

SuperComputing 2013 TORQUE Birds of a Feather Summary Report

The SuperComputing 2013 TORQUE Birds of a Feather in Denver, Colorado, was a combination of two short presentations by Kenneth Nielson and David Beer from Adaptive Computing plus a 30 minute question and comment period by TORQUE community members.

Kenneth Nielson did a review of TORQUE progress since SuperComputing 2012 in Salt Lake City, Utah. In the past year there were releases for versions 4.1.4 through 4.1.7 of TORQUE. There was also the introduction of TORQUE 4.2.0 in December 2012 which included several improvement initiatives to increase stability of the product. Primary to those initiatives was moving the code base to use C++ as the compiler. The 4.2.x branch has proven to be much more stable than previous releases of TORQUE 4.x. The current release is 4.2.6. The stability of the 4.2.x branch has led to the deprecation of the 4.1.x branch. 4.1.7 is the final release for the 4.1.x branch.

The TORQUE source control was moved from subversion to git. TORQUE is now available on GitHub at <https://www.github.com/adaptivecomputing/torque>. Moving to GitHub for source code management has improved the transparency of the source code process and facilitated much better community support. Since moving to GitHub there have been 202 reported issues with 177 resolved. There have also been 202 pull requests with 201 closed. There have been contributions from 22 unique individuals.

David Beer presented some of the initiatives for TORQUE in the coming year. One of the initiatives is to move to a stable trunk model for source code. Instead of having trunk be the development unstable branch, feature branches will be created for new development. These branches will become the unstable branches. In order to merge changes these feature branches must pass new testing requirements before they can be brought back into the trunk. This methodology makes it so trunk is always ready to be released.

David also presented some of the new features that will be developed in the next year. The features include green computing, topology awareness, intelligent cpuset creation and enhanced resource handling using cgroups. As these are developed users will see feature branches appear in GitHub.

There were 75 TORQUE community members present at the SC13 TORQUE BoF. Also in attendance five employees from Adaptive Computing including David Hill, engineering manager for Moab and TORQUE, Ben Schmul, Directory of Engineering, and Dustin Haliday, Director of Customer Support.

There were several questions and comments from the community during the question and comment period. The main interest was in making the regression tests Adaptive Computing uses to test TORQUE available to the community. Also the community wants to be able to add their own test cases to the regression suite. Adaptive Computing let users know this would be a priority.