

Homework #6 (10 points)

Due, Wednesday, March 21

In this assignment you learn how to create new processes and use standard I/O.

The Unix utility `iostat`, stored in `/usr/bin/iostat`, reports several columns of system I/O statistics. The first two columns produced by `iostat` are the numbers of characters read from and written to terminals per second.

Your task is to write a program that determines the number of characters read from and written to terminals in each of five consecutive seconds and then prints the maximum terminal input and output rate in those five seconds. Your program **must** `exec` the `iostat` utility, **must** use pipes, and **must** print its output neatly. The suggested form of the output is:

1	5	189
2	5	151
3	10	190
4	7	333
5	14	148
MX	14	333

Hints, etc.

This can be done with a C program of less than 60 lines. (Mine is 38 lines, but then I don't check return codes.) The standard I/O library routines you're likely to use include: `fdopen`, `fgets`, `fprintf`, and `fscanf`,

Rules of engagement

You may work in teams of two. Both team members must split the work, both intellectual and grunt, equally.

Other programming assignments

There will be two more programming assignments in addition to this one. One will be due on Monday, April 2, and the other on Monday, April 16.