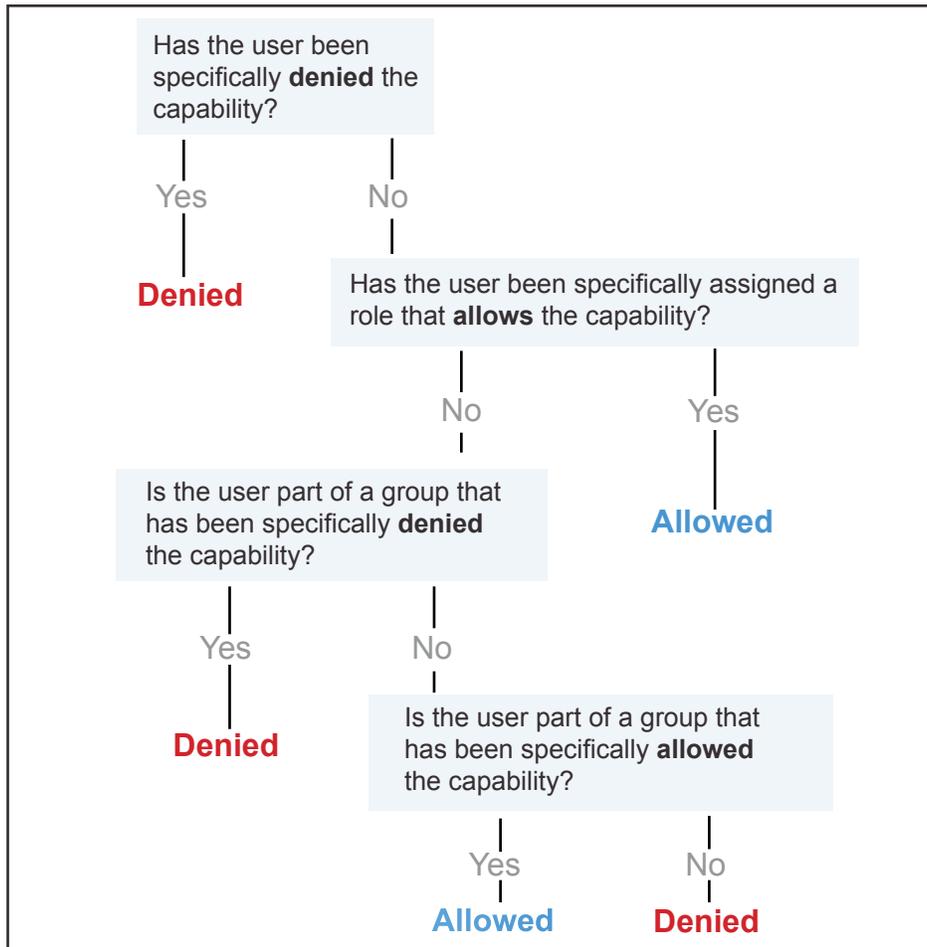
**Download File** - open the workbook from the server using Tableau Professional

**Move** - move the workbook between projects

**Set Permissions** - modify the permissions

To make it easy to assign common combinations of these capabilities, Tableau Server comes with some pre-defined permission roles. Select one of these roles when adding permissions to see the capabilities it allows. Refer to the *Setting Permissions* topic in the online help for more information about assigning permissions.

The diagram below explains how permissions are evaluated for a view or workbook.



### To allow or deny user rights:

1. Log into Tableau Server using your administrator user name and password.
2. Click **Users** in the Administration area on the left side of the page.



3. Select one or more users you want to assign user rights to.
4. Click the **Publishing** or **Admin** links in the Actions toolbar along the top of the list.
5. Select **Allow** or **Deny** to assign or deny the right to the selected users.



The Admin and Publish columns in the list of users is the updated to reflect the changes. Refer to [User Rights](#) to learn more about each right.

# Assign License Levels and Rights

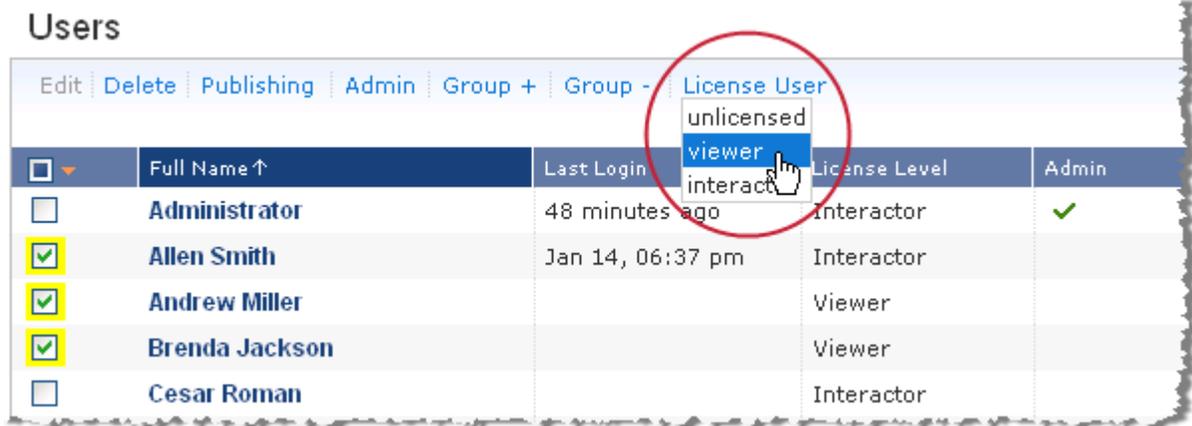
When you add users to Tableau Server, you can optionally assign them license levels and user rights. By default users are [unlicensed](#) and have no user rights. That means that they cannot log in to the server and cannot publish workbooks. You can assign different license levels and user rights to further control access to the server.

## To assign license levels:

1. Log into Tableau Server using your administrator user name and password.



2. Click **Users** in the Administration area on the left side of the page.
3. Select one or more users you want to assign license levels to.
4. Click the **License User** link in the Actions toolbar along the top of the list.



5. Select the license level to assign to the selected users.

The Licensed Level column in the list of users is the updated to reflect the changes. Refer to [License Levels](#) to learn more about each level.

# Manage Tableau Services

As an administrator you have access to several tools that help you monitor and manage Tableau Services. For maintenance from a remote machine you can use the maintenance tools accessed through the web application. If you are working directly on the server you can use Tableau Server Monitor and the command line administrative tools.

## Maintenance Tools

In addition to Tableau Server Monitor, you also have access to maintenance tools on Tableau Server. There you can see detailed status for each service and process, monitor server and user activity, perform administrative tasks, and specify settings to customize the server. Refer to the Server Maintenance topic in the online help for more information regarding these tools.

### To access the administrative tools on the server:

1. Log into Tableau Server using your administrator user name and password.
2. Click **Maintenance** in the Administration area on the left side of the page.



On the Maintenance page, there are several administrative views that help you monitor activity on the server. Each view is described below:

**Server Activity** - this collection of views shows the number of requests to the web application and VizQL server over varying periods of time. In addition, it breaks down the requests by port and IP address.

**User Activity** - this text table shows recent user activity including specific user names, their last login time, the host from which they are connected, and their activity level.

**Space Usage** - this collection of views shows the space used by published workbooks and data sources. This is a good view to monitor if people start including external files when they publish. Notice that there are several sheet links that let you jump from marks in these views to projects, users, and workbooks.

**Task History** - this view shows details for completed and pending tasks. Tasks include reindexing the search index, schedules, and any modifications made to the data connections.

**Customized Views** - this view shows how people are using customized views including the views with the most customizations, the largest customized views, and the users with the most customized views.

**Who has seen this view?** - this text table can be displayed for a specific view to see which users have opened the view, the date and time they saw it, and how many times they have opened it. This text table is available to administrators for all views but can also be accessed by the publisher of the view. Access this view by clicking the Who has seen this view? link at the bottom of the page when looking at an individual view.

## Custom Administrative Views

In addition to the pre-built administrative views available on the Maintenance page on the Server, you can use Tableau Desktop to query and build your own analyses of server activity. The Tableau Server repository has several database views set up that you can connect to and query. In order to access these views you first need to use the command line tool to enable external access to the database.

### To enable access to the Tableau Server database:

1. At a command prompt type:

```
cd "C:\Program Files\Tableau\Tableau Server\5.0\bin"
```

2. Then use the following command to enable external access to the database for the user "tableau" with the specified password.

```
tabadmin dbpass [password]
```

Substitute the password you want to connect with in the command above.

3. Restart the server.

**Note:** You can disable external access by running the `tabadmin dbpass --disable` and then restarting the server.

After you've enabled external access to the database you can connect to and query the database. Follow the steps below to use Tableau Desktop to connect.

### To connect to and query the Tableau Server database:

1. In Tableau Desktop select **Data > Connect to Data**.
2. Select **PostgreSQL** as the database to connect to. You may need to install the PostgreSQL database drivers. You can download drivers from [www.tableausoftware.com/drivers](http://www.tableausoftware.com/drivers).
3. In the PostgreSQL Connection dialog box, type the name or URL for Tableau Server.
4. Type 8060 for the port number.\*
5. Type workgroup as the database to connect to.
6. Connect using the following username and password:

**Username:** tableau

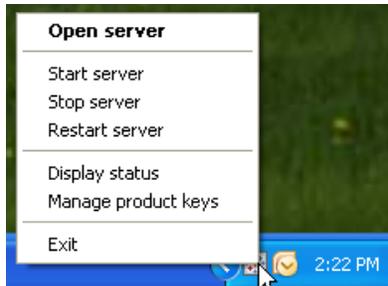
**Password:** the password you specified when you enabled access to the Tableau Server database.

7. Select a table to connect to and click **OK**. The "tableau" user has access to all of the tables the start with an underscore. For example, you can connect to "\_background\_tasks," "\_datasources," and so on.

**\*Note:** You should connect using the port you have set up for the `pgsql.port`, which is 8060 by default. Refer to [TCP/IP Ports](#) to learn more about managing and changing ports.

## Tableau Server Monitor

Tableau Server Monitor is installed as part of Tableau Server and can be accessed in the Windows System Tray. Using this tool you can start and stop the services, launch Tableau Server, and display server status.



### Open the Server

This command launches Tableau Server in your web browser. This is an easy way to access the web application and the associated maintenance tools.

### Start/Stop the Server

You can start and stop the server using these commands. When you stop the server you make it unavailable to all of your users and terminate any sessions that are currently in progress. If someone is publishing a workbook when the server is stopped, the process is aborted. As a result, only some of the worksheets in the workbook may be published to the server. Because stopping the server can be very disruptive to your users, make sure to warn them prior to this operation or plan maintenance during non-business hours.

### Restart Server

This command restarts the server. While the server is restarting it will be unavailable to all users. Be sure to warn your users of the outage prior to this operation. You will need to restart the server if you make changes to the Tableau Server Configuration.

### Display Status

This command opens a screen tip containing the status of each process. For more detailed status, use the maintenance tool on Tableau Server.

### Manage product keys

This command opens the product key manager where you can add and remove product keys.

### Exit

This command closes Tableau Server Monitor. This command does not stop Tableau Server. You can re-open the application by selecting **Tableau Software > Tableau Server Monitor** on the Windows Start menu.

