REMOTE ACCESS
to
ICET LAB CLASSROOMS

- VMware Horizon -

Fall 2020

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Virtual Desktop Client Software

Overview

This manual provides installation and configuration instructions to end-users for a platform called "*VMware Horizon.*" The platform allows end-users to have remote access from a virtual or physical machine to physical equipment within a physical lab classroom at the college campus.

The remote access provides the end-user with secure communication to the Centennial College lab environment by establishing a secure virtual tunnel to a physical or virtual machine inside the college, enabling the end-user to do coursework as if they are on-campus using physical classroom equipment.

Depending on the course and the lab assignment, a student will need to select either access to the physical machine, which connects to other physical equipment for that lab assignment, or a virtual machine for a lab that doesn't require physical access to the physical hardware.

Please note that these instructions are provided for end-users (students) as a resource for self-guided installation and configuration of personal devices. The college IT support (HelpDesk) cannot provide support for software installations or configuration of personal devices. Please do not contact the college HelpDesk with enquiries about the installation or configuration of your device. Students may contact the professor teaching the applicable course for assistance. The professor's contact information is available in the eCentennial course shell. Students must contact the professor using their myCentennial e-mail address. Professors are prohibited from replying to mail from a personal e-mail address.

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System Requirements for Windows Client Systems

Horizon Client for Windows can be installed on PCs and laptops that use a supported Microsoft Windows operating system. The PC or laptop on which you install VMWare Horizon Client, and the peripherals it uses, must meet the following system requirements.

Models:
All x86 or x86-64 Windows devices

Memory:
At least 1 GB of RAM
Operating systems

Video and graphics requirements:
Graphics card that supports Direct3D 11 Video.
Latest video and graphics card drivers.
For Windows 7 SP1, install the Platform update for Windows 7 SP1 and Windows Server 2008 R2 SP1. For information, go to https://support.microsoft.com/en-us/kb/2670838.
.NET Framework requirements

The Horizon Client installer requires .NET Framework version 4.5 or later. The installer checks whether .NET Framework version 4.5 or later is installed before installation. The installer downloads the latest version of .NET Framework automatically, if the clients' machine does not meet this prerequisite.

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Horizon Windows Client Installation

1. To access this platform, open a web browser, and go to:
   http://classapps.centennialcollege.ca/
   For this installation, the recommended browsers are Chrome and Firefox.

2. When the page loads, you will be presented with a choice between downloading and installing the *VMWare Horizon Client* or access via the HTML view (without having to install anything). For increased performance and features, install the VMWare Horizon Client (also called Horizon Client in this document) on your local computer. Installation details are found in the following steps.

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3. If you choose to install the Horizon Client, scroll down to the bottom of the page where you can choose to install the client relevant to your computer as shown in the screenshot below. Click on one of the three Buttons based on your computer system, Windows, Mac, or Chrome OS. This will take you to the **Download Product** page.

4. From the **Download Product** page, select the software version to download from the dropdown menu as shown in the screenshot below. It is recommended to download the latest version (5.4.3 at the time this document is prepared).
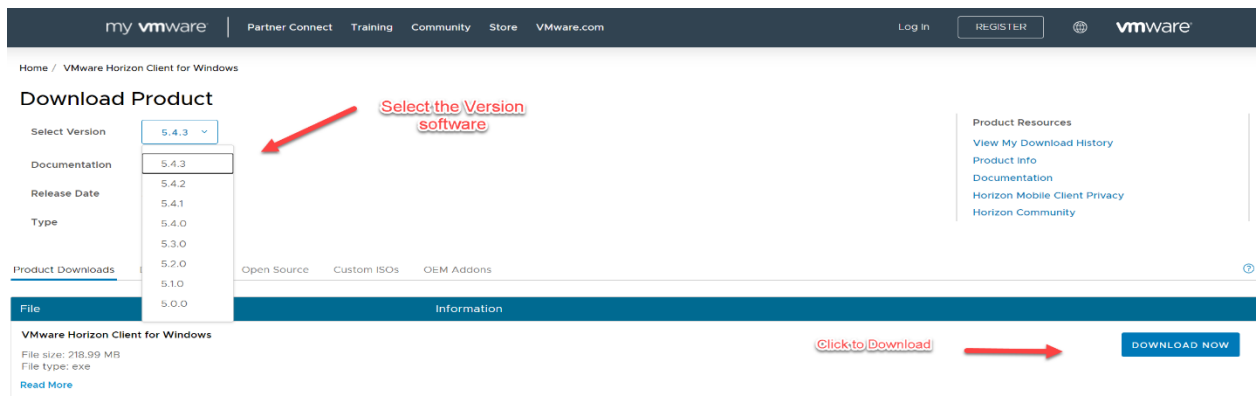
5. Scroll down and click **DOWNLOAD NOW**. The client installer (For example: VMware-Horizon-Client-y.y.y-xxxxxx.exe) will be downloaded. You may choose to copy the installer to your desktop or any other folder.

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6. Double click the installer to proceed with the installation. Select "**Agree & Install,**" from the pop-up window.
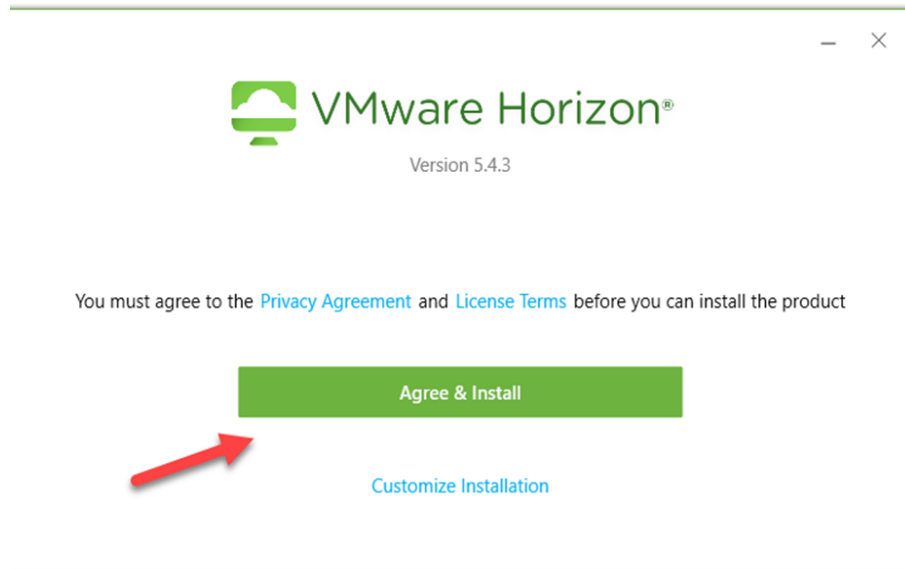
7. Select **Run** then the new installation window appears. See the screenshot below.

