

Calendar/Meetings

June

12-15, [TeraGrid '06: Advancing Scientific Discovery](#), Indianapolis, Indiana

19-23, [HPDC15: The 15th IEEE International Symposium on High Performance Distributed Computing](#), Paris, France

19-23, [Workshop on Workflows in Support of Large-Scale Science](#), Paris, France

21-23, [2006 NEES Annual Meeting: Broadening Participation Throughout NEES](#), Washington, D.C.

[Full Calendar](#)

Image of the Week



Map of the TeraGrid. (Click on image for larger version.)

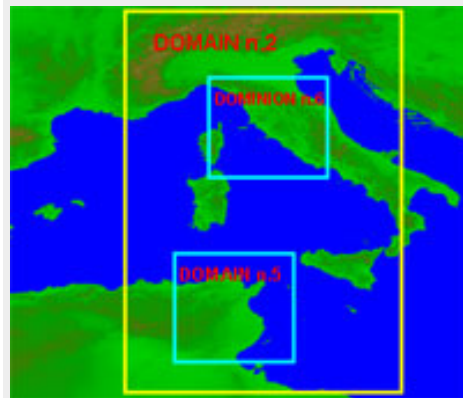
Image Courtesy TeraGrid

TeraGrid, sponsored by the National Science Foundation, uses high-performance networks and grid middleware to integrate supercomputers, data repositories, and special-purpose data analysis facilities around the country. On June 13, the National Center for Atmospheric Research became the ninth TeraGrid resource provider.

Link of the Week

Feature Story

Archaeology 2.0



A century ago, Giuliano Pelfer's quest to explain the rise of the first European cities might have seen him leading an excavation in the Italian countryside. Today, his search is likely to lead him to a much less glamorous location—the server room down the hall.

Goodbye, Indiana Jones. Hello, IBM.

In addition to digging up artifacts and poring over ancient texts, today's archaeologists may draw on knowledge from dozens of scientific fields to create complex computer models of ancient societies. Pelfer and colleagues at the University of Florence and Italy's National Institute of Nuclear Physics in Catania are developing a grid application for the EGEE infrastructure called the ArchaeoGRID, which will bring all that knowledge together and link it with advanced computing resources.

Pelfer might need to draw on climatology, biology, botany, mathematics, topology and economy to accurately model the formation of the first cities around 3,000 years ago. Once he's synthesized all that knowledge into his model—no easy feat—he'll need large amounts of computing power to run the model and even more resources to create a meaningful visualization of the results. As if that weren't enough

SUMS Schedules MIT



Image Credit Adam Kocoloski

Faced with the challenge of sifting through petabytes of data and keeping up with the fast pace of technological progress in grid hardware and software, a nuclear physics collaboration developed a grid scheduler that has now been adapted to run on a cluster of Apple computers at the Massachusetts Institute of Technology.

Over the last three years the STAR collaboration, a member of the Particle Physics Data Grid and the Open Science Grid, has developed a software package to provide a constant interface to the ever-evolving dynamic hardware and software that defines grid computing. The STAR Unified Meta Scheduler (SUMS) provides a simple and elegant definition of a physics user analysis and translates that into the required commands to allocate disk storage, locate data sets, break tasks into many processes that can run in mass parallel, launch jobs on the grid, and return the results to the user.

The MIT cluster is one of a growing number of university grid clusters that harvest unused resources from users' desktop machines.

[Full article](#)

CI Channel

The Cyberinfrastructure Channel is a webcast video service and resource for the scientific community, developed and supported by a team from the San Diego Supercomputer Center. CI Channel supports the education, training and outreach needs of scientific researchers within the cyberinfrastructure community through content delivered in high-quality multimedia-rich formats. The content, including regularly scheduled webcasts and video-on-demand programs, is available 24 hours a day.

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Office of Science/
U.S. DOE

strain on a limited computing budget, his collaborators in Italy, Greece and Spain must remotely participate in the research every step of the way.

[Full article](#)

NCAR Joins TeraGrid

The National Center for Atmospheric Research (NCAR) has joined the TeraGrid, the nation's most comprehensive and advanced infrastructure for open scientific research. The announcement was made by National Science Foundation director Arden L. Bement, Jr. yesterday at the TeraGrid '06 conference.



NSF director Arden L. Bement, Jr. speaking at the TeraGrid '06 conference.

As a TeraGrid partner site, NCAR will offer increased access to its high-performance computing, climate data, and tools for data analysis and visualization. Access to these facilities will help Earth system scientists better understand complex phenomena such as global climate change, hurricanes and other severe storms, wildfires, air pollution, solar storms, and space weather.

TeraGrid, sponsored by the National Science Foundation, uses high-performance networks and grid middleware to integrate supercomputers, data repositories, and special-purpose data analysis facilities around the country. A common set of specifications, software, and physical equipment creates a coordinated work environment that enables researchers throughout the United States to collaborate on especially challenging scientific questions.

[Read the full TeraGrid Press Release](#)

Grids in the News

Long Island Metropolitan Area Network Boosts BNL Connectivity Eightfold

Supercomputing Online, June 12, 2006

The U.S. Department of Energy's Energy Sciences Network (ESnet) continues to roll out its next-generation architecture on schedule with the March 14 completion of the Long Island Metropolitan Area Network, connecting Brookhaven National Laboratory to the ESnet point of presence (POP) 60 miles away in New York City.

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Web and grids work together

ZDNet Asia, June 12, 2006

By Jonathan Bennett

Grid computing links machines together across the Internet to share resources like processing power and information.

[Read More...](#)

A Lightweight Application Hosting Environment is Now Available for TeraGrid Users

TeraGrid Press Release, June 9, 2006

CHICAGO, June 09, 2006 - RealityGrid, a grid computing collaboration of the UK Engineering and Physical Sciences Research Council (EPSRC), has released version 1.0.0 of the Application Hosting Environment (AHE).

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Getting computer Grids to talk to each other

IST Results, June 8, 2006

By Andy McCue

Grid computing is one of the most exciting developments in information technology, providing users with enormous gains in power and resources at a minimal cost.

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