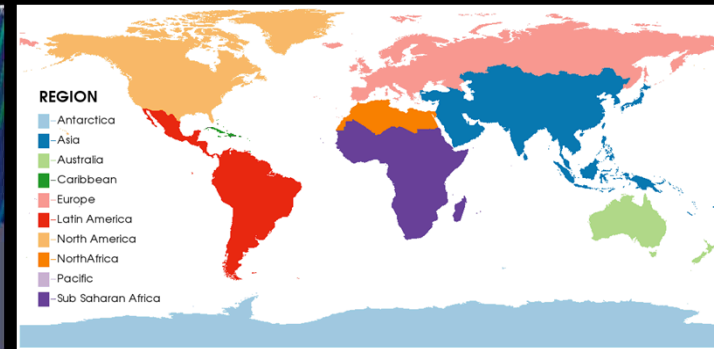
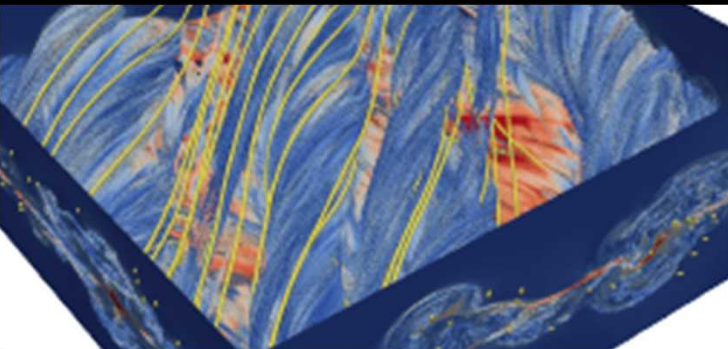


Exceptional service in the national interest



What's New in ParaView

DOECGF 2015

April 26, 2015

Kenneth Moreland Sandia National Laboratories



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. SAND NO. 2011-XXXXP

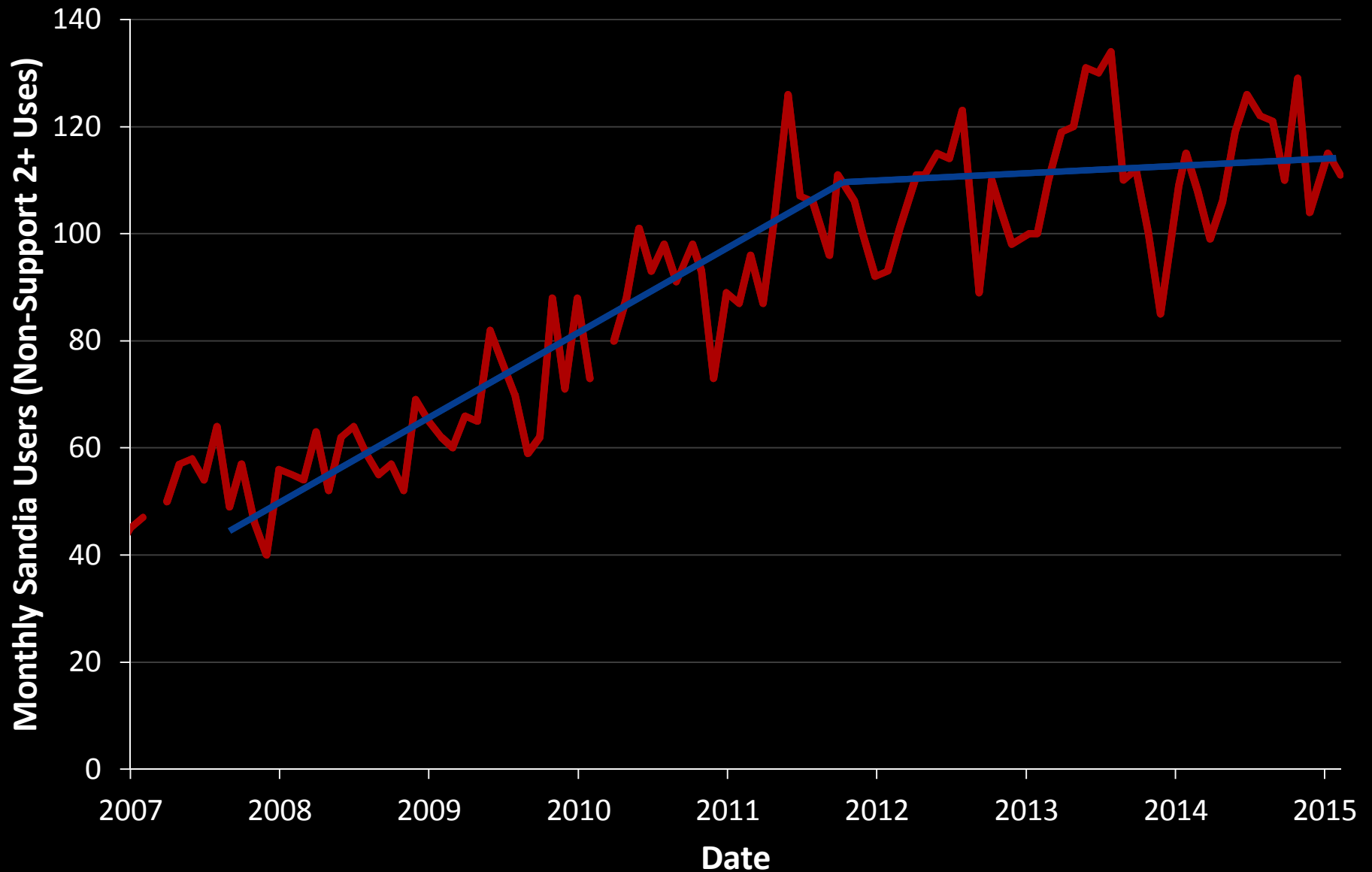
Boring Crap

- Releases during the last 12 months: 4.2 (September 2014), 4.3.1 (January 2015)
- SC 2014 Tutorial
- Users at Sandia
 - ~115/month (DART metric: 2+ uses, non-support)
 - 270 total during 2014 (unclassified use only)
- Downloads from Kitware past year: > 100K
 - Counts button clicks on web form
 - Duplicate IP's removed
 - Includes binary and source packages. Not data nor plugins
- About 2.7K emails exchanged on mailing list in 2014

