

## MPI QUICK-START

Note: You will only need to do steps 1-2 the first time you are setting up. Steps 3-5 refer to usual compilation and execution of MPI programs.

1. Add the following line to your `.cshrc` file (must be on **one** line ):

```
if ( -f /usr/local/units/aca319/bin/pathadd.csh )
source /usr/local/units/aca319/bin/pathadd.csh
```

then issue a comand `source ~/.cshrc` and see if it working by typing: `which mpicc`.

2. Enable **passwordless ssh** login (unless already set up) by executing following:

```
ssh-keygen -t dsa
cd ~/.ssh
touch authorized_keys
cat id_dsa.pub >> authorized_keys
```

3. Generate a **machine file** by running a script which searches for the available machines (running LINUX) in room 1.51

```
getmachines.sh -outfile=machines
```

**Note:** that you will need to do this fairly frequently as the machine availability may change. If you notice your program is not running, a first thing to do is to rerun the `getmachines` script.

4. Now you are ready to go. **Compile** your source file:

```
mpicc -o myprog myprog.c
```

and **run** it ( this example starts 2 processes):

```
mpirun -machinefile machines -np 2
```

5. When your done, it is a good idea to kill any stray MPI processes. You can do it using the `cleanmachines` script:

```
cleanmachines.sh -machinefile=machines
```