## Command Line Tool - Tabadmin

When you install Tableau Server, a command line administrative tool, called `tabadmin.exe`, is also installed. You can use this tool to start, stop, and restart Tableau Services. In addition, there are several commands available. The instructions below describe the general syntax for using `tabadmin`.

At a command prompt type: `cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"`

From there you can execute commands by typing: `tabadmin command options`

You can execute the following commands:

- `help` - shows help for `tabadmin.exe` commands
- `activate` - activates a license via online or offline activation.
- `administrator` - grant or revoke the Administrator right to a user
- `autostart` - display or set the auto-start behavior of the server
- `backup` - creates a back up of Tableau Server's data and configuration
- `cleanup` - cleans up service log files
- `configure` - updates the Tableau Server configuration (refer to [Appendix E](#) for options)
- `customize` - changes the name or logo used on the server
- `dbpass` - enables external access to the database for building administrative views
- `install` - install the Tableau Server service application
- `licenses` - shows information on the active licenses for Tableau Server
- `passwd` - resets the password for a Tableau Server account
- `prep_workers` - prepare a new worker for service by installing and configuring the software
- `reset` - resets the server back its initial state where an Administrator account must be set up
- `restart` - restarts the Tableau Services
- `restore` - restores a backup of Tableau Server's data and configuration
- `set` - sets a configuration parameter to a specified value or to its default value
- `start` - starts Tableau Services
- `status` - shows the current running status of Tableau Server
- `stop` - stops Tableau Services
- `uninstall` - uninstalls the Tableau Server service application
- `upgrade` - upgrades the service configuration and data to the current version of Server
- `warmup` - warms up the server by requesting a lightweight view from each VizQL process
- `ziplogs` - creates a zip file containing all of the log files

You can display detailed help and additional options for all of the commands described above by adding the `-h` option after the command (e.g., `tabadmin backup -h`).

You can use the command line administrative tool as part of scheduled tasks such as a regular backup. For example, you can create a batch file that includes the necessary `tabadmin` commands. Then run the batch file as part of a scheduled task. A good example of a useful scheduled task is to run the Clean Up command to clear out unnecessary logs and temporary files. Refer to [Logs and Temporary Files](#) to learn more about this command.

## Command Line Tool - Tabcmd

In addition to the `tabadmin` tool, Tableau Server comes with another tool to help you automate common tasks including batch publishing workbooks and user/group administration. This tool is called `tabcmd.exe` and is installed with Tableau Server. You can install this tool on other machines using the installer located at:

```
C:\Program Files\Tableau\Tableau Server\5.2\extras\TabcmdInstaller.exe
```

The instructions below describe the general syntax for using `tabcmd.exe`.

At a command prompt type: `cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"`

From there you can execute commands by typing:

```
tabcmd command command-argument [options option-arguments]
```

You can execute the following commands:

- `help` - shows help for `tabcmd.exe` commands
- `addusers` - adds users to a group
- `creategroup` - creates a local group on the server
- `createusers` - creates new users on the server
- `delete` - deletes the given workbook from the server
- `deletegroup` - removes a group
- `deleteusers` - deletes users from the server
- `get` - returns a file from the server
- `login` - logs in to the server
- `logout` - logs off the server
- `publish` - publishes a workbook to the server
- `refreshextract` - refreshes the extracts of a workbook on the server
- `removeusers` - removes users from a group
- `runschedule` - runs a schedule on the server
- `set` - specifies a setting on the server
- `syncgroup` - synchronizes the server with an Active Directory group
- `version` - prints the version information

Refer to the full guide on this tool available on the [Product Manuals](#) page on the Tableau website.

# Manage Domains on the Server

When you are using Active Directory authentication for the server you can view a list of the domains that are being used and edit their domain names and nicknames. There are several reasons why you may need to modify the domain name or nickname for a domain. For example, if you are using SSPI for authentication and Tableau Server is using an incorrect nickname, or if the domain name changes.

You can access the list of domains by selecting the **Users** link in the Administration area on the left side of the page. Then click the **View Domains** link at the bottom of the list of users.

<input type="checkbox"/>	<b>John Smith</b>		Interactor
<input type="checkbox"/>	<b>Guest</b>		Guest
<input type="checkbox"/>	<b>Cesar Roman</b>		Interactor
<input type="checkbox"/>	<b>Brenda Jackson</b>		Viewer
<input type="checkbox"/>	<b>Andrew Miller</b>		Viewer
<input type="checkbox"/>	<b>Allen Smith</b>	Jan 14, 06:37 pm	Interactor
<input type="checkbox"/>	<b>Administrator</b>	57 minutes ago	Interactor

[Add User](#) | [Add Users from CSV File](#) | [View Domains](#)

The list of domains shows the number of users and groups that have been added to the server from each domain. Click the name of a domain to see a list of the users that are part of the selected domain. Click the **Edit** link to modify the domain name or nick name. Then type a new fully qualified domain name or a new nickname and click **Modify**.

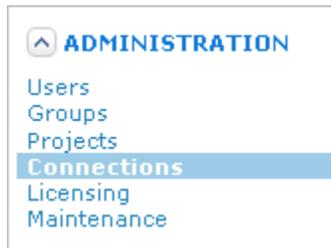
Change?	Attribute	New Value
<input checked="" type="checkbox"/>	Fully Qualified Domain Name	<input type="text" value="domain.lan"/>
<input checked="" type="checkbox"/>	Nickname	<input type="text" value="domain"/>

[Modify](#) [Cancel](#)

**Note:** You can modify the nickname for any domain the server is using. In general, you can modify the full domain name for any domain that you are not currently logged in under. However, if the user name that you are currently logged in with exists in both the current domain and the new domain you can modify the full name for the current domain. Refer to Appendix E for more server configuration options.

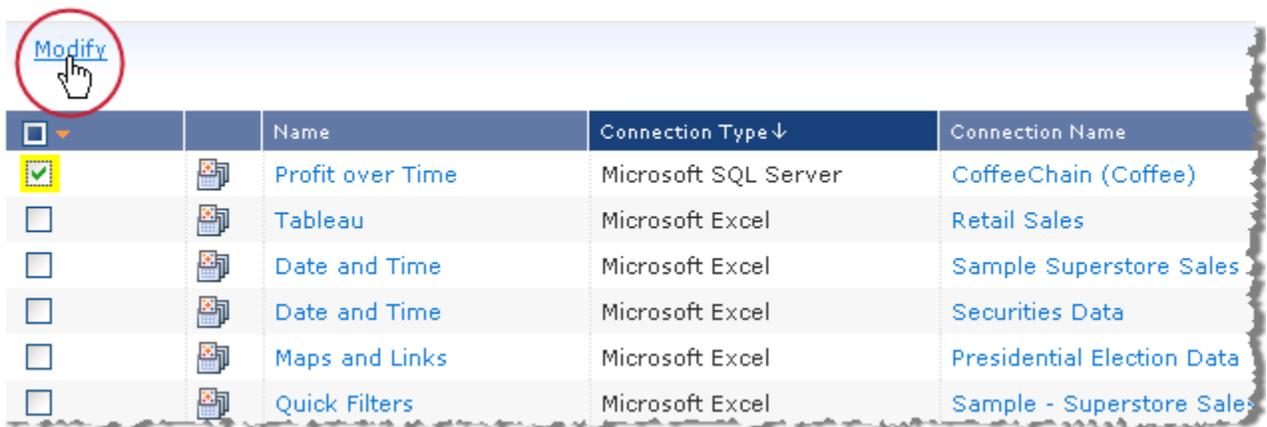
# Manage Data Connections on the Server

Every workbook that is published to the server contains one or more connections. These connections are listed on the connections page in the Administration area on the server.



Connections are different from data sources in that each connection is associated with a single workbook and describes the attributes required for connecting to a data source (e.g., server name, database name, etc.). That means if you have three workbooks that connect to the same data source, you will still have three connections listed on the connections page.

The connections page allows you to manage the connection information for all of the workbooks published to the server. For example, you may have a large number of workbooks that connect to a database on a specific server. If the name of the server changes you can update all of the workbooks at once so they reference the new server name. Another example is if a workbook connects to a data source using a specific user name and password. You can quickly update all of the workbooks to use a different set of credentials.



<input type="checkbox"/>		Name	Connection Type ↓	Connection Name
<input checked="" type="checkbox"/>		Profit over Time	Microsoft SQL Server	CoffeeChain (Coffee)
<input type="checkbox"/>		Tableau	Microsoft Excel	Retail Sales
<input type="checkbox"/>		Date and Time	Microsoft Excel	Sample Superstore Sales
<input type="checkbox"/>		Date and Time	Microsoft Excel	Securities Data
<input type="checkbox"/>		Maps and Links	Microsoft Excel	Presidential Election Data
<input type="checkbox"/>		Quick Filters	Microsoft Excel	Sample - Superstore Sales

Refer to the online help for more information about finding and modifying connections on the server. You can access the help by clicking the Help link at the top of the Connections page.

# Back up and Restore the Database

Use the command line tool to back up and restore the database. You can use the commands described below along with the built-in Windows task scheduler to automate back-ups on a regular schedule.

## Backing up

It is important to back up the database so you can restore the published views in the case of a system failure. When you back up the database a single file is created with the .tsbak file extension. This file contains the contents of the database and the configuration files.

### To Back up the database:

1. Open a command window and type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Create a backup file by typing:

```
tabadmin backup filename --stop-server -d
```

In the above line, replace “filename” with what you want to name the backup file. The --stop-server option stops the server for the backup and then restarts it when it is done. If you are doing a simple backup you must either have this option or the --unsafe option to backup while the server is running. Backups that are part of a batch operation do not require these options.

The -d is optional; if included the current date is appended to the file name.

## Restoring from a Backup File

When you restore, the contents of the database as well as configuration files are overwritten with the content in the backup file.

### To Restore from a backup file:

1. Stop the service by typing:

```
tabadmin stop
```

2. Restore the database from a backup file by typing:

```
tabadmin restore filename
```

In the above line, replace “filename” with the name of the backup file you want to restore from.

3. When finished, start the services by typing:

```
tabadmin start
```

**Caution:** The back up file does not include the data from the extract storage database. If you are using an extract storage database, you will need to back it up separately to avoid having to republish all of the workbooks in the case of a restore.

# Customize Tableau Server

You can customize how Tableau Server looks to make it personal to your company or group.

## Server Look and Feel

You can change the following elements:

**Name** - text that appears in screen tips, warning messages, and error messages. The default name is Tableau Server.

**Logo** - image that appears on login page and in the left column over every page.

### To change the name:

1. At a command prompt type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Change the name by typing the following:

```
tabadmin customize name "new_name"
```

In the above line, replace "new\_name" with the text that you want to appear as the name on the server. *Example: tabadmin customize "Company Server"*

3. Restart the server for the change to take affect by typing:

```
tabadmin restart
```

### To change the logo:

1. At a command prompt type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Change the logo by typing the following:

```
tabadmin customize logo "C:\My Pictures\logo.png"
```

In the above line, replace "image" with the filename of the image that you want to appear as the name on the server. For best results, use an image that is 125px X 35px in size. The image can have .png, .jpg, or .gif file format.

