

Enabling Users through *Community Access* to TeraGrid Visualization Resources

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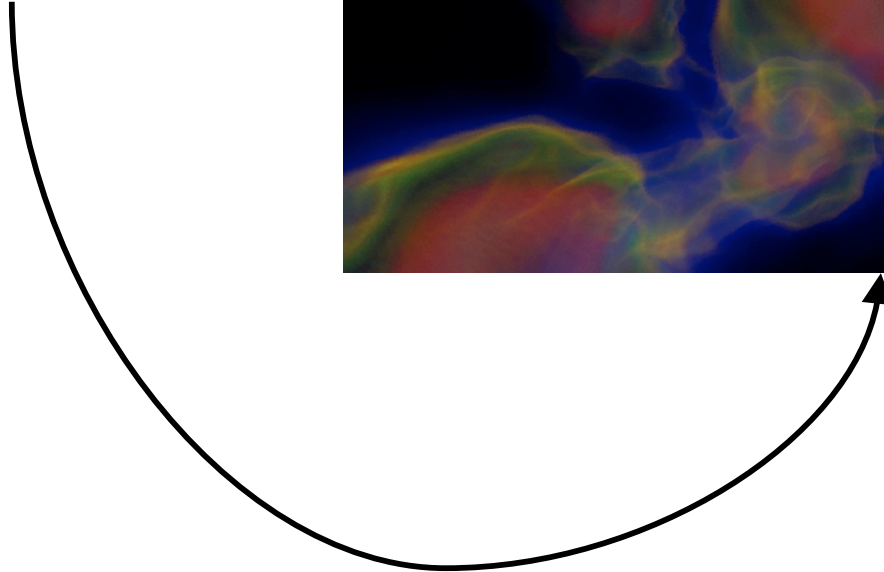
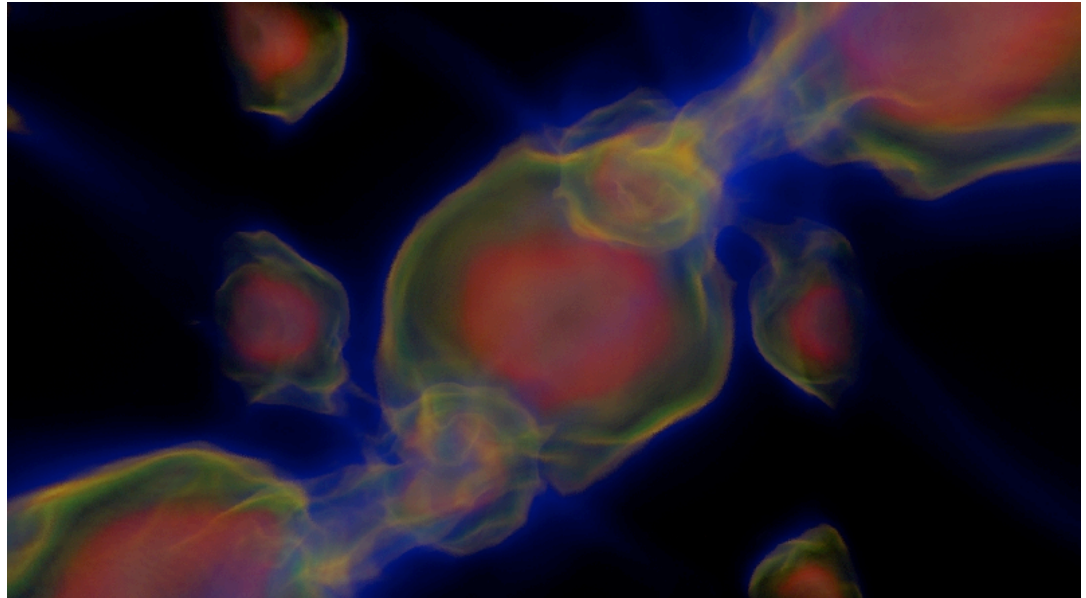
Outline

