1 POSIX versus Windows:
Three-Way Choose-your-own Showdown of Excellence

In this course, we have discussed the POSIX application programming interface. We have covered the details of file I/O, threading, sockets, pipes and several other notable interfaces. These are all tremendously useful (and often portable) methods of writing software. This is especially the case with the popular uptake of various POSIX-compliant operating systems – notably most mobile environments.

In this class, you have received first hand experience in learning and applying unfamiliar tools. This is a valuable skill, and one that you will continuously apply in this discipline. The technological landscape may not change as fast as you’d expect based on listening to the news, but where you are in your career will change, and likely will change frequently. The ability to rapidly evaluate a new technology in context of your existing skills will help.

This final will evaluate your ability to articulate your understanding of the material we have covered in this course, and apply that experience to researching and evaluating a different (probably new) set of APIs.

1.1 Exam Format

For your exam, you will select three (3) POSIX APIs\(^1\) that we have covered in this class. In the opening of your paper, state the topics you have chosen and why. Then do the following for each topic you select:

1. Describe the general purpose of the API. Explain this with example use cases if that helps to explain why it exists.

2. Find the corresponding Windows API, and provide a comparison of that API with the POSIX version.

3. Discuss the differences between the POSIX API and the Windows variant.

This is a take home exam. It is open note, open book, open computer, open internet, but NOT open mouth. You may use any resource except each other. You must cite any sources you use.

1.2 Submission

You will turn in your \LaTeX\document and any required supporting materials (Makefile, figures, source examples, etc.) to TEACH by midnight on the due date.

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\(^1\)For extra credit, compare and contrast a fourth topic.