

## VMware Horizon User Guide



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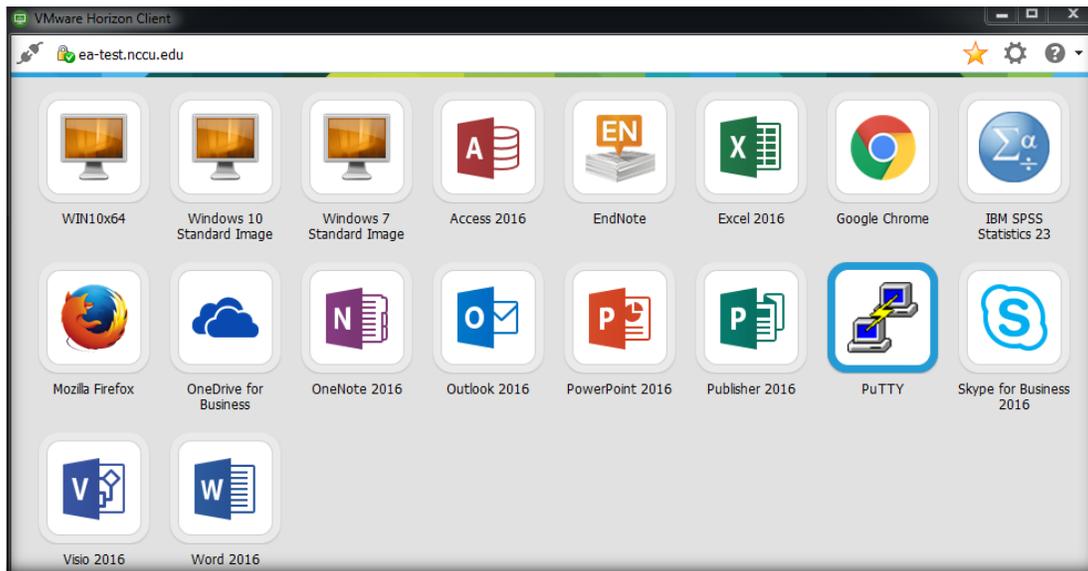
### Logging Into the Client Server

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Open the VMware Horizon Client from your Start Menu. Double-click the icon and login with your NCCU credentials.



- A. Once logged in to VMware horizon Client, the client software displays icons for available programs.



*If you need to **access your files** from your personally-owned computer, either before or after you use the Horizon client, you may need to **Connect to your Personal Storage Space** in macOS or in Windows.*

- B. Be aware that some programs expect to run on larger screens, and on devices with smaller screens, you may need configure the '**Touch**' settings, and **turn off Windows Native Touch Gestures** in order to use your device's 'pinching' gestures to zoom in and out.

Mobile clients have separate '**tools**' buttons, shown here, to expose additional features, including the **Settings** page and the **Disconnect** button.

