Table of Contents

Introduction .............................................................................................................................................. 4
Three Options for Accessing the Virtual Workspace ........................................................................... 4
Accessing the Virtual Workspace via Web Browser (Public Devices) .............................................. 4
 Logging Off of the Virtual Workspace via Web Browser .................................................................. 5
Installing and Accessing the Virtual Workspace Client (PC) ............................................................. 6
Accessing the Virtual Workspace using the VMware Horizon Client (PC) ........................................ 8
Installing and Accessing the Virtual Workspace Client (Mac) ........................................................... 9
Logging Off of the Virtual Workspace Client (Mac) ............................................................................ 12
Accessing the Virtual Workspace Via the Horizon App (iOS) .......................................................... 13
Installing VMware Horizon Client App .............................................................................................. 13
Using the VMware Horizon Client for iOS ....................................................................................... 15
Radial Menu ........................................................................................................................................ 15
Connection Menu ............................................................................................................................... 16
Logging Off of the VMWare Horizon Client App ............................................................................. 17
Appendix ............................................................................................................................................... 18
Copying and Pasting ............................................................................................................................ 18
  Using the Copy & Paste Panel (Web Browser) .................................................................................. 18
  Clearing the clipboard in the Virtual Workspace (Web Browser) ..................................................... 19
Saving Files in VW ............................................................................................................................... 19
  Saving Files Exercise ....................................................................................................................... 20
Accessing Additional Shared Drives and Devices .......................................................................... 23
  Mapping a Drive in VW .................................................................................................................... 23
  Accessing USB Devices and Optical Drives (PC Client Software) ................................................ 24
  Adding a Device or Drive .................................................................................................................. 24
Transfer Files Using a Web Browser ................................................................................................. 26
  Downloading Files .......................................................................................................................... 26
  Uploading Files .............................................................................................................................. 28
Printing from VW .............................................................................................................................. 29
Introduction

The Virtual Workspace is Towson University's web-based, remote access product that allows TU users to remotely access the Towson Desktop, secure share drives and published applications from virtually any computer with an Internet connection and a browser. When using the Virtual Workspace for the first time, software must be installed. This self-help document will step you through how to download this client.

Three Options for Accessing the Virtual Workspace

Web Browser – good for accessing from public devices where you can’t install the client software.

Locally Installed Client – best performance. This is a great option to gain access from your office or home computer.

Mobile Device – install the client software to your iOS/Android device.

Accessing the Virtual Workspace via Web Browser (Public Devices)

To utilize the web browser-based Virtual Workspace, follow these steps:

1. Open your preferred web browser and navigate to vw.towson.edu.
2. Login with your Username (NetID) and Password.

Note: You may be required to authenticate with the DUO Multi-Factor Authentication process.

3. The Virtual Workspace Launcher will appear in your browser window. You will be presented with a number of application icons. Some icons will launch a standalone application such as the full version of Adobe Acrobat or SPSS 23. If you wish to simulate the experience you would receive by sitting at a Towson University owned machine, you can launch the Towson Desktop.

4. Select the application icon you wish to launch.

5. A message box will appear asking you how you wish to open the application. Because you are using a browser on a public device, you will select Browser (default) then click the Open Horizon Client button.
**Note:** You will need to disable any pop-up blocker for the application to launch. The application may take several minutes to launch.

![Open Towson Desktop](image)

**Figure 3**

6. The **Virtual Workspace** experience will launch in a new browser tab and your application will appear. **Note:** The application will have a **sidebar tab** on the left-hand side of the screen. This tab may appear open or closed depending on the browser and application you use. The tab controls the application and allows you to log off when required. To expand or minimize the tab, click the tab handle, indicated by three vertical lines. The sidebar will expand or minimize accordingly.

![Horizon sidebar](image)

**Figure 4**

**Logging Off of the Virtual Workspace via Web Browser**

1. When finished with the application, click the tab to expand the **Horizon sidebar**. Your application will appear in the sidebar panel.

![Horizon sidebar](image)

**Figure 5**
2. Depending on the application, you may click the X in the Horizon sidebar to close the application or in the instance of the Towson Desktop, it is recommended that you log off by double-clicking the Logoff icon.

![Logoff](image)

**Figure 6**

3. A confirmation screen will appear. Click **OK** and you will be disconnected.

![Confirmation Screen](image)

**Figure 7**

### Installing and Accessing the Virtual Workspace Client (PC)

The **Virtual Workspace Client** is available on campus computers via the **Software Center**. If you wish to download the client to your **personal computer**, follow these steps:

1. Open your preferred web browser and navigate to **vw.towson.edu**.
2. Login with your **Username (NetID)** and **Password**.