3. Restart the server for the change to take affect by typing:

```
tabadmin restart
```

### To restore the default settings:

1. Type the following:

```
tabadmin customize parameter -d
```

In the above line, replace “parameter” with what you want to restore (either `name` or `logo`).

2. Restart the server for the change to take affect.

## User Interaction

In addition to the look and feel of the server you can customize specific ways that users can interact with the server. For example, you can allow publishers to attach database passwords to workbooks so that web users will automatically be logged in when viewing the workbook. You can customize the user interaction on the Maintenance page on the server.



The following settings are available in the Settings section of the Maintenance page on the server:

**Embedded Credentials** - Allow publishers to attach passwords to published workbooks that will automatically authenticate web users to connect to data sources. The passwords are attached to workbooks and are only accessible on server. That is, when the workbook is opened in Tableau Desktop, users will still need to enter a user name and password to connect to the data source. When this setting is turned off, all existing embedded passwords are saved but are not used for authentication. That way if you turn the setting back on, users don't have to re-embed the passwords.

**Scheduling** - Allow publishers to assign workbooks to schedules. This option is only available if you have configured [Extract Storage](#) on the server and Embedded Credentials is enabled.

**Public User List** - Allow web users to see a list of all users on the system. When this setting is turned on a link to a list of all users is added to the left navigation bar.

**Saved Passwords** - Allow users to save data source passwords across multiple visits and browsers. By default users can choose to "Remember my password until I log out," which lets them save their password during a single browser session. When the Saved Passwords setting is selected a user can instead choose to "Remember my password," which saves the password across multiple visits and browsers so users will be automatically authenticated regardless of the computer they are using. You, as an administrator, can clear all saved passwords at any time. In addition, users can clear their own saved passwords.

**Enable Guest** - Allow users to view and interact with embedded views without having to log into a Tableau Server account. Permission can be assigned to the Guest user account to control the interactivity allowed for each view. This option is only available if you have a core-based server license.

# TCP/IP Ports

Tableau server uses a variety of TCP/IP ports. The default ports are listed below

**80, 8060, 8080, 8085, 8200**

**8000** - This is the base port for the application server. In addition, the consecutive ports after 8000 up to the number of processes (specified when configuring Tableau Server) are used. For example, if the Application server is configured to use 4 processes, ports 8000, 8001, 8002, and 8003 are used.

**8100** - This is the base port for the VizQL server. In addition, the consecutive ports after 8000 up to the number of processes (specified when Configuring Tableau Server) are used. For example, if the VizQL server is configured to use 4 processes, ports 8100, 8101, 8102, and 8103 are used.

## Editing the Default Ports

You can modify the default ports using the command line administrative tool, tabadmin.exe (refer to [Command Line Tool - Tabadmin](#) to learn about other commands available). Follow the steps below to change the Tableau Server port configuration.

### To modify a default port settings:

1. At a command prompt type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Modify a specific port value by typing the following:

```
tabadmin set parameter new_value
```

In the above line, “parameter” is one of values in the following table and “new\_value” is the new port number you want use.

You can use the following parameters to modify the corresponding ports:

Port to Change	Parameter
<b>80</b>	gateway.port
<b>8060</b>	pgsql.port
<b>8080</b>	solr.port, tomcat.http.port, repository.port*
<b>8085</b>	tomcat.server.port
<b>8200</b>	indexer.port
<b>8000</b>	wgserver.port
<b>8100</b>	vizqlserver.port

\*These parameters should all be set to same value.

For example, if you have a conflict on port 8000 and would like to configure Tableau Server to use port 8020 you would type the following:

```
tabadmin set wgserver.port 8020
```

3. Make all of the necessary port configuration changes. Then restart the services by typing the following:

```
tabadmin restart
```

**Caution:** While the server is restarting it will be unavailable to all users. Be sure to warn your users of the outage prior to this operation or schedule this maintenance during non-business hours.

### To restore the default values for any port:

1. At a command prompt type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Restore the default by typing the following:

```
tabadmin set parameter --default
```

Where "parameter" is the before listed parameter that corresponds to the port setting you want to restore to the default value for.

3. When finished, restart the services by typing the following:

```
tabadmin restart
```

# Logs & Temporary Files

The Tableau Service generates several logs and temporary files that can help you understand and track recent activity as well as debug any problems that may arise. If you need to save space on the hard drive, you can occasionally delete these files. Below is a description of where these files are located and what they are used for.

## Tableau Service Logs

These log files track many different activities including the web application, database, and index.

*Located at* `C:\Program Files\Tableau\Tableau Server\data\tabsvc\logs`

## VizQL Logs

These log files track activities related to displaying views, such as querying the database and generating images.

*Located at* `C:\Program Files\Tableau\Tableau Server\data\tabsvc\vizqlserver\Logs`

## Temporary Files

Any file that starts with `exe_` in the folder below is a Tableau Server file and can be deleted.

*Located at* `C:\Documents and Settings\username\Local Settings\Temp`

# Archiving the Logs

You can archive all of these log files using the `ziplogs` command. This command creates a zip file containing all of the Tableau Server Log files and is useful when you're working with Tableau support.

## To create a zip file containing all logs:

1. At a command prompt type the following:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

2. Create the zip file by typing:

```
tabadmin ziplogs filename
```

In the above line, replace "filename" with what you want to name the zip file. If the file name is omitted, zipped log file will default to logs.zip.

**Note:** The `ziplogs` command does not remove the log files, rather it simply copies them into a zip file.

# Clean up

The clean up command removes service logs in order to save space. At a command prompt type the following:

```
tabadmin cleanup --restart
```

**Note:** In general you should shut down the server prior to running this command. However, if the server is running you should include the `--restart` option to ensure a successful clean up and restore.

# Embedding Views

You can embed views from Tableau Server into webpages, blogs, wikis, web applications, and intranet portals. The embedded views blend seamlessly into your webpages and are interactive. The views update as the underlying data changes or the workbooks are updated on the server. Embedded views follow the same licensing and permission restrictions used on the server. Generally, people loading a webpage with an embedded view also must have an account on Tableau Server. If you have a core-based license you can alternatively enable the Guest User license level, which allows users to load the view without logging in.



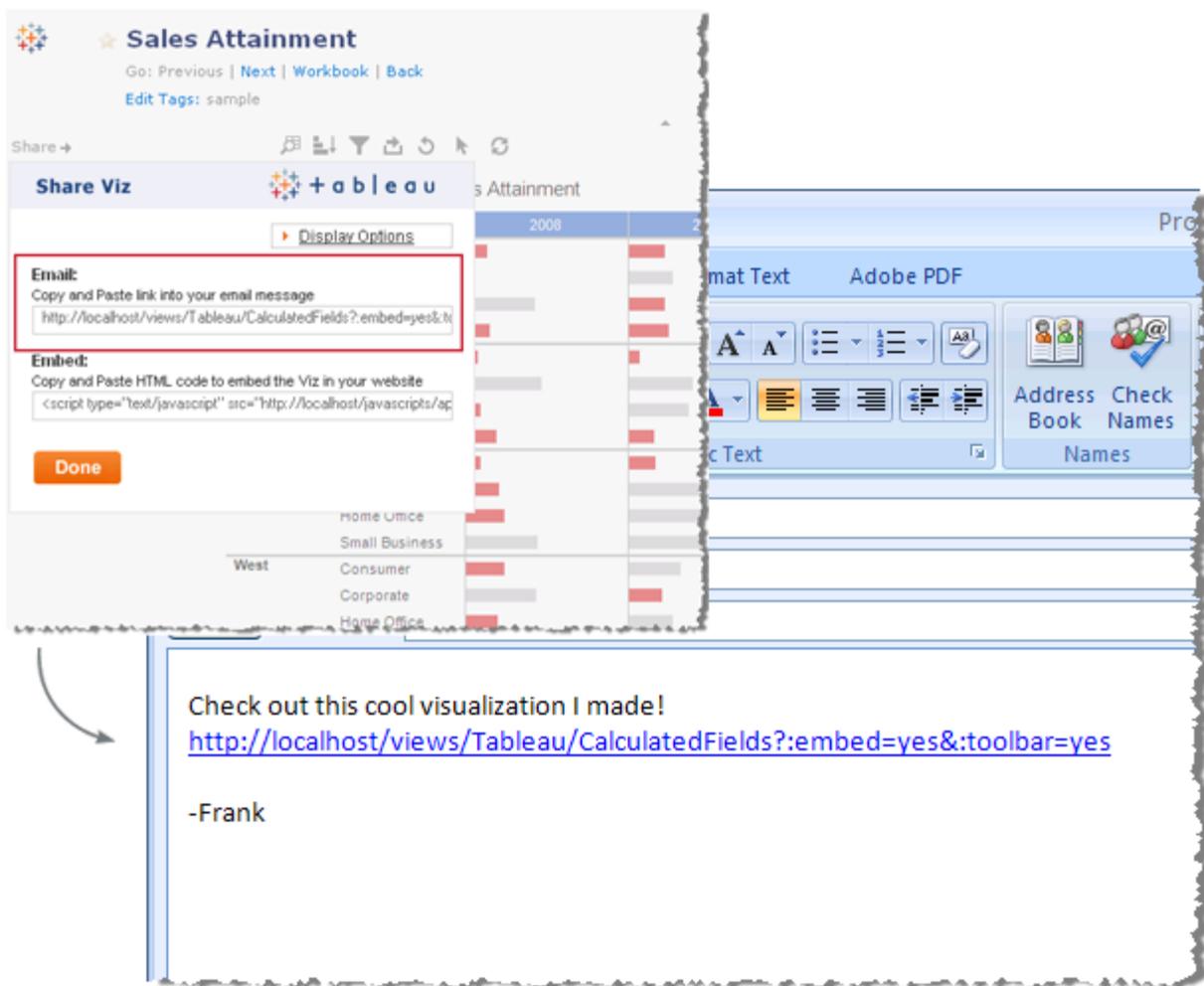
You can use the Share link in the upper left corner of the view to generate embed code that you can place directly on your website, or manually embed the view by constructing your own link with parameters and filters that control how the view looks and what data is shown.

## Sharing Views

Easily share your Tableau Server views with others using the Share options. Clicking the Share button generates simple links that you can either embed in another blog or webpage or email to a friend or co-worker.

### To Email Views:

1. Navigate to the view on Tableau Server that you want to email.
2. Click the **Share** link in the upper left corner of the view. This button is in the lower left corner for Guest users and embedded views.
3. Copy and paste the Email link into your email message.



