Hello World OpenMP Lab

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Preliminaries

Make sure that you have completed all previous tutorials before you begin this.

By now you should be comfortable with the Unix and Linux environments available to you. You are expected to be familiar with:

● how to use the command line interface (copy/paste/history)

● how to navigate the directory structure

● how to copy/delete/move files

● how to use an editor and the basic functions therein

The link "Unix in 10 minutes", posted on Moodle can help you familiarise with the necessary

commands.

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Hello World OpenMP

Make sure that you can edit, compile and run simple C programs using the grid machines.

Download omp_hello.c from Moodle.

Copy omp_hello.c to your linux area.

To compile use gcc –fopenmp omp_hello.c –o omp_hello

Run using ./omp_hello

1. Familiarise yourself with how to compile the OpenMP "hello world" program. Run the program with 2, 4, 8, 16 and 32 threads.

2. Using the appropriate run-time library, modify the OpenMP "hello world" program so that it reports the execution time.