- Introduction
- Current state
- Where we are going
 - Community accounts
 - Policy
 - Progress
- Issues

Introduction

- Simplified access to visualization resources
 - TeraGrid users
 - Community users
- Beyond focused gateways

What a User Wants



Not This

- Get an account
- Mail ssh keys
- Get added to appropriate file
- Find data
- Transfer data
- Launch backend services
- Install frontend client
- Connect client to services

Current Technology

- Built using
 - OGCE2
 - uPortal 2.4.1 -> 2.5
 - myProxy
 - ParaView

ParaView

- An open-source, multi-platform visualization application
- Supports distributed computation models to process large data sets
- Open, flexible, and intuitive user interface
- An extensible architecture based on open standards

From ParaView website www.paraview.org

Portal - Today

TGviz Portal - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

https://tg-portal.uc.teragrid.org:8443/uPortal/portlet-params@uP_portlet_actor

Getting Started Latest Headlines

TERAGRID VIZ

tgVizInfo **ParaView** Job Submission Data Management

[Welcome to the TGviz Portal](#)

Fill out the following parameters and click 'Get Proxy' to retrieve your proxy from the MyProxy server specified below:

Hostname:

Port:

Username:

Password:

Lifetime: (hours)

Store for duration of user session only? ☒

Note: the lifetime of your GSI proxy credential will depend on the maximum lifetime specified for delegated credentials when you stored your long-term GSI proxy credential in the MyProxy server (by default 2 hours).

[ParaView Portlet](#)

Use this portal to launch ParaView on the TGviz nodes, and then connect to it from a client running on your local desktop. For information on how to use this portal, see the [Using the TGviz Portal](#) section of the [TGviz ParaView](#) page.

First time users of the TGviz Portal should see the instructions for [Starting the ParaView Client from the TGviz Portal](#)

It is recommended that you use ParaView 2.0.1 for your local client, which can be found on the [TGviz Software Download](#) page.

For additional information on ParaView, including user tutorials, see the [TGviz ParaView](#) page.

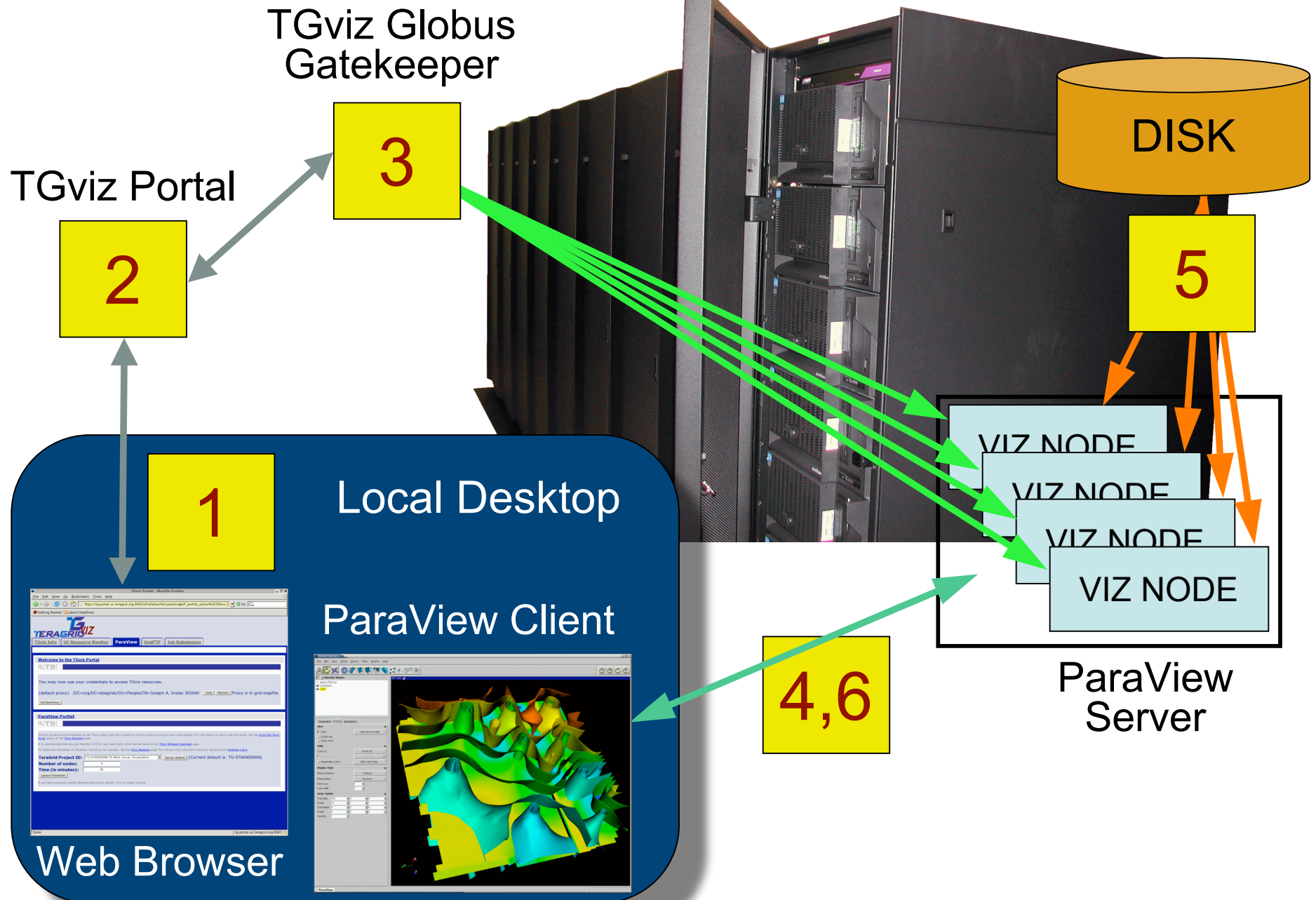
No proxies currently loaded. This portlet will remain inactive until you get a credential.

