

Lab One

Ian Marsh
Ian.Marsh@Marist.edu

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

After reading sections 2.2 and 2.3 in the textbook, one of the most significant advantages of using the same system call interface for manipulating files and devices is the ability to reuse code. If the interface is the same, then simple functions can be reused, making programming easier because you only need to understand one interface and its calls. A disadvantage to this would be the file system call interfaces' limitations if it cannot accommodate a device's unique feature.

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

You can develop a new command interpreter using the system call interface, and the textbook brings up multiple shells that have already done it. The implementation is left to the user's choice as long as it can understand and send system calls. They could decide that they want the shell to run the code embedded in it, and all it does is jump to that bit of code. They could also have it run a program and just input its parameters; it is left up to the designer's choice.