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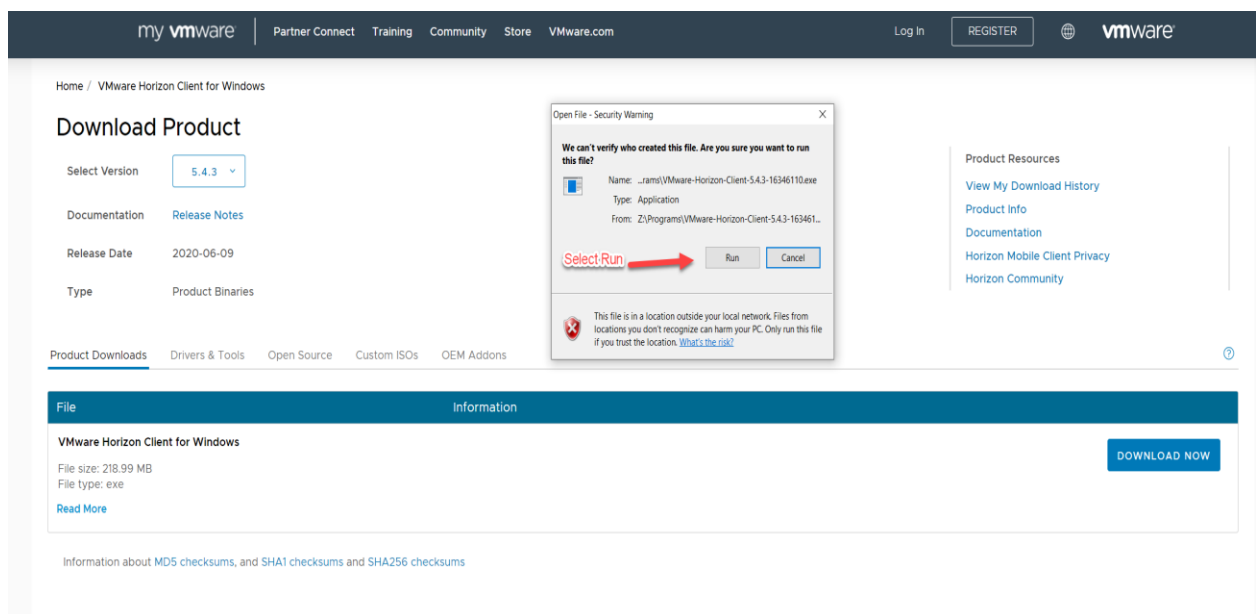
8. The installation will start with caching the software
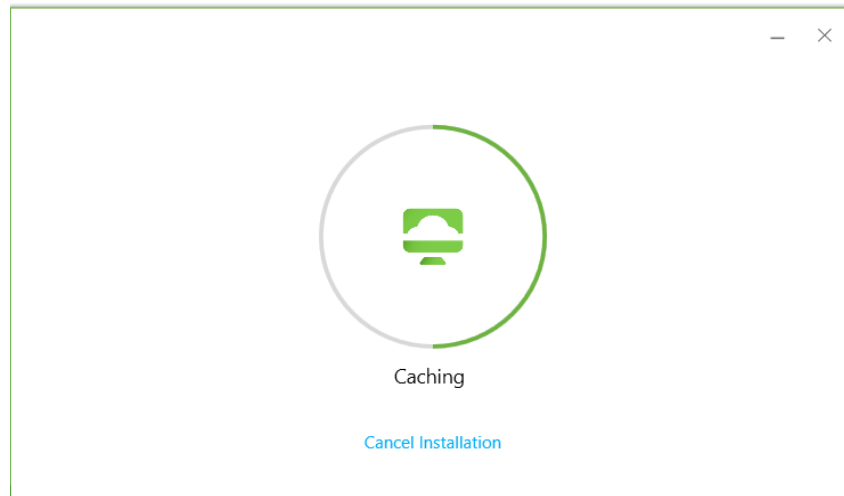
9. Then, the software needed to run the program will install.

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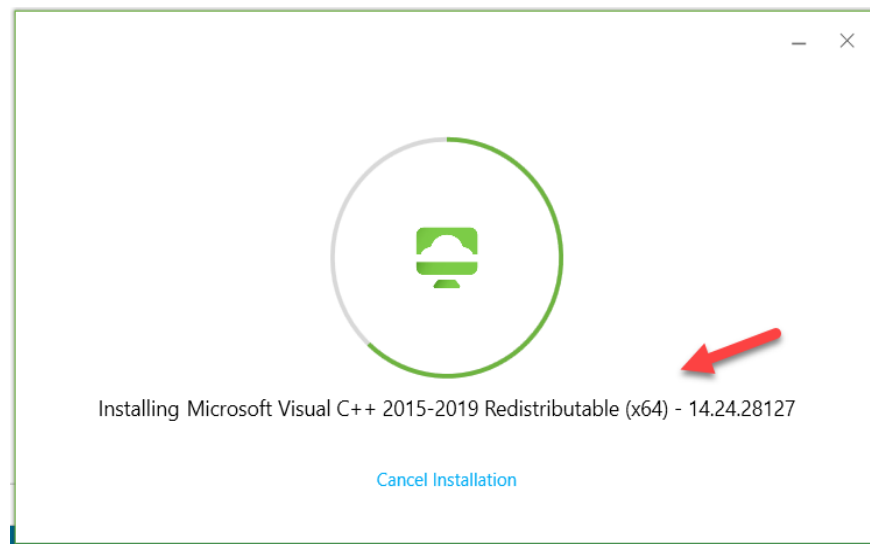
10. When the program is installed, select, "**Finish,**" and, "**Restart**" your computer.