If this portlet does not automatically update after you get a credential, click the reload button below.

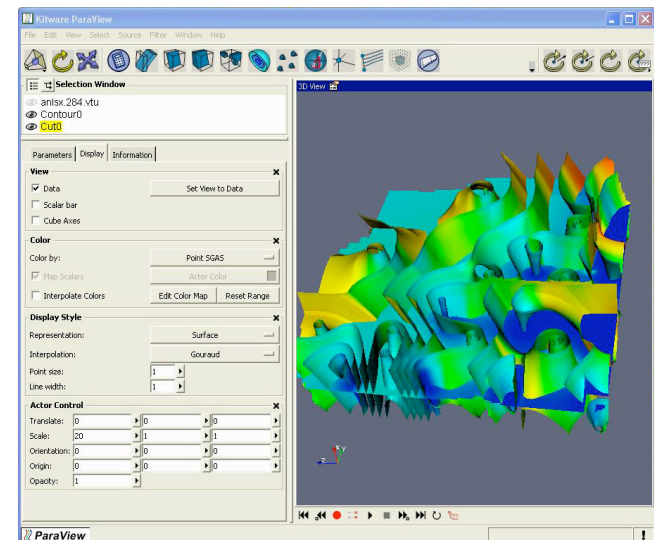
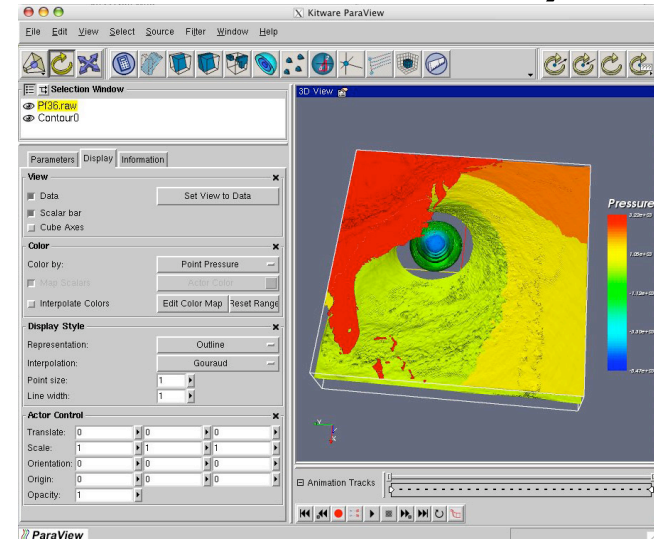
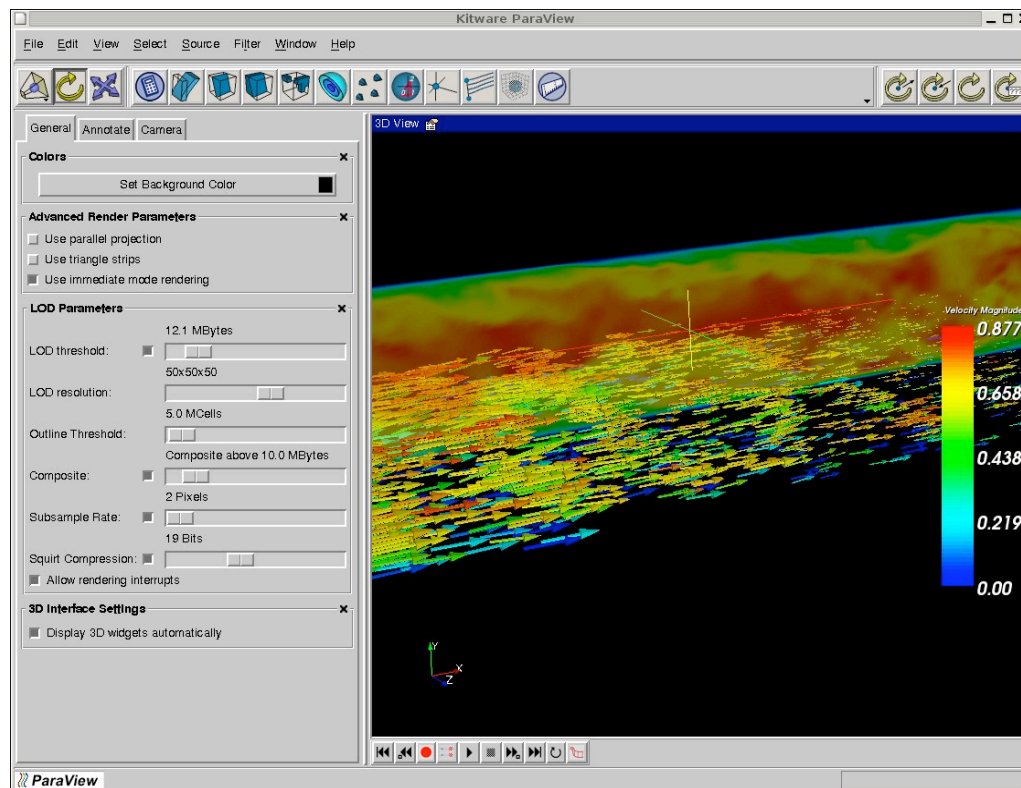
If you have previously started ParaView during this session, it is no longer running.

Done tg-portal.uc.teragrid.org:8443

UC TeraGrid Cluster



Client View (Linux, Mac, Windows)



Where are we going?

- Hide technology
 - Leverage portal technology
 - Leverage COGkits
 - Leverage visualization frameworks (VTK)
 - Leverage visualization systems (ParaView)
- Simplifying Access
 - Community based accounts

Issues with Where We are Going

- Community Accounts
 - Open accounts
 - Verified via email
 - Automated account generation
 - Limited access to resources
- Policy
 - Length of accounts
 - Use of resources

