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Project 0

For this project, two programs were created to measure the cost of time for both system calls and signals in an OS.

time-signal.c uses a signal to measures the time taken to handle an exception caused by dividing a number by zero. After the signal has been invoked 100000 times, the program returns the total time along with average time per exception and ends the program. One error that occurred was that the total elapsed time returned a negative result. This was caused by the variable “usec” to be less than zero. Adding 1000000 if usec is less than 0 fixed this problem. The range of values returned for total elapsed time is about 95-110 ms.

time-syscall.c measures the time to invoke getpid() 100000 times. The range of values returned for total elapsed time is about 0.288-3.1 ms.