VAMPIR NEWS

Welcome to the spring edition of Vampir News, designed to keep you informed about the latest developments in our performance analysis environment. This includes the measurement tools VampirTrace and Score-P as well as the visualization and analysis framework Vampir 7.

VampirTrace 5.13

The recent release primarily addresses scalability challenges. While previous releases focussed on parallel versions of the whole VampirTrace software stack, these enhancements render most parallel file systems slow or even unresponsive if VampirTrace writes trace files for more than 10.000 processes. VampirTrace now supports the I/O Forwarding Scalability Layer (IOFSL), which allows users to write the data of many trace files into one or a few physical files. The new version also extends the use of NVIDIA's CUPTI interface. Now, even further sources of GPGPU events with reduced overhead and higher GPU activity measurement accuracy are provided. Additionally, new filter rules – including expressions for recursive, group, and stack filtering – allow users to only measure events of interest. VampirTrace 5.13 also includes stability enhancements and is available under a BSD Open Source License at http://www.tu-dresden.de/zih/vampirtrace.

Score-P

The new instrumentation and run-time measurement infrastructure Score-P is now officially supported by Vampir. Score-P supports profiling and event tracing for parallel and HPC applications, generating either profiles in the CUBE4 format or event traces in the OTF2 format. It is a joint software infrastructure developed and maintained by Technische Universität Dresden, Research Center Jülich, University of Oregon, and Technische Universität Munich. The current version is available as Open Source software under a New BSD License.

Score-P will become the default measurement system for Vampir in the near future. The same is anticipated for the equally well known performance tools Scalasca, TAU, and Periscope. Thus, the different measurement systems of the four tools are replaced by a single, unified solution. This will improve the user experience, both in respect to usability and interoperability between the tools. More information and downloads: http://www.score-p.org

Vampir 7.6

The Vampir 7.6 release brings a number of new features. It introduces partial loading of large trace files. This new capability allows users to select and load a relevant data section by means of a thumbnail view, which pops up when a trace file is opened. Initial support for the measurement infrastructure Score-P has been introduced. Version 7.6 adds new customizable performance metrics to Vampir's existing Performance Radar. Password authentication is now available for remote sessions. Finally, various feature, performance, scalability, and stability improvements have been incorporated.



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