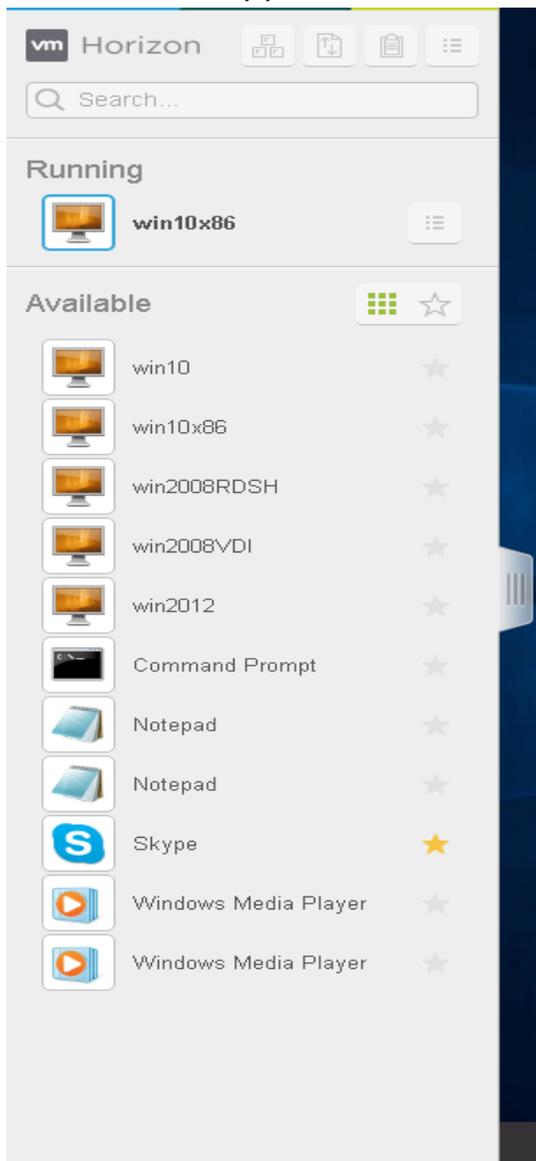


## Using The SideBar

After you connect to a remote desktop or hosted application, you can use the sidebar to launch other applications and desktops, switch between running desktops and applications, and perform other actions.

When you access a remote application or desktop, the sidebar appears on the left side of the screen. Click the sidebar tab to display or hide the sidebar. You can also slide the tab up and down.

### Sidebar That Appears When You Launch a Remote Desktop or Application



Click the expander arrow next to a running application to see the list of documents opened from that application. Note, however, that if you have, for example, two Excel

documents open from separate Excel programs hosted on two different servers, the Excel application will be listed twice in Running list in the sidebar.

From the sidebar, you can perform several actions.

Sidebar Actions	
Action	Procedure
Show the sidebar	When you have a remote application or desktop open, click the sidebar tab. When the sidebar is open, you can still perform actions in the application or desktop window.
Hide the sidebar	Click the sidebar tab.
Launch a remote application or desktop	Click the name of an application or desktop under Available in the sidebar. The desktops are listed first. <ul style="list-style-type: none"><li>• Click in the Search box and begin typing the name of the application or desktop.</li></ul>
Search for a remote application or desktop	<ul style="list-style-type: none"><li>• To launch an application or desktop, click the name of the application or desktop in the search results.</li><li>• To return to the home view of the sidebar, tap the X in the search box.</li></ul>
Create a list of favorite applications and desktops	Click the gray star next to the name of the desktop or application in the Available list in the sidebar. You can then click the Show Favorites toolbar button (star icon) next to Available to display a list of only favorites.
Switch between applications or desktops	Click the application file name or desktop name in the Running list in the sidebar.
Open the Copy & Paste panel	Click the Copy & Paste button at the top of the sidebar. Use this button for copying text to and from applications on your local client system. On iOS Safari, this button is not available because the copy and paste feature is not supported.

## Sidebar Actions

### Action

### Procedure

Open the File Transfer window

Click the File Transfer button at the top of the sidebar to download files from, or upload files to, the remote desktop.

Enable Command-A, Command-C, Command-V, and Command-X

This option appears in the Settings window only if you are using a Mac. Click the Open Menu toolbar button at the top of the sidebar and then click Settings. When this feature is enabled, The Command key on the Mac is mapped to the Ctrl key on the remote Windows desktop or application. For example, pressing Command-A on a Mac keyboard will have the effect of pressing Ctrl+A on the remote Windows desktop or application.

Click the Open Menu button next to the desktop name in the Running list in the sidebar and select the action you want:

Close a running desktop

- Select Close to disconnect from the desktop without logging off from its operating system. Note, however, that your View administrator can configure your desktop to automatically log off when disconnected. In that case, unsaved changes in open applications will be lost.
- Select Log off to log off from the operating system and disconnect from the desktop. Any unsaved changes in open applications will be lost.

Close a running application

Click the X next to the file name under the application name in the Running list in the sidebar. Click the X next to the application name to quit the application and close all open files for that application.

