| jobid: 595632 | uid: 11366 | nprocs: 900 | runtime: 1206.2317 seconds |
|---|---|---|---|

I/O performance *estimate* (at the POSIX layer): transferred 22091.6 MiB at 370.26 MiB/s
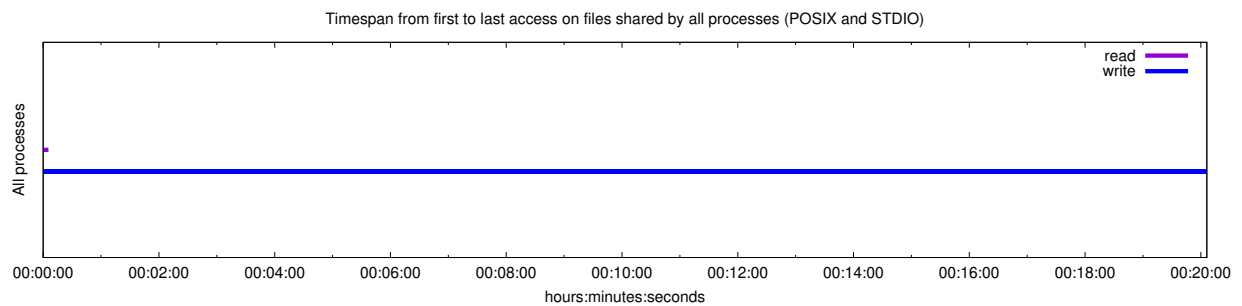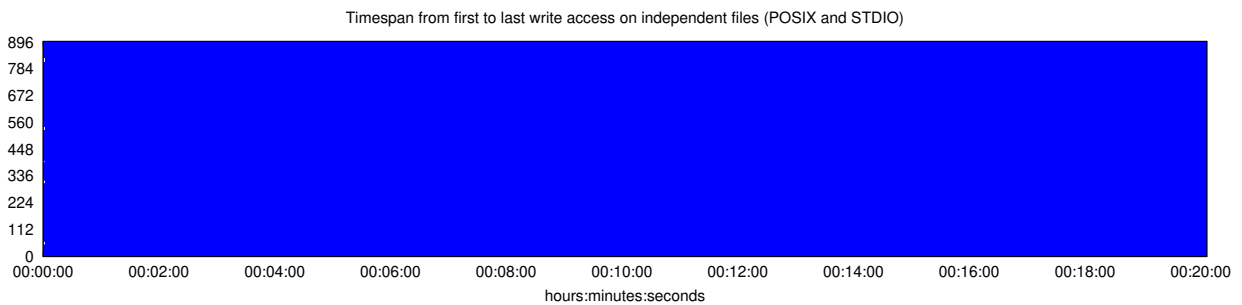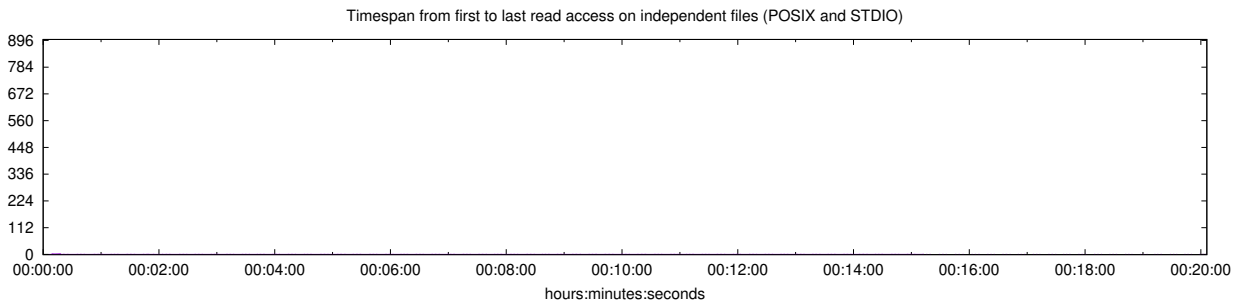I/O performance *estimate* (at the STDIO layer): transferred 0.1 MiB at 0.05 MiB/s



