Speed Testing Report

File Search Performance

Algorithm	File Size (lines)	Time (ms)
Linear Search	10000	0.34
Binary Search	10000	0.02
Hash-based Search	10000	3.07
Trie Search	10000	25.26
Regex Search	10000	4.38
Linear Search	50000	0.24
Binary Search	50000	0.01
Hash-based Search	50000	9.01
Trie Search	50000	93.75
Regex Search	50000	1.26
Linear Search	100000	0.68
Binary Search	100000	0.01
Hash-based Search	100000	12.57
Trie Search	100000	161.66
Regex Search	100000	5.89
Linear Search	250000	6.96
Binary Search	250000	0.01
Hash-based Search	250000	47.36
Trie Search	250000	466.11
Regex Search	250000	62.32

Linear Search	500000	10.40
Binary Search	500000	0.01
Hash-based Search	500000	110.85
Trie Search	500000	984.38
Regex Search	500000	99.86

Performance Graph

File Search Performance