## std::memory\_order

- Can be specified to relax the memory ordering of atomic operations
- If you don't care about the ordering of operations, you might get better performance using memory\_order\_relaxed
- More info here: <a href="https://herbsutter.com/2013/02/11/atomic-weapons-the-c-memory-model-and-modern-hardware/">https://herbsutter.com/2013/02/11/atomic-weapons-the-c-memory-model-and-modern-hardware/</a>

## atomic Summary

- Scenario:
  - Multiple threads may need to mutate the data
- Trade-off:
  - Data is small: std::atomic<>::is\_always\_lock\_free == true
  - Only certain operations are allowed
- Examples:
  - Sharing small data between threads
  - Gain values, level meters, automation values, parameters etc.