Lab 1C Report

Benchmarks

#1:
Bash/Dash:
cat pg98.txt | sort | tr A-Za-z > o.txt 2> e.txt; times
simpsh:
./simpsh --profile --rdonly pg98.txt --pipe --pipe --wronly o.txt --wronly e.txt --command 3 5 6 tr A-Za-z --command 0 2 6 cat --command 1 4 6 sort --close 1 --close 2 --close 3 --close 4 --wait

#2:
Bash/Dash: ps | tr ':' 'a' | grep 'hello' | sort | wc > b.txt; times
simpsh: ./simpsh --profile --creat --wronly err.txt -- wronly bar.txt --pipe --pipe --pipe -- pipe --command 2 3 0 ps –command 2 5 0 tr ':' 'a' --command 4 7 0 grep 'hello' --command 6 9 0 sort --creat - -rdwr b.txt --command 8 10 0 wc -- close 2 --close 3 --close 4 --close 5 -- close 6 --close 7 --close 8 --close 9 -- wait

#3:
Bash/Dash: (cat <pg98.txt | grep -n hello | wc) 2>tester >output; times
simpsh: ./simpsh --profile --rdonly pg98.txt --creat --wronly tester --creat --wronly output --pipe --pipe --command 0 4 2 cat --command 3 6 2 grep -n hello --close 3 --close 4 --command 5 1 2 wc --close 5 --close 6 --wait

	simpsh	Bash	Dash
Benchmark #1	0s 0us, 0s 183us 0s 37461us 0s 5036us	0m0.217s 0m0.138s 0m5.222s 0m0.609s	0m0.218s 0m0.138s 0m5.258s 0m0.616s
Benchmark #2	0s 76us, 0s, 0us 0s 22us, 0s 0us	0m0.244s 0m0.155s 0m5.653s 0m0.727s	0m0.244s 0m0.159s 0m5.669s 0m0.783s
Benchmark #3	0s 0us, 0s 164us 0s 5063us, 0s 1825us	0m0.249s 0m0.160s 0m5.675s 0m0.787s	0m0.256s 0m0.162s 0m5.682s 0m0.800s

Conclusion
simpsh performed the best for all the benchmarks. Bash and Dash had very similar times, but Dash was slightly slower. Therefore I can conclude that the simpleton shell is the most efficient script.