CM30225 Parallel Computing
Assessed Courseork Assignment 1

November 11, 2016

1 Parralisation Technique

In order to parallelise the problem I decided to spilt the matrix up into rows then give each thread a number of these rows. More specifically each thread is given a starting row, which is applies relaxation too, then adds the number of threads to the starting row to get the next row to compute on. So if 4 threads are used on a 14, the two end rows are fixed and don't require relaxation, row matrix the rows are split up like so:

rowNumber	1	2	3	4	5	6	7	8	9	10	11	12	13	14
thread		1	2	3	4	1	2	3	4	1	2	3	4	

A quick note is that the program will actual use the number of thread plus the main thread, it was decided not to change this as the main thread just will be desheduled while it waits for all the other threads to return so won't effect the investigation significantly.

2 Avoiding Race Conditions