**Sales Attainment**  
Go: Previous | Next | Workbook | Back  
Edit Tags: sample

Share →

**Share Viz** | **Tableau** | Sales Attainment

Display Options

**Email:**  
Copy and Paste link into your email message  
`http://localhost/views/Tableau/CalculatedFields?embed=yes&t`

**Embed:**  
Copy and Paste HTML code to embed the Viz in your website  
`<script type="text/javascript" src="http://localhost/javascripts/ap`

Done

Home Office  
Small Business  
West  
Consumer  
Corporate  
Home Office

2008

Format Text | Adobe PDF

Address Book | Check Names

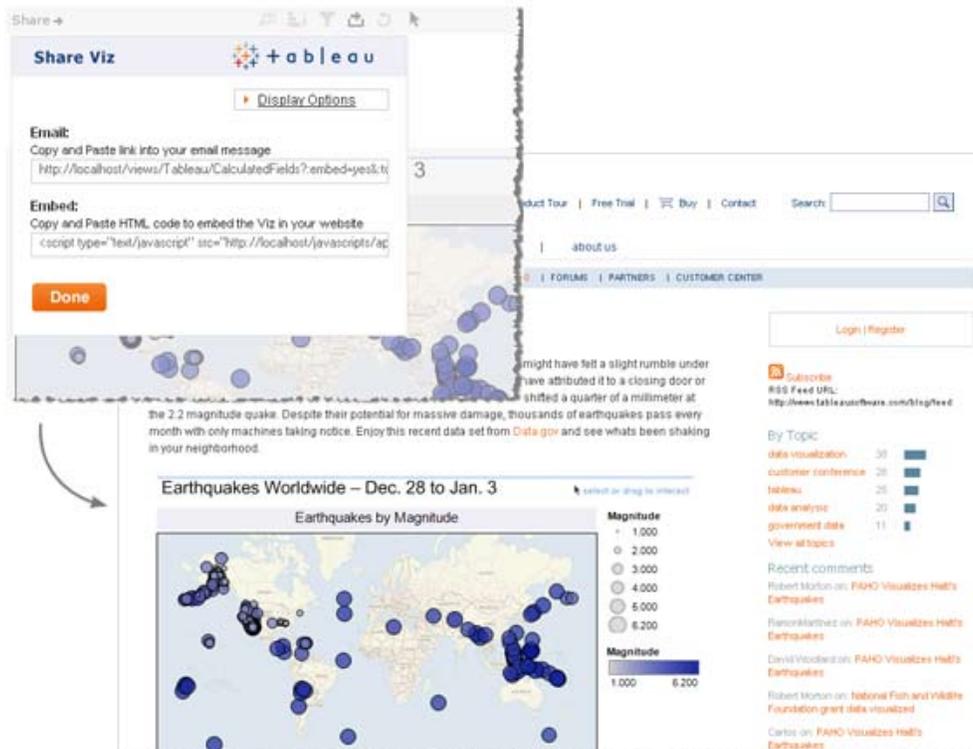
Names

Check out this cool visualization I made!  
<http://localhost/views/Tableau/CalculatedFields?:embed=yes&:toolbar=yes>

-Frank

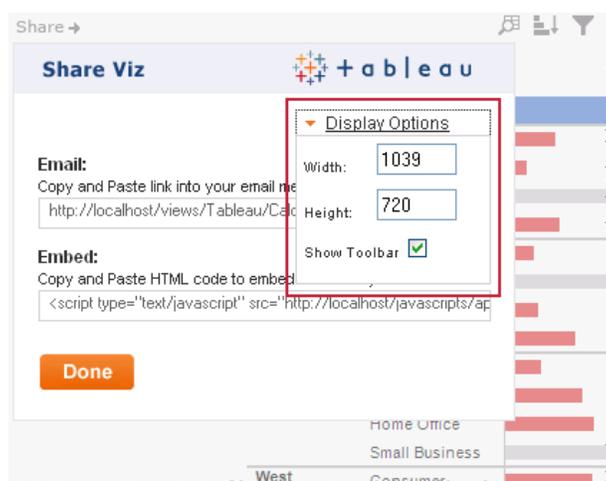
## To Embed Views:

1. Navigate to the view on Tableau Server that you want to embed.
2. Click the **Share** link in the upper left corner of the view. This button is in the lower left corner for Guest users and embedded views.
3. Copy and paste the Embed code into your webpage.



## Display Options

When emailing or embedding views, you can optionally adjust the display options including width, height and whether to show the toolbar. The width and height show the current size of the view by default.



## Manually Embedding Views

Instead of using the Share link, you can build your own embed code using an iFrame or Image. When you manually embed a view you can add parameters that control comments, toolbars, and more. You can also add filters to the URL that control the specific data that shows when the view is loaded.

The source of your <iframe> or <img> tags should be the URL of the view you want to embed as well as any parameters or filters.

### Adding Parameters to the URL

The following table lists the available parameters you can add to the source url in your iFrame or Image.

Parameter	Possible Values	Description	Example
:embed	yes; no	When yes the top navigation area is hidden making the view blend into your web page better.	http://tabserver/views/Date-Time/DateCalcs?:embed=yes
:comments	yes; no; ro	Hide and show comments. Comments are hidden by default if the parameter is not set. When set to "ro" value shows the comments as read only.	http://tabserver/views/Date-Time/DateCalcs?:embed=yes&:comments=yes
:toolbar	yes; no	When yes the toolbar is included with the embedded view. The toolbar is shown by default if this parameter is not set.	http://tabserver/views/Date-Time/DateCalcs?:embed=yes&:toolbar=no
:revert	all; filters; sorts; axes	Reverts the view back to how it was when it was published. Use the All parameter value to revert all changes or specify the type of change to revert. Any new filter commands on the same URL will be applied after the view is reset to its published state.	http://tabserver/views/Date-Time/DateCalcs?:embed=yes&:revert=filters

**Note:** All URLs must specify the embed parameter and can optionally include the comments and toolbar, and revert parameters. For example the following URL embeds a view with the comments showing as read only and the toolbar hidden.

```
<iframe src="http://tableauserver/views/Date-Time/DateCalcs?:embed=yes&:comments=ro
&:toolbar=no" width="100%" height="700px"></iframe>
```

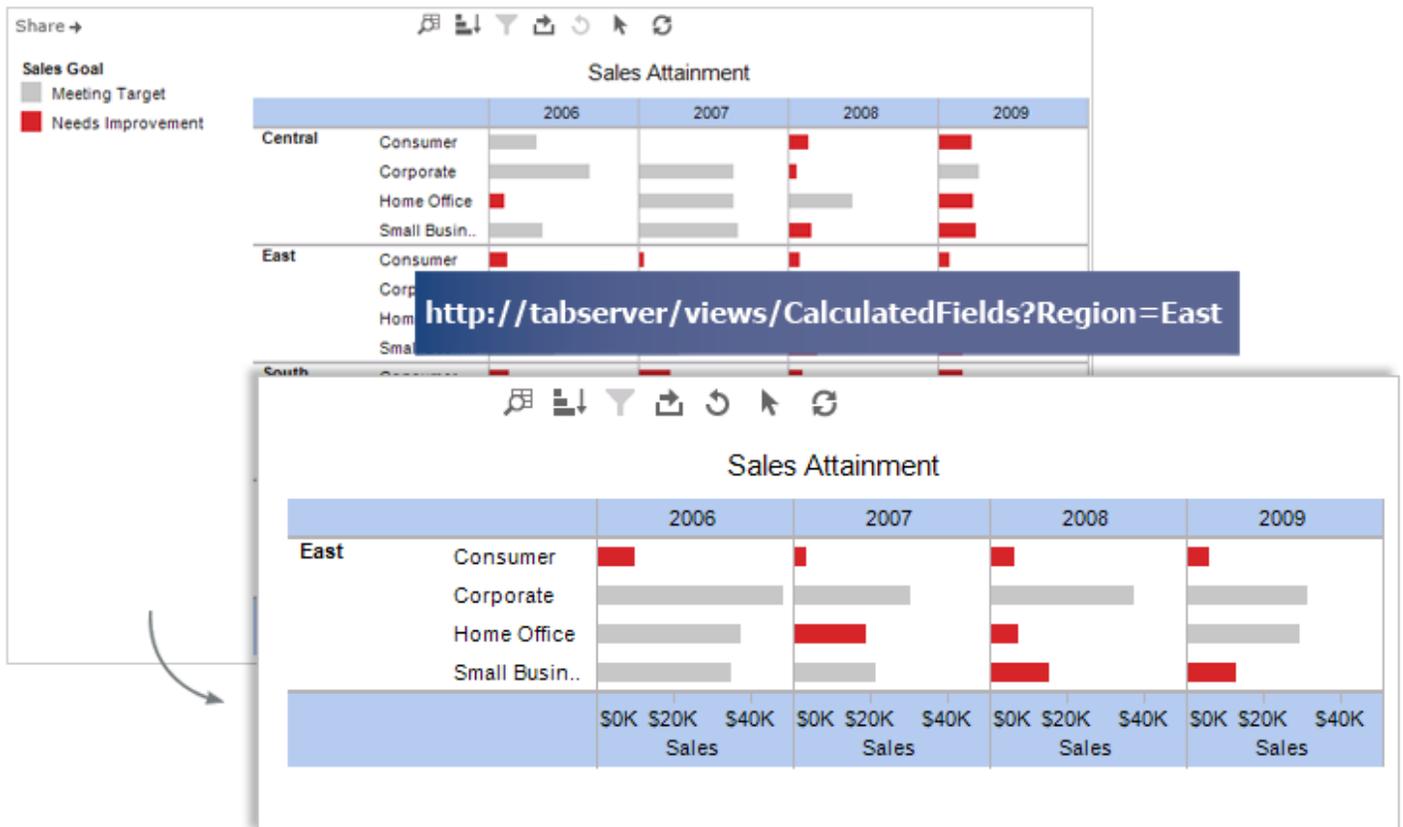
You must define a width and height if you are embedding a view using an iFrame. In general you should set the width to 100% and the height to a fixed size such as 600 pixels.

## Adding Filters to the URL

In addition to the basic set of URL parameters for an embedded view, you can also pass filter values so the view opens showing just the data you want. For example, you may want to include a hyperlink from another part of your web application to an embedded sales performance view that only shows a specific region. Filtering an embedded view lets you provide a more customized experience for the person working with the view.

To pass a filter along with the URL simply add the field name and the members you want to include in the view. These values should be added after the question mark symbol in the URL. For example, the URL below filters the view to only show the Eastern region:

