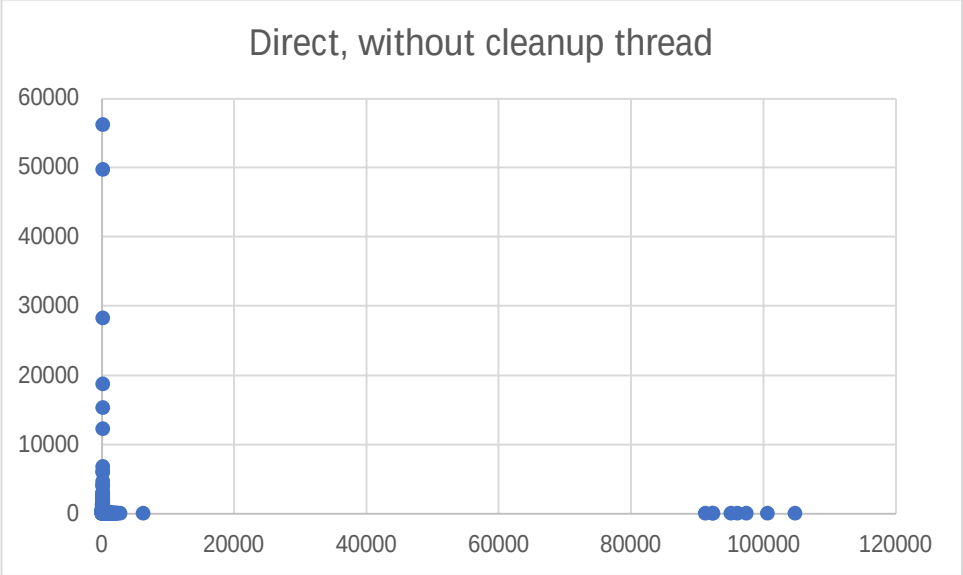
Test runs with different `WriteModes`

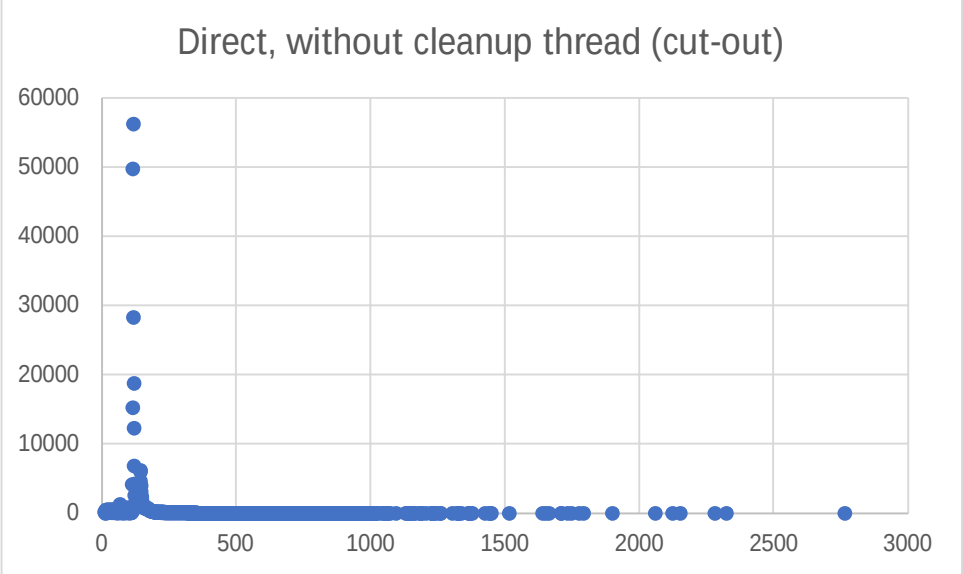
What is measured

The program initializes the logger, and then writes a huge number of log entries from multiple parallel threads. Each log entry is written with a timestamp that is in all cases created by the application thread. The diagrams show how often a certain time interval between consecutive log entries from the same thread occurred.
No measures were taken to “silence” the rest of the machine.
The x-axis is in nanoseconds in all diagrams.

`WriteMode::Direct`, without cleanup thread: Peak at about 120ns, outliers at 100ms

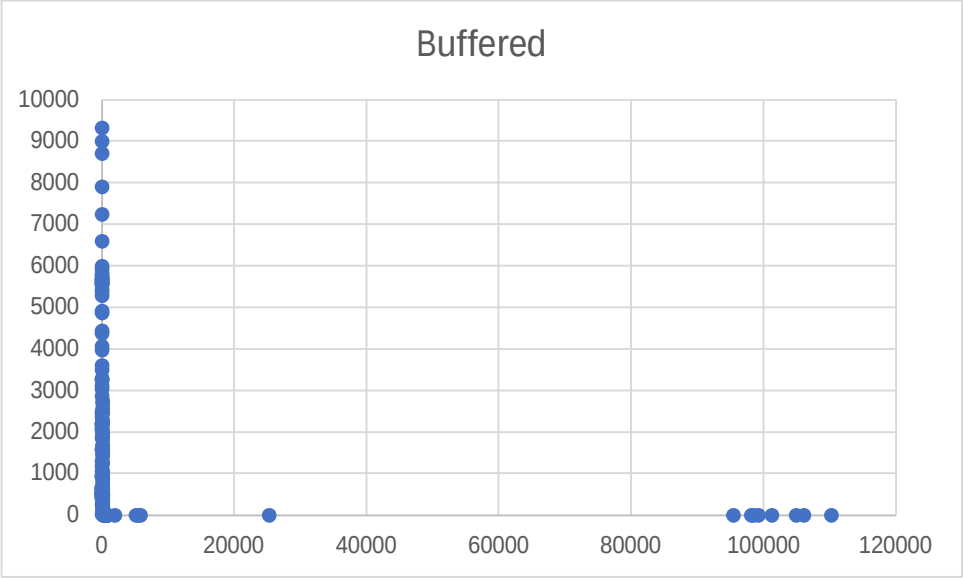
- Direct writing causes file I/O with every log message
- Outliers are caused by file rotation and cleanup.

