Concurrent Systems & Operating Systems

Practical 1

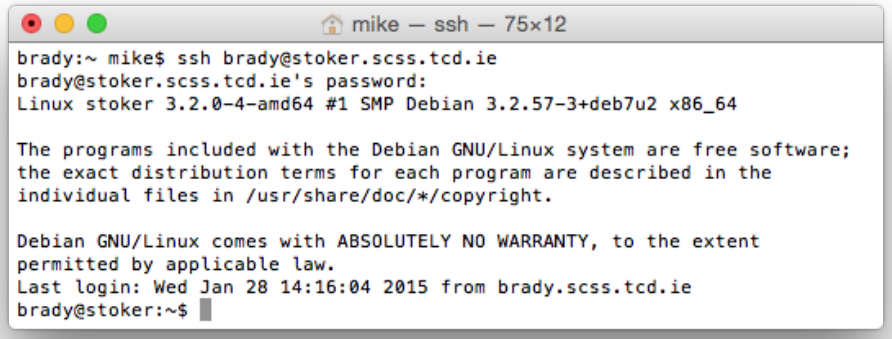
January 30, 2015

This practical is worth 1% of your year-end result. Have your program ready to demonstrate in labs next week.

- Write a complete threaded program in C (or non-OO C++) on a Linux machine—e.g. `stoker.cs.tcd.ie`—to compute the value of π. You'll need to find some way to do this with, for instance, a series or an integral so that you can use an embarrassingly parallel approach.
- Find out how to measure *elapsed* time in the Linux environment and do some measurements. From the measurements, can you deduce how many processors/cores are in the machine?
- Does using more threads make the program complete more quickly? What or why not – can you explain it?

Today, you should concentrate on the mechanical details of connecting to stoker and compiling a program on it. You can find the text of the HelloWorld program at:
`http://www.scss.tcd.ie/CourseModules/CS2016/Assets/Practicals/p1/helloworldsample.c`.

Here is what connecting to `stoker` might look like when you connect over an `ssh` link:



BTW, consider using a version control system like `git`. You can have a repository on `github` or our own `gitlab` service, among others.

(`http://www.scss.tcd.ie/CourseModules/CS2016/Assets/Practicals/p1/practical.pdf`)