Computer Specifications

Model: Macbook Pro 15-in (2016)

Processor: Intel Core i7

Number of Cores: 4 Cores

Clock Frequency: 2.90 GHz, Turbo Boost up to 3.8 GHz

Memory: 16 GB RAM

Array Size	1 Thread CPU Time	2 Threads CPU Time	% age Improvement	4 Threads CPU time	% age Improvement
1000	1 ms	18 ms	-1700	33 ms	−83.4
2000	1 ms	16 ms	-1500	25 ms	−56.3
4000	1 ms	13 ms	-1200	23 ms	-6.9
8000	2 ms	11 ms	-450	22 ms	-100
16000	3 ms	12 ms	-300	21 ms	-75
32000	1 ms	12 ms	-1100	22 ms	-83.4
64000	2 ms	12 ms	-500	23 ms	-91.7
128000	3 ms	14 ms	-366.7	23 ms	-42
256000	7 ms	16 ms	-128.6	24 ms	-50
512000	12 ms	20 ms	-66.6	26 ms	-30
1024000	25 ms	29 ms	-16	33 ms	13.8
2048000	57 ms	57 ms	0	46 ms	19.3
4096000	143 ms	110 ms	23.08	83 ms	24.5
8192000	295 ms	213 ms	27.8	161 ms	24.4
16384000	593 ms	405 ms	31.7	292 ms	27.9
32768000	1187 ms	789 ms	33.5	565 ms	28.01
65536000	2341 ms	1737 ms	25.8	1103 ms	36.5

Array Size	6 Threads CPU Time	% age Improvement	8 Threads CPU time	% age Improvement
1000	43 ms	-30.3	58 ms	-34.9

2000	33 ms	-32	48 ms	-45.5
4000	35 ms	-52.2	48 ms	-37.1
8000	37 ms	-68.2	47 ms	-27.03
16000	37 ms	-76.2	44 ms	-19
32000	38 ms	-72.7	45 ms	-18.4
64000	39 ms	-69.6	46 ms	-18
128000	38 ms	-65.2	64 ms	-68.4
256000	35 ms	-62.5	57 ms	-62.9
512000	38 ms	-46.2	52 ms	-36.8
1024000	46 ms	-39.4	63 ms	-37
2048000	59 ms	-28.3	66 ms	−11.9
4096000	89 ms	-7.2	88 ms	1.1
8192000	149 ms	7.5	155 ms	-4.02
16384000	297 ms	-1.7	304 ms	-2.4
32768000	578 ms	-2.3	581 ms	−0.5
65536000	1100 ms	0.3	1129 ms	-2.6