You are prompted to save changes made to the files.

## Sidebar Actions

Action	Procedure
Reset a desktop	Click the Open Menu button next to the desktop name in the Running list in the sidebar and select Reset. Any files that are open on the remote desktop will be closed without being saved first. You can reset a desktop only if your administrator has enabled this feature.
Restart a desktop	Click the Open Menu button next to the desktop name in the Running list in the sidebar and select Restart. The desktop operating system usually prompts you to save any unsaved data before it restarts. You can restart a desktop only if your administrator has enabled this feature.
Reset all running applications	Click the Open Menu toolbar button at the top of the sidebar, click Settings, and click Reset all your running applications. All unsaved changes are lost.
Use key combinations that include the Windows key	Click the Open Menu toolbar button at the top of the sidebar, click Settings, and turn on Enable Windows Key for Desktops.
Send Ctrl+Alt+Del to current work area	Click the Send Ctrl+Alt+Del toolbar button at the top of the sidebar.
Disconnect from the server	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click Log off.
Use high-resolution mode on machines with a high-resolution display (such as Retina Macbook Pro)	Click the Open Menu toolbar button at the top of the sidebar, click Settings, and turn on High Resolution Mode.

## Sidebar Actions

Action	Procedure
Allow H.264 decoding	(Chrome only) Click the Open Menu toolbar button at the top of the sidebar, click Settings, and turn on Allow H.264 decoding.
Use multiple monitors	(Chrome version 55 or later only) Click the Open Menu toolbar button at the top of the sidebar and select Display Settings.
Call out or dismiss the soft keyboard	(iOS Safari only) Click the keyboard icon at the top of the sidebar. You can also call out or dismiss the soft keyboard by tapping the screen with three fingers.
Display help topics	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click Help.
Display the About VMware Horizon box	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click About.

## Shortcut Key Combinations

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Regardless of the language used, some key combinations cannot be sent to the to a remote desktop or application.

Web browsers allow some key presses and key combinations to be sent to both the client and the destination system. For other keys and key combinations, the input is processed only locally and is not sent to the destination system. The key combinations that work on your system depend on the browser software, the client operating system, and the language settings.

### Note:

If you are using a Mac, you can map the Command key to the Windows Ctrl key when using the key combinations to select, copy, and paste text. To enable this feature, you can click the Open Settings Window toolbar button in the sidebar and turn on Enable Command-A, Command-C, Command-V, and Command-X. (This option appears in the Settings window only if you are using a Mac.)

The following keys and keyboard combinations often do not work in remote desktops:

- Ctrl+T
- Ctrl+W
- Ctrl+N
- Command key
- Alt+Enter
- Ctrl+Alt+*any\_key*

Important:

To input Ctrl+Alt+Del, use the Send Ctrl+Alt+Delete toolbar button located at the top of the sidebar.

- Caps Lock+*modifier\_key* (such as Alt or Shift)
- Function keys, if you are using a Chromebook
- Windows key combinations

The following Windows key combinations do work in remote desktops if you enable the Windows key for desktops. To enable this key, you can click the Open Settings Window toolbar button in the sidebar and turn on Enable Windows Key for Desktops.

Important:

After you turn on Enable Windows Key for Desktops, you must press Ctrl+Win (on Windows systems), Ctrl+Command (on Macs), or Ctrl+Search (on Chromebooks) to simulate pressing the Windows key.

These key combinations do not work for remote applications provided by RDS hosts. They do work as listed for Windows Server 2008 R2 and Windows Server 2012 R2 single-user desktops and session-based desktops provided by an RDS host.

Some key combinations that work in remote desktops with a Windows 8.x or Windows Server 2012 R2 operating system do not work in remote desktops with a Windows 7, Windows Server 2008 R2, or Windows 10 operating system.

