

# THE EARTH SYSTEM GRID

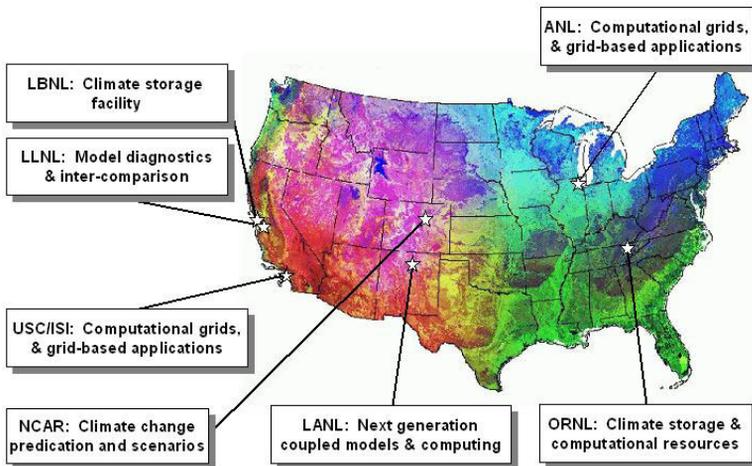
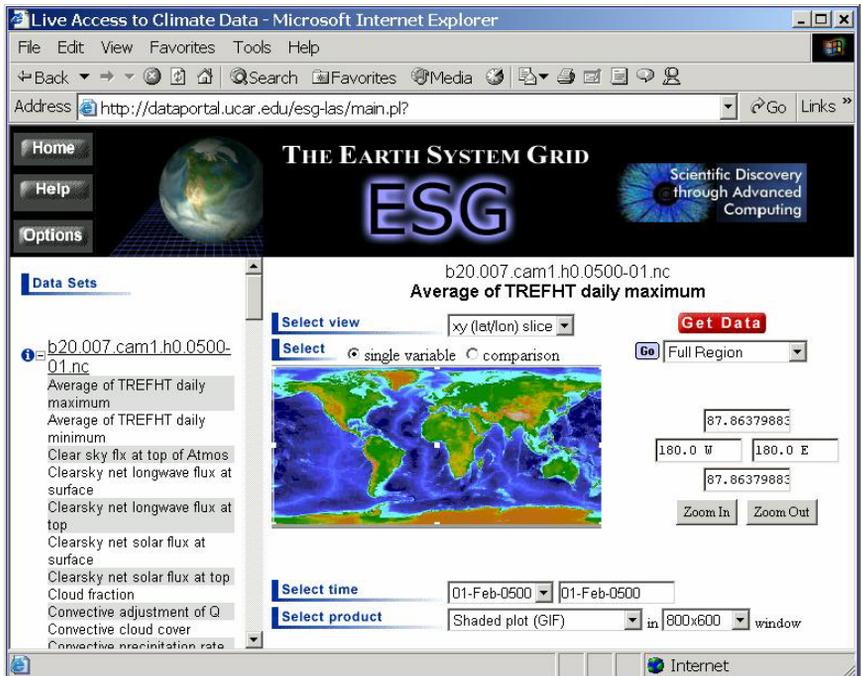
# ESG



## What is ESG ?

The Earth System Grid II (ESG) is a research project sponsored by the U.S. DOE Office of Science under the auspices of the Scientific Discovery through Advanced Computing program (SciDAC). ESG seeks to address the formidable challenges associated with enabling the sharing and analysis of, and knowledge development from, global Earth System models.

Through a combination of Grid and emerging community technologies, ESG links distributed federations of supercomputers and large-scale data & analysis servers to provide a seamless and powerful environment that enables the next generation of climate research.



## Who are we ?

ESG includes computer scientists and climate scientists at five laboratories (ANL, LBNL, LLNL, NCAR, ORNL) and one university (ISI), working in close partnership with other projects such as the DOE-NSF Community Climate System Model, NASA, DODS, and U.K. eScience program.

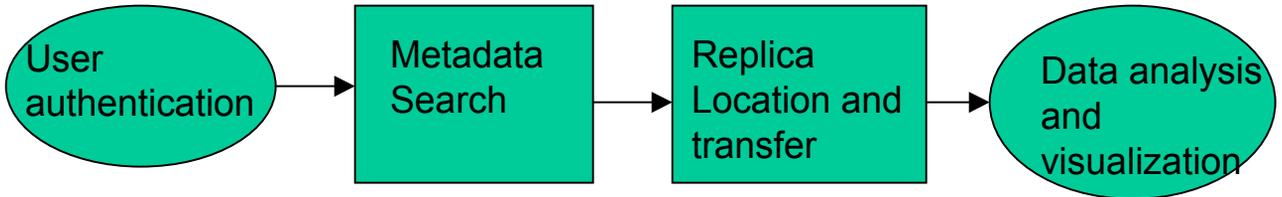
## Contact Us

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# ESG at SC2002

*We demonstrate a web-based approach to data discovery, transfer, and analysis of climate simulation data.*

## Demonstration Workflow:



## Major ESG Component Development:

- Globus Toolkit (ANL, ISI)
  - GridFTP data transfer
  - GRAM resource access
  - Community Auth. Service
  - Replica Location Service
  - Metadata Catalog Service
- Web interface (NCAR)
- Storage Resource Manager (LBNL)
- Metadata (NCAR, LLNL, ISI, ORNL)
- OpenDAP-G (NCAR, ANL)

## Current ESG Deployment

