Specifications for disk\_scheduling

# Overview

Do stuff about disk scheduling algorithm. Be able to, given a list of disk read requests, service the appropriate request and print statistics at the end. Must give the user choice as to what disk scheduling algorithm they want to use.

# Specification

## Input

Input is to be given via command line arguments. The possible inputs are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Input (switch) | Description | Options | Default |
| Input file (-f) | Input file to read | Path to input file | Crash if no input |
| Algorithm (-a) | Scheduling algorithm to use | fcfs, sstf, scan, cscan, look, clook | scan |
| Direction (-d) | Initial direction of movement, where left is towards 0, right is towards disk size | left, right | right |
| Verbose (-v) | Output extra information | N/A | N/A |
|  |  |  |  |

### Input file format

disk size  
initial position  
line1  
line2  
…  
linen

Where each of the n lines after initial position is of the format:

Where the arrival times should be sorted in ascending order (lowest arrival time at the top) and the location should be a number [0, disk size).

## Output

In normal output mode, just print statistics at the end. Disk travel distance (measured in head movements), number of pivots (switching the head's direction).

travel distance: xxx  
idle time: xxx  
pivots: xxx  
final position: xxx  
final direction: xxx

If the verbose flag (-v) is used, then every movement will also display the following information:

From xxx to xxx  
[PIVOT] // only display if the direction was reversed

# Testing

Uhh…