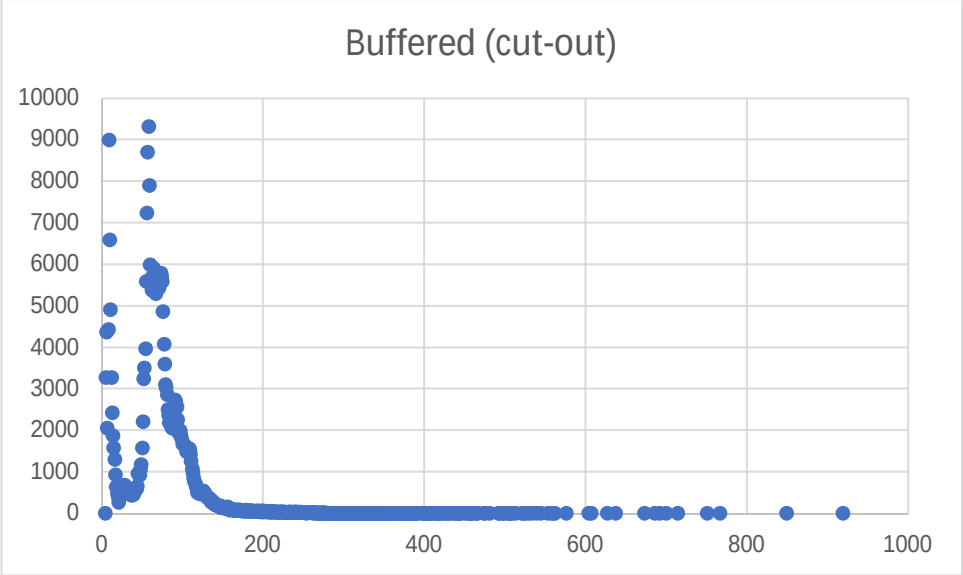




`WriteMode::Buffered`, without cleanup thread: Peak below 80ns, outliers at 100ms

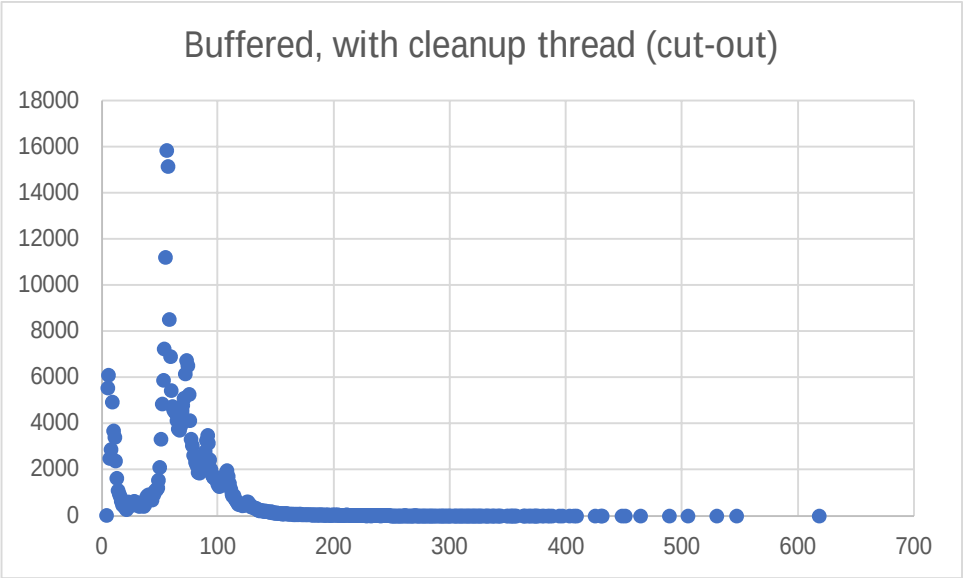
- Buffered writing reduces file I/O
- Outliers are caused by file rotation and cleanup





`WriteMode::Buffered`, with cleanup thread:
Peak below 80ns, outliers at 4-7ms

- Impact of file rotation and cleanup is minimized by doing it in a separate thread



`WriteMode::Async`:
Peaks at below 10 and below 50ns, very flat tail, no outliers

- A separate thread is doing all (buffered) file I/O, and the cleanup
- Impact of logging on application threads is minimized, pushback hardly recognizable
- Additional dependency to `crossbeam`