# How to Install & Run Xilinx Vivado on a Mac

In order to run Xilinx Vivado on a Mac, you have two options:

- 1. Run a Windows VM on Mac OSX
- 2. Bootcamp (dual-boot) your Macbook with Windows

NOTE: If you have ANY trouble when following this guide, the EE Helpdesk is open M-F 9AM-5PM in 20-106. We will be happy to help you!

### So...what's the difference?

#### Using a VM:

#### **Pros**

- Requires less storage space
  - At least ~30GB free space: 0.5 GB for VMWare Fusion, 4GB for Windows VM, 20GB or less for Vivado
- · Easier to delete after your class is over and you don't have a future use for Windows
- · Run on your native OS (you do not have to restart your system)

#### Cons

- Runs slower than if you bootcamped with Windows
- There may be issues with USB passthrough or network passthrough to the VM
- You must renew your license after 12 months with the University

#### Bootcamp:

#### **Pros**

- Runs faster than a VM, since it is on its own hard disk partition
- Useful if you have a future use for Windows
- USB ports and network will be easier to configure

#### Cons

- You must restart your system to boot into Windows
- Requires more storage space
  - At least ~60GB partition: 30GB for Windows, 20GB or less for Vivado, 10GB for other files
  - Once you partition your drive, you cannot expand the partition without deleting it! It is easier to start large.

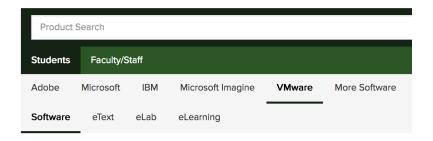
**Recommendation:** If you have the space and the interest, bootcamp your Mac. If you need to be conservative with storage or will not be using Windows in the future, use a VM.

### Running Xilinx Vivado using VMWare

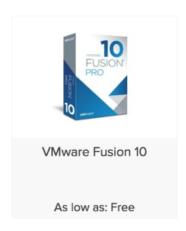
Go to calpoly.onthehub.com and log in using your University credentials.

Navigate to the VMware tab.





Click on VMWare Fusion 10 and add this to your cart. It is listed twice, but they are both the same.



VMware Fusion 10 (for Mac OS)

Available to: Students

You will be able to place an order for this product again in 12 months after the initial order.

The license you will receive with this offering is valid 12 months starting with the 1st of the month the offering was ordered.

Free

🖪 Add to Cart

Navigate to the Microsoft tab and add Windows 10 to your cart.









\*Note: you can only get one Windows Serial Number every year. Contact ITS if this is a problem.

Checkout your order. You should get a **product key for VMWare** and a **serial number for Windows 10**. Copy this into a notepad to save it for later.

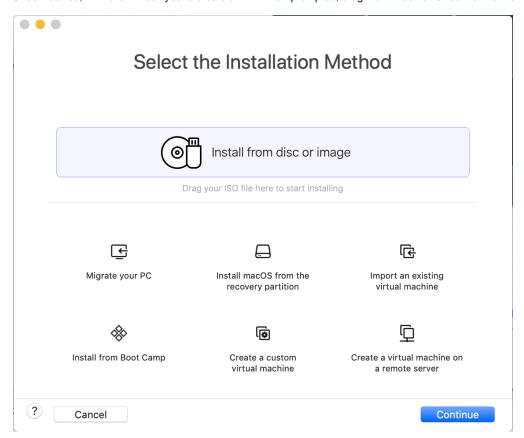
Download the *Windows 10 Education 64 bit* .iso. If you are not directly given a link when you are given the serial number, go here: https://www.microsoft.com/en-us/software-download/vlacademicwindows10iso

While the .iso is downloading, download the *VMware Fusion* software from OnTheHub.

Open the .dmg file and type in your product key when prompted. Follow the installer until complete.



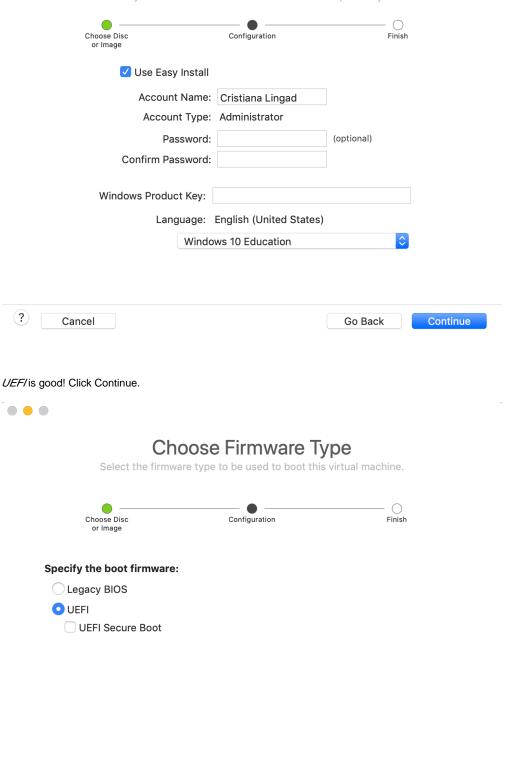
Once installed, VMware will ask you to create a VM. When prompted, drag the Windows 10 .iso file into the VMware window.



