

## Server communications - in a nutshell

You will be interacting with the server in two primary ways – (1.) you’ll need command-line control to execute applications such as *gcc* and *submit*, as well as to do your file management (e.g. *cp*, *mv*, *mkdir*, etc...), and (2.) you’ll need to transfer files to and from the server. See the “Operational Instruction Sheet” for descriptions of the environments that you will be working in. OK, let’s look at these one at a time...

(1.) After opening an *Xming* session, PUTTY, or ssh via

```
ssh compl.phys.appstate.edu -l userid
```

you are working on the server. Note, only if you’re running *Xming* can you do things that require graphics, such as *xemacs* or *gnuplot*. To install *Xming* in Windows, refer to the “Xming Install Instructions” attached.

(2.) After opening an sftp session (or WinSCP window in Winsows) via:

```
sftp userid@compl.phys.appstate.edu
```

You are able to transfer files to and from the server and your local machine. Keep in mind:

- (a.) Use *put* and *get* to upload to and download from the server, respectively. This simply makes copies of the files you are transferring.
- (b.) Any files uploaded to the server will be taken from the working directory (on your machine) that you were in when you executed the *sftp* command. These files will be placed in your */Users/userid* folder, unless you first change directory on the server, e.g.

```
sftp> cd Comphys
```

- (c.) Any files downloaded from the server to your machine will be taken from the working directory on the server and will be placed in the working directory that you were in (on your machine) when you executed the *sftp* command.
- (d.) Once in sftp, you can change the working directory on your machine (your local machine) by doing, for example,...

```
sftp> lcd ../temp
```

which steps you up one level and down to the */temp* folder. Now, files that you upload / download from here on out will be taken from / be placed in this directory.