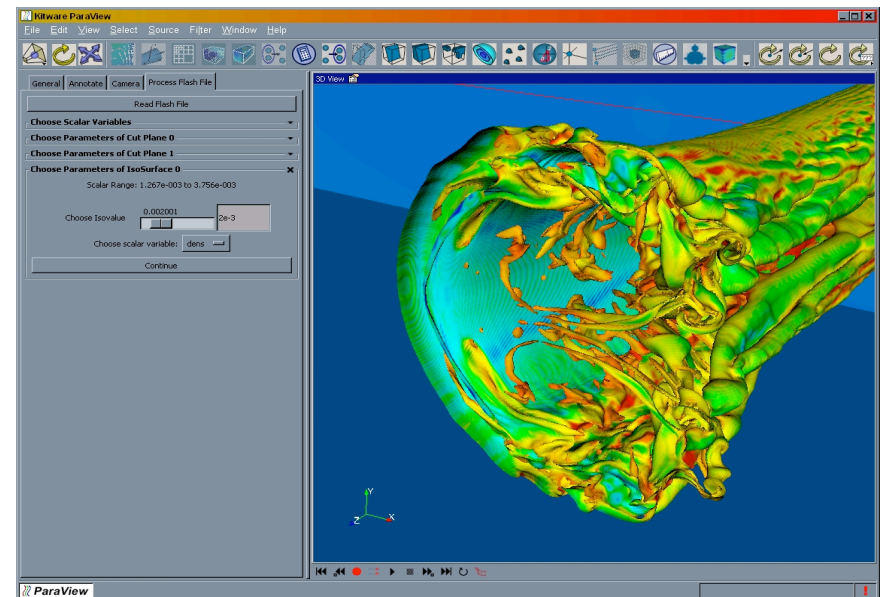
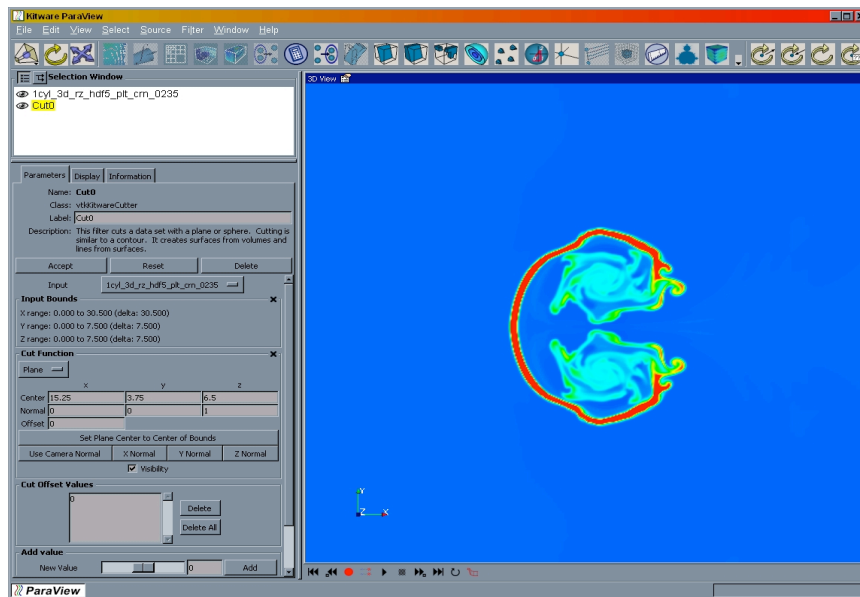
Progress

- Data outside TeraGrid
 - Implemented dual credential transfers
- Deployed tg-portal.uc.teragrid.org
 - OGCE, uPortal, mySQL, simpleCA, myProxy
- ParaView
 - Client side launching

What's Next

- Deploy community accounts
- Deploy additional visualization services
- Target application areas

Example - Simplified Interface



Application Target Areas

- Atmospheric sciences - 2005
- Astrophysics and fluid dynamics - 2006
- Life sciences - 2007
- Nanotechnology and material science - 2008
- High energy physics and astronomy - 2009

Funding

- Early Operation Funding
- Leveraged efforts from DOE ASC
- DOE SBIR Partnership with Kitware Inc.