Image from SearchNetMedia, http://searchnetmedia.wordpress.com/

First International Workshop on

High-performance Infrastructure for Scalable Tools
WHIST 2011

Held as part of ICS '11, Tucson, Arizona. June 4, 2011

Call for Papers

Today's petascale supercomputers contain over 100,000 processor cores, and thread counts on exascale systems are expected to exceed 100 million. Increasingly complex multicore and accelerator node-architectures fuel the trend towards massive concurrency, and new, hierarchical parallel programming models will be necessary to take full advantage of future machines. With increased node, system, and application complexity, scalable tools will be critical for diagnosing the root causes of correctness and performance problems.

To diagnose problems at the extreme scale, tools themselves are becoming more complex. Tools will require sophisticated infrastructure to monitor, measure, analyze, and present the causes of an execution's anomalies. In many cases, tools will combine online and offline analysis. They may use sophisticated modeling and statistical analysis techniques. To manage this complexity, there is a need both for abstractions that simplify tool design and for infrastructure that is reusable and extensible.

Submissions

We solicit papers on all aspects of scalable tool abstractions and infrastructure, including (but not limited to):

- Generic, reusable tool-infrastructure components
- Tool-component interoperability
- Tool-runtime design, including
  - Scalable data structures and data representation for tool runtimes
  - Scalable tool communication infrastructure
  - Tool and operating system interoperability
- Scalable online and offline analysis techniques, including
  - Techniques for managing large amounts of information
  - Low-overhead online parallel data analysis techniques
- Monitoring, measurement and analysis approaches for novel parallel programming models
  - Tool support for multithreading, shared-memory, and hierarchical parallelism, including interaction with language ntime and operating systems
  - Measurement and attribution techniques for new programming paradigms
- Scalable presentation of results

Visit http://whist-workshop.org for more information.

Special Journal Issue

All papers from the workshop will be made available online, and selected papers will be published in a special journal issue. Details TBD.

Website

http://whist-workshop.org

Important Dates

Full papers
April 15, 2010
11:59 PDT

Notification
May 6, 2010

ICS Conference
May 31-June 4

Program Chairs

Todd Gamblin	LLNL
Nathan Tallent	Rice

Program Committee

Dorian Arnold	UNM
Luiz DeRose	Cray
Rob Fowler	RENCI, UNC
Karl Fuerlinger	LMU Munich
Kevin Huck	BSC
Chee-Wai Lee	Oregon
Al Malony	Oregon
Bart Miller	Wisconsin
Bernd Mohr	Jülich
Tipp Moseley	Google
Phil Mucci	Samara Tech.
Boyana Norris	ANL
Ramesh Peri	Intel
Dan Reed	Microsoft
Phillip Roth	ORNL
Barry Rountree	LLNL
Martin Schulz	LLNL
Sameer Shende	ParaTools
Felix Wolf	Jülich, Aachen

More Information

Email whist2011@easychair.org

ICS 2011