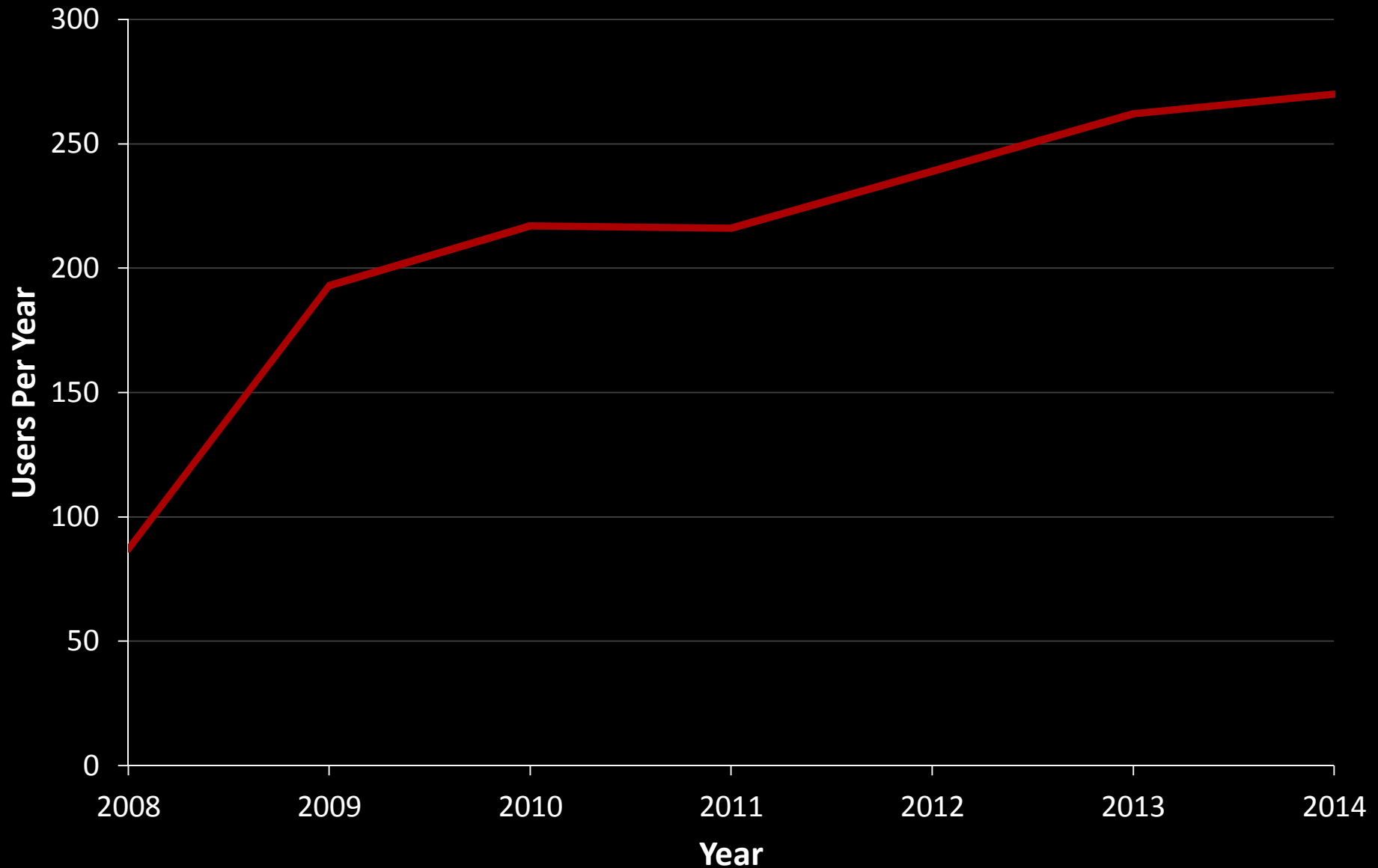
Sandia Monthly ParaView Usage



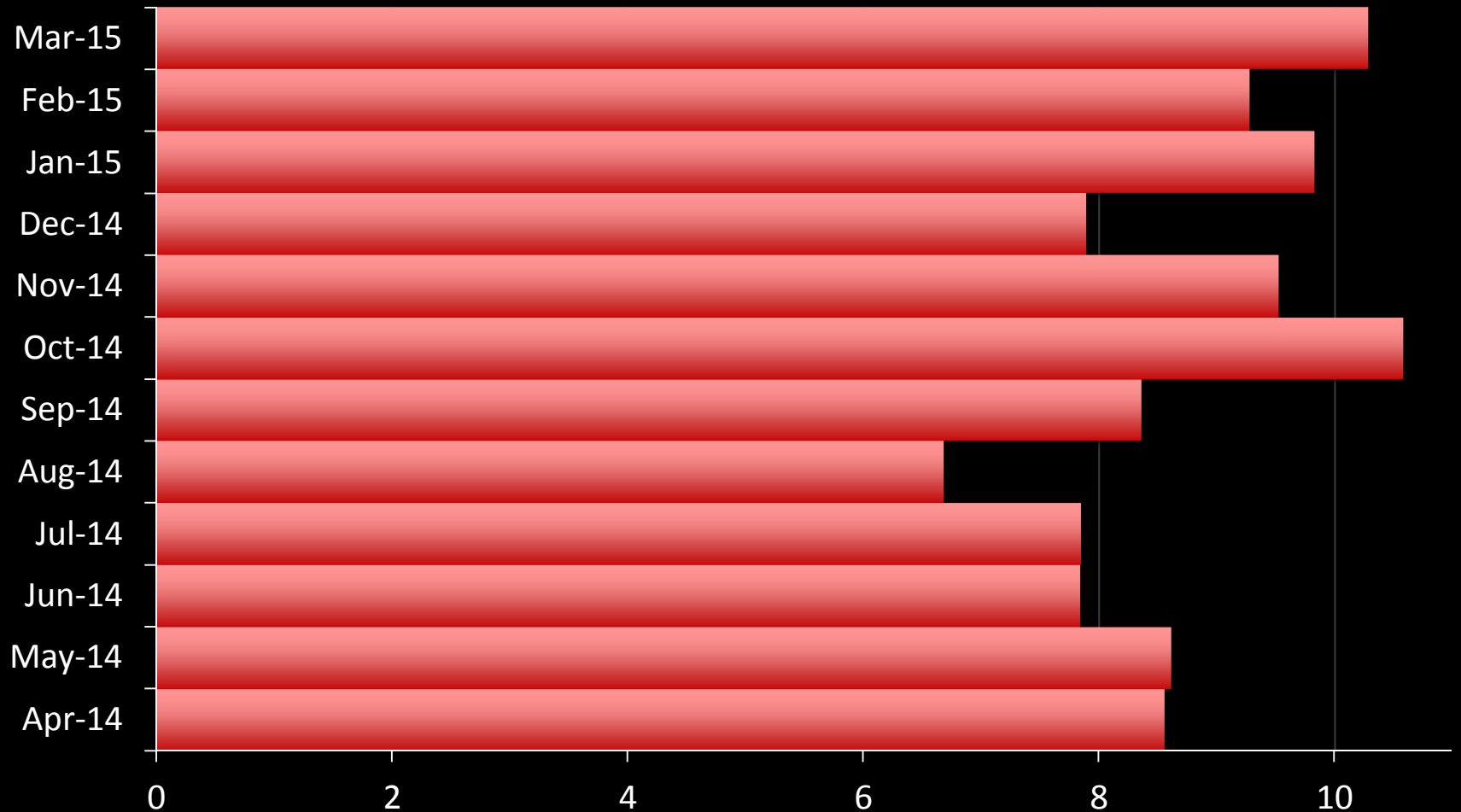
Sandia Monthly ParaView Usage



Sandia Yearly ParaView Usage

