

Distributed and Concurrent Device Development

Lab2 - Timing Report

Project 1 (Atomic Integer)	Project 2 (Mutex Variable)	Project 3 (Synchronised Method)
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Time Recording (milliseconds)

2530	2516	2515
2515	2530	2515
2505	2531	2515
2531	2515	2515
2505	2531	2525

Average

2517.2	2524.6	2517
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Slowest

2531	2531	2525
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Fastest

2505	2515	2515
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The program with the fastest recorded time was the one which implemented the atomic integer with a time of 2505 milliseconds.

The overall fastest program with an average time of 2517 was the program which implemented the synchronised method although the atomic integer and the synchronised method were only .2 milliseconds in difference.

The synchronised method will help execute a single thread at a time it will not allow another thread to execute until the other is finished executing this will ensure that a race condition will not occur.

The program which implemented the atomic variable and the one which implemented a mutex variable both recorded the slowest time at 2531 milliseconds although according to the average times the program with the mutex variable was overall the slowest.

The program which implemented the mutex variable used a semaphore to limit the number of threads accessing the critical section. This was the slowest because of the context switching required.