This guide instructs how to remotely access the linux computing machines. You are able to access the linux operating system via SSH connection on your PC or mac. However, the display resolution ratio and the delay may be annoying. The best option is to use the machines in Sieg 118.

Obtain an ECE account

You need the ECE login for both Sieg machines and remote access. If you don't have an ECE login yet, visit the following website or contact the computing staff in person.

https://vannevar.ece.uw.edu/computing/faq/new_account.html

Selecting the shell

From the link below, change the shell from **bash** to **tcsh**. The fourth annotation in the last section Additional Information shows how to verify the shell.

https://user.ee.washington.edu/user

Windows Users:

Download software

Putty is an open source software that can create SSH connection. Mac has built-in Unix terminals, so Mac users are able to use terminal to construct SSH connection without Putty. After the SSH connection is created, TightVNC can open a virtual desktop with same appearance on the machines in Sieg 118. The following instruction is for windows users. Mac users need to figure out how to use terminals to construct SSH connection.

For Windows users, download Putty from the following website. Install Putty.

http://www.putty.org/

For both Windows and Mac users, download TightVNC from the following website.

https://www.tightvnc.com/download.php

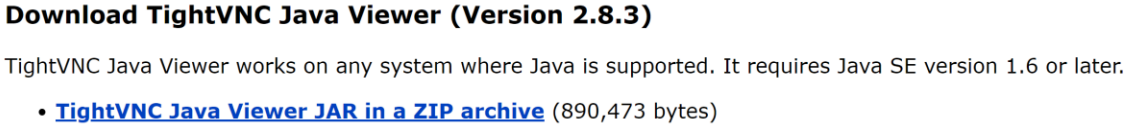

Figure 1

Download the version in Figure 1 and unzip it. **Download exactly the version shown in Figure 1.** No install is needed.

Setting up Putty

Open putty, you will see a window like the following Figure 2.

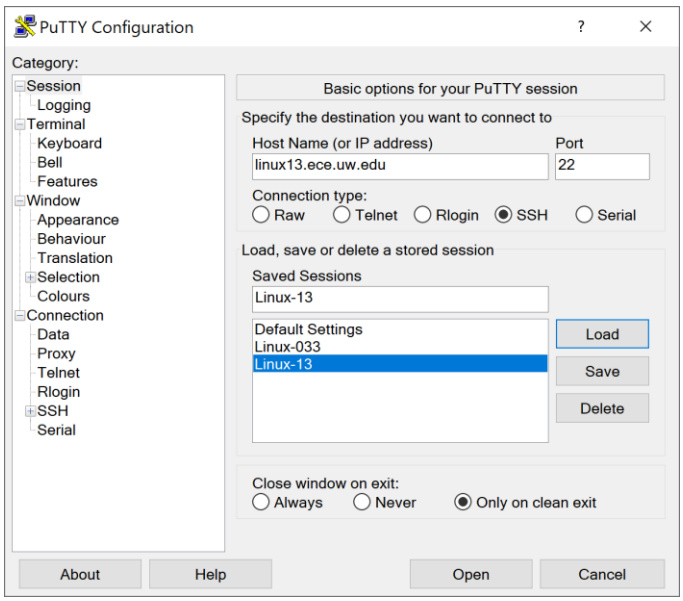

Figure 2

In the space below "Host Name (or IP address)", type in anyone in the following host name (in **bold**) in Figure 3. Remember to add **".ece.uw.edu"** after **"linux-lab-001"** to **"linux-lab-040"**.

- **linux-lab-001** to **linux-lab-040** are desktop systems present in room Seig 118. Please do not turn these off, as they may be being used remotely.
- **linux12.ece.uw.edu**, **linux13.ece.uw.edu**, **linux14.ece.uw.ed**, **linux15.ece.uw.edu**, **linux16.ece.uw.edu**, and **linux18.ece.uw.edu** are systems located in a server room, these nodes are useful for remote interactive desktop work, and tend to reboot less often as physical access to these nodes is limited.
- **linuxsrv01.ece.uw.edu** is also in a server room and is a larger system with 64 CPU cores and a lot of memory.