**Note:** You may be required to authenticate with the **DUO Multi-Factor Authentication** process.

![Towson University Authenticated Login](image)

**Figure 8**
3. The Virtual Workspace Launcher will appear. Click the Download Horizon Client icon.

![Virtual Workspace Launcher](image9.png)

Figure 9

4. The VMWare Horizon screen will appear. Click the Install VMWare Horizon Client icon.

![VMWare Horizon](image10.png)

Figure 10

5. Depending on the browser you are using, you may be asked to open or run the `TU-Horizon-Client64.exe` client. In Internet Explorer, click Run. In Chrome and Firefox, locate the file from the Downloads folder and double-click the file to run it.

![Run or Save](image11.png)

Figure 11

6. Click Install to run the `TU-Horizon-Client64` program.

![Install](image12.png)

Figure 12
7. When the installation is finished, click the Close button. The **VMware Horizon Client** will show up as an installed program on your computer.

![Image](image1.png)

**Figure 13**

**Accessing the Virtual Workspace using the VMware Horizon Client (PC)**

Once you have installed the **Virtual Workspace Client** on your Towson Owned or personal computer, you will be able to access the **Virtual Workspace**.

1. Locate the **VMware Horizon Client** icon on your desktop or go to the **Start** button and choose **VMware Horizon Client** from your apps.

![Image](image2.png)

**Figure 14**

**OR**

![Image](image3.png)

**Figure 15**
2. Login with your **User name (NetID)** and **Password**.

![Login Screen](image)

**Figure 16**

3. Click the **Login** button. The **VM Ware Horizon Client** will launch. You may run any application you choose by double-clicking the application icon. The application will run as a standalone application on your computer. 

**Note:** Applications may take several minutes to load.

![Application Icons](image)

**Figure 17**

4. When using virtual applications, you will be asked if you want to share your removable storage and local files. Click **Allow** if you want to be able to access local files while using these applications.

![Sharing Dialog](image)

**Figure 18**

**Installing and Accessing the Virtual Workspace Client (Mac)**

The **Virtual Workspace Client** is available on campus computers via the **Self Service** app. If you wish to download the client to your **personal computer**, follow these steps:

1. Open your Internet browser and type **vw.towson.edu** in the address bar and press **ENTER**.
2. Login with your **Username** and **Password**. **Note:** Your Username is your NetID
3. Click the **Login** button.
Note: You may be required to authenticate with the DUO Multi-Factor Authentication process.

Figure 19

4. The Virtual Workspace Launcher will appear. Click the Download Horizon Client icon.

Figure 20

5. The VMWare Horizon screen will appear. Click the Install VMWare Horizon Client icon.

Figure 21

6. The application will download to the Downloads folder.

Figure 22
7. Follow the installer to complete the installation. The VMWare Horizon Client window will open.

![VMware Horizon Client window](image)

**Figure 23**

**Note:** You may be prompted to update the VMWare Horizon Client to the latest version.

8. Click **New Server** to add the **Towson University Virtual Workspace** server name.

![New Server button](image)

**Figure 24**

9. In the **VMware Horizon Client** window, enter **https://vwclient.towson.edu** in the **Connection Server** field and click **Connect**.

![Connection Server](image)

**Figure 25**
10. The **Login** screen will appear. Enter your **Username (NetID)** and **Password** and click **Login**.

![Login Screen](image)

**Figure 26**

11. The **VMWare Horizon Client** will appear. You can launch any application you choose by double-clicking the application icon.

### Logging Off of the Virtual Workspace Client (Mac)

1. If you run the **Towson Desktop** application, it is recommended that you log off by double-clicking the **Logoff** icon. You will be returned to the **VMWare Horizon Client**.

![Logoff Icon](image)

**Figure 27**

2. To log off of the other applications available in the Virtual Workspace, click the **Disconnect** icon located on the top left-hand corner of the window.

![Disconnect Icon](image)

**Figure 28**

3. Click **Disconnect** again.
Accessing the Virtual Workspace Via the Horizon App (iOS)

Installing VMware Horizon Client App

To access the Virtual Workspace via your iOS device, you must first install the app.