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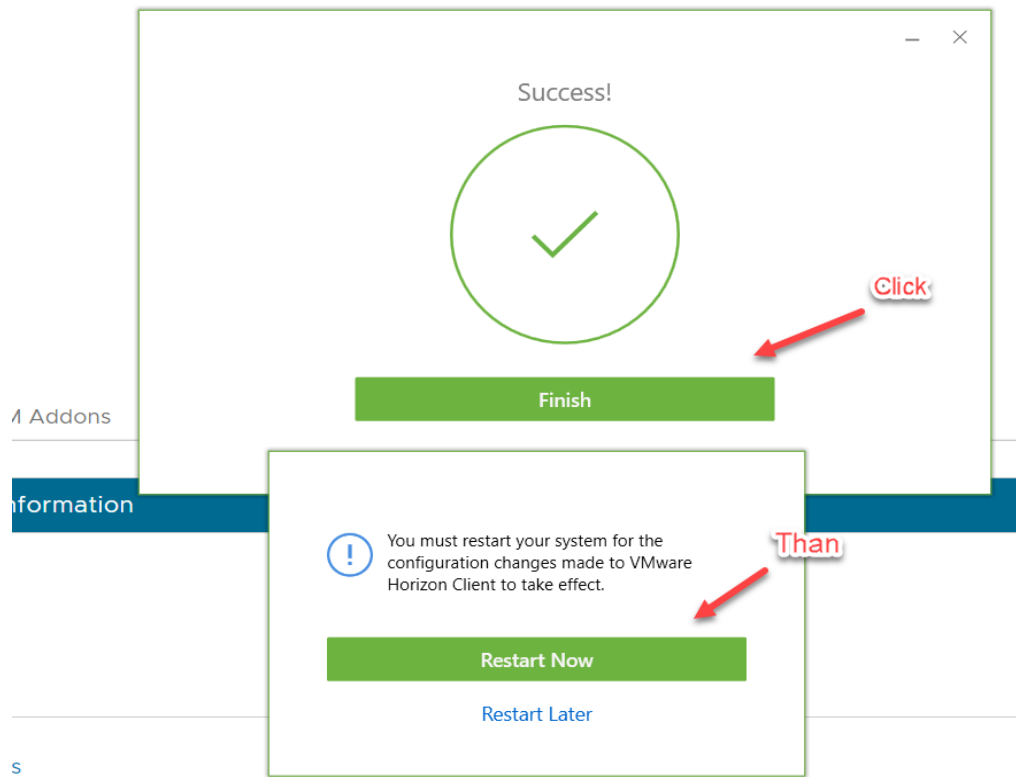
Starting VMware Horizon and Connecting to VDI Server

1. You can now launch Horizon Client from the Start Menu. Once launched you need to add a server. Click **New Server** or double-click "**Add Server**" to add a new server. A small window will pop up as shown below.
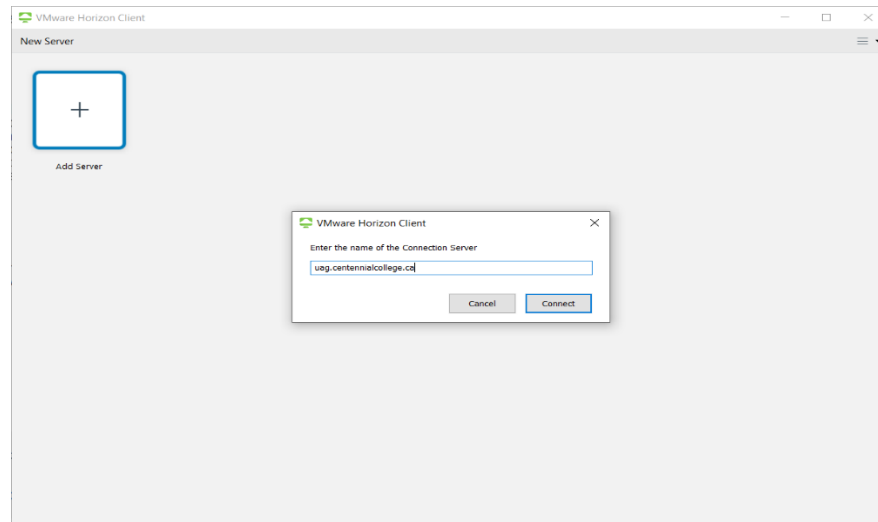
2. In the text field: Enter the name of the Connection Server, type: **uag.centennialcollege.ca**, to create the server. The page should resemble the screenshot below:
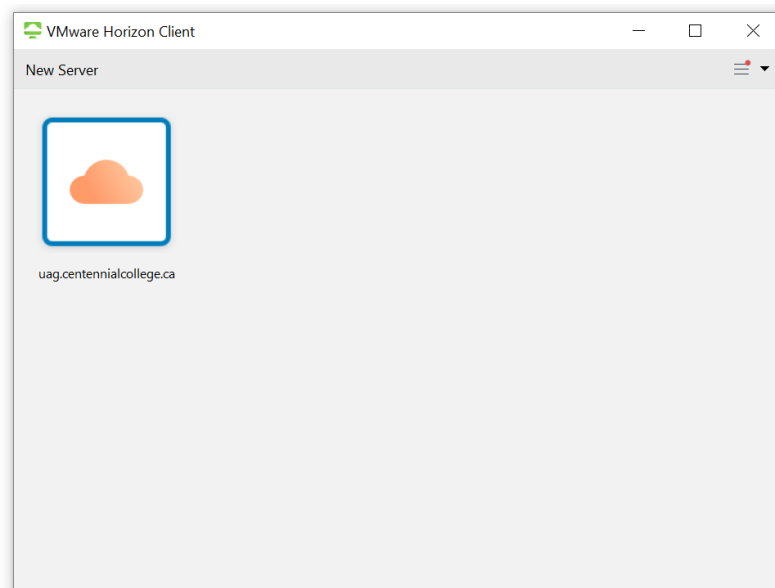
3. To connect to the VDI server, double click the icon of the **uag.centennialcollege.ca** or right-click on the icon and click **Connect** and the Login window will appear.

