

Lab 1

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September 8, 2022

1 Questions

1.1 What are the advantages and disadvantages of using the same system call interface for manipulating both files and devices?

System call interfaces can sometimes make files and devices appear similar to each other. The advantages to doing this include allowing devices to be accessed through the file system which means you can hit two birds with one stone. This can also be seen as advantageous because of the fact that many of the system calls for both overlap with each other such as read, write, and reposition. Some disadvantages include the fact that the underlying system calls of each are dissimilar. This can add a lot of difficulties when a device's functionality does not easily fit into a file system.

1.2 Would it be possible for the user to develop a new command interpreter using the system call interface provided by the operating system? How?

Yes, it would be possible. The command interpreter's main function is to get and execute the next user-specified command. Many of these commands include manipulating files. Manipulating files can also be accessed through the use of system calls, so a user would be able to develop a new command interpreter using this.