New and Noteworthy
JuFo and PTP 6.0

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Part I: JuFo

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Overview

- **Configurable** simulator for global job schedulers for on-line prediction of job dispatch dates
- Based on analysis of JSC batch systems Moab and Loadleveler
- Integrated with monitoring system LLView
- LML as configuration and communication data format
- Use-cases:
  - **User** predicts start dates of submitted jobs
  - **Administrator** simulates job scheduler performance with various input parameters
Architecture

Supercomputer

Raw-LML

LML_da

data gatherer

Raw-LML

scheduler simulator

JuFo

PTP

llview-client

Client

step 1

step 2

step 3

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Features

- Supported **scheduling algorithms**
  - First-Come-First-Served
  - List-Scheduling
  - Backfilling

- Available **simulation parameters**
  - Generic job **prioritization**
  - Advanced **reservations**
  - Jobs can request CPUs, GPUs, memory
  - **Nodesharing**
  - **Queue** constraints

- Test framework for evaluating JuFo’s accuracy
Part II: PTP Monitoring Updates

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Standalone Monitoring Client
2. PTP Monitoring Updates

Usage bars on top level

Usage bars can now summarize the entire system load.
Further updates

Recent enhancements

- Jobs are searched in table and Nodes View when selected
- LML_da adapter for supporting *Monte Rosa Cray* system at CSCS → *SLURM ALPS* combination
- *Level-of-detail* can be chosen *separately* for each connection
- *Double-buffering* enabled for Windows

Future work

- *Layout configuration* via Eclipse client
- Support *multiple node displays* for each connection (e.g. to visualize power usage, node states, I/O activity)
- *GPU* monitoring