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4. To Login and access a physical lab remotely, input your Active Directory username (ADID) and password. For students, the ADID is your **student ID number**. For employees, the ADID is the **cencol domain name** (do not use the employee number).

5. After logging in successfully, you should land on the home page of the VDI server. The home page will have icons for each physical classroom identified by room number. Double-click on the designated classroom for the appropriate course and you will then be connected to an available workstation in the classroom. ***Note: You will only see classrooms that apply to your courses. Contact your professor if you cannot locate the classroom for your course.***
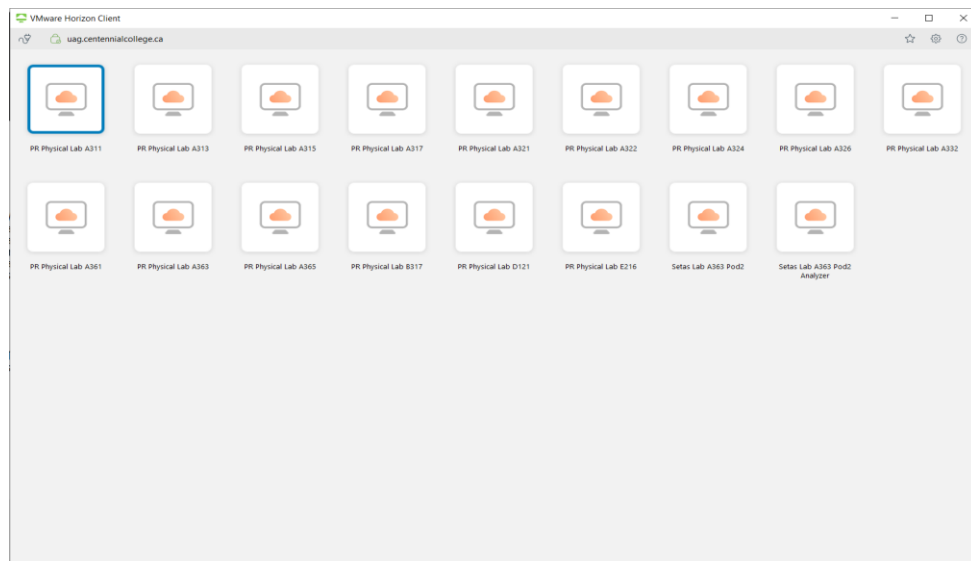
IMPORTANT….IMPORTANT….IMPORTANT…..next page….

When you are finished with your session, log-out. Do not shut down the remote computer.

To log out, click Disconnect (or Log off then Disconnect) from the start menu of the remote Desktop. Alternatively, click Send Ctrl-Alt-Delete from the Options menu or the Taskbar shown below then select Log off.
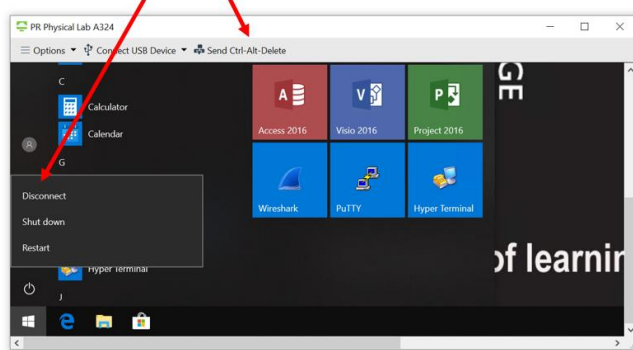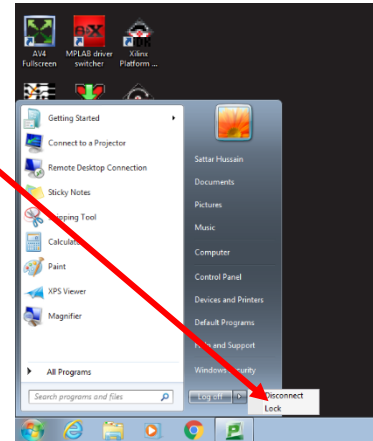
Logging out will allow other students to use the remote computer. If you do not log-out, you will be automatically logged out of the computer after 10 minutes of being disconnected. For example, if you close the VMware Horizon Client.

An automated message will be sent to you 10 minutes before a scheduled class ends that will state:

Hello, this is an automated message from Centennial College. You are presently logged into a physical computer in lab #### at the Progress campus. A class will be starting in 10 minutes that requires the use of the physical computers in lab ####. You must save your work and log off in the next 10 minutes. If you wish to continue working, please log-off from the remote physical computer and then log-in to the SETAS ICET Open Lab #1 VDI computer pods (or labs). There you will be able to access a virtual machine for as long as you require. Thank you for your cooperation.

Sharing Access to Local Folders and Drives with Client Drive Redirection

Note: In the following procedure:
- **Local system** refers to your local computer or desktop.
- **Local application/file/drive** refers to application/file/drive in your local computer.
- **Remote system** refers to the remote computer or desktop at the lab you are remotely connected with.
- **Remote application/file/drive** refers to the application/file/drive available at the remote computer.

You can use Horizon Client to share folders and drives on the local client system with remote desktops and applications. This feature is called "Client Drive Redirection."

Drives can include mapped drives and USB storage devices. Mapped drives can have Universal Naming Convention (UNC) paths.

In a Windows remote desktop, shared folders and drives appear in the "This PC" folder, or, in the "Computer" folder, depending on the Windows operating system version. In a remote application, such as Notepad, you can browse and open a file in a shared folder or drive.

You do not need to be connected to a remote desktop, or application, to configure Client Drive Redirection settings. The redirection settings apply to all remote desktops and applications. That is, you cannot configure the settings so that local client folders are shared with a selected remote desktop or application; the settings will apply to all remote desktops or applications.