Once you have chosen the right .iso, you may be given the chance to use *Easy Install*. You can create your account and input your Windows Serial number here. If you do not have this option, click Continue.

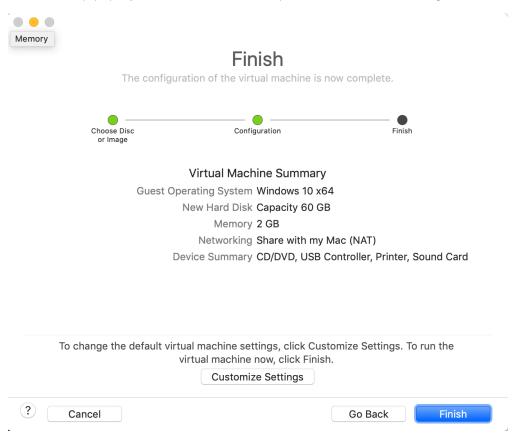
## Microsoft Windows Easy Install

With Easy Install, VMware Fusion will use the information provided here to automatically install Windows 10 x64 from your installation disc and install drivers to optimize your virtual machine.

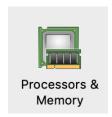




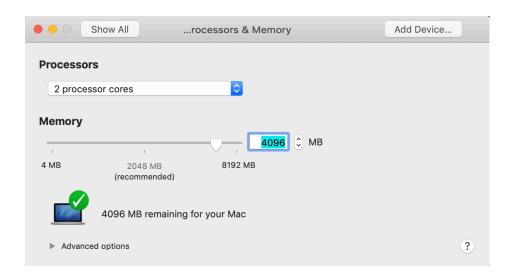
This screen will pop up. If you have a Macbook with an i5 processor, click Customize Settings.



In the VM settings, click on Processors & Memory.

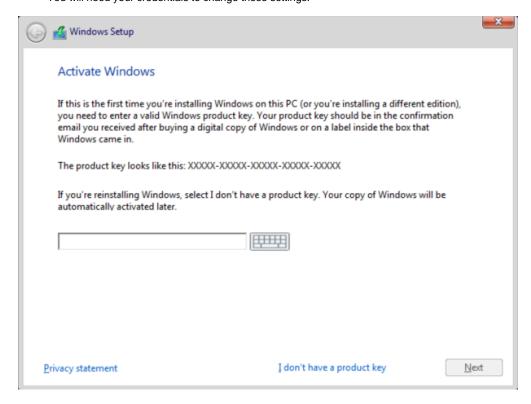


Give the VM at least 2 cores of processing power and 4096 mb of RAM\*\* (\*\*IF your machine can handle it! Check the tech specs of your Mac before this step. This is only so that the VM can run faster.)



The Windows VM should start running. If you did not go with *Easy Install*, enter the Windows serial number given to you when prompted. Setup should take some time.

\*\*\* If your Windows VM does not detect an OS, go into your Macbook's *System Preferences > Security & Privacy > General.* Make sure it is "Allowing" apps from VMware. In *System Preferences > Security & Privacy > Privacy > Accessibility*, make sure VMware is checked. You will need your credentials to change these settings. \*\*\*



Once the Windows Desktop has loaded, use Edge to navigate to the Xilinx website to download Vivado and install it on the Windows VM. You must create an account with Xilinx.

 $Here \ is \ the \ link: \ https://www.xilinx.com/member/forms/download/xef.html? filename = Xilinx\_Vivado\_SDK\_Web\_2018.2\_0614\_1954\_Win64.exe$ 

Install Vivado (you can just spam the Next button!)

## **How to Bootcamp your Mac**

Go to calpoly.onthehub.com and log in using your University credentials.

Navigate to the Microsoft tab and add Windows 10 to your cart.









\*Note: you can only get one Windows Serial Number every year. Contact ITS if this is a problem.

Checkout your order. You should get a serial number for Windows 10. Write this down on a piece of paper or an external device for later.

Navigate to Boot Camp Assistant. It is recommended to have your Macbook plugged into power before you continue.



Select Choose to the right of the ISO Image box to locate your Windows ISO file.

You'll see a slider representing your hard drive, which lets you decide how much hard-drive space to allocate to your Windows partition. Recommended at least 60GB, more if possible. Remember: you cannot expand this partition, but you can shrink it.

Click Install. Your Mac will eventually boot into Windows setup.

When the installation asks to install Windows, select the BOOTCAMP drive.

Input the serial number you wrote down when prompted. Setup will take some time.

Once the Windows Desktop has loaded, use *Apple Software Update* to prevent driver issues. Make sure you're connected to the internet and then click the *Start* button in the bottom left and open *Apple Software Update*.

Use Edge to navigate to the Xilinx website to download Vivado and install it on the Windows VM. You must create an account with Xilinx.

Here is the link: https://www.xilinx.com/member/forms/download/xef.html?filename=Xilinx\_Vivado\_SDK\_Web\_2018.2\_0614\_1954\_Win64.exe

Install Vivado (you can just spam the Next button!)

To switch between your Mac and Windows partition, hold down the *Option* key during a boot or reboot sequence to bring up the OS-selection menu.