

Editing your files in unix:

As part of your programming assignments, you need to modify and create files on blueshark. Since it's a unix machine, the best way to do that is to use a unix editor directly in a blueshark terminal window. If you don't know any unix editors, you might want to spend a bit of time learning one. I like vi or vim, some like emacs, but googling "easiest command line text editor" points to a nano tutorial.

You may want to spend a little time trying to learn simple editing (its really not very difficult).

Another alternative is to copy the files your want to edit to your windows machine and use wordpad. The computer labs have the ssh tool **bitvise** that makes file transfer relatively easy. If you get a complaint on blueshark about newlines in your file after editing, on blueshark type **dos2unix "filename"** to convert the file to unix format.

Compiling and submitting:

If you are used to an integrated programming tool like visual studio or similar, it may take a bit of getting used to the process on blueshark. The steps roughly are:

- 1) Edit the cpi.c file
- 2) Type `mpicc -o test cpi.c` to compile the code (repeat step 1 & 2 if there are compiler errors)
- 3) Edit the testmpi.sh file to tell the scheduler how many cores you want by changing ntasks.
- 4) Use sbatch to submit the job
- 5) After it completes, look at the .out file for output and the .err file for run time errors.

You can google "compiling and running c code in unix" to get some information steps 1&2. The submitting steps 3-5 are discussed in the blueshark slides. **After you are confident your code is working correctly**, you can submit more than one job, logoff, and look at the results (step 5) later.

C++:

If you wish, you should be able to convert the .c code to a .cpp by making the appropriate changes (maybe you want to use cout instead of printf). One c++ mpi compiler on blueshark is mpicxx.

Office hours:

My office hours this semester are:

Monday 3-4 pm in quad 406 rm 117

Tuesday 3-4 pm in Crawford 111

Wednesday 3-4 pm in quad 406 rm 117

Thursday 2-4 pm in Crawford 111

I'll be in the office (Quad 406 rm 117) much more than that, so email to set up a time to meet if needed. I'd be happy to meet one-on-one.