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Sandia National Laboratories

SDAV Progress Report

Sandia National Laboratories

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VTK-m Update

- Code Sprint on August 2-3 (http://m.vtk.org/index.php/Code_Sprint_2016-08-02)
  - Topics worked on include virtual method dispatching, rendering VBOs, C++11 support, wavelet compression, block streaming dispatch
- Transition from boost to C++11 features (Rob Maynard)
  - Removed reliance on boost libraries
- Improving compile times
  - Compile rendering code to its own library
  - Be more selective in compiled test cases
  - Investigating reducing template explosions with virtual method dispatching
- Beginning code consolidation in libraries

VTK-m Update

- Improved OpenGL rendering with VBOs (Dave Pugmire)

- Add histogram filter

- Generalize execution on multiple devices

- Improvements with configuration

- Improved OSMesa support

Other Activities

- Paper: "VTK-m: Accelerating the Visualization Toolkit for Massively Threaded Architectures," presented at Vis
- Paper: "Optimizing Multi-Image Sort-Last Parallel Rendering," presented at LDAV
- Panel: In Situ Efforts and Challenges in Large Data Analysis and Visualization, LDAV
- Program Co-Chair: LDAV 2016
- Program Committee: IEEE SciVis 2016
- Program Committee: ISAV 2016
- Program Committee: ISVC 2016
- Co-Chair: Vis Lies 2016 (http://vislies.org)
- Tutorial: "Large Scale Visualization with ParaView," SC16
- Talk: "What's New in ParaView", Kitware Booth, SC16