

Intro to VNCviewer
University of Pennsylvania
ESE 570 – Spring 2020

Part 1: Accessing Biglab

Cadence is hosted on the SEAS server, operated by CETS. To access it, you will need to log into the Biglab computers. You can either do this a) with the SEAS computers in the ENIAC lab (Moore 1st floor) or b) with your own computer.

The CETS website (<https://cets.seas.upenn.edu/answers/biglab.html>) is a useful reference for fixing issues with connecting to Biglab.

Using ENIAC computers

Log into the computer with your Penn Key and open a terminal. Type:

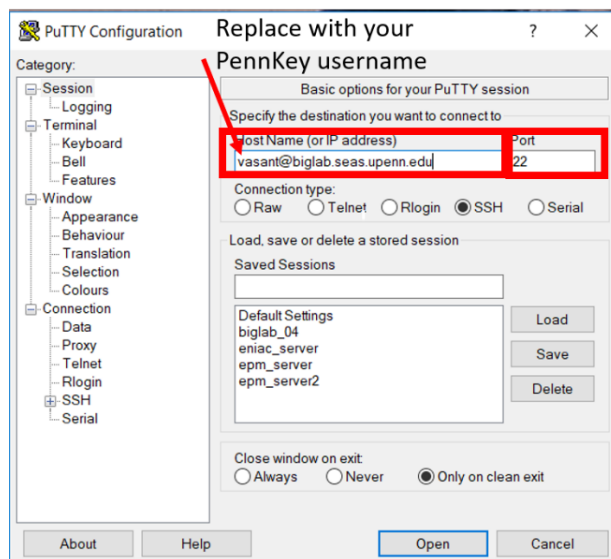
```
ssh -Y biglab.seas.upenn.edu
```

Using your own computer

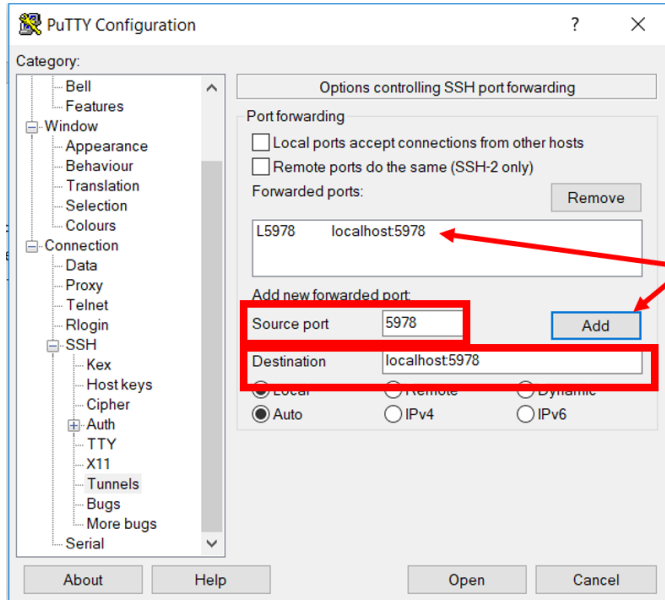
You may find it more convenient to use your own laptop, if you want to work outside of Moore. To do this, you must log in to the Biglab computers remotely using SSH, and then display the program on your machine. I recommend using a VNC connection for the display; this creates a “virtual desktop” containing all of the windows created by Cadence.

For **Windows**, you should download [Putty](#) for SSH and [VNC Viewer](#) for display. For **Mac/Linux**, you just need [VNC Viewer](#), since you can directly SSH from the terminal. This tutorial will be for Windows.

First, we have to **SSH into the Biglab computer**. Open Putty and edit the host name and port. (Format: username@biglab.seas.upenn.edu. You can also log into a specific Biglab machine. Check [this list](#), pick a machine, and set the host name. If you picked 04, for example, the host name would be username@big04.seas.upenn.edu.)