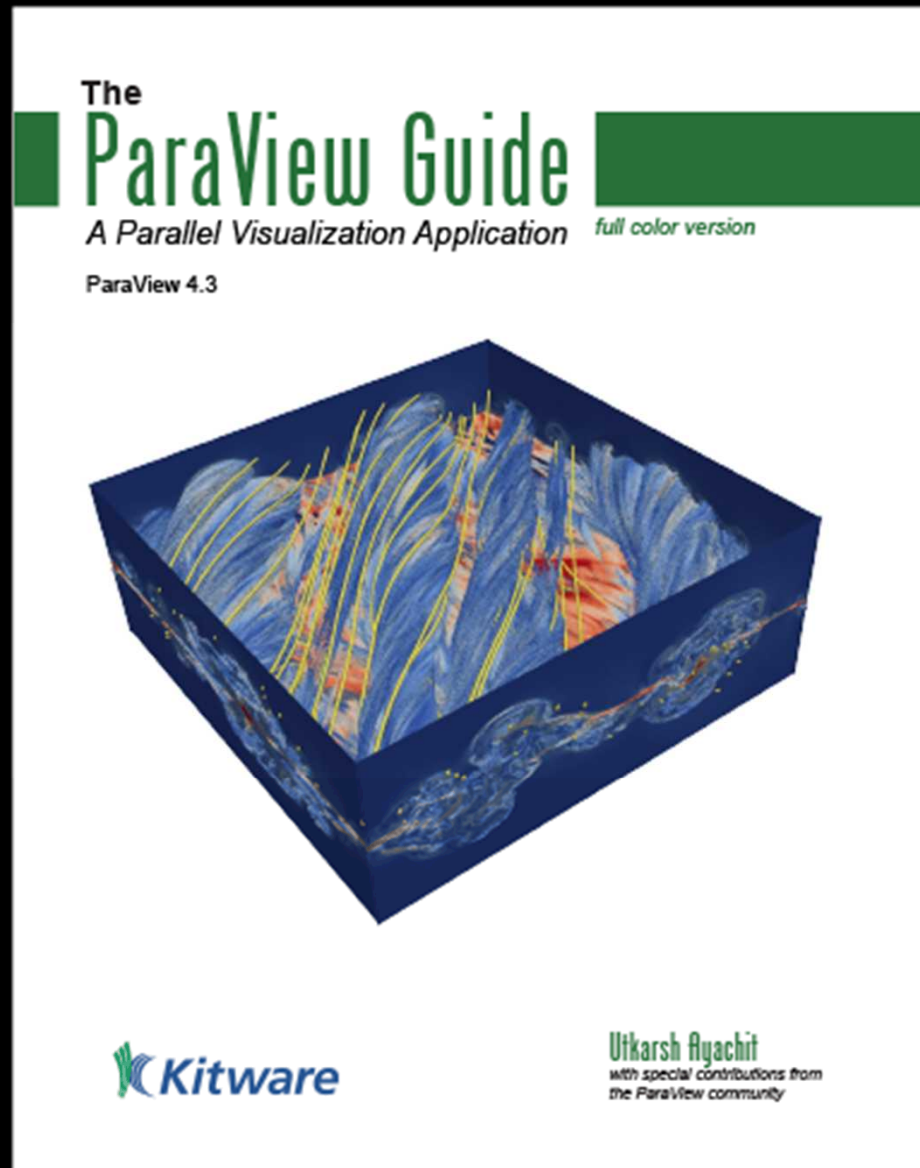


Kitware ParaView Downloads

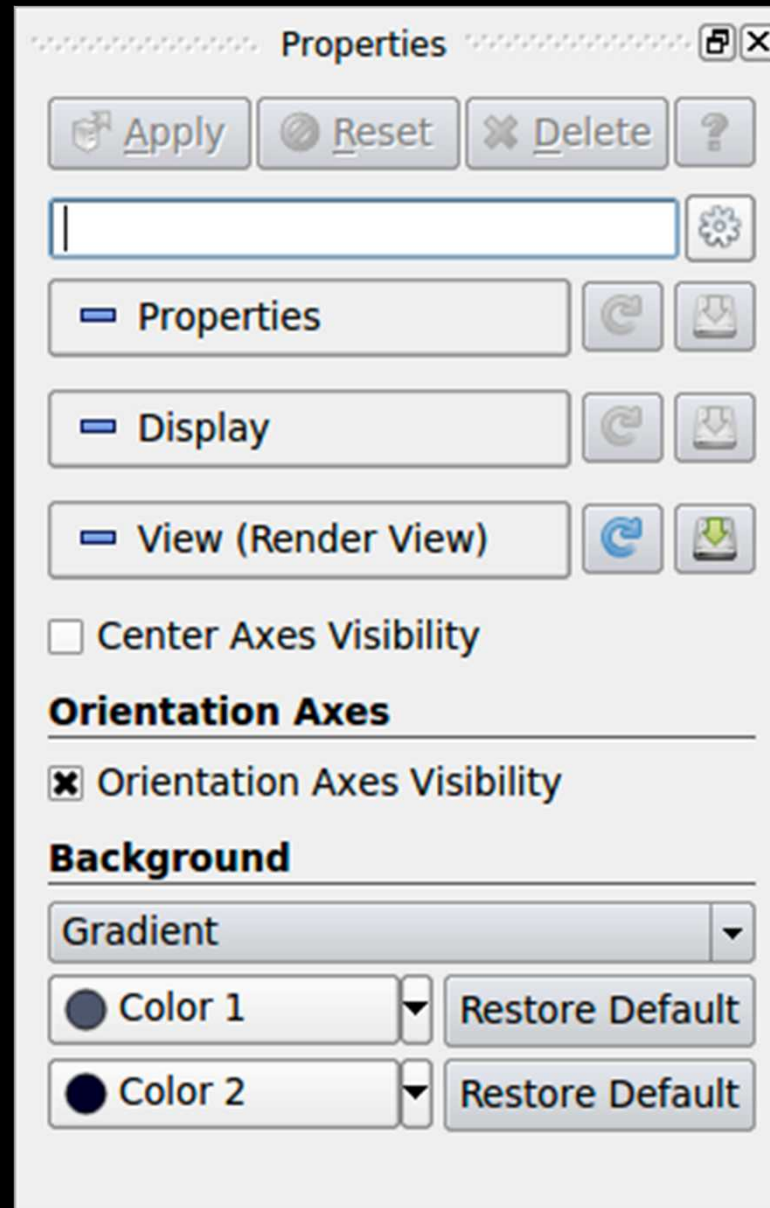


Monthly Kitware Web Downloads

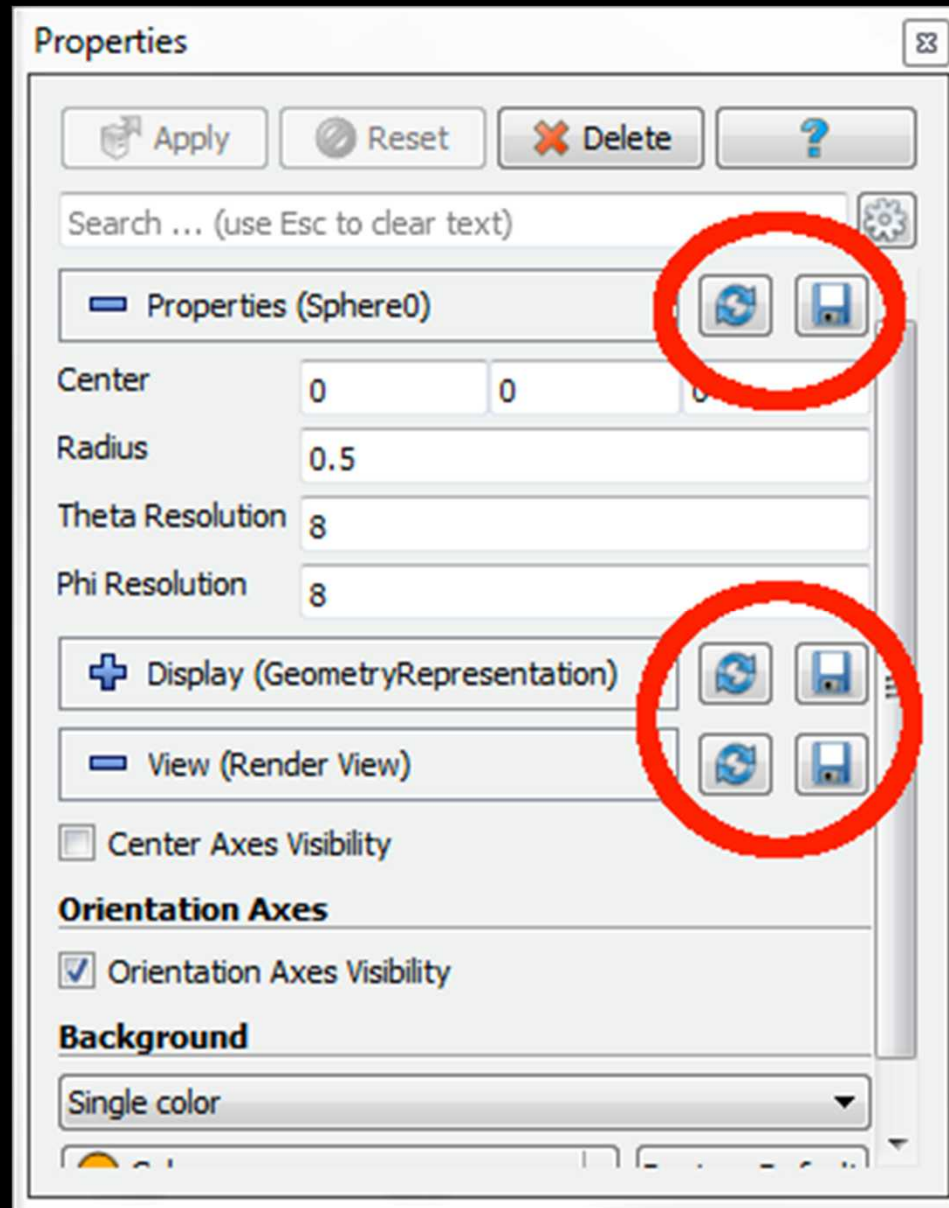
