



Grid computing 'Mappa mundi' unveiled in Florida

Visitors to Supercomputing'06 in Tampa, Florida this week will be the first to see a new interactive map that shows the Enabling Grids for E-scienceE (EGEE) infrastructure and eight of the other world's largest computing Grids. The map, developed by researchers from GridPP in the UK and the European particle physics laboratory, CERN, in Geneva, uses Google Earth to pinpoint Grid sites on six continents, showing more than 300 sites overall. Like the medieval 'mappa mundi', which showed what was known of the world at the time, this is one of the first attempts to show the whole scientific Grid world.

Laurence Field, who works at CERN for the EGEE project, has been leading work on the map. He explains, "Today there are a number of production Grids being used for science, several of which have a strong regional presence. Many of them are using different middleware, which can artificially limit scientific collaboration. The Grids shown on the map are all taking part in the Open Grid Forum's Grid Interoperation Now (GIN) group, which is trying to bridge the differences and enable seamless interoperation between the various infrastructures."

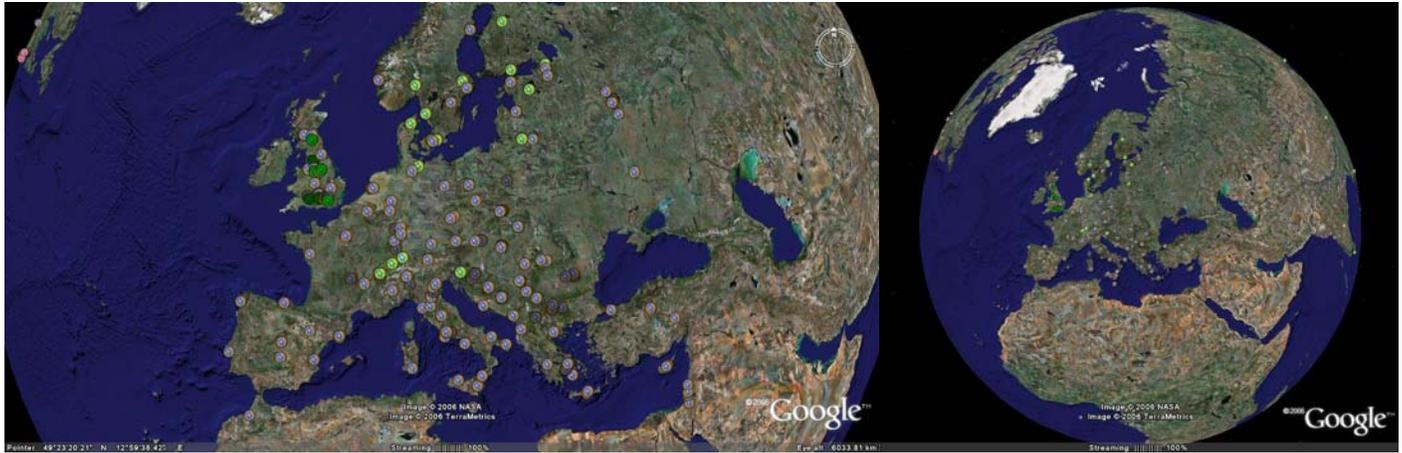
Gidon Moont from Imperial College London, developed the interface with Google Earth. It was then adapted by the GIN group, and will be shown on CERN's stand and the UK e-Science stand at Supercomputing. Moont comments, "It's very exciting that we can, for the first time, see these major Grids together on one map. Interoperation will be a key area for the future of the Grid, and the map will show how it grows."

Grid sites are displayed on Google Earth using a KML file. When this file is opened in Google Earth the locations of the Grid sites are added to the Google Earth map. Clicking on each site gives the name and location of the site, and identifies the Grid to which it belongs. The map queries a database that includes site information from the following Grids:

- Enabling Grids for E-scienceE (worldwide)
- Open Science Grid (mainly USA)
- Nordic Data Grid Facility (mainly Scandinavia)
- NAREGI (Japan)
- TeraGrid (USA)
- PRAGMA (Pacific Rim)
- Distributed European Infrastructure for Supercomputing Applications (Europe)
- National Grid Service (UK)
- Australian Partnership for Advanced Computing (Australia)

The file to show Grid sites on Google Earth and instructions on how to install it can be downloaded from:
http://www.gridpp.ac.uk/demos/gin_monitor.html

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Images from the Google Earth map showing nine scientific Grids. Each dot represents a site that contributes computing resources to a Grid, with different colours for each Grid.

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Notes for editors

1. The Enabling Grids for E-science (EGEE) project is funded by the European Commission. It operates the largest multi-science Grid infrastructure in the world with some 200 sites connected around the globe, providing researchers in both academia and industry with access to major computing resources, independent of their geographic location. For more information see <http://www.eu-egee.org/>
2. GridPP (<http://www.gridpp.ac.uk>) is a six-year project to build a UK Grid for particle physics. GridPP's Grid is part of EGEE. GridPP is funded by the UK Particle Physics and Astronomy Research Council, with additional associated funding from HEFCE, SHEFC, CCLRC and the European Union. A full list of collaborators can be found at <http://www.gridpp.ac.uk/collaboration.html>
3. CERN, the European Organization for Nuclear Research, has its headquarters in Geneva. At present, its Member States are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom. India, Israel, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO have observer status. For more information see www.cern.ch
4. Details about the other Grids can be found on their websites:
OSG - <http://www.opensciencegrid.org/>
NDGF - <http://www.ndgf.org/>
NAREGI - http://www.naregi.org/index_e.html
TeraGrid - <http://www.teragrid.org/>
PRAGMA - <http://www.pragma-grid.net/>
DEISA - <http://www.deisa.org/>
NGS - <http://www.grid-support.ac.uk/>
APAC - <http://www.apac.edu.au/>

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