`http://tabserver/views/CalculatedFields?Region=East`



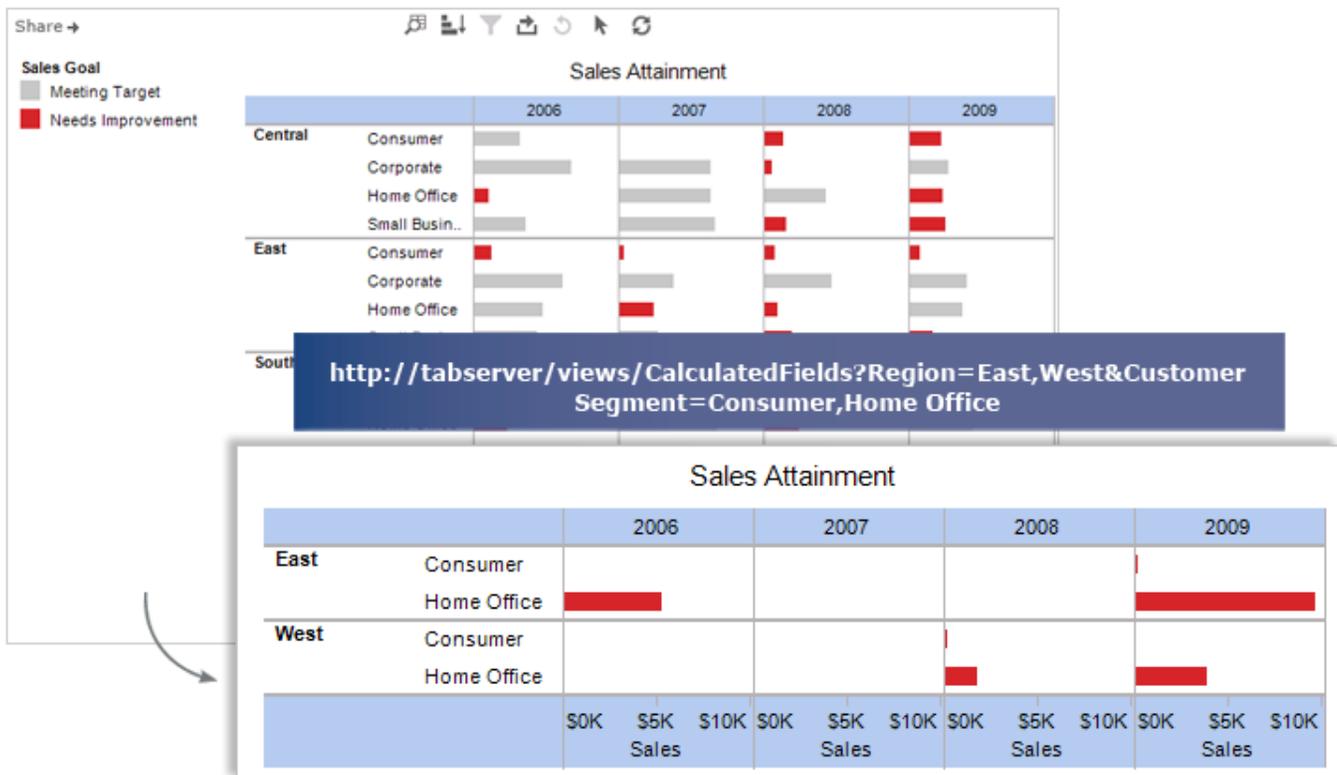
If you want to include multiple regions in the filter just separate the values with commas. The following URL includes the Eastern and Western regions.

<http://tabserver/views/Sales/Sales-Performance?Region=East,West>

### Adding Multiple Filters

You can pass filters on as many fields as you want, including fields that are not in the original view. Separate each parameter with the ampersand character ( & ). For example, the following URL filters the Calculated Fields view by Region and Priority.

<http://tabserver/views/CalculatedFields?Region=East,West&CustomerSegment=Consumer,Home Office>



## Filtering Dates and Times

If you want to filter on a Date/Time field you should include the value using the default Tableau format shown below:

```
yyyy-mm-dd hh:mm:ss
```

The time part uses a 24 hour clock. Many databases store all date values as Datetime fields, so you may need to pass a time value along with your date. Below is the URL for filtering just a date field as well as a datetime field.

```
http://tabserver/views/Sales/Sales-Performance?Date=2008-12-01
```

```
http://tabserver/views/Sales/Sales-Performance?Date=2008-12-01%2022:18:00
```

Filter to multiple dates by including a comma separated list of multiple date values.

## Filtering Measures

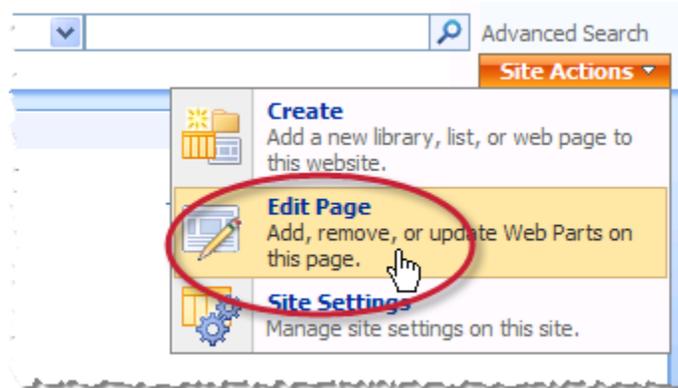
Finally, you can filter measures as well by including one or more values. There is no support for greater than, less than, or ranges. The example below filters to only show \$100 and \$200 sales.

```
http://tabserver/views/Sales/Sales-Performance?Profit=100, 200
```

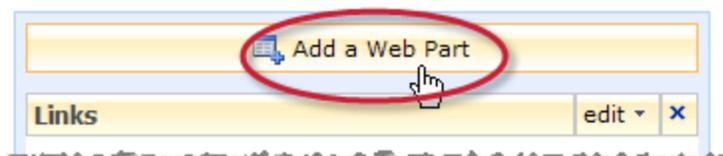
## Example 1: Embedding Views into SharePoint (Microsoft SSPI)

If both Tableau Server and SharePoint are using Microsoft SSPI then you can embed views using the Page Viewer Web Part. Follow the instructions below to embed a view into a SharePoint page.

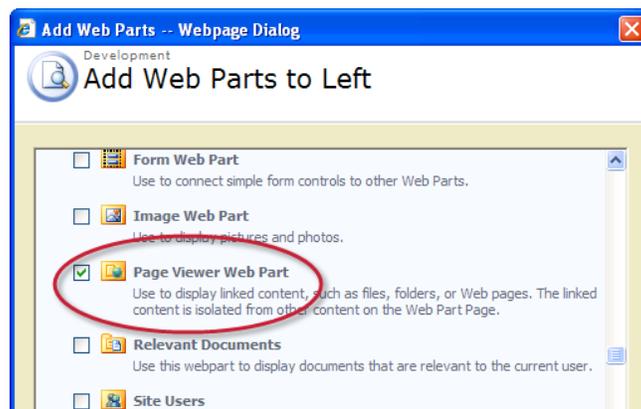
1. Navigate to the SharePoint page that you want to embed a view into.
2. On the Site Actions menu in the upper right corner of the page select **Edit Page**.



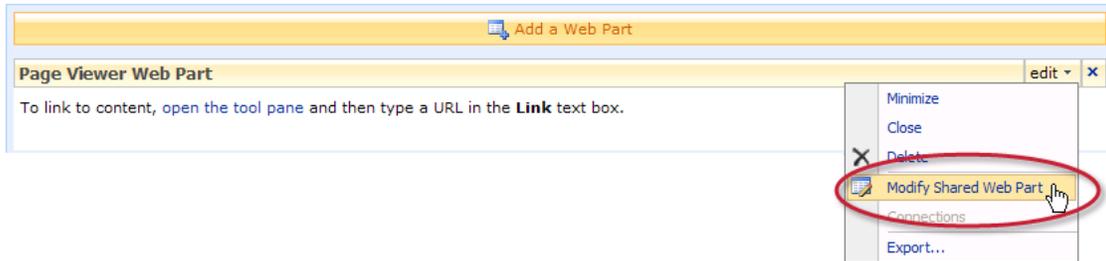
3. Click the **Add a Web Part** button in the section of the page where you want to embed the view.



4. On the page that opens, select the **Page Viewer Web Part** located in the **Miscellaneous** section and click **Add**.

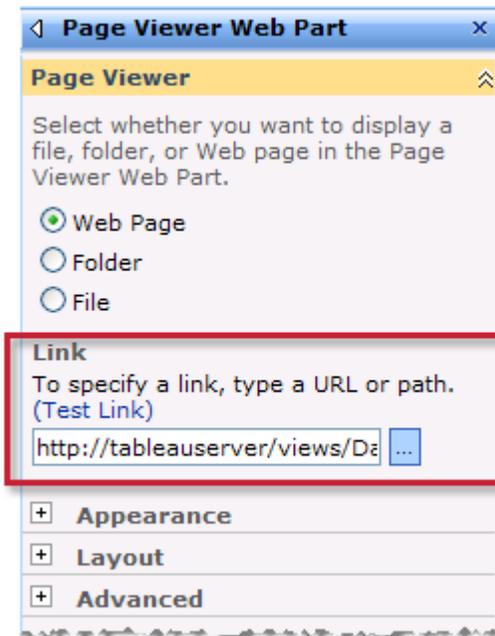


- Back on the SharePoint page select **Modify Shared Web Part** on the **Edit** menu for the new web part.

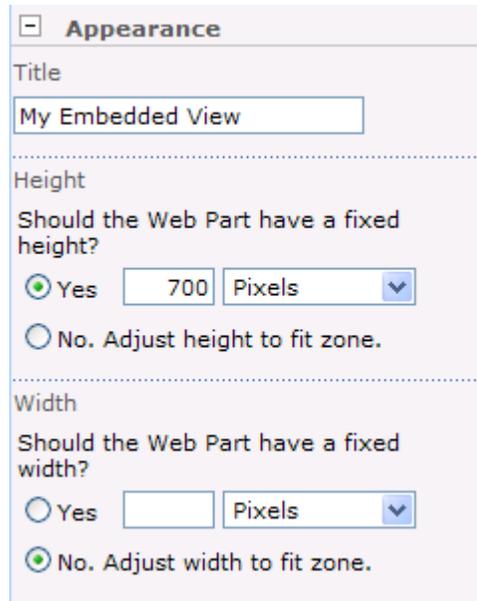


- On the right side of the page, you can specify the attributes of the Page View Web Part. Type the URL for the view you want to embed. Use the format specified in the Embedding Views section of this document. For example you may type:

`http://tableauserver/views/Date-Time/DateCalcs?:embed=yes&:toolbar=no`



7. Then in the **Appearance** section you can specify a **Title** of the web part, the **Height**, and **Width**. In general you should specify a fixed height (e.g., 700px) and Adjust the width to fit to the zone.

A screenshot of the "Appearance" configuration panel for a web part. The panel has a title bar with a minus sign and the word "Appearance". Below the title bar, there are three sections: "Title", "Height", and "Width". The "Title" section has a text box containing "My Embedded View". The "Height" section has a question "Should the Web Part have a fixed height?" with two radio button options: "Yes" (selected) and "No. Adjust height to fit zone.". The "Yes" option is followed by a text box containing "700" and a dropdown menu set to "Pixels". The "Width" section has a question "Should the Web Part have a fixed width?" with two radio button options: "Yes" and "No. Adjust width to fit zone.". The "No" option is selected, followed by an empty text box and a dropdown menu set to "Pixels".

8. When finished, click **OK** to apply the changes and exit edit mode.

The view will be embedded into the web part that you just created. Your users will not need to log in to Tableau Server to see the embedded view, rather they will be automatically authenticated using Microsoft SSPI.

## Example 2: Embedding Views into Wikis

You can easily embed a view into a wiki or other web page simply by putting the view inside an `<iframe>` tag.

