

Lab 1 Report

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23 October, 2019

TESTS

SIMPSH

SCRIPT

TEST 1

```
./simpsh \  
--rdonly in.txt \  
--pipe \  
--pipe \  
--creat --wronly out.txt \  
--creat --wronly err.txt \  
--profile \  
--command 0 2 6 cat - \  
--command 1 4 6 tr i \n \  
--command 3 5 6 wc -l \  
--close 2 \  
--close 4 \  
--wait
```

```
cat in.txt  
| tr 'i' '\n'  
| wc -l  
> out.txt  
2> err.txt  
e
```

TEST 2

```
./simpsh \  
--rdonly in.txt \  
--pipe \  
--pipe \  
--creat --wronly out.txt \  
--creat --wronly err.txt \  
--profile \  
--command 1 4 6 sort - \  
--command 0 2 6 cat - \  
--command 3 5 6 tr A-Z a-z \  
--close 2 \  
--close 4 \  
--wait
```

```
cat in.txt  
| sort  
| tr 'A-Z' 'a-z'  
>out.txt  
2> err.txt
```

TEST 3

```
./simpsh  
--rdonly in.txt \  
--pipe \  
--creat --append --wronly out.txt \  
--creat --wronly err.txt \  
--profile \  
--command 1 3 4 wc -l \  
--command 0 2 4 cat - \  
--command 0 2 4 cat - \  
--close 2 \  
--close 4 \  
--wait
```

```
{ cat in.txt  
& cat in.txt; }  
| wc -l  
>> out.txt  
2> err.txt
```

RESULTS	SIMPISH	BASH	DASH
TEST 1	CHILD SYSTEM: .00233 CHILD USER: .00067 SYSTEM: .00108 USER: .00071	CHILD SYSTEM: .00433 CHILD USER: .00267 SYSTEM: .00400 USER: .00167	CHILD SYSTEM: .00233 CHILD USER: .00267 SYSTEM: .00367 USER: .00266
TEST 2	CHILD SYSTEM: .00233 CHILD USER: .00167 SYSTEM: .00128 USER: .00036	CHILD SYSTEM: .00733 CHILD USER: .00233 SYSTEM: .00200 USER: .00400	CHILD SYSTEM: .00533 CHILD USER: .00067 SYSTEM: .00267 USER: .00300
TEST 3	CHILD SYSTEM: .00266 CHILD USER: .00033 SYSTEM: .00126 USER: .00023	CHILD SYSTEM: .00600 CHILD USER: .00200 SYSTEM: .00300 USER: .00233	CHILD SYSTEM: .00333 CHILD USER: .00067 SYSTEM: .00333 USER: .00267

* Note: data from BASH & DASH was collected to three significant figures, while simpsh submitted at 5

*Note: all times are in seconds

RESULTS:

1. Simpsh had the fastest total time.
2. Dash spent roughly twice as long in system mode and up to an order of magnitude more time in user mode.
3. Bash seemed to perform the worst, specifically because its children took much longer to execute.

NOTES:

Tests were performed on lnxsrv.seas.ucla.edu.