



## Reusable Science Grid Portal Components and Services

Computing Web portals are undergoing a revolution as standardized containers allow portals to be built out of reusable components. The NMI Open Grid Computing Environment (OGCE) Collaboratory (Indiana, Michigan, ANL, TACC, NCSA, SDSU) provides the basic building blocks, which include:

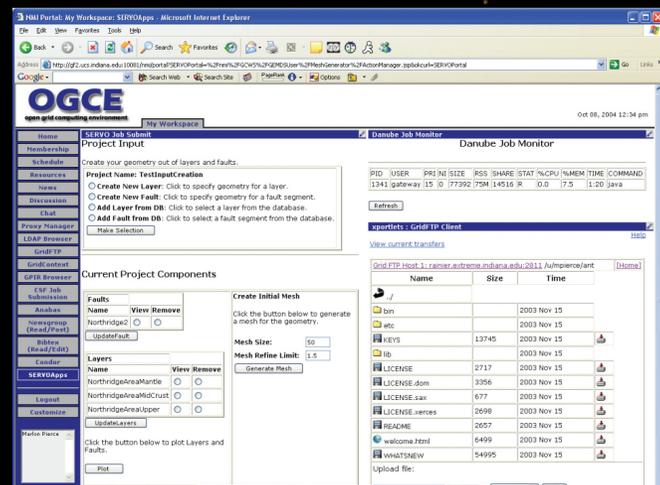
- Login/Grid Authentication
- Job submission
- File transfer
- System monitoring through GPJR
- Document share services
- Calendars
- Group accessible areas

Science portals, such as the QuakeSim project, can be built from these components, to provide higher level, application-specific capabilities. The QuakeSim portal builds upon OGCE tools to provide:

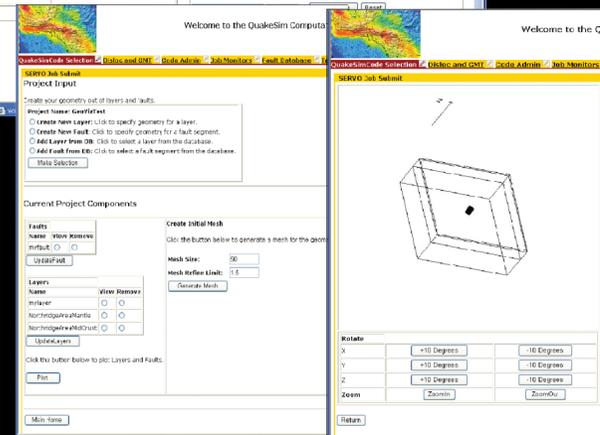
- Access to QuakeTables fault data base
- Submission forms for high performance simulation codes, like GeoFEST and Virtual California
- Job orchestration support for coupling applications to remote visualization services
- User project support for creating and archiving projects, input parameters, output data, and images

<http://www.collab-ogce.org/> or <http://quakesim.jpl.nasa.gov/>  
Community Grids Lab

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The QuakeSim portal provides access to a large suite of geophysical applications and mapping/analysis tools.



Sample screens show project geometry creation phase for running GeoFEST.

Visualization of the Landers fault system using GeoFEST and RIVA for visualization, coupled through SERVOGRid infrastructure.

