

CST8202 – Windows Desktop Support

Lab 2 – Installing Windows 11

Purpose: To install and configure Windows 11 in a virtual environment in preparation for future labs.

Equipment/Resources:

- College Approved BYOD Laptop
- Access To Brightspace
- Windows 11 ISO

Objectives:

1. Verify that you have a copy of the Windows 11 installation ISO. This should be in the ISO subdirectory within your Algonquin folder. If you do not have this file review Lab 1 and download the Windows 10 and/or 11 installation media from Azure for Students.
2. Create a new virtual machine in VMware. Unless instructed differently here, accept all defaults. (NOTE: Read the screens and follow these steps closely. Do NOT get creative here. **Also, be sure to keep current with the items you need to be documenting.** Do not just start the installation and start clicking)

NOTE: Accept the defaults for items not specified here

- a. Select - New Virtual Machine – Next.
 - b. Appropriate Configuration: Typical
 - c. Select “I will install the operating system later”
 - d. Guest Operation System: Microsoft Windows – Version: Windows 11 x64 (selecting 64bit)
 - e. Keep the default for naming your Virtual Machine files and folders.
 - f. Win 11 requires encrypted TPM, Enter Password “**P@ssWOrd**” and confirm password
 - g. Select remember the password on this machine in Credential Manager
 - h. Leave the disk capacity at 60 GB.
 - i. Store virtual disk on a single file.
3. When the VM settings are again visible select “Edit virtual machine settings”.

- a. Select Options > Advanced
 - i. Verify that the “Firmware type” is set to UEFI (%1)
 - b. Select CD/DVD (SCSI or SATA) and then select “Use ISO image file:”
 - i. Browse to and select your ISO image for Windows 11.
 - ii. Be sure that the Checkbox “Connect at power on” is selected
 - iii. Click OK
4. Power ON your VM. The Windows 11 installation should start automatically. Do not power off until complete. You may be prompted to **press any key to boot from CD**, hit any key to start the installation process while within the VM space.

Procedure:

Installing Windows 11

NOTE: As Windows 11 goes through changes and updates some of these screens and steps may change. Ask for help if needed. Select a Disk that is directly attached to your host system. **Do not select a network Drive or Cloud Storage.**

NOTE: Be sure to document all of the % and # items as required. **Do NOT** just point and click.

5. You may receive a message bar across the bottom asking to install VMware Tools. Select “Remind Me Later”
6. Modify the “Time and currency format” to English (Canada). Click Next.
7. Click “Install Now”
8. Accept the license terms. Click Next
9. Choose “Custom Install”
10. Select “Disk 0 Unallocated Space”. Click Next
11. Setup will now copy the needed files and install Windows 11. When the basic installation is complete, Windows will restart a couple of times
12. Select Canada as the region, US Keyboard. Skip 2nd keyboard layout
13. Windows 11 will now get Critical Updates. There will be at least 1 restart.
14. Select “Join Domain Instead”, skipping the step to use or create a Microsoft account
15. Use the following information when prompted:
 - a. User Name = *yourcollegeusername* (%2)
 - b. Password = P@ssw0rd (no substitutes)
 - c. Password Hint = Lab password
16. (Only for Windows 10 Setup) Select No for the option to “Make Cortana as your personal assistant”
17. Turn OFF all data collection Settings, then Accept
18. Networks. Select Yes to allow your PC to be discoverable by other PCs and devices.

19. The installation will now be complete.
20. We will now modify the Computer Name. Open File Explorer, right-click This PC and select Properties. Part way down the right side of the window select "Advanced System Settings". Select the Computer Name Tab, On the bottom right side Select **Change...**
 - a. Enter the new computer name and workgroup name(see below)
 - i. i. Computer Name = W10-yourcollegeusername
 - ii. ii. Workgroup name = xxy-CST8202 (where xx = the year & y represents the semester [F – Fall, W – Winter, S – Spring]) **(%3; include Computer Name)**
21. After receiving the Welcome to xxy-CST8202 workgroup, click OK and then OK to acknowledge the need to restart the computer for the changes to apply.
22. Click Close and then Restart Now
23. Login to Windows 11 using the credentials you specified above
24. Right-click on the date and time in the lower right corner. "Select Adjust date & time". Verify that your system is set for the correct time zone and will adjust for Daylight Saving Time **(%4)**. Close the window.
25. Installation of VMware Tools will enable you to work seamlessly between your Guest OS and your Host OS.
 - a. On the menu bar select VM > Install VMware Tools
 - b. Watch the message bar at the bottom of the VMware window. Follow any prompts received. We want to run setup.exe.

NOTE: If the installation does not start automatically, you will have to go into Windows File Explorer (not Internet Explorer) or Computer (on your GUEST OS) and from the mounted Virtual CD-ROM drive run setup.exe. This is done in your VM not in the host.

- c. Select a "Typical" setup
 - d. Restart as needed
26. When complete, open Windows File Explorer (not Internet Explorer), right- click This PC and select Properties. **(%5)**
27. Verify that Windows 11 is activated. If not Activate Windows 11 now
28. Install a new browser (Firefox or Chrome) if desired or you may use Edge or update Internet Explorer to the latest version. **(%6)**
29. Verify that Windows Defender is installed and up to date. Go to Settings > Privacy & Security > Windows Security > Virus & threat protection > Protection Updates, and click "Check for Updates". Take a screenshot of a successful scan. **(%7)**
30. If need be, reset the CD-ROM to connect to the hardware device. (See steps above)

Cloning Windows 11 VM:

31. VMware has the ability to “Clone” a virtual machine for future use. This is a good practice in lab once you have created and activated a virtual machine. You can use this if you need another VM in this course or even for next semester. You will now clone your newly created Windows 11 VM
 - a. The cloning process requires your VM to be shut down. If it is running or suspended, correct this before proceeding
 - b. From the VM menu, select Manage > Clone.
 - i. Read the message box. Click Next
 - ii. Clone from “Current State”. Click Next
 - iii. Clone type is Full clone
 - iv. Note the name and location of the clone (**#8**). Accept the defaults. Click Finish
32. Once the clone is complete; power on the cloned VM and log in.
33. Open PowerShell.
34. At the prompt type: `Get-CimInstance Win32_OperatingSystem | select Version, InstallDate, OSArchitecture`
35. Copy the output into your lab document. (**#9**)

List of Deliverables

- %1:** Verify that the “Firmware type” is set to UEFI. (Step 3.a.i)
- %2:** Screenshot of your username during installation. (Step 15.a)
- %3:** Screenshot your workgroup name). (Step 20.a.ii)
- %4:** Screenshot of correct time zone, date and time. (Step 24)
- %5:** Screenshot of system properties? (Step 26)
- %6:** Screenshot of your preferred internet browser (Step 28)
- %7** Take a screenshot that verifies that Windows Defender Antivirus is up to date (Step 29)
- #8:** Write the full path to the clone of Windows 10 VM. (Step 31.b.iv)
- #9:** Copy the output of the PowerShell command. (Step 35)

Submission Requirements

Include the screen shots and written answers that are indicated in the lab instructions

NOTE: % indicates a screen shot. # indicates a written answer. All lab submissions must meet the requirements, and follow the format, listed in the lab instructions posted on Brightspace. Marks will be deducted for not following these instructions