

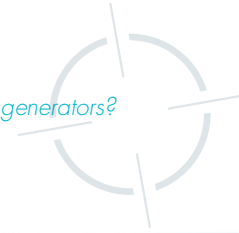


THE SIMGRID ECOSYSTEM

_____ **Hoping** to draw not too dumb conclusions?

_____ **Fed up with** ad hoc simulators and custom random generators?

_____ **Want to contribute?**



+ A nice simulation core is not enough, many tools are needed around.

Application Configuration



Platform Description



Your Application

Simgrid

**Logs
Stats**

**Visualization
Analysis**

References

L. Schnorr, G. Huard and P. Navaux. Triva: Interactive 3D Visualization for Performance Analysis of Parallel Applications. Future Generation Computer Systems 26(3):348-358, 2010.

L. Schnorr, A. Legrand and J.-M. Vincent. Multi-Scale Analysis of Large Distributed Computing Systems. In Proceedings of the Third International Workshop on Large-scale System and Application Performance (LSAP'11), pages 27-34, June 2011.

S. Hunold, R. Hoffmann and Frederic Suter. Jedule: A Tool for Visualizing Schedules of Parallel Applications. In Proceedings of the 1st International Workshop on Parallel Software Tools and Tool Infrastructures (PSTT'10), pages 169-178, September 2010.

M. Quinson, L. Bobelin and F. Suter. Synthesizing Generic Experimental Environments for Simulation. In Proceedings of the Fifth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC'10), November 2010.

Platform configuration

- + Platform discovery import:
<http://umctool.gforge.inria.fr>
- + Random platform generation:
<http://pda.gforge.inria.fr>
- + Real life traces: <http://fta.inria.fr>

Application configuration

- + DAG generation: <http://ggen.ligforge.imag.fr>
- + Job submission traces:
<http://www.cs.huji.ac.il/labs/parallel/workload> and
<http://gwa.ewi.tudelft.nl/>

Logs/stats

- + Built-in Log4C-style hierarchical, extensible and flexible logging
- + Easy-to-use debugging facilities
- + Exploratory data analysis with R

Visualization analysis

- + Built-in easy-to-use tracing mechanism
 - Categorized resource utilization, task scheduling, and application level traces
- + Pajé: <http://paje.sf.net>
 - MPI, process migration, Task scheduling of parallel applications
- + Jedule
 - Load balancing, parallel workloads visualization
- + Triva: <http://triva.gforge.inria.fr>
 - Space-time performance, topology based, multi-scale, exploratory, scalable, ...

