

Working Remotely on LTS Machines

LTS Machine Use

The Learning and Technologies Spaces (LTS) Macs have all the necessary software packages installed for this class. We **highly** recommend students with Windows machines and students who feel less comfortable installing their own software and packages to use the remote Mac computers offered through LTS.

The one important thing to note when using the LTS machines is that the default version of python on these machines is Python2.7. Since all of our code is in Python3, whenever you are running a python script on the LTS machines, you must make the specific call to “Python3”.

For example, in assignment 1, instead of calling:

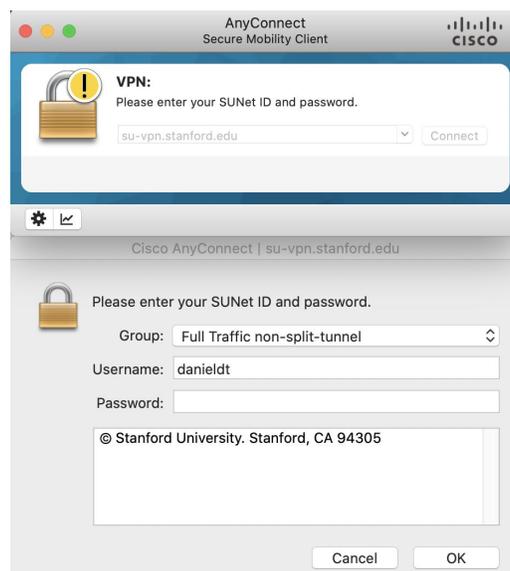
```
python nonbonded_distances.py nonbonded_pdfs/*
```

You will call:

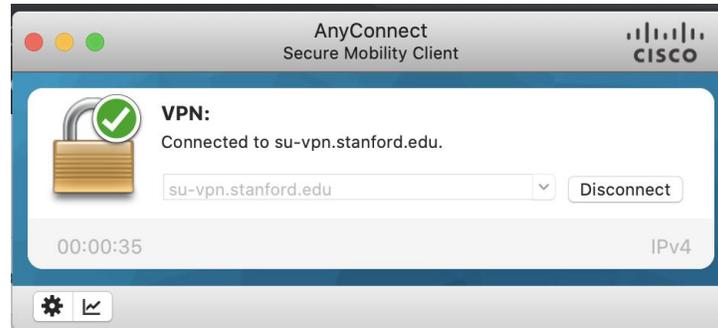
```
python3 nonbonded_distances.py nonbonded_pdfs/*
```

How to connect to a LTS machine

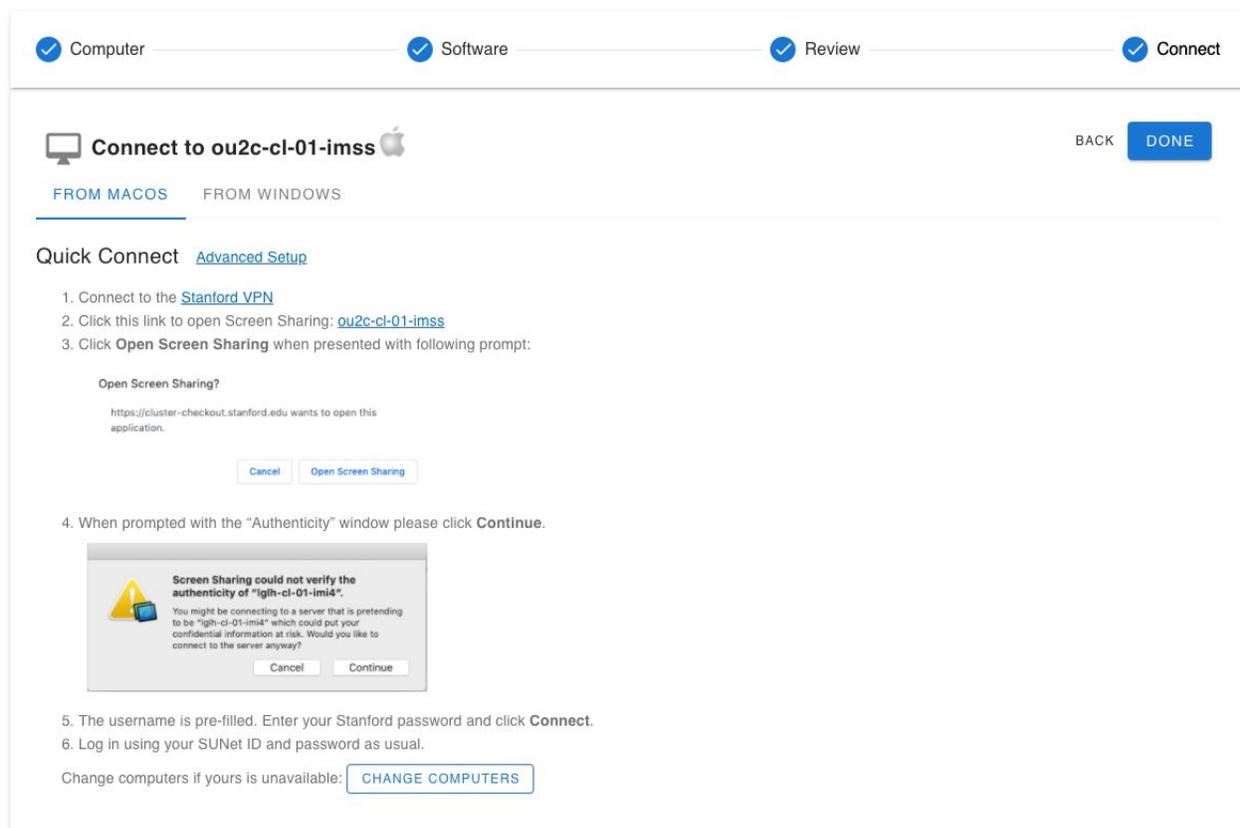
To connect to an LTS machine, you will need to first connect to Stanford VPN. Download the Cisco VPN Client (<https://uit.stanford.edu/service/vpn>), which will allow you to connect to Stanford’s VPN using your SUID and password.