Figure 3

In this tutorial, **linux13.ece.uw.edu** is used. Under Category, click the "+" symbol on the left side of "SSH", and then click "X11". Select "Enable X11 forwarding". Your configuration should look like Figure 4.

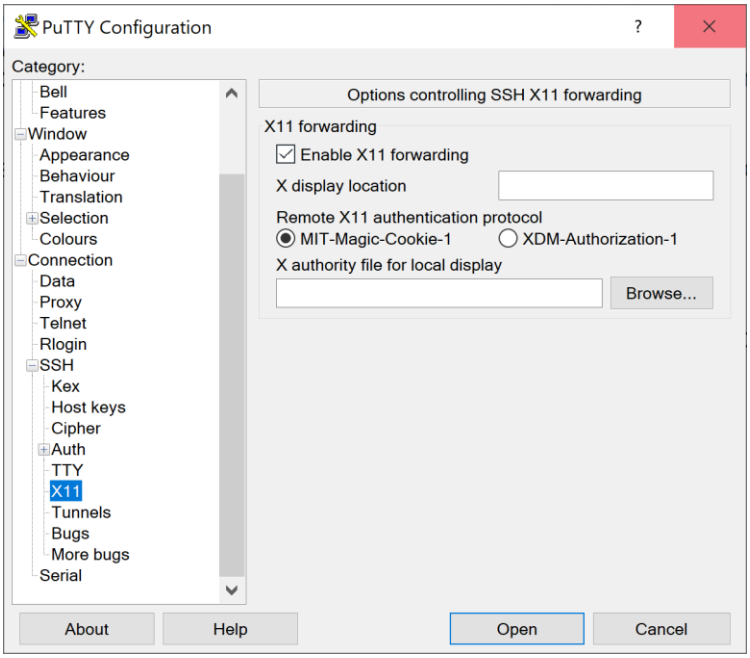

Figure 4

Go back to previous interface by clicking “Session” under Category. Under “Saved Sessions”, type in any name for this connection and save it. The next open Putty, you can load this saved configuration.

Click “Open” at the bottom. A terminal in Figure 5 will open.

Figure 5

Start VNC session

Typing in ECE logins, you connect to a Linux Lab system using a SSH client. Now, follow the instructions on the website to configure VNC session.

https://vannevar.ece.uw.edu/computing/faq/vnc.html

The commands should input from Putty window. Read these sections: **Start a VNC Session, Connect using TightVNC** to start VNC session. The VNC session will be always active even closing the VNC viewer. If you want to stop the session, read section: **Close your VNC session**.

Mac Users:

Connecting via X2Go

If you use Mac OS, we recommend you use X2Go to connect to the servers (You can also try it if you prefer using the Windows edition too). On the Mac, you first need to make sure you have the latest version of XQuartz installed. Please go to https://www.xquartz.org and download the latest version, shown in Figure 6. Install it using the dmg file on your computer.

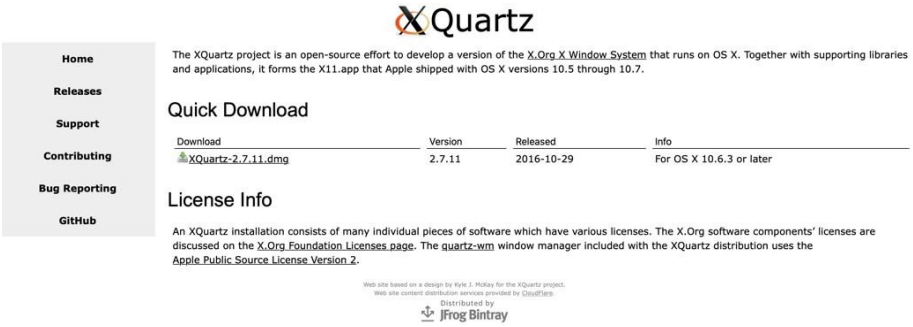

Figure 6

Next, you need to install the latest version of X2Go (Figure 7) for Mac from https://wiki.x2go.org/doku.php

Figure 7

After opening the software, click on the icon on top left side to make a new connection with configurations shown in Figure 8 below:

