In my test program, there are three global variables where the cores of the cpu has only access whenever the parallel threading is use. These are iCounter, palcount and pallimit. The ICounter is set to be lock and unlock at every 10000 count. This is to ensure that no other cores of the cpu can overwrite the current data in iCounter. I tried not to use the spinlock and the result is a race condition. The data inside the palcount changes significantly, it is unpredictable and by the program ends. The program will give an incorrect result.

When it comes to sequential versus parallel mode. I saw a big difference in computation speed. The screenshot tells the result. I can say that using the parallel mode is way of unleashing the full potential of the cpu. Because using multi cores really matters versus using only one