

GRIDS

The WLCG becomes officially operational

On 3 October CERN and its many partners around the world held an all-day Grid Fest to mark the end of seven years of development and deployment of the Worldwide LHC Computing Grid (WLCG) and the beginning of continuous operation. The WLCG is already fully running, handling large amounts of cosmic-ray data coming from the LHC experiments. ATLAS, for example, currently stores data at a rate of nearly a petabyte per month.

More than 250 Grid enthusiasts gathered in the Globe of Science and Innovation at CERN, including representatives of worldwide industrial partners and teams that manage the distributed operations of the WLCG, which today includes more than 140 computer centres in 33 countries. As befits a cutting-edge information technology seminar, many participants joined virtually, via videolink, to mark the occasion.

To illustrate the global nature of the WLCG, the head of the LCG project, Ian Bird, took an impressive live video tour of many of the major sites. This provided a strong reminder of what a challenge it is to run a global 24 hour Grid service. Greetings came from data centres in Melbourne, Mumbai, Taipei and also Vancouver, where it was 3.30 a.m. The enthusiasm of all of the virtual participants underlined that the WLCG is very much about people, not just machines. Les Robertson, who retired in October but was present in the Globe, received an ovation for his tireless efforts as the previous head of the LCG project, guiding it from inception to its current, mature state.

In his address, CERN's director-general, Robert Aymar, highlighted the necessity of using computing to study particle physics.



Left to right: Ian Bird (LCG project leader), Les Robertson (former head of LCG project), Jos Engelen (CERN's chief scientific officer), Wolfgang von Rüden (head of the Information Technology Department) and Robert Aymar (CERN's director-general), with a sculpture unveiled at the Grid Fest – a metallic globe with the WLCG data centres indicated by light spots made, fittingly, with optical fibres.

Bob Jones, the CERN-based director of the European Commission (EC) project Enabling Grids for E-science (EGEE), reminded participants that the high-energy physics community leads the way for many other disciplines that are starting to adopt Grid technology. He discussed applications in seismology, atmospheric research, astronomy, fusion and the life sciences.

Antti Peltomäki, EC deputy director general, information society and media, noted that more than €100 m had been invested by the EC in Grid technology over the past few years, putting Europe in a leading position in this area. Ed Seidel, head of the office of cyberinfrastructure at the US National Science Foundation, remarked on the huge progress of scientific computing in the past two decades, making it an essential ingredient for so much research today.

A session on the contributions of industry

to the WLCG highlighted some of the ways in which CERN openlab, a partnership with several leading IT companies, has benefited both CERN and the companies concerned. Intel and Oracle received LHC Computing Awards from the director-general for their exceptional contributions over many years. HP received a similar award from ALICE last year.

On-site demonstrations, held throughout the day, showed attendees some of the applications live, including examples from the WLCG, the ALICE experiment, the ATLAS experiment, the CMS experiment, the LHCb experiment, the Health-e-Child project (paediatrics), the ITER project (fusion energy), Open Science Grid and the WISDOM project (drug discovery).

● To view some of the many demonstrations online on the "Gridcast", prepared by the EC GridTalk project, see <http://gridtalk-project.blogspot.com/>.

LABORATORIES

SLAC changes name to SLAC National Accelerator Laboratory

The US Department of Energy (DOE) has renamed the Stanford Linear Accelerator Center the SLAC National Accelerator Laboratory. The aim is to acknowledge both the distinguished accomplishments that SLAC has achieved throughout the years and its exciting future as a multi programme

DOE National Laboratory. In recent years SLAC's research programme has broadened from its original focus on high-energy physics to include important research in photon science and particle astrophysics.

Its current science programmes are expanding to explore the ultimate structure

and dynamics of matter and the properties of energy, space and time at the smallest and largest scales.

This includes the study of ultrafast processes in materials with a new state-of-the-art X-ray free electron laser, the Linac Coherent Light Source.