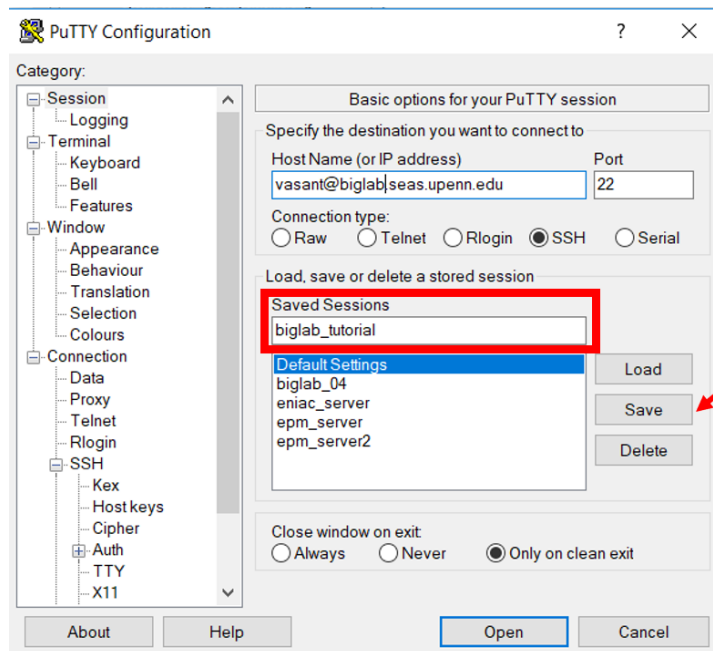


Go to Connection>SSH>X11 and check “Enable X11 forwarding.” Also go to Connection>SSH>Tunnels to allow data to be transferred. Pick a two-digit number N (in this case, N = 78; you can pick some other number, like N = 03). Add a new port by filling out the source and destination. The source port is “59N”; the destination is “localhost:59N.”



Press “Add”, you should see the destination port show up here

You can save these settings. Go to Session (back to main screen); type in a name for your session (in this case, “biglab_tutorial”) and hit “Save”.

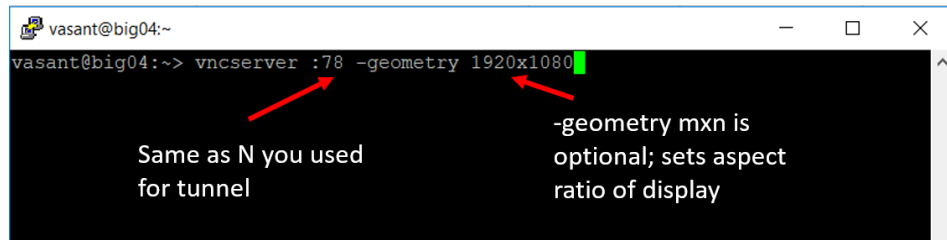


Any time you open Putty from now on, pick your session from the list and hit “Load”, then “Open”.

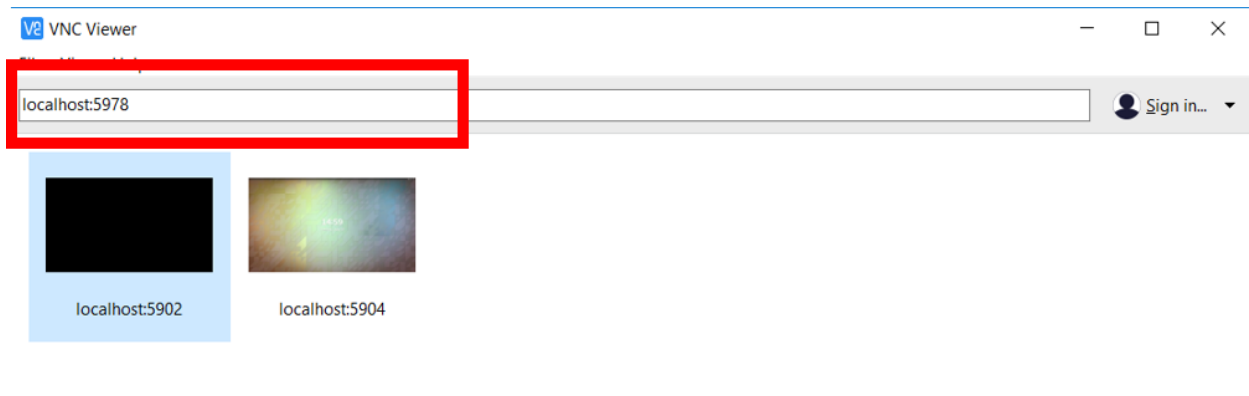
After you click “Open”, a terminal window pops up. Now you need to **start a VNC session on the Biglab computer**. Type into the terminal:

```
vncserver :N
```

