

Science Gateways

Introduction

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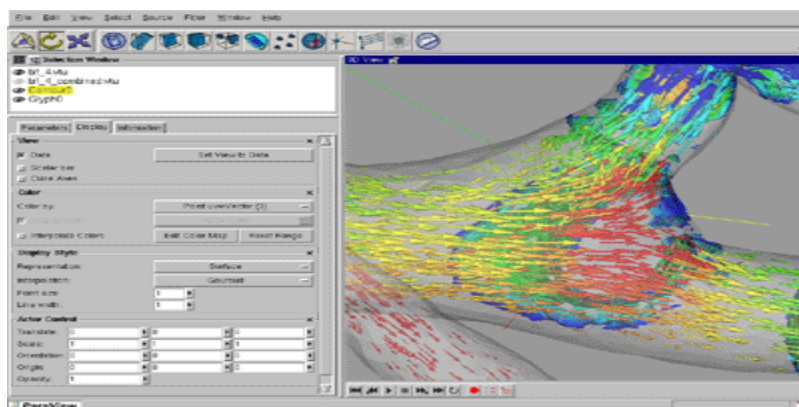
On this page:

- [How to Turn Your Project into a Science Gateway](#)
- [View Gateways](#)

Related Links

- [Science Gateways Primer](#)
- [Download code and instructions for building a simple gateway tutorial for TG07](#)
- [How to Write a Winning Gateway Proposal](#)
- [TeraGrid Gateways Email list archive](#)
- [Recent Gateway Presentations](#)
- [Science Gateways Administration](#) (password required)

Science Gateway: The TeraGrid Visualization Gateway



[The TeraGrid Visualization Gateway brings access to advanced visualization resources to the user's desktop.](#)

[View all Gateways images](#)

Science Gateways signal a paradigm shift from traditional high performance computing use. Gateways enable entire communities of users associated with a common scientific goal to use national resources through a common interface. Science gateways are enabled by a community

allocation whose goal is to delegate account management, accounting, certificates management, and user support to the gateway developers.

You can view a complete list of current science gateways [below](#). These gateways span disciplines and represent a broad spectrum of science community requirements. Gateways can take a variety of forms. We have seen three common instantiations:

- A gateway that is packaged as a web portal with users in front and TeraGrid services in back.
- A gateway that involves application programs running on users' machines (i.e. workstations and desktops) and accesses services in TeraGrid (and elsewhere).
- A gateway that bridges multiple grids, allowing communities to utilize both community developed grids and TeraGrid.

Scientific gateways can have varying goals and implementations. Some expose specific sets of community codes so that anonymous scientists can run them. Others may serve as a community portal that brings a broad range of new services and applications to the community. Some may provide access to data collections or the ability to create data products by analyzing data in a collection. Some provide remote visualization. A common trait of all gateways is their interaction with the TeraGrid through the various service interfaces that TeraGrid provides.

How to Turn Your Project into a Science Gateway

To become a Science Gateway on the TeraGrid, a project must have a current allocation on the TeraGrid.

- Check out the [Science Gateways Primer](#).
- Small allocations can be requested by following the instructions on the [Development Allocations page](#).
- Gateway PIs requesting larger amounts of time will want to review [How to Write a Winning Gateway Proposal](#), developed by TeraGrid staff and allocation review committee members.
- Once an allocation has been made, please fill out the [Community Account & Gateway Form](#) if you are interested in participating.
- TeraGrid can provide limited support to help gateway developers utilize TeraGrid resources. To request support, follow the instructions on the [Advanced Support Program page](#)
- Contact the [Science Gateways Coordinator](#) if you have additional questions.



View Gateways

[Sort by title](#) | [Sort by discipline](#)

Title	Discipline	Links
Open Science Grid (OSG)	Advanced Scientific Computing	Project description
Special PRiority and Urgent Computing Environment (SPRUCE)	Advanced Scientific Computing	Portal Login Project description
Massive Pulsar Surveys using the Arecibo L-band Feed Array (ALFA)	Astronomical Sciences	Portal Login Project description
National Virtual Observatory (NVO)	Astronomical Sciences	Portal Login Project description
Community Climate System Model (CCSM) TeraGrid Gateway	Atmospheric Sciences	Portal Login Project description
High Resolution Daily Temperature and Precipitation Data for the Northeast United States	Atmospheric Sciences	Portal Login Project description
Linked Environments for Atmospheric Discovery (LEAD)	Atmospheric Sciences	Portal Login Project description
Chemical Informatics and Cyberinfrastructure Collaboratory (CICC)	Biochemistry and Molecular Structure and Function	Portal Login Project description
Computational Chemistry Grid (GridChem)	Chemistry	Portal Login Project description
Science Gateway for Diffraction Facilities, Chemistry Data and Methods		Alternate Web site Portal Login Project description

Network for Earthquake Engineering Simulation (NEES)	Earthquake Hazard Mitigation	<u>Portal Login</u> <u>Project description</u> <u>Alternate Web site</u>
Cyberinfrastructure for End-to-End Environmental Exploration Portal (C4E4)	Earth Sciences	<u>Portal Login</u> <u>Project description</u>
GEON(GEOsciences Network) (GEON)	Earth Sciences	<u>Portal Login</u> <u>Project description</u>
Purdue Environmental Data Portal	Earth Sciences	<u>Portal Login</u> <u>Project description</u>
Network for Computational Nanotechnology and nanoHUB	Emerging Technologies Initiation	<u>Portal Login</u> <u>Project description</u>
Dark Energy Survey Data Management (DESDM)	Extragalactic Astronomy and Cosmology	<u>Portal Login</u> <u>Project description</u>
Indiana University Centralized Life Sciences Data (CLSD)	Genetics and Nucleic Acids	<u>Portal Login</u> <u>Project description</u>
TeraGrid Geographic Information Science Gateway (GISolve)	Geography and Regional Science	<u>Portal Login</u> <u>Project description</u>
CIG Science Gateway for the Geodynamics Community	Geophysics	<u>Portal Login</u> <u>Project description</u> <u>Alternate Web site</u>
QuakeSim (QuakeSim)	Geophysics	<u>Portal Login</u>

		Project description
		Alternate Web site
The Earth System Grid (ESG)	Global Atmospheric Research	Portal Login
		Project description
National Biomedical Computation Resource (NBCR)	Integrative Biology and Neuroscience	Portal Login
		Project description
Developing Social Informatics Data Grid (SIDGrid)	Language, Cognition, and Social Behavior	Portal Login
		Project description
Neutron Science TeraGrid Gateway (NSTG)	Materials Research	Portal Login
		Project description
VLab - Virtual Laboratory for Earth and Planetary Materials (VLab)	Materials Research	Portal Login
		Project description
Biology and Biomedicine Science Gateway	Molecular Biosciences	Portal Login
		Project description
		Alternate Web site
Open Life Sciences Gateway (OLSG)	Molecular Biosciences	Portal Login
		Project description
The Telescience Project	Neuroscience Biology	Portal Login
		Project description
		Alternate Web site
Grid Analysis Environment (GAE)	Physics	Portal Login

SCEC Earthworks Project	Seismology	Project description Alternate Web site Portal Login
TeraDRE - Distributed Rendering Environment (TeraDRE)	Visualization, Graphics, and Image Processing	Project description Alternate Web site Portal Login Project description
TeraGrid Visualization Gateway	Visualization, Graphics, and Image Processing	Alternate Web site Portal Login Project description Alternate Web site