

Software for Accessing the JINX Cluster

As discussed in class, all assignments for ECE3090 are to be coded and debugged using the instructional computing cluster called “jinx”. The CoC web page discussing this cluster is:

<http://support.cc.gatech.edu/facilities/instructional-labs/jinx-cluster>

However to access this cluster you need certain software on your laptop or desktop system, as described below.

From Linux or Mac OSX. If you use either Linux (any variation) or Mac OSX (any recent variation), you already have the necessary software. Both linux and OSX include the “Secure Shell” (`ssh`) program, as well as the *X-Windows* graphical server that we will use for later assignments.

From Windows. The Georgia Tech Office of Information Technology *OIT* maintains a web page of software that can be downloaded and installed by students and faculty. That web page is:

<http://software.oit.gatech.edu>

From that page you will need to install either X-Win32 2012 (with SSH) or SecureCRT 6.7.2. The first is recommended as it includes the X-Windows server we will need later.

To access this software you will first have to log in with your Georgia Tech prism user name and password, then answer a series of questions regarding export controls.

Using SSH. Once you have the proper software, simply open a terminal window (the procedure for this differs based on OS and software package), and connect to `jinx` as follows

```
ssh -l your-user-name here jinx-login.cc.gatech.edu.
```

Note, some of the windows packages automatically connect for you and simply prompt for the password..

After successfully logging in, you use any of the linux commands to create directories, list files, edit source code, and build your programs. There are plenty of on-line resources about using linux. At a minimum you will need `ls`, `ls -la`, `ls -lart`, `mkdir`, `cd`, `make`.

Editing your programs. Once logged into `jinx`, you will need to use one of several available text editors found on the `jinx` cluster. Those are `vi`, `vim`, and `emacs`. The `vi` editor has been around for decades, and is still popular. It is easy to learn but lacking much functionality other than simply editing text. The `vim` editor is nearly identical to `vi` but with a bit more functionality. The most powerful editor for linux is clearly `emacs`, but this comes with a steep learning curve. Real programmers use `emacs` and it is worth your time to learn. There are plenty of on-line resources for all of these editors.