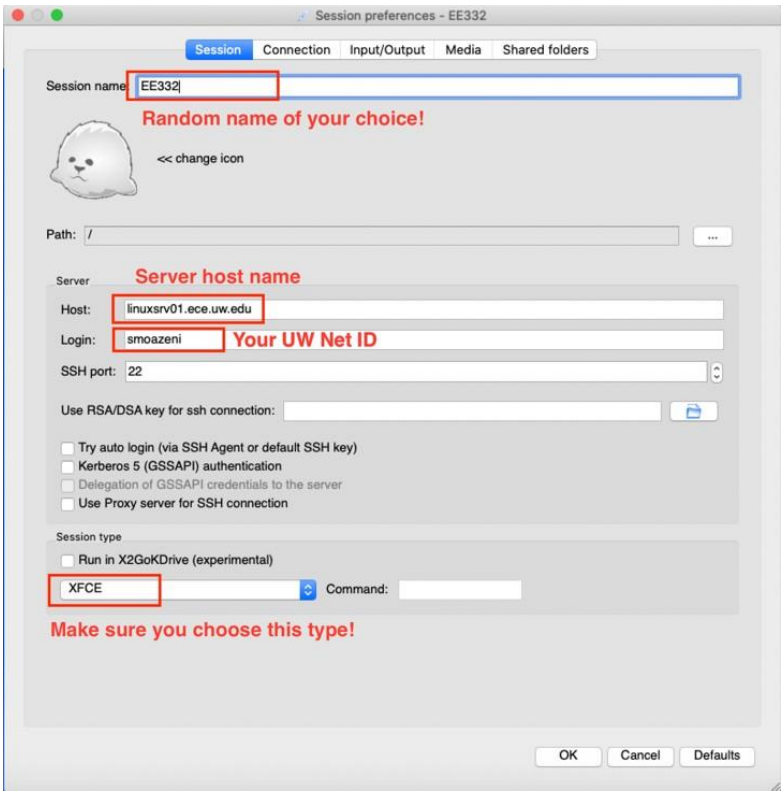

Figure 8

After clicking OK the connection is made and shown on the right-side panel. Simply double click on it and enter your password to log in.