Updated ParaView Guide



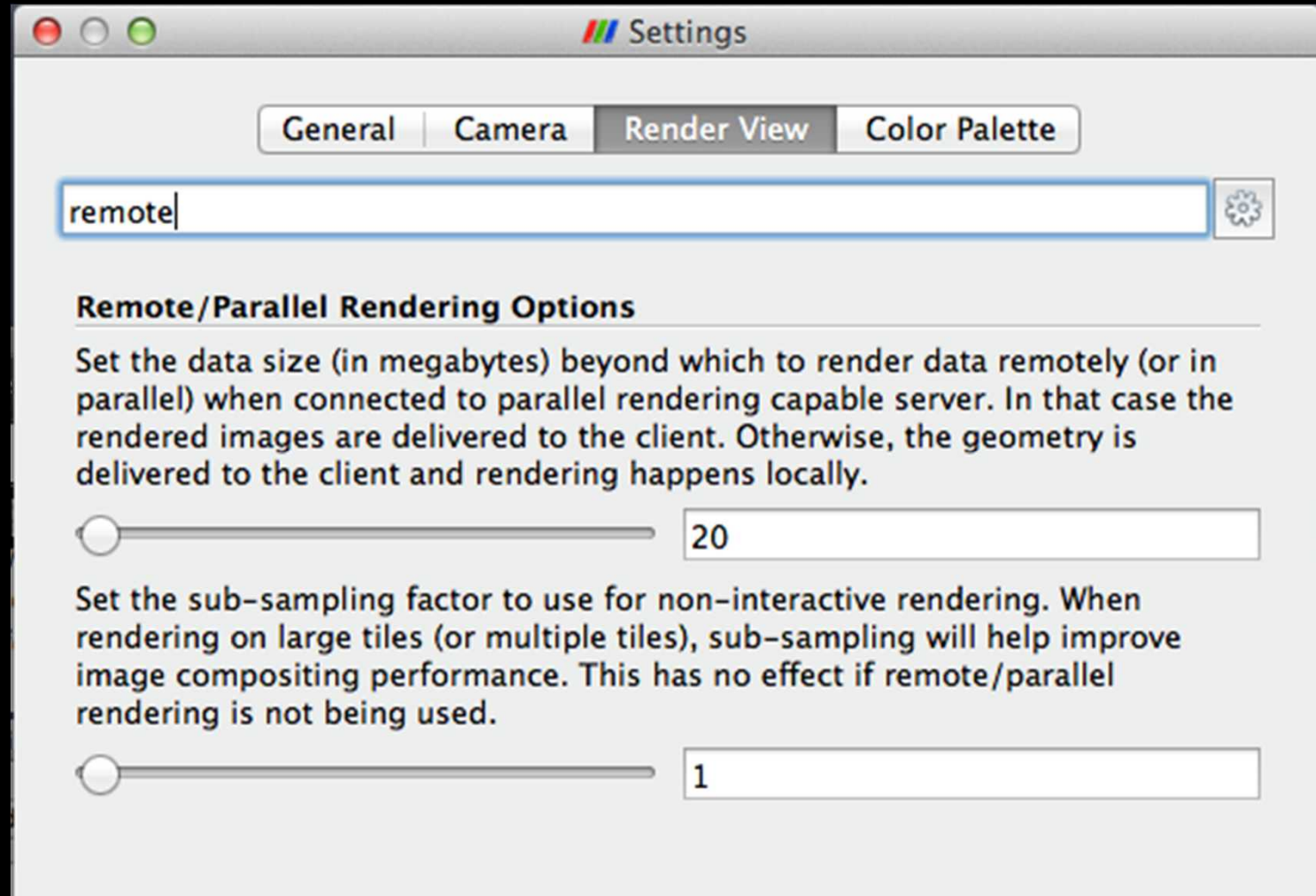
View Parameters in Properties Panel



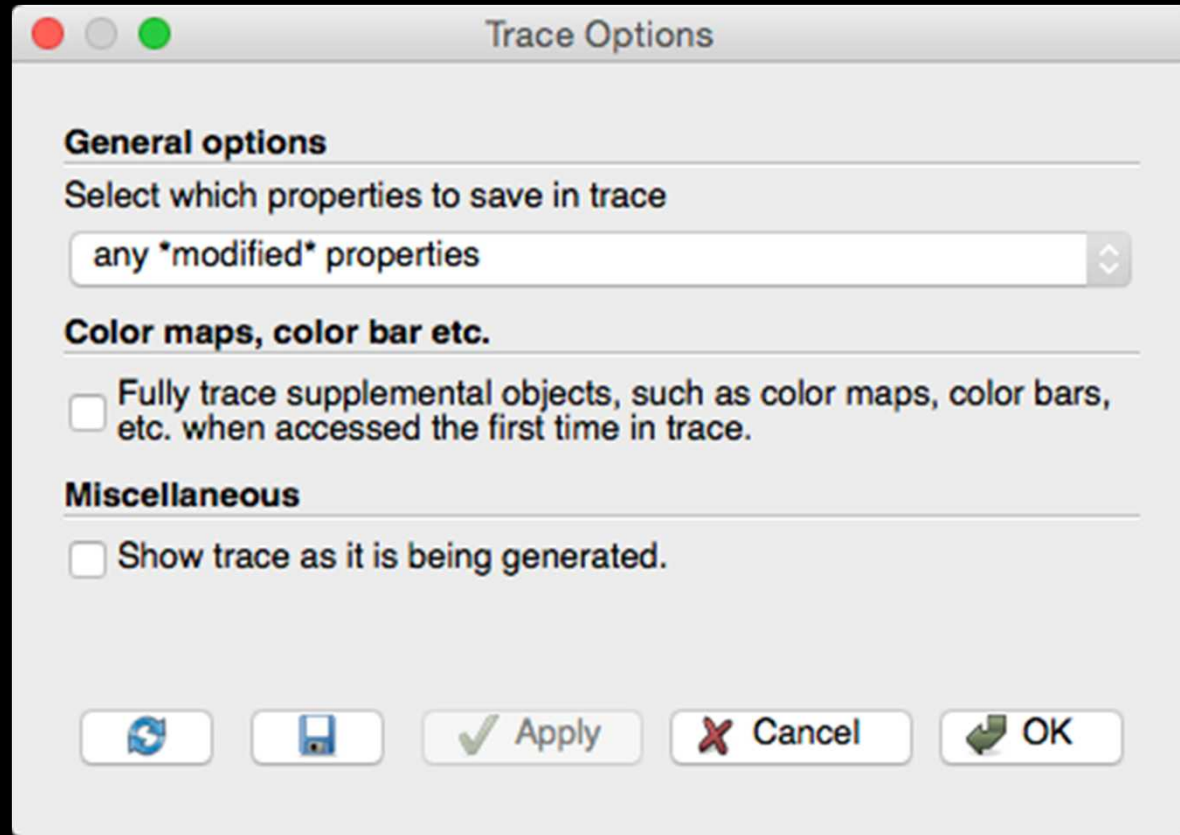
Define Your Own Defaults



Better Settings Dialog



Improved Python Scripting & Tracing



Improved NumPy Integration

Properties

 Apply  Reset  Delete 

Search ... (use Esc to clear text) 

