

Government Engineering College, Thrissur
CS331 – System Software Lab Exam
Documentation -
Disk Scheduling SCAN and C-SCAN

Date of Submission
30 January 2020

Submitted By
Kowsik Nandagopan D
Roll No 31
TCR18CS031
GECT CSE S5

AIM

Simulate the disk scheduling algorithms - SCAN and C-SCAN, compare the head movements in each algorithm for forward, random and reverse order of the input.

Compilation of Code

Prerequisite

- The code is provided in the **program.c** along with this documentation. You can open the terminal in Linux (Ubuntu 18.04 tested). Then run the command

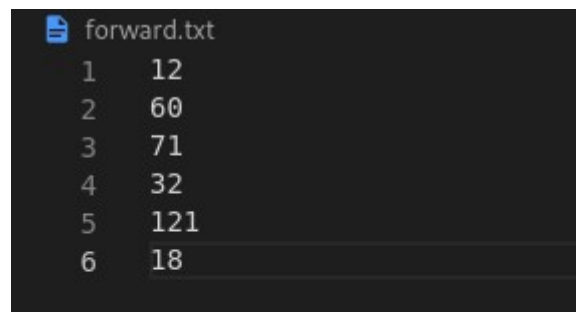
```
gcc program.c
```

```
./a.out
```

- We can execute the code in console and see the output as soon as we press enter key. There **one** input file **forward.txt**. Each requests should be provided in line by line. Please note that last line must NOT be empty.
- We should also provide current head position for each disk scheduling algorithms in the console when there is a prompt.
- Output of the code will be printed on the **console**

Output / Screenshots

forward.txt



P. T. O

Output in console

```
hp@localhost ~/Documents/S5/Lab/Exam <master*>
$ ./a.out
Enter initial header position: 65
Input order: 12->60->71->32->121->18->
----- SCAN in forward input -----
Request order: 71->121->60->32->18->12->
Total Head movements: 321
----- C-SCAN in forward input -----
Request order: 71->121->12->18->32->60->
Total Head movements: 393

Input order: 18->121->32->71->60->12->
----- SCAN in reverse input -----
Request order: 71->121->60->32->18->12->
Total Head movements: 321
----- C-SCAN in reverse input -----
Request order: 71->121->12->18->32->60->
Total Head movements: 393

Input order: 18->71->12->60->32->121->
----- SCAN in random input -----
Request order: 71->121->60->32->18->12->
Total Head movements: 321
----- C-SCAN in random input -----
Request order: 71->121->12->18->32->60->
Total Head movements: 393

----- Comparison -----
Order      SCAN      C-SCAN
Forward    321        393
Random     321        393
Reverse    321        393
hp@localhost ~/Documents/S5/Lab/Exam <master*>
$
```