You will then be asked to perform two-step authentication as you normally would through your mobile device. Once this is completed, you should get confirmation that you have successfully connected to the network.



After connecting to Stanford VPN, visit <https://cluster-checkout.stanford.edu/> and follow the steps to checkout a non-multimedia Mac (MacOS Cluster), you should see the following page.



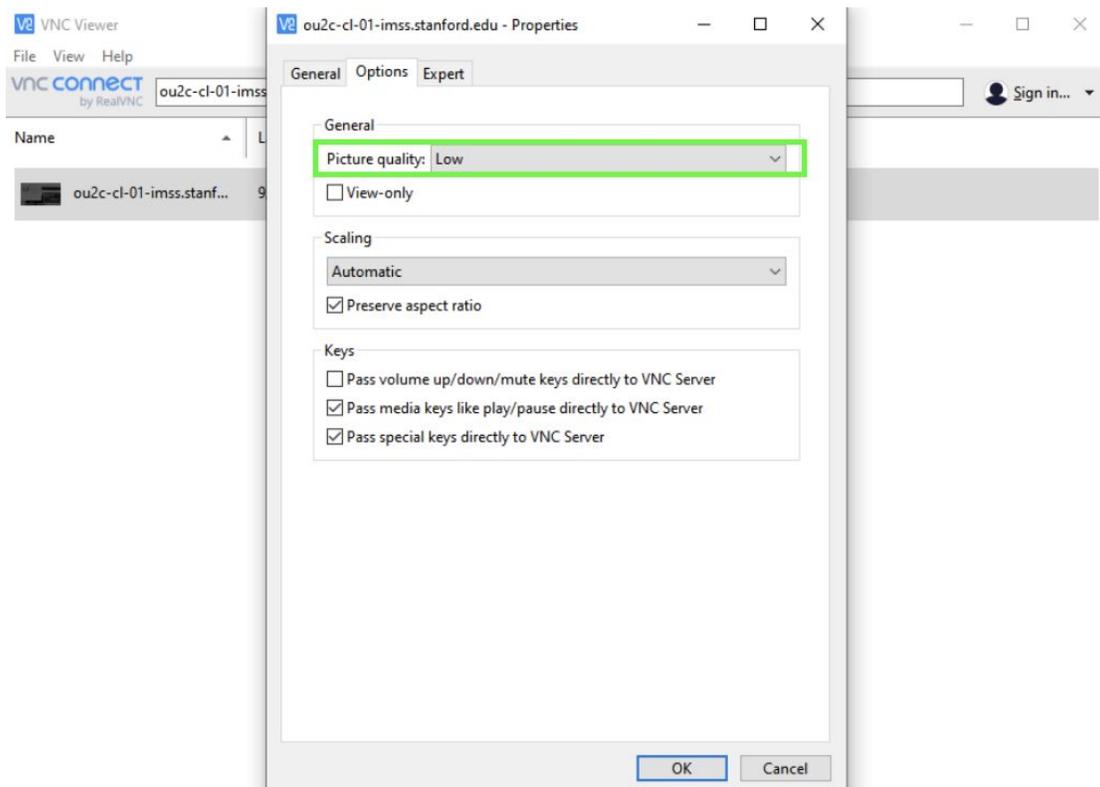
Once you are here, the workflow for users with MacOS local machines and users with Windows/Linux local machines will differ. Follow the appropriate workflow below for your operating system.