<b>Windows Key Shortcuts for Windows 10 Remote Desktops</b>		
<b>Keys</b>	<b>Action</b>	<b>Limitations</b>
Win	Open or close Start.	
Win+A	Open Action center.	
Win+E	Open File Explorer.	
Win+G	Open game bar when a game is open.	
Win+H	Open the Share charm.	
Win+I	Open the Settings charm.	
Win+K	Open the Connection quick action.	
Win+M	Minimize all windows.	
Win+R	Open the Run dialog box.	
Win+S	Open Search.	
Win+X	Open the Quick Link menu.	
Win+, (comma)	Temporarily peek at the desktop.	
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+Shift+M	Restore minimized windows on the desktop.	Does not work in Safari browsers.
Win+Alt+Num	Open the desktop and open the jump list for the app pinned to the taskbar in the position indicated by the number.	Does not work on a Chromebook.

## Windows Key Shortcuts for Windows 10 Remote Desktops

Keys	Action	Limitations
Win+Enter	Open Narrator.	

## Windows Key Shortcuts for Windows 8.x and Windows Server 2012 R2 Remote Desktops

Keys	Action	Limitations
Win+F1	Open Windows Help and Support.	Does not work in Safari browsers.
Win	Show or hide the Start screen.	
Win+B	Set focus on the notification area.	
Win+C	Open the Charms panel.	
Win+D	Display and hide the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.
Win+E	Open File Explorer.	
Win+H	Open the Share charm.	
Win+I	Open the Settings charm.	
Win+K	Open the Devices charm.	
Win+M	Minimize all windows.	
Win+Q	Open the Search charm to search everywhere or within the open app, if the app supports app search.	
Win+R	Open the Run dialog box.	

## Windows Key Shortcuts for Windows 8.x and Windows Server 2012 R2 Remote Desktops

Keys	Action	Limitations
Win+S	Open the Search charm to search Windows and the Web.	
Win+X	Open the Quick Link menu.	
Win+Z	Show the commands available in the app.	
		<b>Note:</b>
Win+, (comma)	Temporarily display the desktop, as long as you continue pressing the keys.	Does not work on Windows 2012 R2 operating systems.
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+Shift+M	Restore minimized windows on the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.
Win+Alt+Num	Open the desktop and open the jump list for the app pinned to the taskbar in the position indicated by the number.	Does not work on a Chromebook.
Win+Up Arrow	Maximize the window.	Does not work on a Chromebook.
Win+Down Arrow	Remove current app from the screen or minimize the desktop window.	Does not work on a Chromebook.
Win+Left Arrow	Maximize the app or desktop window to the left side of the screen.	Does not work on a Chromebook.

## Windows Key Shortcuts for Windows 8.x and Windows Server 2012 R2 Remote Desktops

Keys	Action	Limitations
Win+Right Arrow	Maximize the app or desktop window to the right side of the screen.	Does not work on a Chromebook.
Win+Home	Minimize all but the active desktop window (restores all windows when you press Win+Home a second time).	Does not work in Safari browsers.
Win+Shift+Up Arrow	Stretch the desktop window to the top and bottom of the screen.	Does not work on a Chromebook.
Win+Shift+Down Arrow	Restore the desktop window vertically, while maintaining width, after pressing Win+Shift+Up to stretch the window, or minimize active desktop window.	Does not work on a Chromebook.
Win+Enter	Open Narrator.	

## Windows Key Shortcuts for Windows 7 and Windows Server 2008 R2 Remote Desktops

Keys	Action	Limitations
Win	Open or close the Start menu.	
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+D	Display and hide the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.
Win+M	Minimize all windows.	
Win+E	Open the Computer folder.	
Win+R	Open the Run dialog box.	