You can also turn on the ability to open local files with remote applications directly from the local file system. When you right-click a local file, the "Open With" menu also lists the available remote applications. You can also set files to be opened automatically with remote applications when you double-click the file. When you enable this feature, all files on your local file system that have certain file extensions are registered with the server that you are logged in to. For example, if Microsoft Word is one of the remote applications available from the server, you can right-click a .docx file on your local file system and open the file with the remote MS Word application. This feature requires Horizon 6.2 or later servers and agents.

From your local computer you can save/transfer files to remote client computer lab. To enable or disable this access, follow the steps below:

Procedure for Sharing Folders and Drives with Client Drive Redirection
1. Start VMware Horizon Client from your local computer and connect to the VDI server using your College ADID as described in steps 2-4 of the previous section.

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2. From the home page of the VDI server, click the **Settings** Button (the wheel button) on the top right corner. Navigate with the slide bar of the Sharing window and select   **Sharing** in the left panel. Make sure all the four checkboxes are checked. This procedure is demonstrated as 3 steps in the screenshot below.
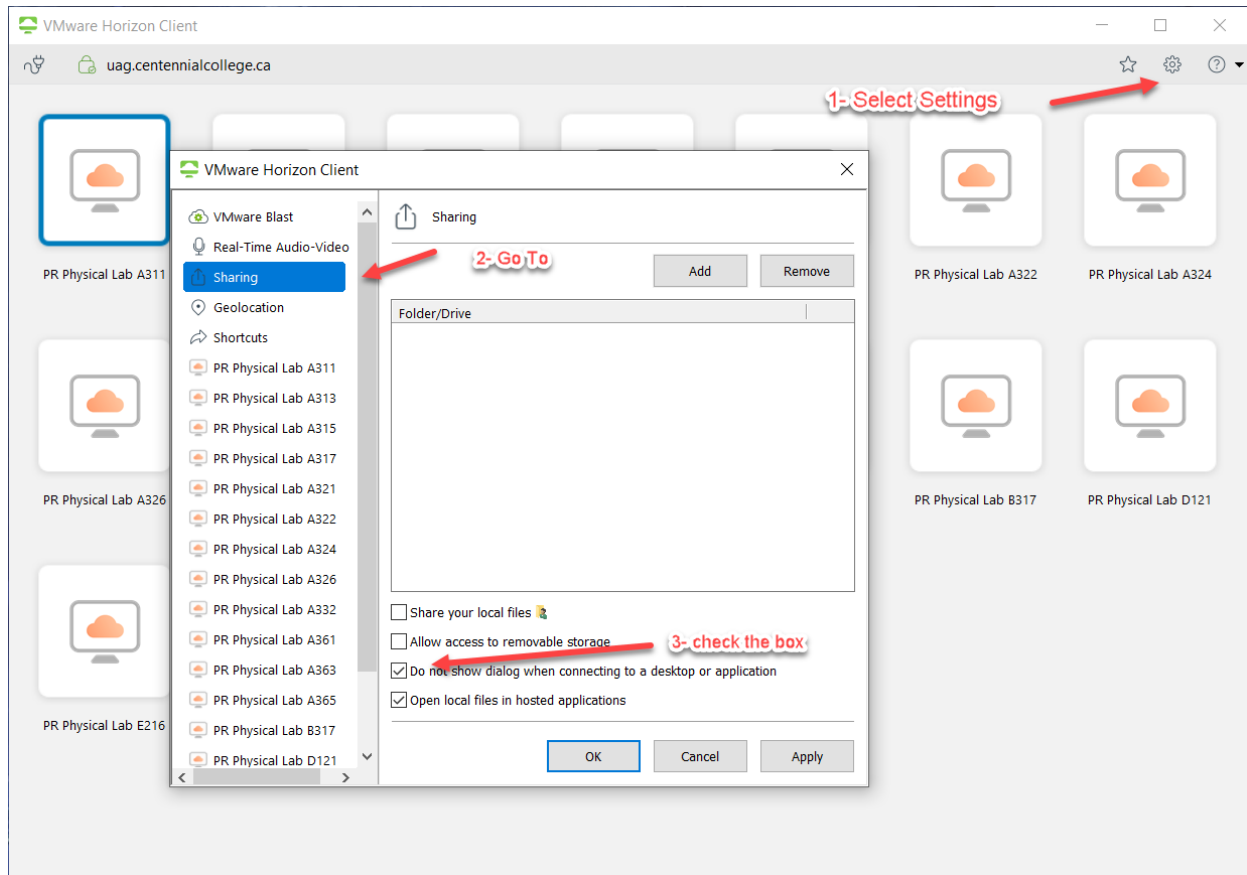
Another option: Right-click a desktop or application icon, select Settings, and select Sharing in the left panel of the window that appears.
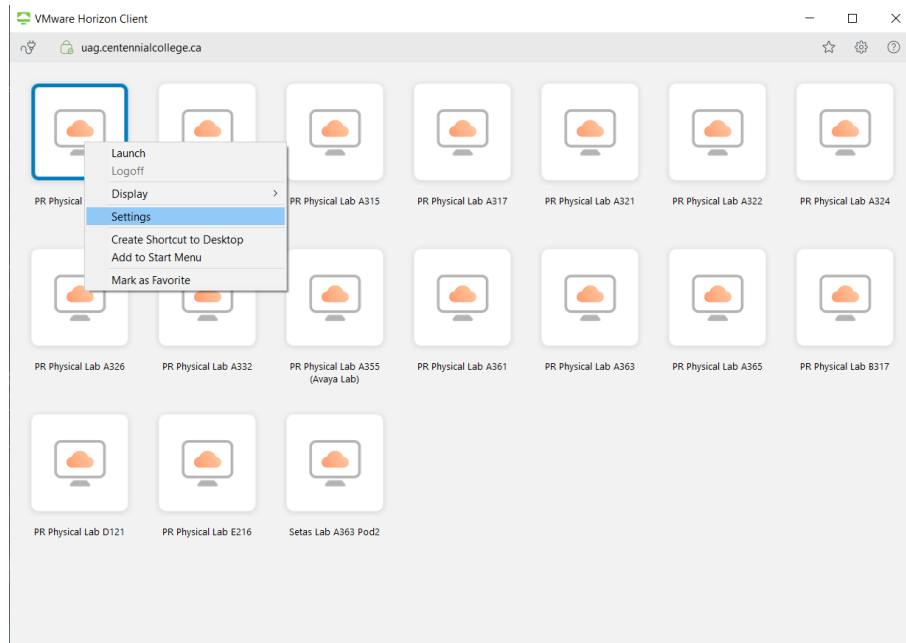
Then at the Sharing window, click **Add**. The **Browse For Folder** window will pop up. Use the Browse For Folder window to browse your local computer drives and folders.

