Speed Test Report

Methodology

This report details performance analysis of various file search algorithms.

File size analysis

Performance of different algorithms for file size of: 10000

	algorithm	avg_time	reread_on_query
72	AhoCorasickSearch	0.006283	False 3

Performance of different algorithms for file size of: 100000

	algorithm	avg_time	reread_on_query
76	AhoCorasickSearch	0.026164	False 124

Performance of different algorithms for file size of: 250000

	algorithm	avg_time	reread_on_query
83	AhoCorasickSearch	-7.371337	False 82

Performance of different algorithms for file size of: 500000

	algorithm	avg_time	reread_on_query
109	RabinKarpSearch	-7.219850	False 134

Performance of different algorithms for file size of: 750000

	algorithm	avg_time	reread_on_query	
19	LinearSearch	-7.158072	False 90	A

Performance of different algorithms for file size of: 1000000

	algorithm	avg_time	reread_on_query
68	MMapSearch	-7.301797	False 166

File size performance for the fastest Algorithm

	filepath	avg_time	reread_on_query	
72	test_data_10000.txt	0.006283	False 73	test_

Concurrency analysis

Concurrency test results for test_data_10000.txt

	num_concurrent	avg_time	total_time			
72	10	0.024976	0.061819	73	10	0.026458 0

Concurrency test results for test_data_100000.txt

	num_concurrent	avg_time	total_time			
76	10	0.030350	0.061620	77	10	76.573921

Concurrency test results for test_data_250000.txt

	num_concurrent	avg_time	total_time			
80	10	0.023005	0.058325	81	10	0.417749 0

Concurrency test results for test_data_500000.txt

| num_concurrent | avg_time | total_time 84 | | 10 | 0.168081 | 0.200792 85 | | 10 | 0.842049 | 0 |

Concurrency test results for test_data_750000.txt

| num_concurrent | avg_time | total_time 88 | | 10 | 0.037173 | 0.072795 89 | | 10 | 1.341042 | 1 |

Concurrency test results for test_data_1000000.txt

| num_concurrent | avg_time | total_time 92 | | 10 | 0.069107 | 0.108124 93 | | 10 | 1.897175 | 1 |

Performance Graph