## Windows Key Shortcuts for Windows 7 and Windows Server 2008 R2 Remote Desktops

Keys	Action	Limitations
Win+Up Arrow	Maximize the window.	Does not work on a Chromebook.
Win+Down Arrow	Minimize the window.	Does not work on a Chromebook.
Win+Left Arrow	Maximize the app or desktop window to the left side of the screen.	Does not work on a Chromebook.
Win+Right Arrow	Maximize the app or desktop window to the right side of the screen.	Does not work on a Chromebook.
Win+Home	Minimize all but the active desktop window.	Does not work in Safari browsers.
Win+Shift+Up Arrow	Stretch the desktop window to the top and bottom of the screen.	Does not work on a Chromebook.
Win+G	Cycle through running desktop gadgets.	
Win+U	Open the Ease of Access Center.	

## Using Multiple Monitors

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By using a Chrome browser (version 55 or later), you can use multiple monitors in HTML Access Web client to display a remote desktop window.

### About this task

You can add up to one additional monitor to your primary monitor to display the current remote desktop window to which you are connected. For example, if you have three monitors, you can specify that the remote desktop window appears on only two of

those monitors. Adjacent monitors must be selected for the multiple-monitor setup. The monitors can be positioned side by side or stacked vertically.

Beginning with HTML Access Web client 4.5, the per device DPI synchronization is applied when the multiple-monitor feature is enabled. If you are using two monitors that have different DPI settings, the DPI settings on the HTML Access agent are set to the same DPI setting value used by the monitor of the client machine that was used to start the HTML Access Web client session.

## Procedure

1. Start Horizon Client and log in to a server.
2. In the desktop and application selection window, click the icon for the remote desktop that you want to access.
3. To display the sidebar, click the sidebar tab.
4. Click the Open Menu toolbar button at the top of the sidebar, select Display Settings.
5. In the Display Settings dialog box, click Add Display.

**Note:** If the Display Selector browser window does not appear, add your Horizon server's FQDN address into the Pop-up exceptions section of your browser's Content settings window.

6. Drag the Display Selector window so that it appears in the other monitor display that you want to use.

The message in the Display Selector browser window changes and a gray rectangular icon is added.

7. In the Display Selector browser window, click the + monitor icon to confirm that you want to use the current monitor display.

The Waiting for other displays message appears on the current monitor display and the gray monitor icon in the Display settings window in your primary display changes to a green color.

8. Click OK in the Display Settings window when you are done adding the monitor displays that you want to use for the session.

The Display Settings window is dismissed, the Waiting for other displays message is cleared in the non-primary monitor display and displays the remote desktop window.

9. To exit the multiple displays mode, press Esc and click Yes in the Exit the multiple displays mode dialog box to confirm.

**Note:**

Each time you have to use the Esc key in the remote desktop, open the sidebar tab, click the Open Menu toolbar button at the top of the sidebar, and select Send ESC.

## Copying and Pasting Text

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It is possible to copy text to and from remote desktops and applications. Your View administrator can set this feature so that copy and paste operations are allowed only from your client system to a remote desktop or application, or only from a remote desktop or application to your client system, or both, or neither.

You can copy up to 1 MB of text, including any Unicode non-ASCII characters. You can copy text from your client system to a remote desktop or application, or the reverse, but the pasted text is plain text.

You cannot copy and paste graphics. You also cannot copy and paste files between a remote desktop and the file system on your client computer.

**Note:**

The copy and paste feature is not supported on iOS Safari.

To copy and paste text, you must use the Copy & Paste button located at the top of the sidebar.

### Before you begin

If you are using a Mac, verify that you have enabled the setting for mapping the Command key to the Windows Ctrl key when using the key combinations to select, copy, and paste text. Click the Open Settings Window toolbar button in the sidebar and turn

on Enable Command-A, Command-C, Command-V, and Command-X. (This option appears in the Settings window only if you are using a Mac.)

The View administrator must either leave the default policy in effect, which allows users to copy from client systems and paste into their remote desktops and applications, or else the administrator must configure another policy that allows copying and pasting.

### **About this task**

This procedure describes how to use the Copy & Paste window to copy text from your local client system to a remote application or how to copy text from a remote application to your local client system. If, however, you are copying and pasting text between remote applications and desktops, you can simply copy and paste as you normally would, and there is no need to use the Copy & Paste window.