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3. Select any drive, folder or subfolder to be shared then click **OK**. The shared folder or drive will appear on the sharing window as shown below. Make sure the four checkboxes are checked. Click **Apply** then **OK**.

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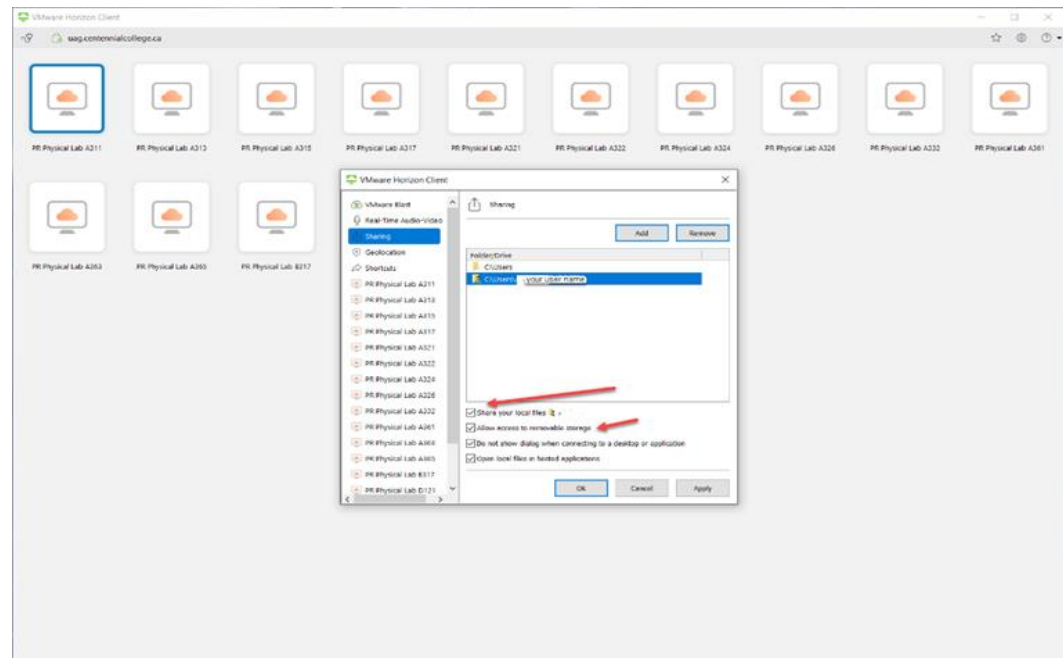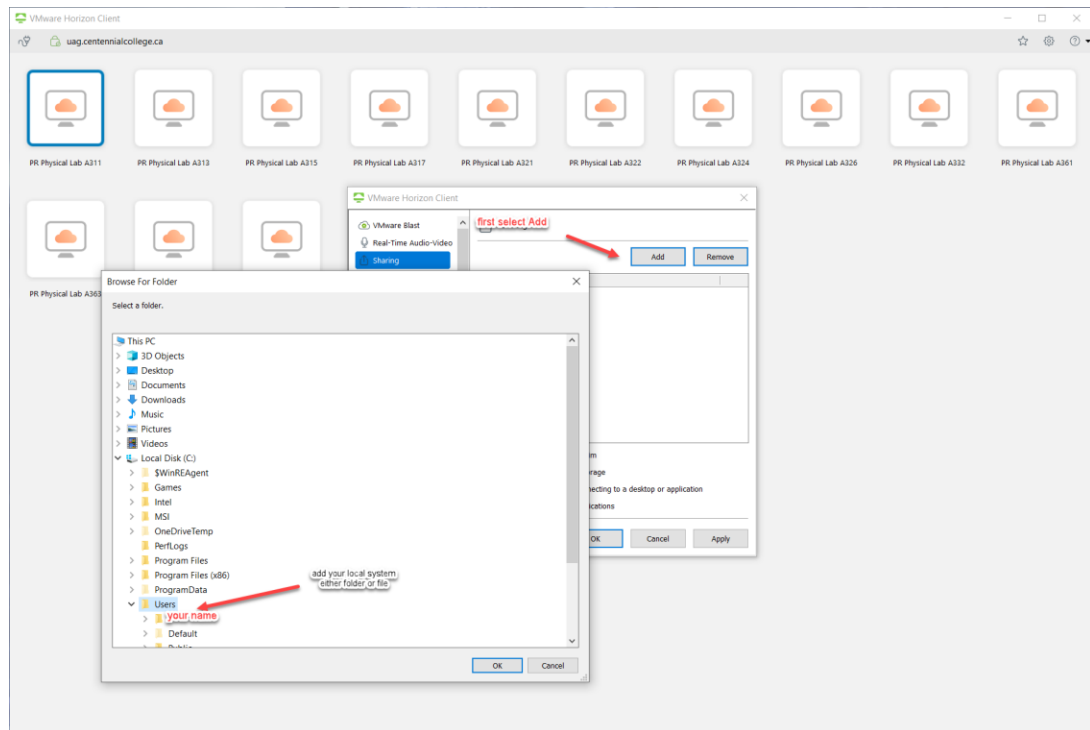
6. To remove the shared drive/folder/subfolder, simply click the Remove tab in the Sharing window.
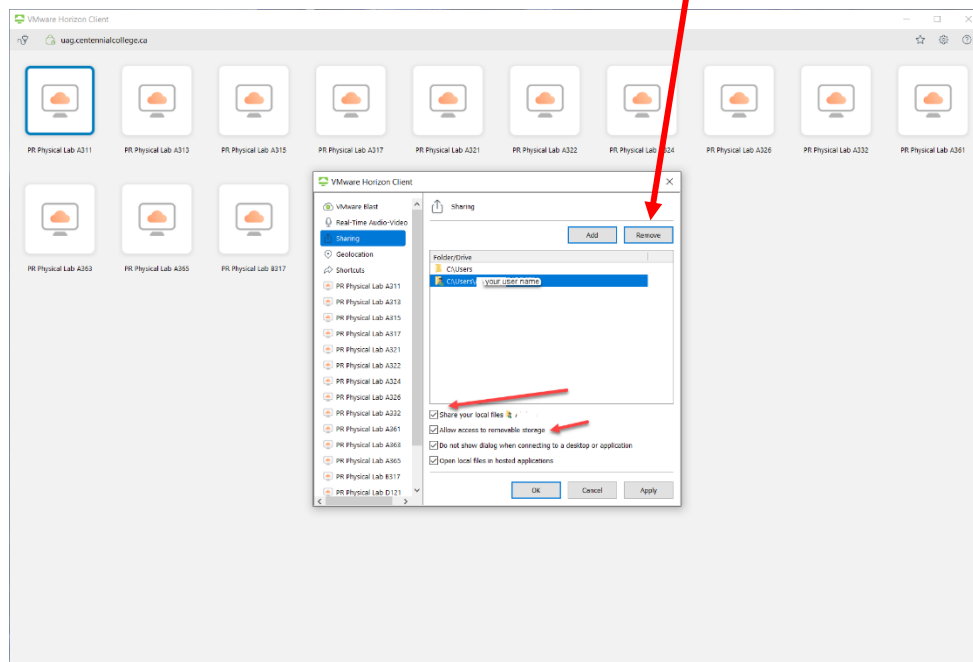
7. Refer to the table below for all options and actions available in the Client Drive Redirection feature.

