B03902060 江昶翰　Sp_hw4

Testdata 100

real 0m0.051s
user 0m0.008s
sys 0m0.012s
finished: size 100, segement size: 1

real 0m0.076s
user 0m0.000s
sys 0m0.004s
finished: size 100, segement size: 4

real 0m0.052s
user 0m0.000s
sys 0m0.000s
finished: size 100, segement size: 10

real 0m0.040s
user 0m0.000s
sys 0m0.000s
finished: size 100, segement size: 20

real 0m0.039s
user 0m0.000s
sys 0m0.000s
finished: size 100, segement size: 50

real 0m0.059s
user 0m0.000s
sys 0m0.000s
finished: size 100, segement size: 100

Testdata 10000

real 0m0.100s
user 0m0.012s
sys 0m0.024s
finished: size 10000, segement size: 100

real 0m0.071s
user 0m0.028s
sys 0m0.000s
finished: size 10000, segement size: 400

real 0m0.058s
user 0m0.020s
sys 0m0.000s
finished: size 10000, segement size: 1000

real 0m0.074s
user 0m0.020s
sys 0m0.000s
finished: size 10000, segement size: 2000

real 0m0.047s
user 0m0.012s
sys 0m0.004s
finished: size 10000, segement size: 5000

real 0m0.056s
user 0m0.008s
sys 0m0.000s
finished: size 10000, segement size: 10000

Testdata 1000000

real 0m2.188s
user 0m2.108s
sys 0m0.048s
finished: size 1000000, segement size: 10000

real 0m1.262s
user 0m1.128s
sys 0m0.028s
finished: size 1000000, segement size: 40000

real 0m1.585s
user 0m1.516s
sys 0m0.020s
finished: size 1000000, segement size: 100000

real 0m0.888s
user 0m0.820s
sys 0m0.016s
finished: size 1000000, segement size: 200000

real 0m1.646s
user 0m1.308s
sys 0m0.028s
finished: size 1000000, segement size: 500000

real 0m0.960s
user 0m0.880s
sys 0m0.016s
finished: size 1000000, segement size: 1000000

Testdata 100000000

real 0m21.772s
user 0m21.084s
sys 0m0.384s
finished: size 10000000, segement size: 100000

real 0m10.236s
user 0m9.960s
sys 0m0.184s
finished: size 10000000, segement size: 400000

real 0m12.587s
user 0m12.304s
sys 0m0.212s
finished: size 10000000, segement size: 1000000

real 0m8.016s
user 0m7.812s
sys 0m0.156s
finished: size 10000000, segement size: 2000000

real 0m9.414s
user 0m9.204s
sys 0m0.132s
finished: size 10000000, segement size: 5000000

real 0m8.335s
user 0m8.104s
sys 0m0.132s
finished: size 10000000, segement size: 10000000

根據上面資料，我們可以得到同 **size** 的 **data**，如果 **segment** 的 **size** 越大（開的 **thread** 數量越少），執行速度越快，因為不需要花時間去開 **thread** 跟跑 **thread** 的 **function**，所以執行的比較快。