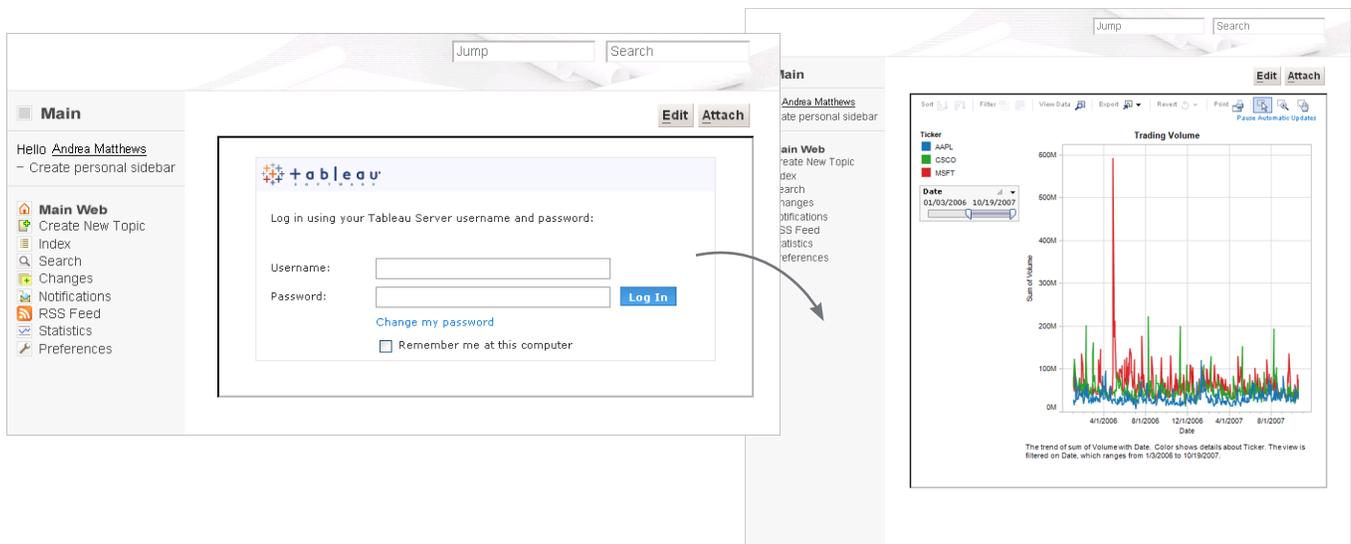
1. Navigate to the wiki page you want to embed a view into.
2. Edit the page and add an `<iframe>` where the source is the URL for the view. For example:

```
<iframe src="http://tableauserver/views/Date-Time/DateCalcs?:embed=yes&:comments=ro
&:toolbar=no" width="100%" height="700px"></iframe>
```

3. Save your changes.

The view is embedded into the wiki page. If both Tableau Server and the wiki are both configured to use Microsoft SSPI, users accessing an embedded view on the wiki will be automatically logged in so they can see the view.

If the server and the wiki are not using the same method for authentication, users will first be asked to log into the server before they can see the view.



## Example 3: Embedding Images

In addition to embedding a view into an `<iframe>` tag you can also embed the view as an image. When you embed an image the view is not interactive, however, it is updated every time the page fully reloads. That way the image shows the latest data even if the underlying data changes.

1. Navigate to the the page where you want to embed the image.
2. Edit the page and add an `<img>` tag where the source is the URL for the view plus the `.png` file extension. For example:

```

```

**Note:** If both the web page and Tableau Server are both using Microsoft SSPI for authentication, then anyone accessing the embedded image will automatically be logged into Tableau Server and be able to see the view. However, if the server and the web page are not using the same authentication method, the image will not show.

## Example 4: Embedding Views into SharePoint (Trusted Authentication)

If you are embedding a view into SharePoint but you don't use Microsoft SSPI for authentication, you can set up trusted authentication using the extra web part dll installed with Tableau Server. Follow the instructions below to install the Tableau Web Part dll and embed a view into a SharePoint page.

1. Locate the TableauEmbeddedView.dll file that is installed with Tableau Server. The file is usually located in:

```
C:\Program Files\Tableau\Tableau Server\5.2\extras\embedding\sharepoint\
```

2. Copy the dll file into the root directory of your SharePoint server. The root directory is usually located at:

```
C:\Inetpub\wwwroot\wss\VirtualDirectories\

```

3. In a text editor, open the web.config file located at:

```
C:\Inetpub\wwwroot\wss\VirtualDirectories\

```

4. Add the following text to the bottom of the SafeControl section:

```
<SafeControl Assembly="TableauEmbeddedView, Version=1.0.0.0, Culture=neutral,
PublicKeyToken=9f4da00116c38ec5" Namespace="TableauEmbeddedView"
TypeName="*" Safe="True" />
```

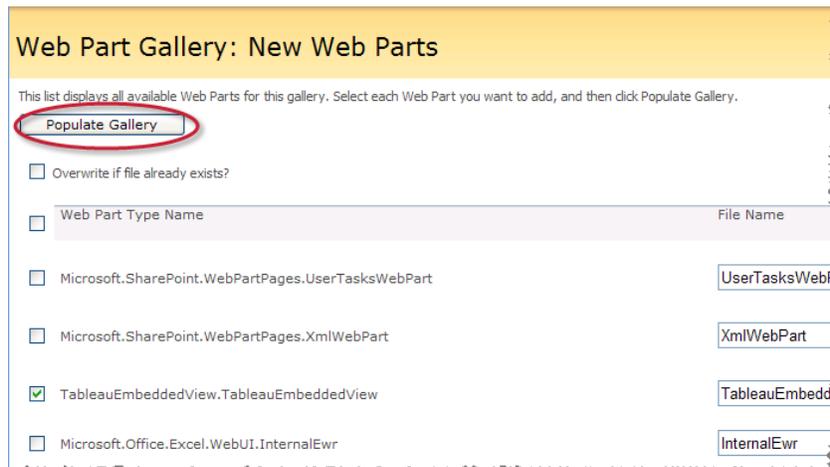
5. You also need to allow the webpart access to your sharepoint server. You can do this one of the following three ways:

- Copy the TableauEmbeddedView.dll file into your C:\Windows\assembly folder and delete it from the bin file you copied it into in step 2 above.
- Reopen the web.config file you opened in step 3 above and find the following line:  

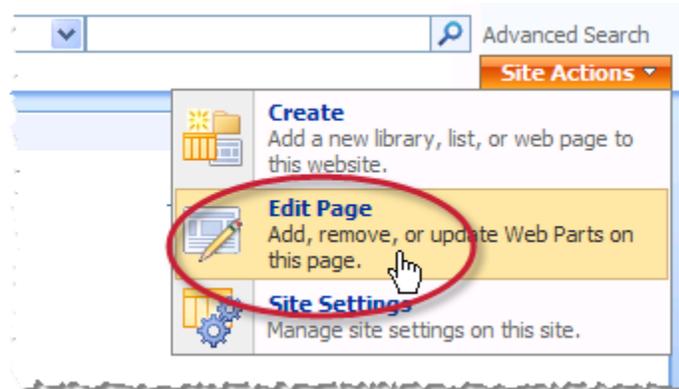
```
<trust level = "WSS_minimal" originalUrl="" />
```
- Change the line above to the following:  

```
<trust level = "Full" originalUrl="" />
```
- Create a custom trust policy, which will grant full access to the TableauEmbeddedView.dll only. Refer to the [Microsoft Technical Article](#) to learn more about how to do this.

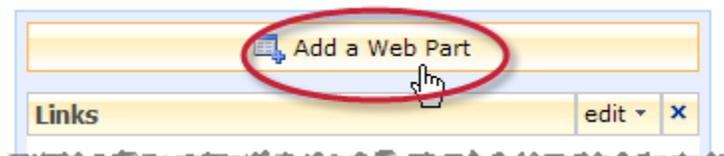
6. Open a browser and navigate to: [http://<your\\_sharepoint\\_server>/\\_layouts/newdwp.aspx](http://<your_sharepoint_server>/_layouts/newdwp.aspx).
7. Select the entry titled TableauEmbeddedView.TableauEmbeddedView and click the **Populate Gallery** button.



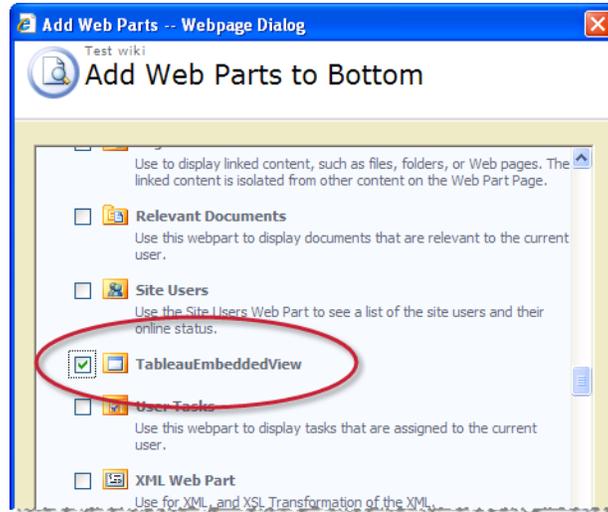
8. Navigate to the SharePoint page that you want to embed a view into.
9. On the Site Actions menu in the upper right corner of the page select **Edit Page**.



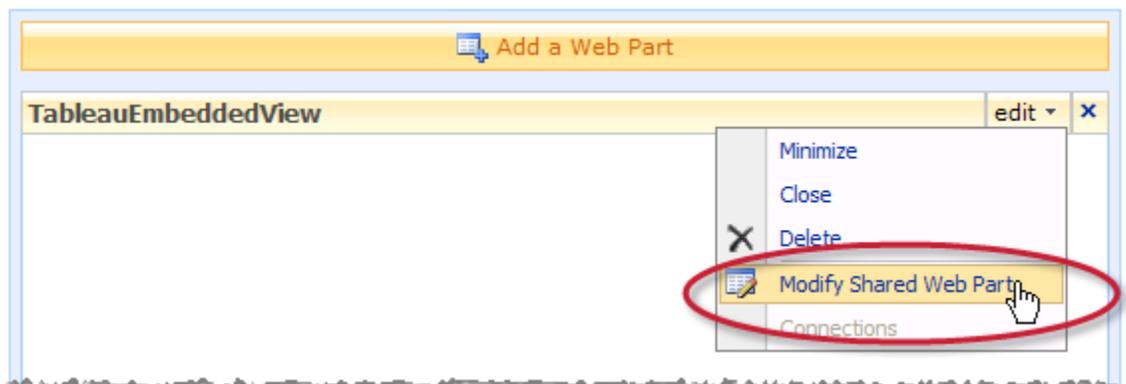
10. Click the **Add a Web Part** button in the section of the page where you want to embed the view.



11. On the page that opens, select **TableauEmbeddedView** located in the **Miscellaneous** section and click **Add**.



12. Back on the SharePoint page select **Modify Shared Web Part** on the **Edit** menu for the new web part.

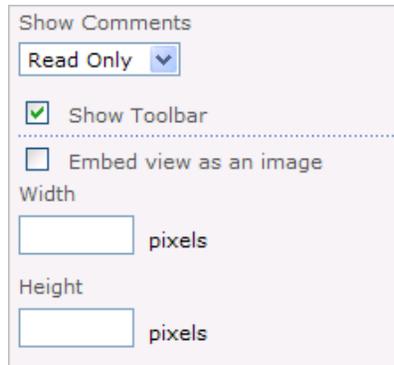


13. On the right side of the page, you can specify the attributes of the TableauEmbeddedView web part. Type the name of your Tableau Server.

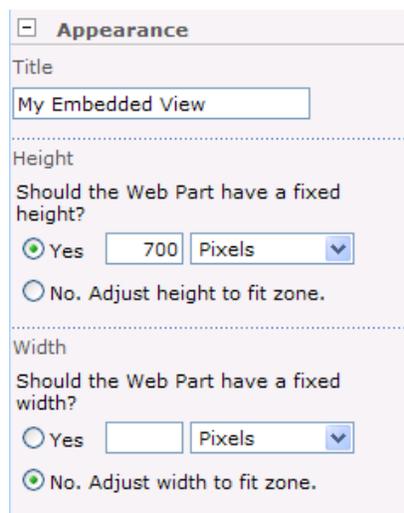
14. Then type the path to the view you want to embed. For example you may type /views/Date-Time/DateCalcs.