The Copy & Paste window, which you can open from the button at the top of the HTML Access sidebar, is required only for synchronizing the Clipboard on your local system with the Clipboard in the remote machine.

The text in the Copy & Paste window displays one of the following messages to indicate in which direction the user can copy and paste content.

- Use this panel to copy & paste content between your local client and remote desktop/application.
- Use the panel to copy & paste content from your local client to remote desktop/application.
- Use the panel to copy & paste content from your remote desktop/application to local client.

### **Procedure**

- To copy text from your client system to the remote desktop or application:
  1. Copy the text in local client application.
  2. In your browser, click the HTML Access sidebar tab to open the sidebar, and click Copy & Paste at the top of the sidebar.

The Copy & Paste window appears. If previously copied text already appears in the window, that text will be replaced when you paste in the newly copied text.

3. Press Ctrl+V (or Command-V on Macs) to paste the text into the Copy & Paste window.

The following message appears briefly: "Remote Clipboard Synced."

4. Click in the remote application where you want to past the text and press Ctrl+V.

The text is pasted into the remote application.

- To copy text from your remote desktop or application to your client system:
  1. Copy the text in your remote application.
  2. In your browser, click the HTML Access sidebar tab to open the sidebar, and click Copy & Paste at the top of the sidebar.

The Copy & Paste window appears with the text already pasted in it. The following message appears briefly: "Remote Clipboard Synced."

3. Click in the Copy & Paste window and press Ctrl+C (or Command-C on Macs) to copy again.

The text will not be selected when you do this action, and you cannot select the text. The following message appears briefly: "Copied from Clipboard Panel."

4. On your client system, click where you want to paste the text and press Ctrl+V.

The text is pasted into the application on your client system.

## Download Files from a Desktop to the Client

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With Horizon Client you can download files from a remote desktop to the client machine.

### **Procedure**

1. Click the file transfer icon at the top of the sidebar.

The Transfer Files window opens.

2. Click Download.

3. Select one or more files on the remote desktop.
4. Press Ctrl+c to start the download.
5. After the download is complete, click the download icon to save the files on the client machine.

## Upload Files from the Client to a Desktop

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With Horizon Client you can upload files from the client machine to a remote desktop.

### Procedure

1. Click the file transfer icon at the top of the sidebar.

The Transfer Files window opens.

2. Click Upload.
3. Drag and drop files into the Transfer Files window or click Choose Files to select files.

The selected files are uploaded to the My Documents folder.

With Internet Explorer 11 and Chrome on ChromeBook, if you drag and drop folders, files of zero size, or files larger than 2 GB, you get an error message as expected. After you dismiss the error message, you can no longer drag and drop files that can be transferred.

## Transferring Files Between the Client and Remote Desktop

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With the file transfer feature, you can transfer (upload and download) files between the client and a remote desktop. File transfer to or from applications is not supported.

The Horizon administrator can configure the ability to allow, disallow, or allow in one direction only, the transfer of files by modifying the Configure file transfer group policy setting for the VMware Blast protocol. The default is upload only. If the Disabled both upload and download value is selected in the Configure file transfer group policy setting for the VMware Blast protocol, the File Transfer button is disabled. If Enabled file upload

only value is selected, only the Upload tab is displayed in the Transfer Files dialog window. If Enabled file download only value is selected, only the Download tab is displayed in the Transfer Files dialog window.

You can download a file up to 500 MB in size, and upload a file up to 2 GB in size. For 32-bit Internet Explorer 11, downloading a file larger than 300 MB might not work. To resolve the issue, run Internet Explorer 11 in 64-bit mode.

You cannot download or upload folders, or files that have a size of zero.

Safari on iOS and Safari 8 do not support upload or download. Safari 9 or later do not support download.

If file transfer is in progress in a desktop session and the user opens a connection to a second desktop, and if a security warning is displayed (this can happen if no valid certificate was installed, for example), ignoring the warning and continuing to connect to the second desktop will cause the file transfer in the first desktop session to abort. This is expected behavior.