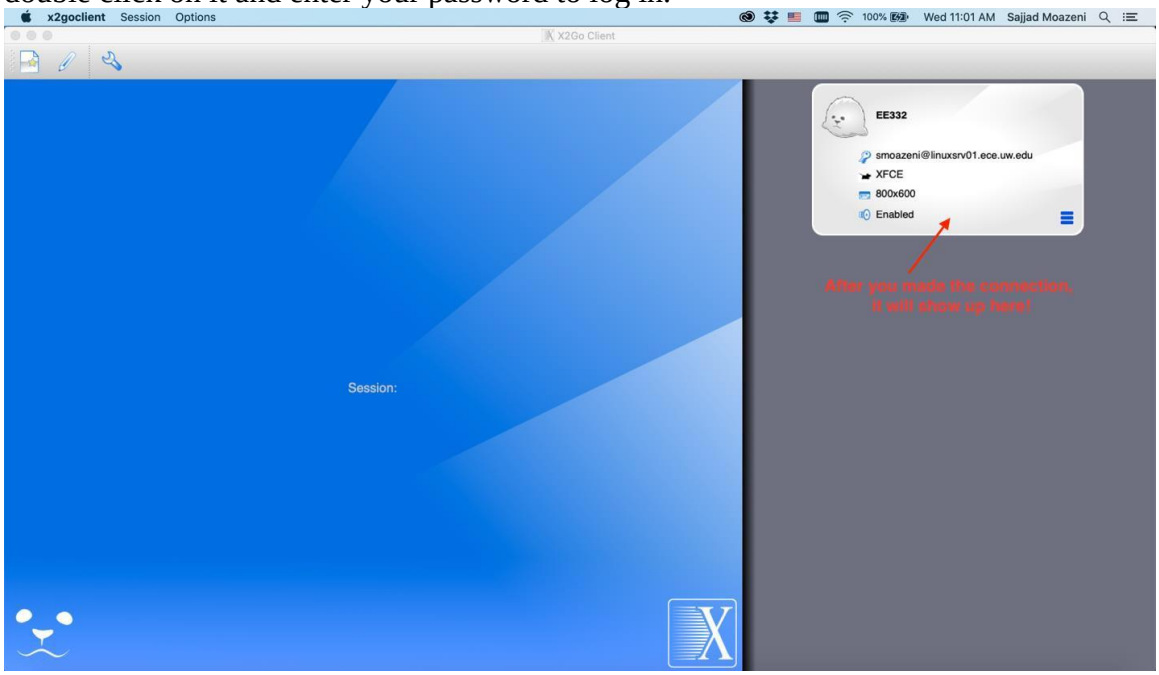

Figure 9

Additional information

1. The VNC session is always running until you kill it. It's safe to close the tightVNC windows while programs are running.

2. Use command below to create an VNC session with different resolution instead of "startvnc" command

vncserver -geometry 1900x990

By replacing the length 1900 and width 990, you can change the size of tightVNC window. This size is suitable for my 15 inches laptop. You may adjust the numbers.

Figure 10

Remember to select the fourth button in Figure 10 from the toolbar of tightVNC window.

3. Finally you should see the similar window in Figure 11.

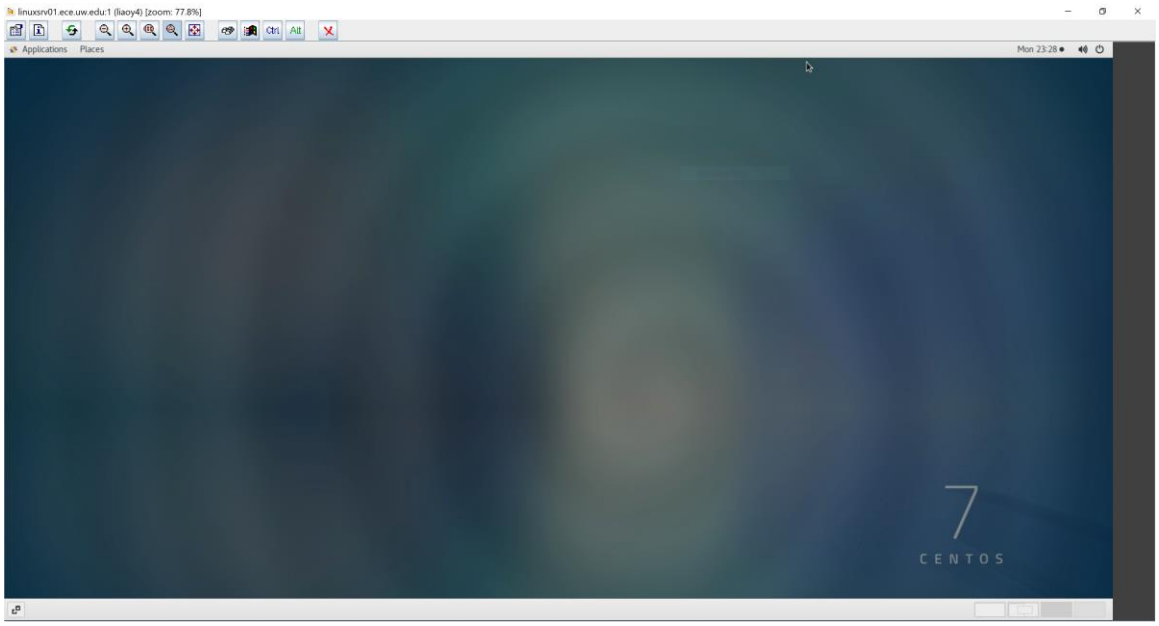

Figure 11

4. Click Application at left top corner in Figure 11 → select Favorite → select terminal. Type in command "echo $0". The returned message indicates the current shell.

5. If your shell is bash, run this command "exec tcsh". Check the current shell.

6. If your shell is still bash, open "~/.bashrc" file by any text editor (vim, emacs, gedit). Save "exec tcsh -l" in the file. Open a new terminal and check the shell.