Homework for Session#5 submitted by David He (davidhe@uic.edu)

The following table shows the results as I changed the following parameters of the code: parallel_thread and prefetch_buffer_size.

Run No.	Parameters		Images/s	
	parallel_thread	prefetch_buffer_size	Mean	Standard Deviation
1	128	1	767.67	91.25
2	128	2	787.98	91.25
3	128	3	960.08	67.77
4	128	4	818.11	70.76
5	128	5	861.37	322.73
6	128	6	923.60	133.66
7	128	7	876.71	72.38
8	128	8	970.05	59.55
9	1	8	296.79	486.12
12	10	8	1016.17	309.06
13	20	8	1072.01	189.15
10	30	8	1075.28	101.55
14	40	8	1063.08	61.30
11	60	8	1018/78	50.31

Some observations can be made based on the results shown in the table:

(1) With a fixed prefetch_buffer_size, increasing parallel_thread from 1 to 30 increases mean images/s. However, after passing over 40, the mean images/s starts to decrease. It seems that the best parallel thread a prefetch_buffer_size of 8 should be in between 30 and 40.
(2) With a fixed parallel_thread, the mean images/s increases in general as the prefetch_buffer_size increases.