

Simulation Analysis

Visualization Techniques to analyze SimGrid simulations

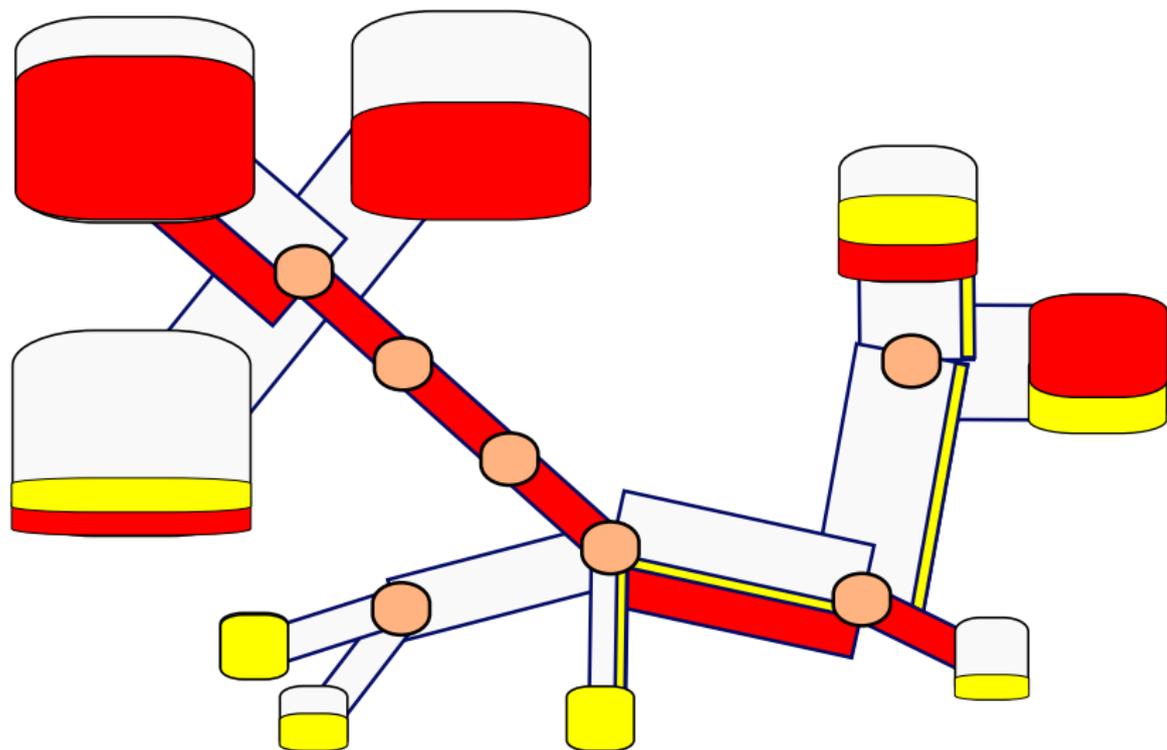
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SimGrid Users' Days

Visualizing Simulation

- Basic idea
 - Visualize different simulation aspects
 - MSG interface: tasks and processes
 - Platform: utilization, availability traces
- **First try**: focus on platform utilization
 - Categorization of MSG tasks
 - Request, Computation, Communication
 - Tracing each task behavior (comm, exec)
 - Classify the utilization by category
 - Visualizy platform graph + use

Visualizing Simulation



Getting traces

- Enable tracing=on with cmake
- Instrument existing MSG applications
 - TRACE_start (filename)
 - TRACE_category (category)
 - TRACE_msg_set_task_category (task, category)
 - TRACE_end ()
- Execute

- As output: a single trace file
- Use a tool name **Triva** (FAQ for details)
 - <http://triva.gforge.inria.fr>
- `./Triva msg_simulation.trace`