**Note:**

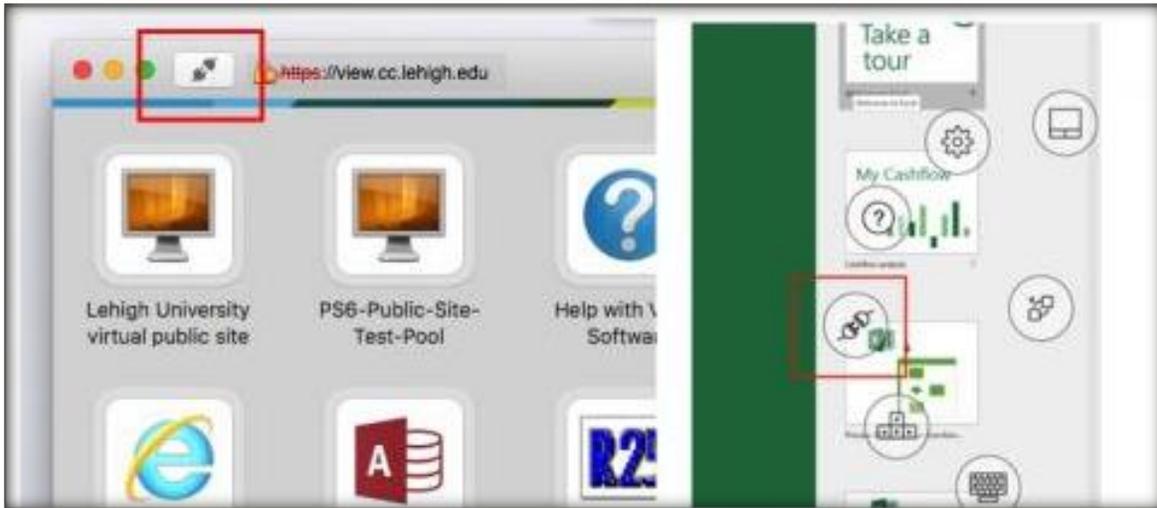
The ability to download is affected by the group policy setting for clipboard redirection. If clipboard redirection is disabled from the server to the client, then file download is also disabled.

## Disconnecting from VMware

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When you're finished using the program, quit it as you normally would by either clicking the **Close** box on the window or selecting the program's **Quit** or **Exit** command from its **File** menu. Then, be sure to **disconnect** from the view server by finding and clicking the **disconnect button** in your version of the client.





With some configurations, if you disconnect from a remote desktop without logging off, applications in the desktop can remain open. You can also disconnect from a server and leave remote applications running.

### Procedure

- Log out of the server and disconnect from (but do not log out from) the desktop or quit the hosted application.

Option	Action
<b>From the desktop and application selector screen, before connecting to a remote desktop or application</b>	Click the Log Out toolbar button in the upper-right corner of the screen.
<b>From the sidebar when connected to a remote desktop or application</b>	Click the Log out toolbar button at the top of the sidebar.

- Close a remote application.

Option	Action
<b>From within the application</b>	Quit the application in the usual manner, for example, click the X (Close) button in the corner of the application window.
<b>From the sidebar</b>	Click the X next to the application file name in the Running list in the sidebar.

- Log off or disconnect from a remote desktop.

Option	Action
<b>From within the desktop OS</b>	To log off, use the Windows Start menu to log off.
<b>From the sidebar</b>	<p>To log off and disconnect, click the Open Menu toolbar button next to the desktop name in the Running list in the sidebar and select Log Off. Files that are open on the remote desktop will be closed without being saved first.</p> <p>To disconnect without logging off, click the Open Menu toolbar button next to the desktop name in the Running list and select Close.</p> <p><b>Note:</b></p> <p>Your View administrator can configure your desktop to automatically log off when disconnected. In that case, any open applications in your desktop are closed.</p>