

Names: Yukun Li, Yuhang Hu

NSID : yul040, yuh347

Std# : 11173592, 11212253

Group: group07

Result

different data length			
2 reader, 2 writer, 512 BLOCK SIZE			
#	Variable	Read Wait Time	Write Wait Time
1	Short Data Length	868.8	56.4
2	Medium Data Length	876	65.2
3	Long Data Length	927	66
different block size			
2 reader, 2 writer, Medium Data Length			
#	Variable	Read Wait Time	Write Wait Time
4	512 BLOCK SIZE	917.6	65.6
5	1024 BLOCK SIZE	882.8	71
6	2048 BLOCK SIZE	901.2	63.8
different thread number			
Medium Data Length, 1024 BLOCK SIZE			
#	Variable	Read Wait Time	Write Wait Time
7	2 reader, 2 writer	928.2	59.6
8	4 reader, 4 writer	799.6	86.2
9	8 reader, 8 writer	702.2	86.6

Analysis

1. Read and write time increase as the Data Length increases.
2. BLOCK_SIZE seems doesn't affect time according my experiment
3. Increasing number of threads decreases time.

Since more data to write, system may need more time to read and write, it makes sense. Increasing number of threads should increase read and wait time in my mind, since more people is reading or writing, it would have more concurrency problem, so more time should be used. However, it doesn't. Maybe it's because read and write are so fast, concurrency issue can be overlook. Maybe we can Sleep() in my_read() and my_write() to make more concurrency.

Origin data is in next page.

Original Data						
	1	2	3	4	5	AVG
#1	814	810	891	924	905	868.8
	38	69	40	67	68	56.4
#2	806	933	859	873	909	876
	77	71	54	56	68	65.2
#3	826	885	998	978	948	927
	49	87	49	60	85	66
#4	927	1053	835	721	970	901.2
	70	71	67	54	57	63.8
#5	832	907	902	804	969	882.8
	63	85	87	53	67	71
#6	946	828	982	869	963	917.6
	57	53	49	70	99	65.6
#7	1041	936	886	938	840	928.2
	64	56	45	79	54	59.6
#8	818	671	893	799	817	799.6
	71	69	96	99	96	86.2
#9	667	767	723	562	792	702.2
	77	70	84	92	110	86.6