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HPX Update: A C++11 Parallel Runtime System

The LSU Center for Computation & Technology's STE||AR Group is proud to announce the third formal release of HPX (V0.8.0). In this release, the API has been stabilized, overall performance is improved, a number of bugs have been fixed, and the code base has been cleaned up.

HPX (High Performance ParallelX) is the first freely available, open source, feature-complete, modular, and performance oriented representation of the ParallelX execution model targeted at conventional architectures and, currently, Linux based systems, such as SMP nodes and conventional clusters. As an alternative to MPI, HPX incorporates routines to manage lightweight user-threads in addition to providing an Active Global Address Space (AGAS). HPX is implemented in C++11 and utilizes over 20 Boost and candidate Boost libraries.

The most important design objective of HPX is to create a state-of-the-art parallel runtime system providing a solid foundation for UHPC-scalable applications while remaining as efficient, as portable, and as modular as possible.

The next release, scheduled for June 2012, will be special, as it marks V1.0.

For more information about HPX (and ParallelX in general), as well as downloads and release notes, please visit <http://stellar.cct.lsu.edu>.

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