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Lab 1C

**Benchmarks:**

|  |  |  |
| --- | --- | --- |
|  | **bash/dash** | **simpsh** |
| **test case 1** | cat pg98.txt | grep -v a | sort -r | ./simpsh --rdonly pg98.txt --wronly out.txt --wronly outerr.txt --pipe --pipe --profile --command 0 4 2 cat --command 3 6 2 grep -v a --command 5 1 2 sort -r --close 3 --close 4 --close 5 --close 6 --wait |
| **test case 2** | cat pg98.txt | grep "a" | grep "1" | ./simpsh --rdonly pg98.txt --wronly out.txt --wronly outerr.txt --pipe --pipe --profile --command 0 4 2 cat --command 3 6 2 grep "a" --command 5 1 2 grep "1" --close 3 --close 4 --close 5 --close 6 --wait |
| **test case 3** | cat pg98.txt | uniq | sort -r | ./simpsh --rdonly pg98.txt --wronly out.txt --wronly outerr.txt --pipe --pipe --profile --command 0 4 2 cat --command 3 6 2 uniq --command 5 1 2 sort -r --close 3 --close 4 --close 5 --close 6 --wait |

**Result:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **bash** | | **dash** | | **simpsh** | |
| **User** | **Sys** | **User** | **Sys** | **User** | **sys** |
| **test case 1** | **Parent** | 0.0003 0.0063 | 0.0023 0.0047 | 0.0006 0.0053 | 0.0023 0.0063 | 0 0.000155 | 0.005275 0.003697 |
| **Child** |
| **test case 2** | **Parent** | 0.0006 0.0063 | 0.002 0.0077 | 0.001  0.0077 | 0.002  0.0063 | 0 0.000160 | 0.006343 0.004266 |
| **Child** |
| **test case 3** | **Parent** | 0.001  0.118 | 0.0013  0.0097 | 0.006 0.111 | 0.0017 0.0163 | 0.000126 0.000053 | 0.105663 0.014163 |
| **child** |

The numbers highlighted with red are the fastest in each case.

**Conclusion:**

From the table above, simpsh is the most efficient one in most cases, except the system time of parent. Bash performs slightly faster than dash.