Comparing Algorithm Cylinder Movements

Lab 4 – Analysis

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For Lab 4 I tested four disk scheduling algorithms in a simulation environment to evaluate their effectiveness in maximizing disk performance. The four algorithms are: First Come First Serve (FCFS), Shortest Seek Time First (SSTF), SCAN, and C-LOOK.

As can be observed in the following bar graph, SSTF resulted in the least movement of the cylinder head for the provided input set. C-LOOK was just barely more efficient than SCAN and FCFS nearly doubles the movement of SCAN. If the entirety of the necessary movement is known up front, SSTF performs very well. However, if a steady stream of requests come in, there is the possibility of starvation using SSTF.