 Properties (PythonCalculator1)  

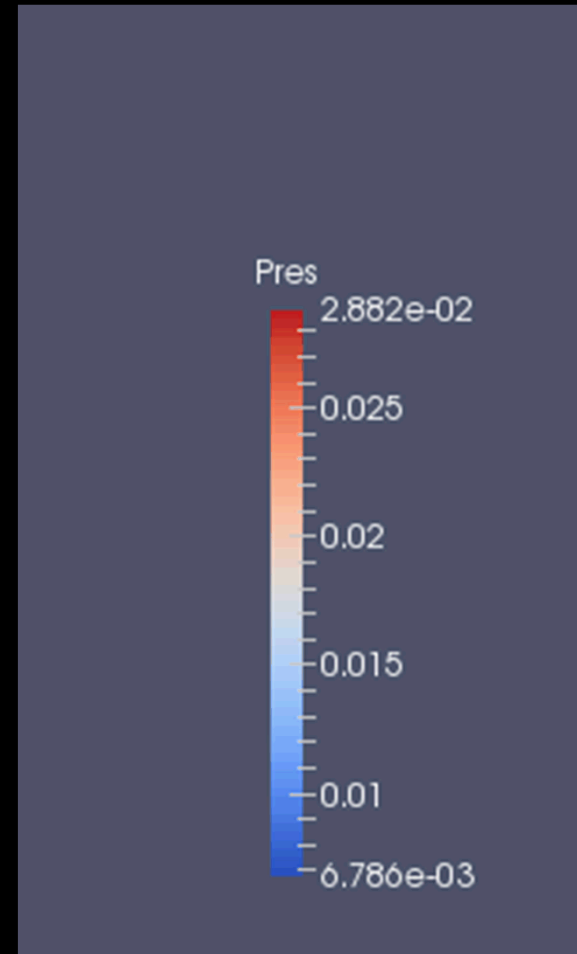
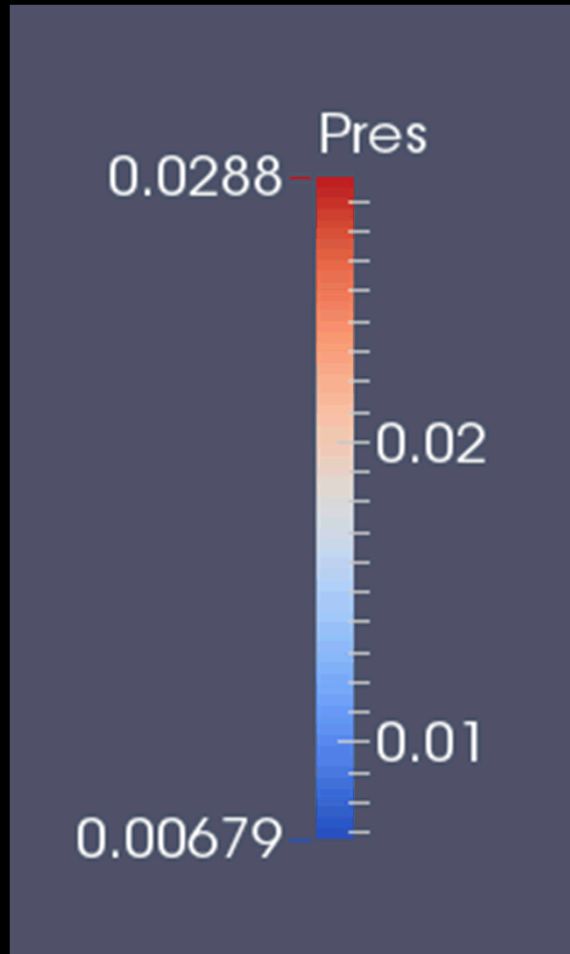
Expression

Array Association

Array Name

☒ Copy Arrays

Color Legend



Catalyst Live

The image displays the ParaView 4.1.0-1264-gc01bfef 64-bit interface, highlighting the Catalyst Live workflow and the resulting 3D visualization.

Pipeline Browser (Top Left): Shows the initial pipeline structure:

- builtin:
 - catalyst:
 - PVTrivialProducer0
 - Contour0
 - ParallelPolyDataWriter0
 - ParallelImageDataWriter0

Pipeline Browser (Middle Left): Shows the pipeline after the 'Extract: Contour0' step:

