

THE WHITE ROSE GRID

e-Science Centre of Excellence

About the White Rose Grid



Figure 1: The UK e-Science Centres

The White Rose Grid (WRG) is an initiative that brings together those researchers from the Yorkshire region who are engaged in e-Science activities and, as a consequence through these, in the development of Grid technologies and Grid-enabled applications.

It focuses on building, expanding and exploiting the emerging IT infrastructure, i.e. the Grid, which employs many components, creating a collaborative environment for research computing in the region.

The project operates under the auspices of the White Rose University Consortium, which is an association of the three major research Universities in Yorkshire – Leeds, Sheffield and York - and has a large critical mass of research, teaching, and enterprise facilities. This is a long-term strategic collaboration. The three institutions function as a *Virtual Organisation* to tackle larger-scale projects that are beyond the scope and expertise of any one university.

Our IT partners are Esteem Systems, Sun Microsystems, and Streamline Computing. The Yorkshire and Humber Regional Development Agency, Yorkshire Forward, is enabling us to expand our activities into the region and engage research universities and companies in e-Science.

The WRG offers newly acquired heterogeneous computational facilities funded with over £3M investment mainly from HEFCE SRIF allocations. These include a large collection of SUN/Solaris and Intel/Linux machines, in total over 450 CPUs, delivering integrated computational facilities (see Figure 2). There are four WRG nodes, each named after a white rose. They deliver a stable high performance computational (HPC) service for local users as well as the Grid infrastructure for e-Science projects. Application specific Grid-portals are being developed to provide a user-friendly interface for access to all computing resources at the three institutions.

This initiative presents the opportunity to harvest effectively computing assets available to the Consortium. The rationale is to enable WRG researchers to access the HPC service that best meets their needs.

The White Rose Grid Executive

- Mr M Doxey (White Rose University Consortium Chief Executive)
- Prof P M Dew (University of Leeds) - Chair
- Prof J Austin (University of York)
- Prof G Tomlinson (University of Sheffield)
- Mr D Ogden (Esteem Systems)
- Dr J Schmidt (WRG e-Science Co-ordinator)
- Prof K Brodliie (University of Leeds)
- Prof P Fleming (University of Sheffield)



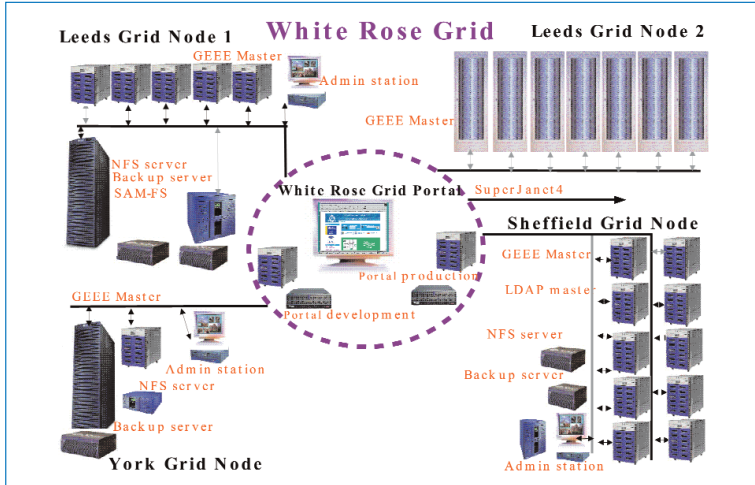


Figure 2: The White Rose Grid Architecture

The WRG is working with prestigious companies and organisations (e.g. Rolls-Royce, Shell UK) who wish to use the Grid in collaborative R&D projects to assess the impact of this new technology. It enables them to evaluate to what extent the Grid provides a more productive operating environment as well as to gain an advantage over their market competitors with cutting-edge technology.

Our annual conference is an open forum for discussions on all aspects of the Grid and its exploitation in both industry and commerce. Many of our industrial partners presented their vision of Grid benefits for their organisations at the last very successful conference that attracted over a hundred participants.

“This initiative presents the opportunity to harvest effectively computing assets available to the Consortium”

The WRG delivers these benefits to a wide range of researchers, for example in the following areas: mathematical sciences; bio-informatics & bio-medical sciences, earth & environmental sciences, and computer science & informatics. Furthermore it manages a portfolio of collaborative e-Science projects undertaken by these institutions and their industrial partners.

Further Information

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The relevant web pages are at:
<http://www.whiterose.ac.uk>
<http://www.wrgrid.org.uk>
http://www.wrgrid.org.uk/conference2003_slides.html



Figure 3: At the WRG conference from the right to left: Martin Doxey, Chief Executive of the White Rose University Consortium, with Kim Jones, Vice-President of Sun Microsystems, and Prof Tony Hey, Director of the e-Science Core Programme

