

Barcelona, Thursday, 24 September 2009

PRESS RELEASE

From monitoring fishing stocks, to forecasting weather conditions, to mitigating the after-effects of earthquakes, the Earth and Environmental Sciences are a hot spot of research within the grid computing community. During this week's Enabling Grids for E-science (EGEE) conference in Barcelona, this community will share the latest advances in their work.

Investigations into minimising the disastrous after-effects of major earthquakes are being led by Academia Sinica, ASGC, in Taiwan. While predicting the occurrence of an earthquake is still an imprecise science, modelling how to minimise its effects is well understood. Using the EGEE infrastructure, the system models the effect an earthquake could have on a local area and tries to either reduce the risk of damage or ensure an appropriate disaster plan is in place. The system combines historical data with information on earthquake movement, as well as the expertise available within the area itself to provide a full picture of the possible effects of a major quake.

Within the Environmental Sciences community weather simulation is a primary area of research. One of the most popular tools is the Weather Research and Forecasting (WRF) modelling system, developed in the US. The Santander Meteorology Group from northern Spain have "ported", or modified, this application to run on EGEE's grid. Calling their project "WRF for Grid" (WRF4G), they have made running and managing limited area models on the grid as simple as using their everyday systems. This ported tool is now freely available to researchers across the globe.

The prestigious Committee on Earth Observation Satellites will also be present at the conference. Incorporating 28 space agencies and 20 other national and international organisations, CEOS aims to improve international cooperation and the exchange of information between civil observations of the Earth from space. Grids could offer substantial benefits to the systems and services which manage and supply the data.

In recent years fishing stocks have plummeted. According to the UN's Food and Agriculture Organization, over 70% of the world's fish stocks are fully exploited, overexploited or depleted. The effects of over-fishing are being exacerbated by global climate change, which alters the distribution of species and the location of biodiversity hotspots. Under these conditions, good fisheries management is crucial. But how can stocks be controlled if we don't know their location and numbers? A new grid-based tool, AquaMaps, looks like it could provide the answer. AquaMaps addresses the difficulties of modelling the global distribution of marine species. Working together, the projects D4Science and AquaMaps have established a virtual research environment (VRE) that allows users to integrate and analyse data and information from a variety of sources, to help them predict where fish species are likely to be found.



Notes for Editors

EGEE'09 runs from the 21st to the 25th of September 2009, in the Barcelo Sants hotel, Barcelona, Spain. If you are interested in attending or covering the conference please contact EGEE's press and events manager, Neasan O'Neill n.oneill@qmul.ac.uk.

For more information on the project, visit the conference media room at: <http://egee09.eu-egee.org/?id=631>

If you can't make it to the conference we have many online ways of keeping up-to-date with the proceedings:

EGEE09 Blog - <http://gridtalk-project.blogspot.com>

EGEE is teaming up with the GridTalk project to bring you live news from the conference on the GridCast blog.

Conference Pictures – <http://www.flickr.com>

Just search flickr for images tagged egee09 once the conference has begun.

Twitter – <http://www.twitter.com/enablinggrids>

Others at the conference will be using the #egee hashtag.

About EGEE:

The Enabling Grids for E-science (EGEE) project is co-funded by the European Commission. The project aims to provide researchers, in both academia and industry, with access to major computing resources, independent of their geographic locations.

EGEE's main aims are:

1. To build a secure, reliable and robust grid infrastructure
2. To supply a computing service for many scientific disciplines
3. To attract, engage and support a wide range of users from science and industry, and provide them with extensive technical and training support.

<http://www.egee-eu.org>

Other Links

1. EUAsiaGrid <http://www.euasiagrid.org/>
2. WFR4G <http://www.mdm.unican.es/en/software/wrf4g>
3. Committee of Earth Observation Satellites <http://www.ceos.org/>
4. AquaMaps <http://www.aquamaps.org/>
5. D4Science <http://www.d4science.eu/>
6. ASGC <http://www.twgrid.org/>