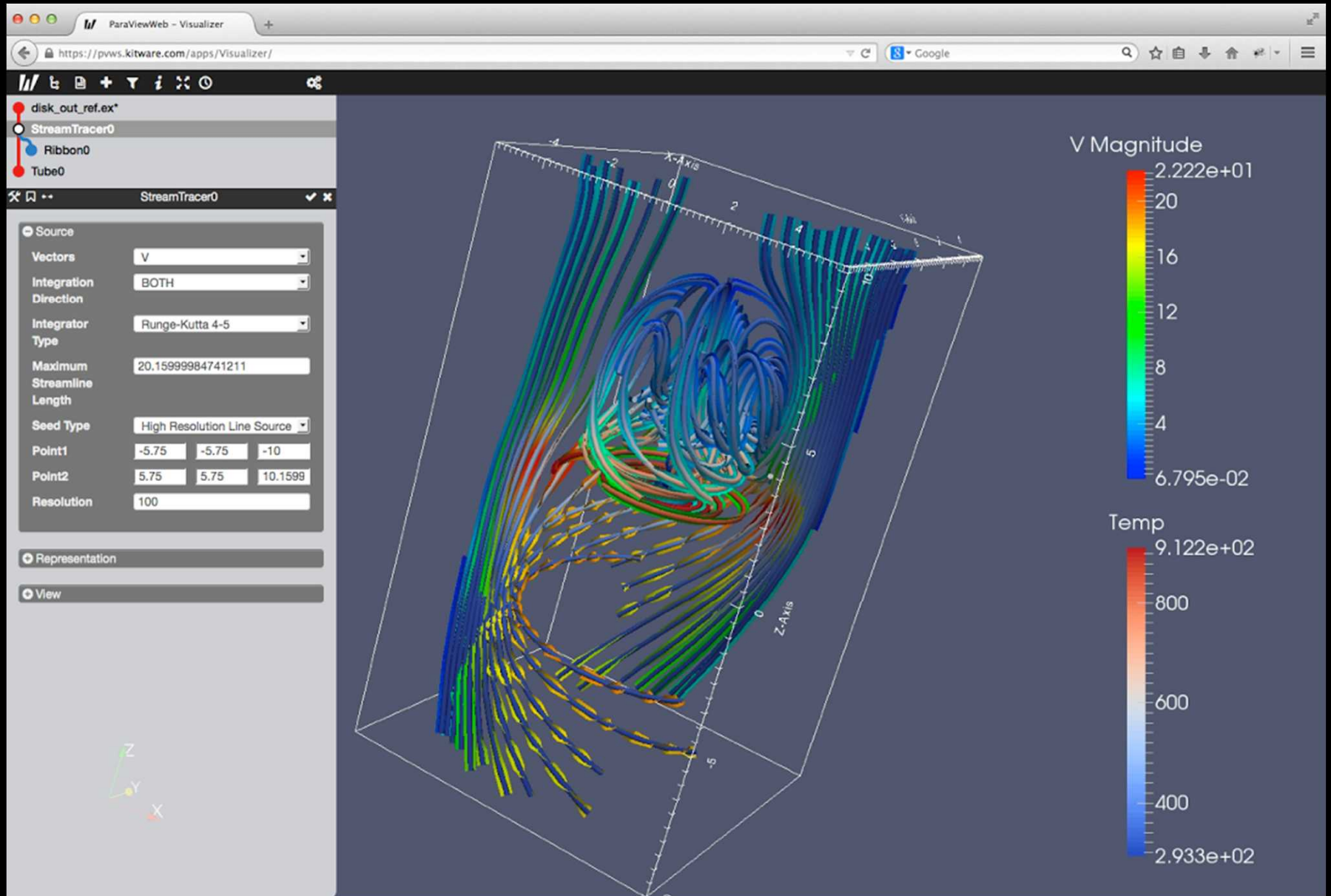
- builtin:
 - Extract: Contour0
 - catalyst:
 - PVTrivialProducer0
 - Contour0
 - ParallelPolyDataWriter0
 - ParallelImageDataWriter0

Properties Panel (Bottom Left): Displays the properties for the selected 'Extract: Contour0' filter:

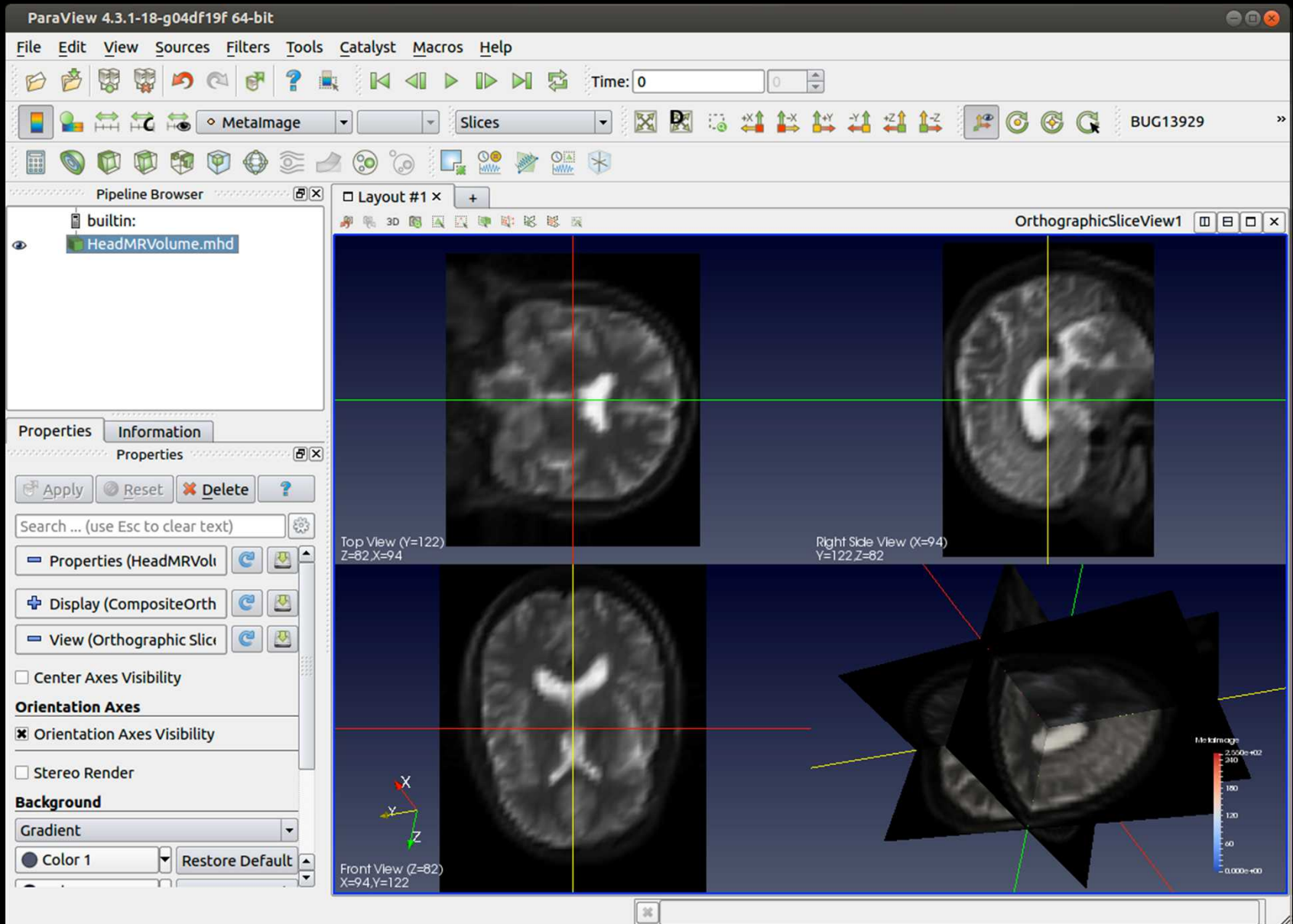
- Information:** Search ... (use Esc to clear text)
- Properties (Extract: Contour0):** [Reset] [Delete] [?]
- Display (GeometryRepresentatic):** [Reset] [Save]
- Representation:** Surface
- Coloring:** Solid Color [Show] [Edit] [Rescale]
- Styling:** Opacity: 1
- Lighting:**

RenderView1 (Right): Displays the 3D visualization of the data, showing a complex, porous, and irregular surface structure. A 3D coordinate system (X, Y, Z) is visible in the bottom left corner of the view.

