

Performance Analysis



Problem

Assessing observed time for I/O is difficult.

What best-case performance can we expect?

Support for analysis – my involvement

- Models and simulation
 - ▶ Trivial models: using throughput + latency
 - ▶ PIOSimHD: MPI application + storage system simulator
- Tools to capture and analyze system statistics and I/O activities
 - ▶ HDTrace – tracing tool for parallel I/O (+ PVFS2)
 - ▶ SIOX – tool to capture I/O on various levels
 - ▶ Grafana – Online monitoring for DKRZ (support)
- Benchmarks – on various levels, e.g., Metadata (md-workbench, IOR)
- **Statistic model** to determine likely cause based on time