Tableau View Settings	
Tableau Server Name	<input type="text" value="tableau-server"/>
View Path	<input type="text" value="/views/Date-Time/DateCalcs"/>

15. Specify other attributes such as whether you want to show comments, whether to show the toolbar, or even if you want embed the view as an image instead of as an interactive view.



16. Then in the **Appearance** section you can specify a **Title** of the web part, the **Height**, and **Width**. In general you should specify a fixed height (e.g., 700px) and Adjust the width to fit to the zone.



17. When finished, click **OK** to apply the changes and exit edit mode. Now the view is embedded in the page and users who access the view will be automatically logged

in based on their user name and password for SharePoint. Anyone who accesses an embedded view needs to be a licensed user on Tableau Server and their user name on SharePoint must be the same as their user name on Tableau Server.

**Note:** This is an example of embedding views into SharePoint using the provided dll file. You can also embed views into other types of web applications and even build your own dll file. Example code is provided for setting up trusted authentication for SharePoint, PHP, Ruby, and Java applications. These examples are installed with Tableau Server and are usually located in: C:\Program Files Tableau\Tableau Server\5.2\extras\embedding\

# Trusted Authentication

When you embed Tableau Server views into a web application you can set up Tableau Server to trust your web application. When this trusted relationship is set up, Tableau Server assumes that your web application handles all of the necessary authentication.

If your webserver uses SSPI, you do not need to set up trusted authentication. You can simply embed views and your users will have access to them as long as they are licensed Tableau server users and members of your Active Directory. If you are not using SSPI or Active Directory, you will need to set up trusted authentication.

Below are the general steps for setting up trusted authentication between Tableau Server and your web application. The specific instructions can vary depending on the web language you are using. Refer to the Java, Ruby, and PHP examples located at: C:\Program Files Tableau\Tableau Server\5.2\extras\embedding\.

1. Configure Tableau Server to trust your web application by running the following tabadmin command:

```
tabadmin set wgserver.trusted_hosts "<Trusted IP Address>"
```

Substitute one or more trusted IP Addresses in the command above. Multiple IP Addresses should be separated by commas.

2. Configure your web server to contact the Tableau Server with a POST request like the one below:

```
http://tabserver/trusted
```

With the following post parameters:

```
username = <username>
```

```
client_ip = <client_ip>
```

The POST must come from a machine with one of the IP address you configured in step one. The <username> must be a licensed Tableau Server user.

3. Tableau Server returns a <unique\_id> as the response the POST. Your web application then should receive the <unique\_id> and return a URL to the client like the one shown below:

```
http://tabserver/trusted/<unique_id>/<rest_of_desired_url>
```

4. The client then attempts to retrieve the above URL. The <unique\_id> must be redeemed within 15 seconds of the time it was issued. Once it is redeemed, the user is logged in as if they had actually authenticated.

The <unique\_id> is successfully redeemed when the request IP Address is the same as what was specified in the original POST. After the <unique\_id> has been validated, it can no longer be used again. The response to the GET request of the URL with the <unique\_id> is a redirect to the actual URL, which the user's browser will then successfully retrieve.

# Appendix A: Extract Storage Databases

When configuring the server for extract storage you can either choose the built-in option or point the server at your own PostgreSQL, MySQL, or SQL Server database. If you are using your own database you'll need to specify the server, database, port, and a user account. The account must have permission to create tables, add and remove rows to tables, and select data from tables. The table below describes the specific permission requirements for each supported type of database.

Storage Type	Description
PostgreSQL	The account must have CONNECT, CREATE, AND TEMP privileges on the specified database.
MySQL	The account must have SELECT, INSERT, CREATE, DROP, CREATE TEMPORARY TABLES, INDEX, AND DELETE on the specified database.
Microsoft SQL Server	The account must have db_datawriter, db_datareader, and db_ddladmin permissions on the specified database.

If you choose to use a SQL Server database with Window Authentication as your extract storage type, Tableau Server uses the Run As user when it connects to the storage database. Make sure that user account has the necessary permissions for accessing the database. If you've used the default Network Service user, you'll need to add permissions to your extract storage database for all machines running Tableau Server.

You can specify the run-as user during General Configuration.

Please contact your database administrator if you are pointing Tableau Server at an external extract database and don't know if your account has the required permissions.

**Note:** When setting up a database to be used for extract storage, you should avoid using the period character ( . ) in the name. This character sometimes causes problems on Microsoft SQL Server databases.

If you decide to switch the type of Extract Storage Database you are using, you must first select None and then save and restart the server. Then you can select the new type of database and save and restart the server.

# Appendix B: Run As a Specific User

This section describes things you should consider if you choose to use a specific Active Directory account for the server to run as instead of the default Network Services account.

## Other Services

When you are using a specific Active Directory account for the run as user on the server you should make sure that the Secondary Logon windows service is running. Tableau Server will not install successfully if this service is not running.

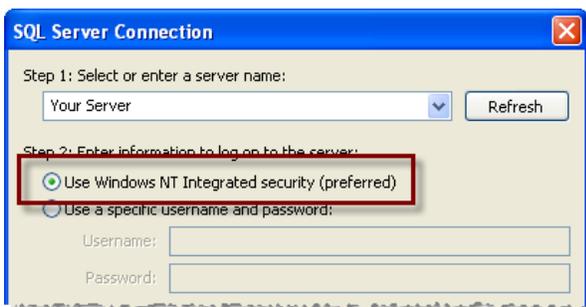
## Passwords and Permissions

The user account that you choose to run the server under should have the right to log on as a service. Learn more about adding this right to account in the [Microsoft TechCenter](#).

## Using NT Authentication

If you use NT Authentication to connect to Microsoft data sources (excluding Excel and Access files), the server user account (specified when installing Tableau Server) will be used for authentication when users access published workbooks that use these data sources. You should make sure that the server user account has at least read access to the data source.

**Windows NT Integrated Security:**  
authenticated against the server user account.



**Specific User Name and Password:**  
each user on Tableau Server will be prompted for a user name and password.



## Using Database Authentication

When you publish a workbook or data source that requires a user name and password, anyone who views the workbook on the server or imports the data source will be prompted for a user name and password. As an administrator you can choose whether to allow users to “remember” their password. In addition, you can allow publishers to include their password so server users are taken directly to the workbook, with no delays. Refer to [Customizing Tableau Server - User Interaction](#) for more information about these settings.

A screenshot of a "Log In" dialog box. It has a light blue header with the text "Log In". Below the header are two input fields: "User Name:" with the text "testusername" and "Password:" with "\*\*\*\*\*". To the right of the password field is a blue button labeled "Log In". Below the input fields is a checkbox labeled "Remember my password until I log out".

Log In	
User Name:	testusername
Password:	*****
	<input type="checkbox"/> Remember my password until I log out

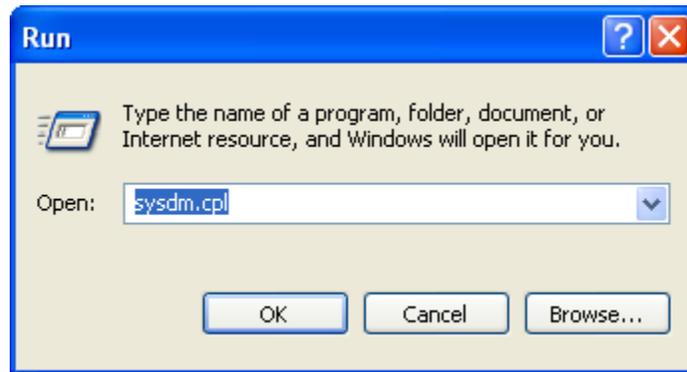
**Note:** Users only need read access to the database in order to view the workbook on the server.

# Appendix C: Active Directory Domain

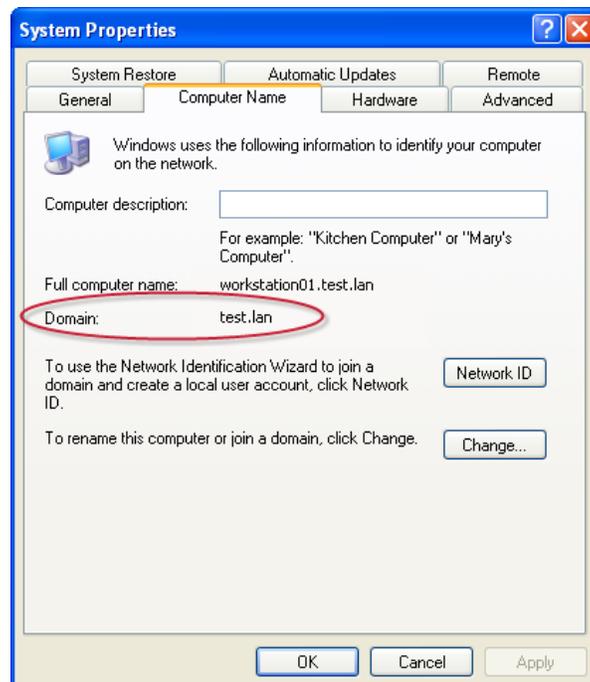
If you are using Active Directory authentication, you need to include the fully qualified domain name (FQDN) when configuring Tableau Server. Follow the instructions below to determine this value.

## To determine your Active Directory FQDN:

1. Select **Start > Run**
2. Type **sysdm.cpl** into the Run dialog box.



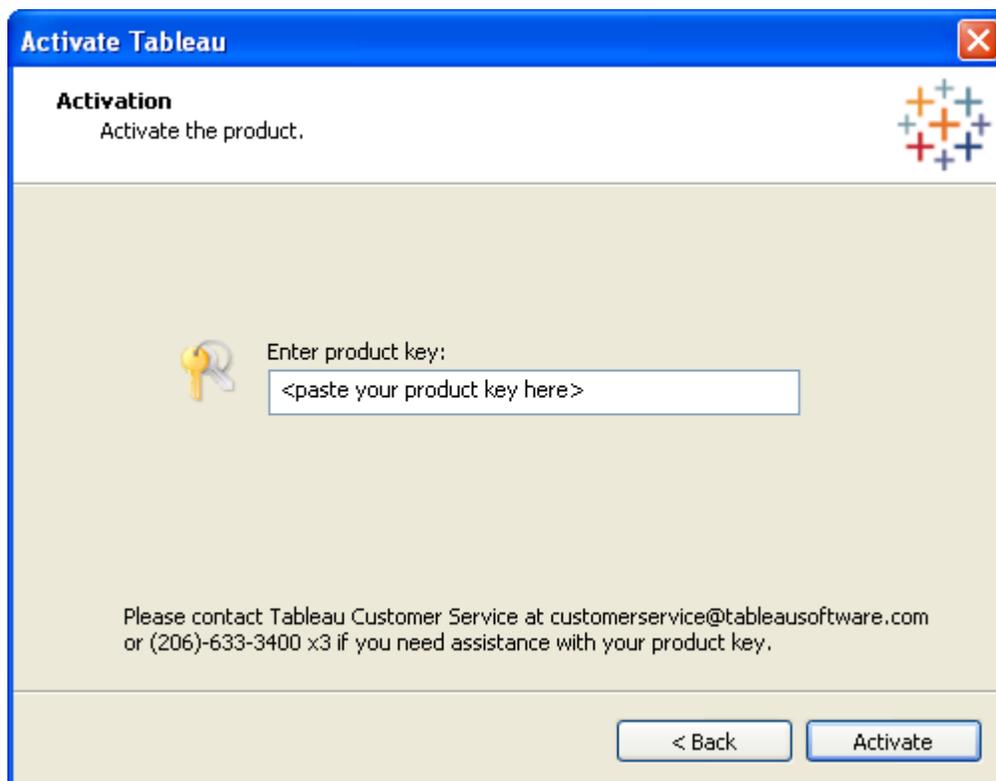
3. In the System Properties dialog box, select the **Computer Name** tab.
4. The FQDN is shown near the middle of the dialog box.