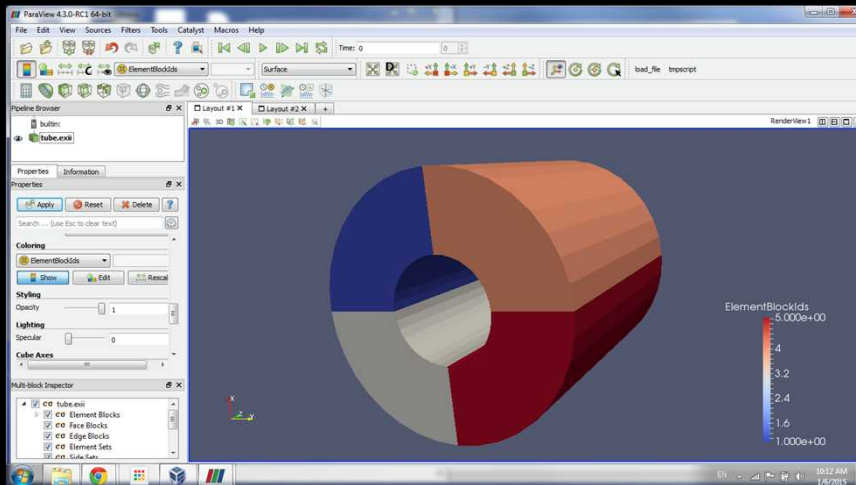
Improvements to ParaView Web



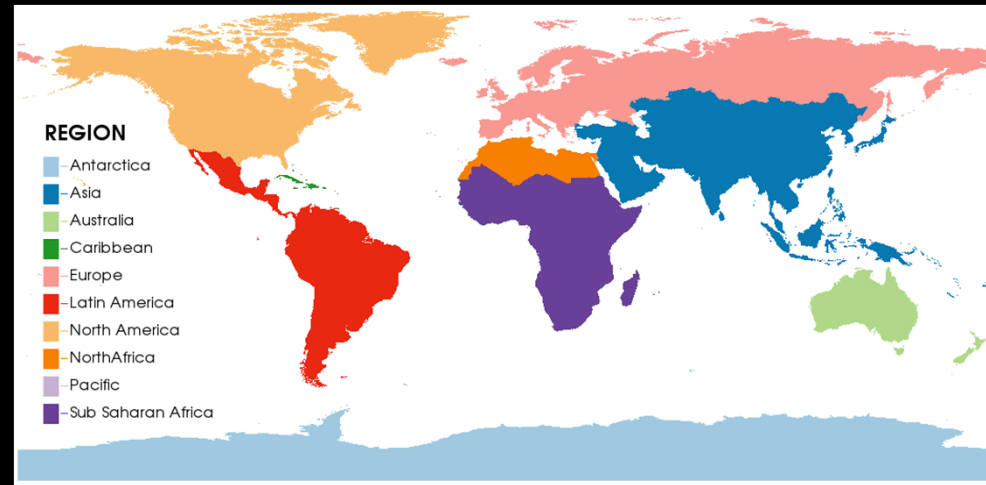
Orthographic Slice View



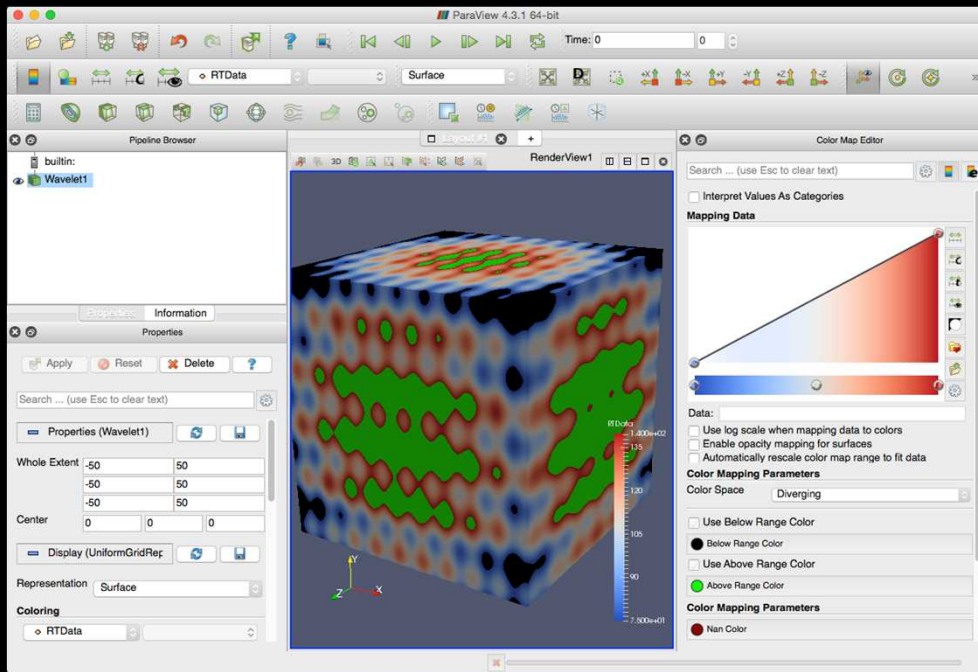
Improvements to Color Mapping



Color by block variable.



Color by string identifier.



Specify out-of-range colors.

Coming Soon: Axes Grid Annotation