MacOS Workflow

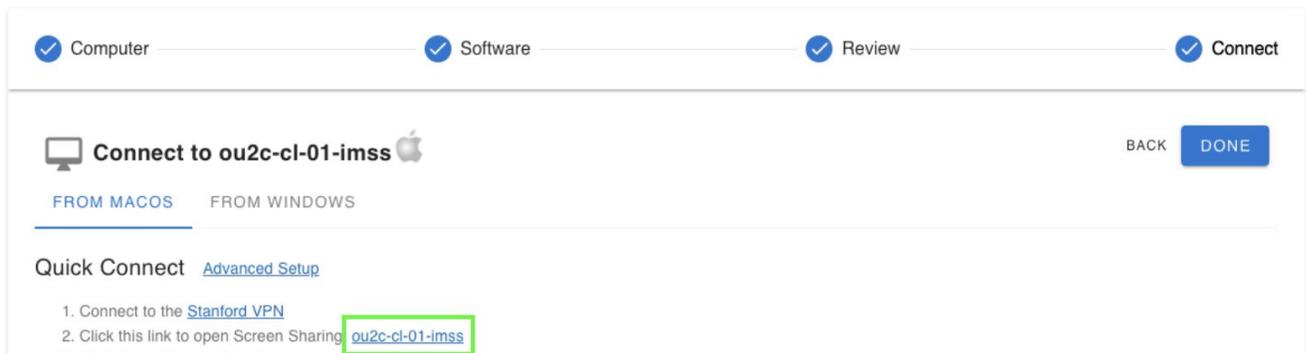
Under the Quick Connect section of the webpage, click on the screen-sharing link (see step 2 in the image above). Allow screen-sharing and sign in with your SUID and password. You should now be able to see the login screen of the cluster machine. Once you login again with your SUID and password, you are ready to use the machine!

Windows/Linux Workflow

Windows users will need to download a separate remote screen viewer at (<https://www.realvnc.com/en/connect/download/viewer/windows/>). *****Important*** Once real vnc viewer is installed, open up the VNC Viewer application and adjust the “Picture quality” setting to Low.** You can find these settings under File -> Properties -> Options -> Picture quality. If you don't adjust these settings, you will experience tremendous lag in operating the remote machine.



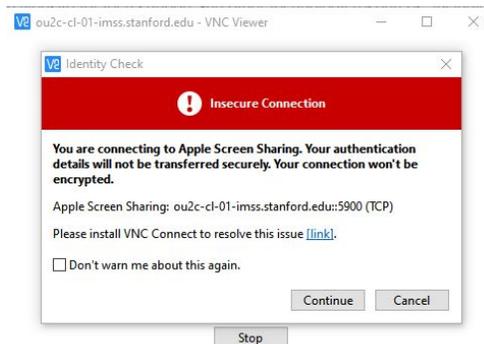
Next, copy the machine address from step 2 of the Quick Connect section (see the first image below).



Paste the machine address into the VNC Viewer address bar, add the suffix “.stanford.edu” and hit enter to connect.



You will need to continue past the insecure connection warning to proceed.



VNC Viewer will then ask you to sign in, and you can do so using your SUID and password. You should now be able to see the login screen of the cluster machine. Once you login again with your SUID and password, you are ready to use the machine!

We apologize in advance for the slight lag in using the LTS Mac machines through windows. Assignments 2 and 3 require the use of PyRosetta4, which is supported primarily on Mac OS. While it is possible to set up PyRosetta on Windows 10, the install is quite a bit more complex and the teaching staff may not be able to assist with any software-related bugs that may arise. For this reason, Windows users are strongly advised to use the LTS machines.