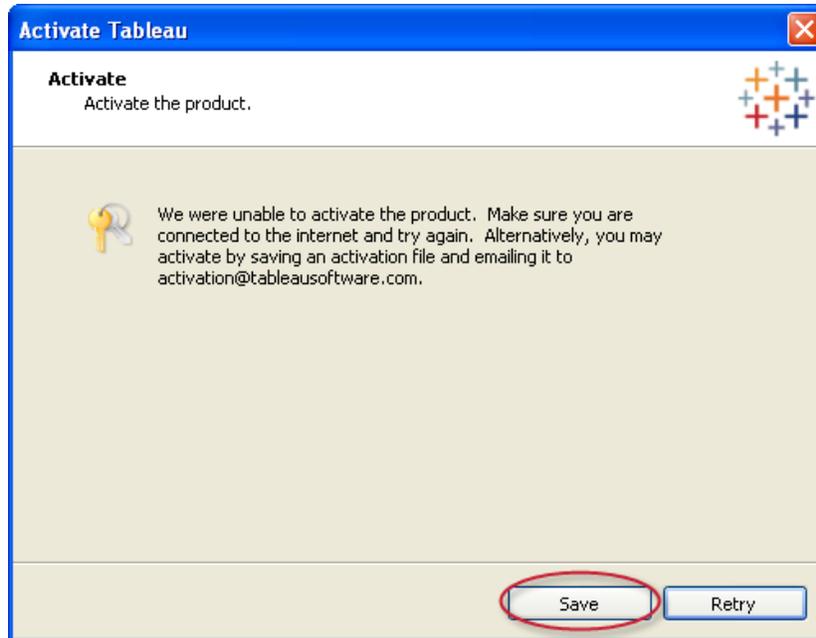
## Appendix D: Offline Activation

When you're done installing Tableau Server you will need to activate and register. If you are working offline you can follow the steps below to complete offline activation.

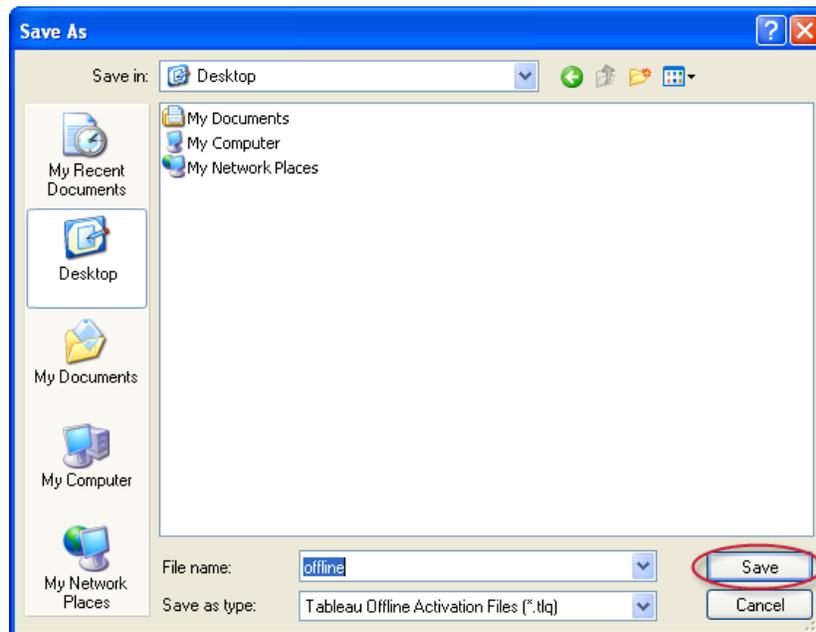
1. When the product key manager opens click **Activate the product**.
2. Paste your server product key into the corresponding text box and click Activate. You can get your product key from the [Customer Account Center](#) on Tableau's web site.



- When you are offline, activation will fail and you are given the option to save a file that you can use for offline activation. Click **Save**.

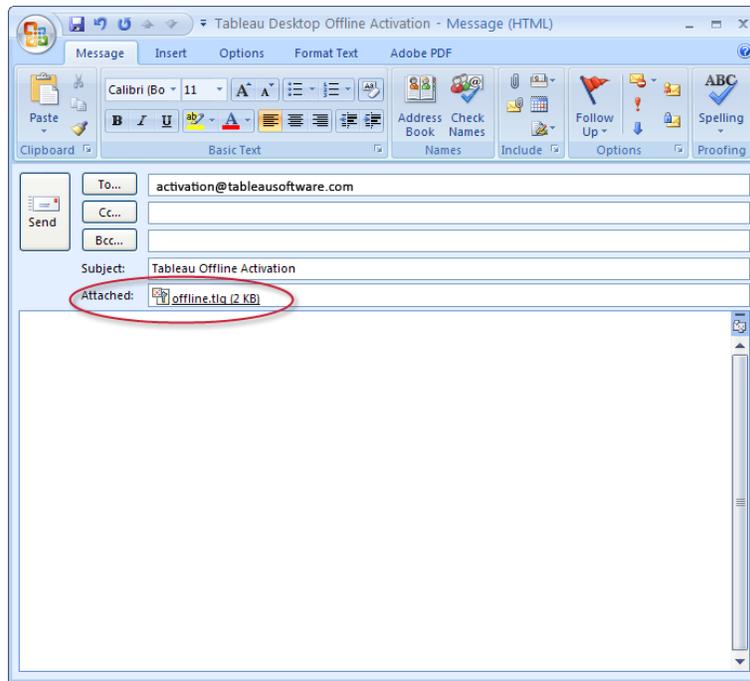


- Select a location for the file and click **Save**. The file is saved as *offline.tlq*.



- Back in Tableau click **Exit** to close the Activation dialog box.

6. Move the file to a computer that is online and open an email editor. Create a new email to [activation@tableausoftware.com](mailto:activation@tableausoftware.com). Attach the file to the email and click **Send**.



7. The Tableau Customer Service Team will email you back a file called *offlineresponse.tlf*. Move this file to the computer where you are installing Tableau Server. If you have Tableau Desktop installed on the computer you can then **double-click** the new file to complete activation. If you do not have Tableau Desktop installed continue to steps 8-9 below.



8. On the computer where you are installing Tableau Server, open a command prompt and run the following command:

```
cd "C:\Program Files\Tableau\Tableau Server\5.2\bin"
```

9. Then type the following command:

```
tabadmin activate --tlf \Desktop\offlineresponse.tlf
```

Replace the file path above with the path to where you've saved the response file Tableau emailed to you.

If you need additional assistance, please contact the Tableau Customer Service team at [customerservice@tableausoftware.com](mailto:customerservice@tableausoftware.com).

# Appendix E: Reconfiguring the Server

You may need to reconfigure the server after set up. Use the configuration tool or the command line tool to reconfigure the server.

## Using the Configuration Tool

You can re-open the configuration tool by selecting **Tableau Software > Configure Tableau Server** on the Windows Start menu. There you can modify the number of processes and the ports used by the VizQL Server and Application.

**Caution:** You cannot switch between Active Directory and Local Authentication.

## Other Configuration Options

You can configure other server settings using the command line tool. First change directories using the command below.

```
cd C:\Program Files\Tableau\Tableau Server\4.1\bin\
```

Then use the following command, substituting in the appropriate variables based on the option you want to change.

```
tabadmin set option-name value
```

(See a list of configuration options on the [next page](#).)

Use the table below to learn more about each option you can configure.

Option	Default Value	Description
<code>workerX.gateway.port</code>	80	External port that Apache listens on
<code>gateway.host</code>	Name of the machine	The host name for the server. The default host name is set to the machine running Tableau Server.
<code>workerX.backgrounder.port</code>	8200	Internal port the backgrounder listens on.
<code>java.heap.size</code>	128m	Size of heap for Tomcat (repository and solr). This generally does not need to change except on advice from Tableau.
<code>pgsql.port</code>	8060	Port that PostgreSQL listens on
<code>repository.port</code>	8080	Port the repository listens on. This must be the same value as <code>tomcat.http.port</code>
<code>solr.port</code>	8080	Port that solr listens on. This must be the same value as <code>tomcat.http.port</code>
<code>tomcat.http.port</code>	8080	Port that Tomcat runs on
<code>tomcat.https.port</code>	8443	SSL port for Tomcat (unused)
<code>tomcat.server.port</code>	8085	Port that tomcat listens for shutdown messages on.
<code>vizqlserver.port</code>	8100	Base port for the VizQL servers
<code>workerX.vizqlserver.procs</code>	# of processes	Number of VizQL servers
<code>vizqlserver.querylimit</code>	30	Longest allowable time for updating a view, in seconds
<code>vizqlserver.session.expiry.timeout</code>	120	Number of minutes of idle time after which a VizQL session is discarded
<code>wgserver.domain.fqdn</code>	value of %USERDOMAIN%	The fully qualified domain name of the Active Directory server to use
<code>workerX.wgserver.port</code>	8000	Base port for the web application servers
<code>workerX.wgserver.procs</code>	# of processors	Number of web application server processes
<code>wgserver.session.idle.limit</code>	240	The number of minutes of idle time before a login to the web application times out
<code>wgserver.trusted_hosts</code>		This option takes a comma separated list of trusted IP Address for the machine you want to accept trusted requests from. A common value is 127.0.0.1 if you want to put the webserver and Tableau server on the same machine. This option is used when setting up a trusted relationship between the web server and Tableau Server when embedding views.

## Applying the Changes

Modifying the configuration options edits the configuration file `tabsvc.yml`, which is located in the config directory. You can modify the options without affecting the operation of Tableau Server. The changes will take affect the next time you start the server. You can also force the configuration changes using the steps below.

### To apply the changes to the server:

1. At a command prompt type the following:

```
cd C:\Program Files\Tableau\Tableau Server\5.2\bin
```

2. Then stop the server by typing: `tabadmin stop`
3. Then configure the server by typing: `tabadmin configure`
4. Then start the server again by typing: `tabadmin start`

## Restoring the Default Configuration

You can restore the default configuration for any of the options with the following steps:

1. At a command prompt type the following:

```
cd C:\Program Files\Tableau\Tableau Server\5.2\bin
```

2. Then restore the default value for a particular option by typing the following:

```
tabadmin set option-name -default
```

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