1. Open the **App Store** and search for **VMware Horizon Client**. Install the app as you would normally.

![Figure 29](image1.png)

2. Open the **VMware Horizon Client** app.

3. In the **Server Setup** screen enter [https://vwclient.towson.edu](https://vwclient.towson.edu) in the **Server Address** field and click **Connect**.

![Figure 30](image2.png)
4. Press the **Add Server** button. In the sign in screen, enter your **Username** (TU NetID) and **Password** in the appropriate fields, then press the **Login** button.

Figure 31
Using the VMware Horizon Client for iOS

Once you are logged into the Virtual Workspace through the VMware Horizon Client app, you are presented with a list of software to access including the Towson Desktop.

Figure 32

Radial Menu

When an application is launched, the Radial Menu provides quick access to settings, help, connection, directional keys, the keyboard and touchpad features. To access these features, touch the Radial Menu button located on the center of the screen.

Figure 33

This button can be moved by touching and dragging it anywhere on your screen. Tapping on the button will reveal menu options:

Figure 34

Tapping on the Radial Menu button again will hide the menu options.
Connection Menu

The **Connection Menu** allows you to switch between the **Towson Desktop** and other available software via the Virtual Workspace. To switch between these applications, swipe the **Connection Menu Tab** to the right and select a different application.

![Figure 35](image)

To close this menu, swipe the tab left.

![Figure 36](image)
Logging Off of the VMWare Horizon Client App

1. When you are finished utilizing the Virtual Workspace Towson Desktop, it is recommended that you log off by double-clicking the Logoff icon or the Disconnect icon on the Radial menu.

![Logoff Icon](image)

Figure 37

2. To log off the other applications in the Virtual Workspace, click the Logout button.

![Logout Button](image)

Figure 38

3. Select Log out from the pop-up screen.

![Logout Pop-up](image)

Figure 39
Appendix

Copying and Pasting

The Virtual Workspace (VMware Horizon) client will allow you to use traditional copy/paste functions between your computer and the workspace.

When using a web browser to access the Towson Desktop, the Copy & Paste panel must to be used to transfer text to and from the Towson Desktop.

**Using the Copy & Paste Panel (Web Browser)**

The Copy & Paste panel is accessible from the sidebar which is usually hidden and can be accessed by clicking the transparent tab on the left side of the desktop.

1. Open the Horizon sidebar in your web browser by clicking on the tab.

![Figure 40](image)

2. In the Horizon sidebar, click the Open Copy & Paste panel icon. The Copy & Paste panel will appear.

![Figure 41](image)

3. Paste (right-click then select Paste or CTRL+V) the desired text into the Copy & Paste panel.

![Figure 42](image)
4. The text is now ready to be pasted into software contained in the Virtual Workspace.

![Copy & Paste Panel](image)

**Figure 43**

**Clearing the clipboard in the Virtual Workspace (Web Browser)**

Pasting additional text requires clearing the Copy & Paste panel.

1. Click **Clear text** at the bottom of the **Copy & Paste panel**. A notification that the clipboard has been cleared will appear.

![Clear Text](image)

**Figure 44**

2. The **Copy & Paste panel** is ready for new text to be pasted.

![Copy & Paste Panel](image)

**Figure 45**

3. Repeat the process as necessary.

**Saving Files in VW**

It is a best practice to save files and folders to your H:\ drive (Home Directory), O:\ drive (Department) or other network shares. In addition to the convenience of accessing these locations from different computers, these network drives are backed up nightly to protect against unintentional loss of data.

All files are erased from the C:\ drive of a virtual desktop after each session terminates. However, certain folders automatically save to your H:\ drive (aka home directory). When in a **Towson Desktop** session, if you save items in your Desktop, Documents, Downloads, Pictures, Music, or Videos folder, they will automatically be saved in corresponding folders in H:\VirtualWorkspace\.

For example, if you save an item on the desktop in your VW Towson Desktop session, you will actually be saving it in the Desktop folder created in your H:\VirtualWorkspace folder.
In the images below, the boxes are all showing the same folder locations:

![Folder Locations Image]

**Figure 46**

**H:\Virtual Workspace\Documents** is the same as This PC ➔ Documents

![Virtual Workspace Path Image]

**Figure 47**

**Saving Files Exercise**

1. Open Microsoft Word in the Towson Desktop.
2. In a new document, type *This is a test for saving files in the virtual workspace.*
3. Click the File tab in the ribbon.

![File Tab Image]

**Figure 48**
4. Click **Save** in the file menu, then click **Browse**.

![Figure 49]

5. In the **Save As** window, select **Documents** under **Quick access**.
6. Type **VW save test** in the **File name** field and click **Save**.