Option	Action
Share a specific folder or drive with remote desktops and applications	Click the **Add** button, browse to and select the folder or drive to share, and click **OK**. **Note:** You cannot share a folder on a USB device if the device is already connected to a remote desktop or application with the USB redirection feature. Do not turn on the USB redirection feature that automatically connects USB devices at startup or when the device is inserted. If you do, the next time you start Horizon Client or plug in the USB device, the device will be connected using the USB redirection feature rather than the client drive redirection feature.
Stop sharing a specific folder or drive	Select the folder or drive in the Folder list and click the **Remove** button.
Permit remote desktops and applications access to files in your local user directory	Select the **Share your local files** *user-name* checkbox.

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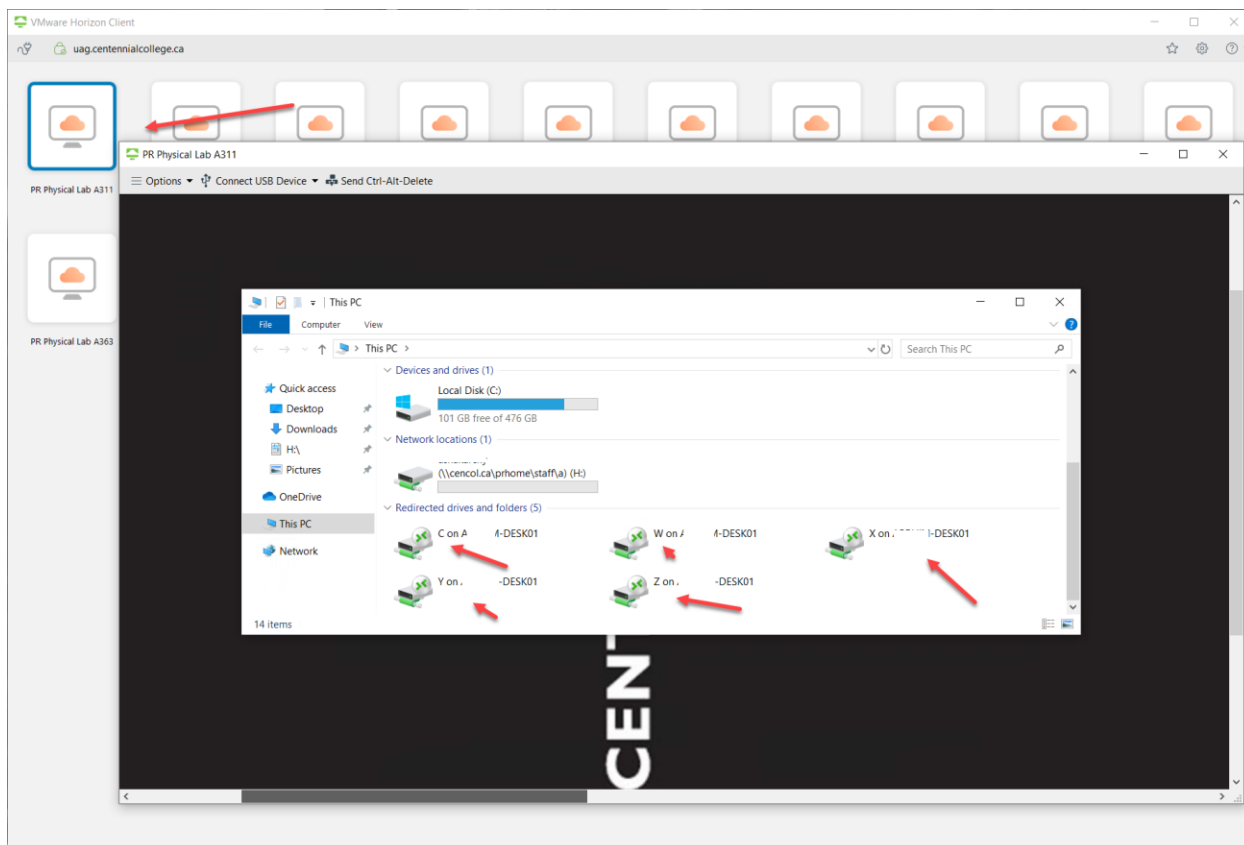Date Issued/Revised: September 14, 2020