Average I/O cost per process



I/O Operation Counts
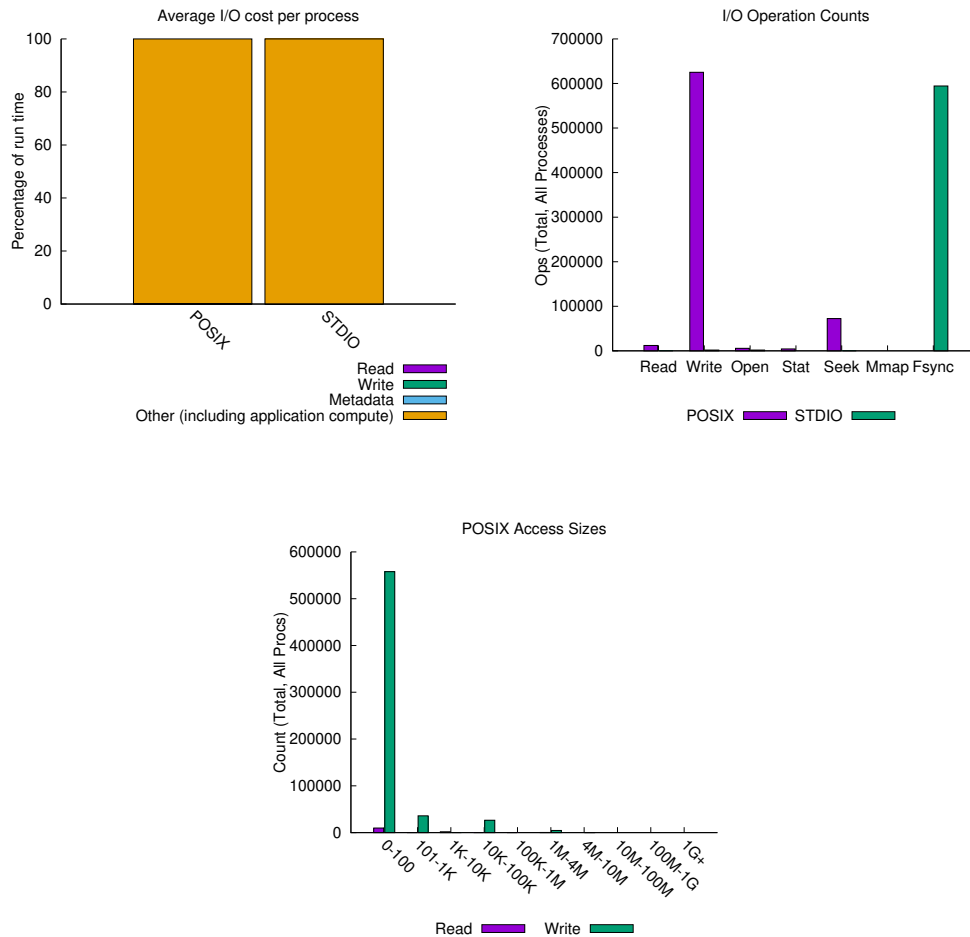


POSIX Access Sizes

## Most Common Access Sizes
### (POSIX or MPI-IO)

| | access size | count |
|---|---|---|
| POSIX | 51 | 197100 |
| | 80 | 196881 |
| | 66 | 27014 |
| | 43 | 27000 |

## File Count Summary
### (estimated by POSIX I/O access offsets)

| type | number of files | avg. size | max size |
|---|---|---|---|
| total opened | 2032 | 9.5MiB | 128MiB |
| read-only files | 10 | 38MiB | 128MiB |
| write-only files | 1803 | 22KiB | 570KiB |
| read/write files | 219 | 87MiB | 120MiB |
| created files | 2022 | 9.4MiB | 120MiB |

Timespan from first to last read access on independent files (POSIX and STDIO)



Timespan from first to last write access on independent files (POSIX and STDIO)



Timespan from first to last access on files shared by all processes (POSIX and STDIO)



## Average I/O per process (POSIX and STDIO)

| | Cumulative time spent in I/O functions (seconds) | Amount of I/O (MiB) |
|---|---|---|
| Independent reads | 0.00300127555555556 | 1.38383565690782 |
| Independent writes | 0.0679840333333333 | 23.1539318434397 |
| Independent metadata | 0.207336903333333 | N/A |
| Shared reads | 0.000462074444444444 | 0.00846529642740885 |
| Shared writes | 0.0555173155555556 | 5.62434726291233e-05 |
| Shared metadata | 2.01448927888889 | N/A |

## Data Transfer Per Filesystem (POSIX and STDIO)

| File System | Write | | Read | |
|---|---|---|---|---|
| | MiB | Ratio | MiB | Ratio |
| UNKNOWN | 0.05062 | 0.00000 | 0.00000 | 0.00000 |
| /thfs3 | 20838.53866 | 1.00000 | 1253.07086 | 1.00000 |

POSIX I/O Pattern
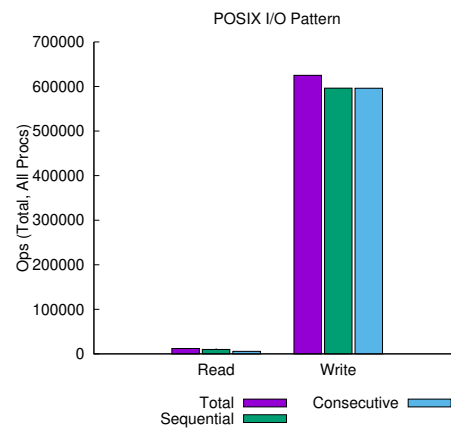


*sequential*: An I/O op issued at an offset greater than where the previous I/O op ended.
*consecutive*: An I/O op issued at the offset immediately following the end of the previous I/O op.

## Variance in Shared Files (POSIX and STDIO)

| File Suffix | Processes | Fastest | | | Slowest | | | $\sigma$ | |
|---|---|---|---|---|---|---|---|---|---|
| | | Rank | Time | Bytes | Rank | Time | Bytes | Time | Bytes |
| ...melist.input | 900 | 740 | 0.000572 | 8.7KiB | 797 | 3.326232 | 8.7KiB | 1.08 | 2.05e+03 |
| ...<STDOUT> | 900 | 335 | 0.000918 | 29B | 788 | 1.019198 | 30B | 0.218 | 0.719 |
| ...<STDERR> | 900 | 317 | 0.000476 | 29B | 638 | 0.020881 | 30B | 0.001 | 0.719 |