

## ***filecnt/filedisp – What are they?***

Two simple programs written in C, to count the directories, files, and bytes of a given directory, the filedisp will limit what is displayed. It will verify the file path, convert it to absolute if needed. There are different options such as -v, --version, -h, and --help, for the user to utilize as well. filecnt and fieldisp can be used in Windows, Mac, or Linux, it is also very portable. All you need is a terminal and the file! It is for a little more advanced users who are familiar with directories and command arguments. Because it is written in C it is also very fast and adapts to every machine to optimize efficiency.

## ***filecnt/filedisp - What do they do?***

filecnt:

It takes 2 to 4 arguments, including it's ./filecnt as 1.

The -v and --version options will show you the current version.

The -h and --help options will show you the current information on how to use it.

The last argument will be the directory you want it to traverse through, it will then print information in this format:

The total number of directories in directory <given\_directory> is: <number\_of\_directories>.

The total number of files in directory <given\_directory> is: <number\_of\_files>.

The total number of bytes occupied by all files in directory <given\_directory> is: <number\_of\_bytes>.

It will notify the user if they use too many or too little arguments. If the user gives them a directory which doesn't exist in their current working directory then it will simply exit the program.

\*\*\* Note that the path is limited to 500 characters \*\*\*

filedisp:

It takes exactly 2 arguments, including it's ./filedisp as 1.

As well as 3 input lines, usually given to it through piping with filecnt.

The -d option will display the input line that has the word "directories".

The -f option will display the input line that has the word "files".

The -b option will display the input line that has the word "bytes".

\*\*\* Not you can only pick one of the 3 above options, except -h, --help, -v, --version are also available the same way in filecnt.

## *filecnt/filedisp - How to use them?*

The simple is straight forward and simple to use. The only tricky part for people who are new to the terminal is starting the program.

First open the terminal, make sure you have the filecnt and filedisp files saved in a place you have easy access to.

For Windows please follow this tutorial (skipping the create a program part if you wish):

<https://medium.com/@randerson112358/how-to-run-c-program-in-command-prompt-e435186cd162>

Otherwise for Linux and Unix continue:

If needed using the terminal, direct yourself to the directory which the URLParser file is stored. Here is a reference for using the terminal if needed: <https://www.guru99.com/terminal-file-manager.html>

If you have not installed packages for a C program before hand, due so using the following command in the terminal:

```
$ sudo apt-get install build-essential
```

With the terminal open type the following to compile the program, if it prompts you to install the compiler, do so and repeat the command:

```
$ gcc -o filecnt filecnt.c  
$ gcc -o filedisp filedisp.c
```

Next you can simply type the following to run the filecnt program!

```
$ ./filecnt <directory_path> <optional_options>
```

To use the filedisp:

```
$ ./filecnt <directory_path> <optional_options> | ./filedisp <-d/-f/-b> <options>
```

To use it again, you can simply use the run command above.

As an example:

```
$ ./filecnt /home/BridgetteB/Documents
```

If your arguments are correct it will print something similar to the following:

The total number of directories in /home/BridgetteB/Documents is: 4.

The total number of files in directory /home/BridgetteB/Documents is: 35.

The total number of bytes occupied by all files in directory  
/home/BridgetteB/Documents is: 569821.

As an example with filedisp:

```
$ ./filecnt /home/BridgetteB/Documents | ./filedisp -d
```

If your arguments are correct it will print something similar to the following:

The total number of directories in /home/BridgetteB/Documents is: 4.

Otherwise, it will give error messages telling you what is invalid in your arguments. Or if the directory isn't found it will simply exit and print nothing, keep in mind you can always use the ls command to check the current directories in your current working directory. Also if you don't enter any options in filedisp it will also just exit and print nothing.

Also keep in mind the maximum character amounts in the "What do they do?" section. With too many characters it could also not have the full path.

## ***filecnt/filedisp – Help?***

For help with the C programming language please reference:

<https://www.geeksforgeeks.org/c-language-set-1-introduction/>

For help with the Windows terminal please reference:

[https://www.thomas-krenn.com/en/wiki/Cmd\\_commands\\_under\\_Windows](https://www.thomas-krenn.com/en/wiki/Cmd_commands_under_Windows)

For help with the Linux/Unix terminal please reference:

<https://www.guru99.com/terminal-file-manager.html>

For filecnt and filedisp Program specific help/questions/concerns/comments please contact our development team:

Bridgette Bryant, a student at The University of Texas at Dallas taking the 3377 Linux/Unix class.  
[bmb180001@utdallas.edu](mailto:bmb180001@utdallas.edu)