![Figure 50]

7. Click the **This PC** icon on your computer's desktop.
8. In the **This PC** window, select **This PC**, then double-click on your H:\ drive icon.
9. In your H:\ drive, double-click the **Virtual Workspace** folder.

![Figure 51](image1)

10. Double-click **Documents**.

![Figure 52](image2)

11. You have located the file.

![Figure 53](image3)
Accessing Additional Shared Drives and Devices

**Mapping a Drive in VW**

There may be instances where you need to access information on a departmental secure shared drive that is not listed in the virtual workspace’s file explorer. While connected to the **Towson Desktop** in VW, follow the instructions below to map a drive.

1. Double-click the **This PC** icon in the **Towson Desktop**.
2. Click the **Computer** tab.
3. Click the **Map network drive** button in the ribbon menu at the top, then select **Map network drive**.

![Figure 54](image)

4. Select the drive letter you want to use for the network folder and type the path of the share (`\server\share\customshare\SharedDocs$`). An example might look similar to this:

![Figure 55](image)

5. Make sure **Reconnect at sign-in** is checked and then click **Finish**.
Accessing USB Devices and Optical Drives (PC Client Software)

USB storage devices (flash drives and DVD drives) are supported when using the full Virtual Workspace (VMware Horizon) client.

Please note: USB pass-through is not supported using web browser or mobile client. DVD and CD-ROM drives are not accessible when accessing VW from the Mac client or a web browser.

1. After inserting your flash drive or CD/DVD into your computer, double-click the This PC icon in the Towson Desktop. The storage device or devices will be listed under This PC in the Devices and drives section.

2. Double click on the device or removable media you wish to access.

Adding a Device or Drive

If you do not see the device or drive in the file explorer, your file sharing settings need to be changed in the Horizon Client software. This can be accomplished by taking the following steps:

1. In the Towson Desktop, click on Options in the Horizon Client toolbar.
2. In the Options dropdown menu, click on Share Folders.
3. The following window will list the current folders and drives that are able to be accessed from the **Horizon Client** software. To add an additional device or drive, click the **Add** button.

![Figure 58](image)

4. Browse to the folder or device you wish to add, then click **OK**.

![Figure 59](image)
5. Click OK again. Your folder or device will be added to the **Devices and drives** section of the file explorer.

![Figure 60](image)

**Transfer Files Using a Web Browser**

When using a web browser to access a virtual desktop, the **File Transfer panel** must be used to transfer files to and from the virtual desktop. The **File Transfer panel** is accessible from the sidebar which is usually hidden and can be accessed by clicking the transparent tab on the left side of the desktop.

**Downloading Files**

1. Open the **Horizon sidebar** in your web browser by clicking on the tab.

![Figure 61](image)

2. Click on the **Open File Transfer panel** icon in the sidebar menu. The **Transfer Files panel** will open.

![Figure 62](image)
3. Select the files that you would like to transfer from the Towson Desktop, then press \(CTRL + c\). This will add the files to a transfer list in the Transfer Files panel.

4. Click the download icon corresponding with each file you wish to transfer. The file or files will be saved to the Downloads folder on your machine.
**Uploading Files**

1. Open the Horizon sidebar in your web browser by clicking on the tab.

   ![Figure 65](image)

2. Click on the File Transfer panel icon in the sidebar menu. The Transfer Files panel will open.

   ![Figure 66](image)

3. Click on the Upload tab in the Transfer Files panel.

   ![Figure 67](image)

4. Drag and drop the files to be uploaded into the Transfer Files panel.

   ![Figure 68](image)
5. Uploaded files will appear in the **Documents** folder in the **Towson Desktop**.

![Figure 69](image)

**Printing from VW**

The printers connected to the device you are using to access VW should be available when you are using the Virtual Workspace (VMware Horizon) client.

*Please note:* Printing is not supported using web browser or a mobile device.

**Inactivity in the VW**

Inactive sessions will automatically be disconnected after 30 minutes of inactivity. One hour after disconnection, the **Towson Desktop** or published application will be closed and/or logged off. All files and running applications will be closed. A session can be resumed by logging back into the virtual desktop or published application within one hour after the initial 30 minutes of inactivity.

In summary, any unsaved work will be lost after 90 minutes of inactivity.

**Virtual Workspace Information**

For further information on the Virtual Workspace, please visit [towson.edu/technology/wireless](http://towson.edu/technology/wireless).