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Option	Action
Share USB storage devices with remote desktops and applications	Select the **Allow access to removable storage** checkbox. The client drive redirection feature automatically shares all USB storage devices inserted in your client system and all FireWire and Thunderbolt-connected external drives. You do not need to select a specific device to share. **Note:** USB storage devices already connected to a remote desktop or application with the USB redirection feature are not shared. If this checkbox is deselected, you can use the USB redirection feature to connect USB storage devices to remote desktops and applications.
Turn on the ability to open a local file with a remote application from the local file system	Select the **Open local files in the hosted applications** checkbox. With this option, you can right-click a file in your local file system and select to open the file with a remote application. You can also change the properties of the file so that all files with that file extension are opened with the remote application by default, such as when you double-click the file. For example, you can right-click a file, select **Properties**, and click **Change** to select the remote application to open files of that type. Your administrator can disable this feature.
Do not show the Sharing dialogue box when you connect to a remote desktop or application	Select the **Do not show dialogue when connecting to a desktop or application** checkbox. If this checkbox is deselected, the Sharing dialogue box appears the first time you connect to a desktop or application after you connect to a server. For example, if you log in to a server and connect to a desktop, you see the Sharing dialogue box. If you then connect to another desktop or application, you do not see the dialogue box again. To see the dialogue box again, you must disconnect from the server and then log in again.

Verification

Verify that you can see the shared folders from within the remote desktop or application:
From within a Windows remote desktop, open File Explorer and look in the **This PC** folder,
or open Windows Explorer and look in the **Computer** folder.
From within a remote application, if applicable, select **File** > **Open** or **File** > **Save As** and
navigate to the folder or drive.

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The folders and drives that you selected for sharing might use one or more of the following naming conventions:

- *name* on *MACHINE-NAME*. For example, **jsmith on JSMITH-W03**.
- *N* on *MACHINE-NAME*. For example, **Z on JSMITH-W03**.
- *name* (*N*:). For example, **jsmith (Z:)**.

A redirected folder can have two entrances, such as **Z on JSMITH-W03** and **jsmith (Z:)** and both entrances can appear at the same time. If all the volume labels (from A: through Z:) are already in use, the redirected folder has only one entrance, such as **Z on JSMITH-W03**.

Troubleshooting Horizon Client

You can resolve most problems with Horizon Client by restarting or resetting the desktop, or by reinstalling the VMware Horizon Client application.

- **Restart a Remote Desktop**
  You might need to restart a remote desktop if the desktop operating system stops responding. Restarting a remote desktop is the equivalent of the Windows operating

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system restart command. The desktop operating system usually prompts you to save any unsaved data before it restarts.

- **Reset a Remote Desktop or Remote Applications**
  You might need to reset a remote desktop if the desktop operating system stops responding and restarting the remote desktop does not solve the problem. Resetting remote applications quits all open applications.

- **Repair Horizon Client for Windows**
  Sometimes you can resolve problems with Horizon Client by repairing the Horizon Client application.

- **Horizon Client Might Exit Unexpectedly**
  Horizon Client might exit even if you do not close it. Depending on your Connection Server configuration, you might see a message such as, "There is no secure connection to the View Connection Server." In some cases, no message is displayed. This problem occurs when the connection to the Connection Server is lost. To solve this problem, restart Horizon Client. You can connect successfully as soon as the Connection Server is running again. If you continue to have connection problems for more than 5 minutes, you will need to determine if the connectivity failure is a local or college service interruption such as internet or power service.
    - For local service interruptions: Students must note the day and time of the connectivity failure and contact the applicable service provider for verification of the service interruption period. If you experience a local service interruption during a lab exercise or a quiz or test, you may be required to provide the verification to your professor for approval of make-up work or extended deadlines. As soon as the service resumes, you must notify the professor (by e-mail) of the interruption and make arrangements to complete any missed work.
    - For service interruptions from the college: When services are disconnected at the college level, the professor and all students will experience the interruption at the same time. The professor will contact appropriate support at the college and will post recovery instructions in the eCentennial course shell. Students should check the course shell frequently for the remainder of the class period and follow the instructions to resume coursework. If the interruption extends to beyond the end of the class period, students should check eCentennial for announcements regularly (every day) until recovery instructions are posted.

- **Uninstall Horizon Client for Windows**
  You might need to uninstall and reinstall Horizon Client if repairing Horizon Client does not resolve the problem. To uninstall:
    - Verify that you can log in as an administrator on the client system.

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- The following procedure shows you how to uninstall Horizon Client if you have the Horizon Client installer:
  - To uninstall Horizon Client interactively, double-click the Horizon Client installer, or run the Horizon Client installer with the /uninstall installation command from the command line, and click Remove. To uninstall Horizon Client silently, run the Horizon Client installer with the /silent and /uninstall installation commands from the command line. For example: VMware-Horizon-Client-y.y.y-xxxxxx.exe /silent /uninstall
  - If you do not have the Horizon Client installer, you can uninstall Horizon Client in the same way that you uninstall other applications on your Windows system. For example, you can use the Windows operating system Add or Remove Programs feature to uninstall Horizon Client.

- **Problems with Keyboard Input**

  If you type in a remote desktop or application and none of the keystrokes work, or, a single key keeps repeating itself, the issue might be with security software on your local client system. Some security software, such as Norton 360 Total Security, includes a feature that detects keylogger programs and blocks keystroke logging. This security feature is meant to protect the system against unwanted spyware that, for example, steals passwords and credit card numbers. Unfortunately, this security software might block Horizon Client from sending keystrokes to the remote desktop or application. To solve: On the client system, turn off the keylogger detection feature of your antivirus or security software.

REMINDER: <u>When you are finished with your session, log-out. Do not shut down the computer.</u>

This will allow other students to use the computer. If you do not log-out, you will be automatically logged out of the computer after 10 minutes of being disconnected. For example, if you close the VMware Horizon Client.

Appendix

Fall 2020 ICET Course List and Course Section Numbers (tba)

The designated classroom room numbers correspond with the professor/student timetable in myCentennial. To connect to the appropriate classroom, you must select the classroom assigned in your timetable. If you do not know the classroom number, contact the professor as noted in the eCentennial course shell.

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