Parallel Programming Exercise 6 – 8

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(If you and your team member contribute equally, you can use (co-first author), after each name.)

1 Problem and Proposed Approach

(Brief your problem, and give your idea or concept of how you design your program.)

Problem: 算出傳送和接收資料之間的 latency 和 bandwidth。

Proposed Approach: 利用 2 個 processor，互相傳送和接受資訊 50 次。先傳送一個字元，將時間平均獲得 latency(因為傳一個字元的時間可視為 0)，再分別送 100000000 的字元，算出 lambda。實驗進行 5 次，將數據取平均。

2 Conclusion and Discussion

(Discuss the following issues of your program

1. What is the speedup respect to the number of processors used?
2. How can you improve your program further more
3. How does the communication and cache affect the performance of your program?
4. How does the Karp-Flatt metrics and Iso-efficiency metrics reveal?

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實驗結果如下：

次數	latency	beta
1	**0.000001**	**156516654**
2	**0.000001**	**156798697**
3	**0.000001**	**161356250**
4	**0.000001**	**157301106**
5	**0.000001**	**170044065**
平均	**0.000001**	**160403354**

Appendix(optional):

(If something else you want to append in this file, like picture of life game)