Computer Science Linux Servers

Two new Linux servers have just come online, for the use of undergraduate Computer Scientists. Their names are:

`emps-ugcs1`
`emps-ugcs2`

You can access them using the *ssh* command from one of the blue room machines, or from MacOS. From Microsoft Windows you can install the (free) Putty[1] terminal emulator and access them through that.

Logging into either machine gives you the same (personal) home directory. The *quota* command will tell you how much disk space you have available to you. You can use the *scp* command to copy files from other spaces to your home directory. **Please bear in mind that this space is not backed up.** On 1st September, all files for students who have graduated will be deleted, without copies being made.

The Rules

These are **shared** machines, which means that you must take care not to adversely impact other users. Here are Gibbs' rules for using the servers:

1. **Never irritate the System Administrator.** They will disable your login.
2. Do not use the *sudo* command or try to do a Linux install. Each time you do this an email is sent to the System Administrator, which will irritate them (see rule 1).
3. Remember that you are not more important than everyone else. Always *nice* your processes. Once your process is running, only you or the System Administrator can *renice* the process (see rule 1).
4. If a background process has not been *nice*-ed, it will compete with foreground services, such as other users' interactive logins, and take resources from other users' processes. If you observe another user not *nice*-ing their processes (e.g. by using the *top* command), please contact them directly; do not contact the System Administrator (see rule 1).

Repeated failure to observe these rules will result in your access being revoked without warning.

Running background processes

For a primer in using Linux and Linux processes, see the week 4 lecture slides for ECM2424 on ELE. The command for executing long-running processes in the background is different for different Linux shells, but here are the command for two common shells:

C shell family (e.g. tcsh):

```
( nohup nice myProgram 1 Hello > out.lis ) >& err.lis &
```

Bourne shell family (e.g. ksh):

```
nohup nice myProgram 1 Hello > out.lis 2> err.lis &
```

where `myProgram` is the name of the program you want to execute, `1` and `Hello` are parameter values to pass to the program, `out.lis` is the name of the file into which standard output should be directed, and `err.lis` is the name of the file into which standard errors should be directed.

[1] available from: `http://www.putty.org/`