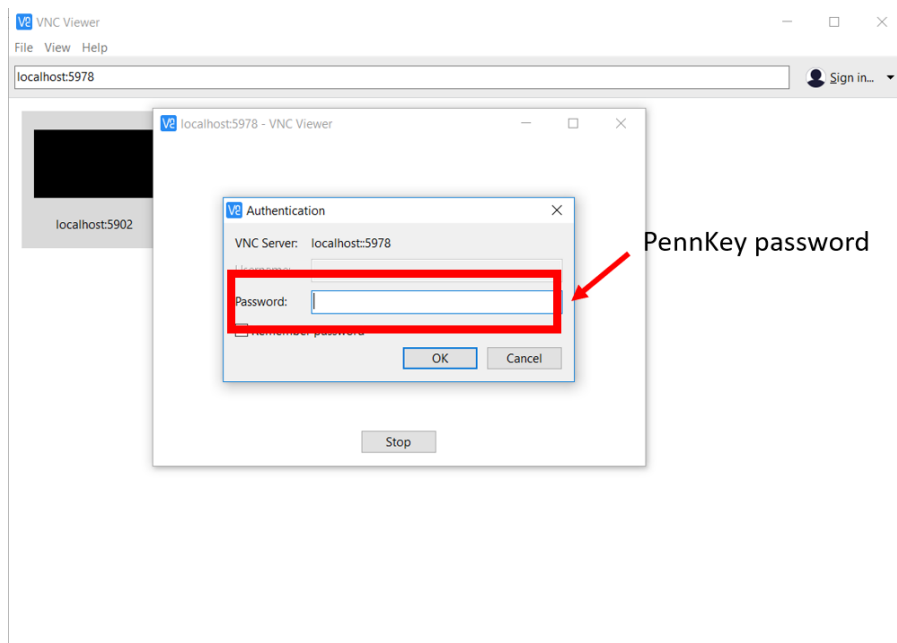
where N is the two-digit number you picked earlier.



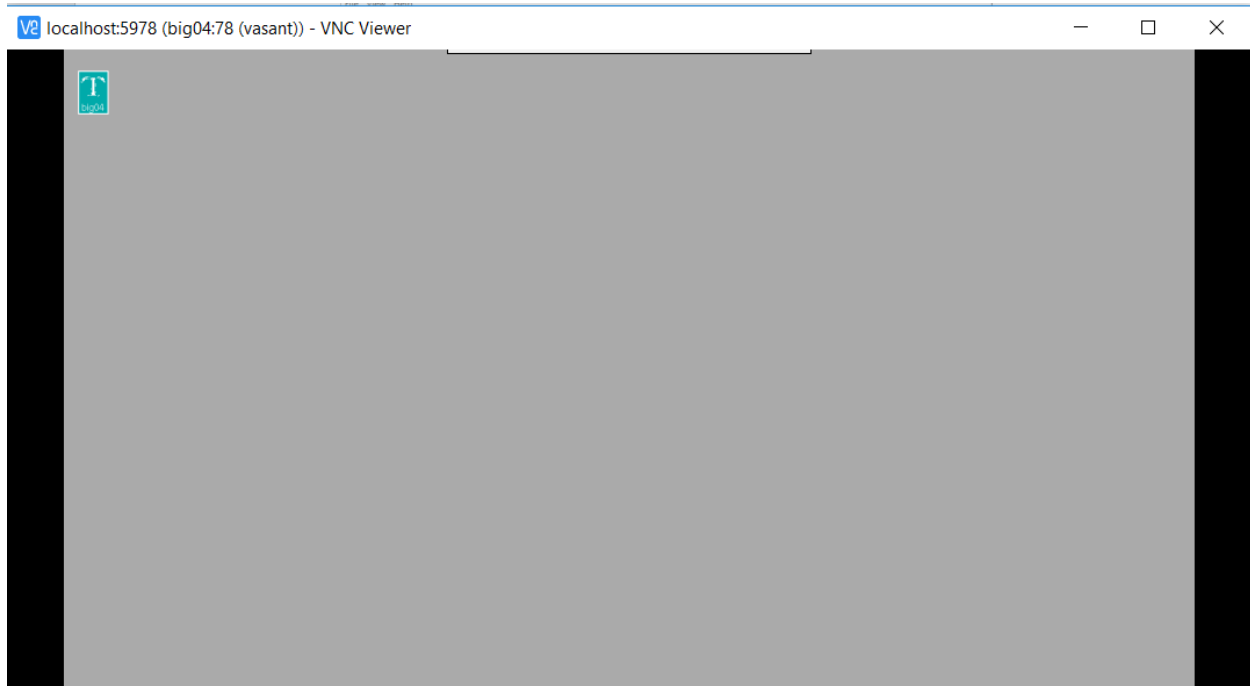
Now you need to **open VNC Viewer** to start the desktop. Into the search bar, type “localhost:59N”, where N is again the two-digit number you chose earlier, and hit Enter:



You will be prompted to enter a password; use your PennKey password.



A new window should pop up with your virtual desktop:



NOTE: if you ever get an error message from VNC Viewer saying “The connection closed unexpectedly”, that means that your VNC port was closed for some reason. Open a SSH session with Putty, and type:
`vncserver -kill :N` (this double-checks that the VNC connection is closed)
`vncserver :N` (this restarts the connection; you can add the optional “geometry” argument from earlier)