Documentation for Programming Assignment 2: Using pipes

Note: The program contains comments throughout the code to help the user understand its functionality.

There are 2 C++ files that are used in the program. These files are “filecnt.cpp” and “filedisp.cpp”.

The filecnt.cpp program uses the following commands to determine the number of files, directories and bytes in a filepath:

Directories: ”find “ + path + “ -mindepth 1 -type d | wc -l”

Files: "find " + path + " -type f | wc -l"

Bytes: "du -sh " + path

-Where path is the filepath provided as an argument.

The command “g++ filecnt.cpp -o filecnt | g++ filedisp.cpp -o filedisp” compiles both c++ files and creates executables.

These 2 executables built from these files are titled “filecnt” and “filedisp”.

When run on a Linux system, the filecnt program takes a filepath as an argument and recursively finds information on that directory. Filecnt produces output that describes the amount of directories, files, and total size in bytes of the provided filepath.

This output is sent via a pipe to filedisp.cpp, which accepts one of three options: ‘-d’,’-f’, or ‘-b’. D is for directory, F is for files, and B is for bytes. Filedisp.cpp then outputs the appropriate string containing the desired information.

Ex: The command: “**filecnt /usr/share | filedisp -d”** will output: “The total number of directories in directory /usr/share is: 729”

After displaying the string with the desired information to the terminal, the program ends.

More information is present in the source file comments.