

CoG Kit Helps in Establishing Better Than Real-time Forecast for Mesoscale Weather Events

Linked Environments for Atmospheric Discovery.(LEAD) is a large NSF ITR collaboration funded to build the foundation for a cyberinfrastructure capable of doing better than real-time forecasts of mesoscale weather events, such as tornadoes. The research challenge is to create an integrated, scalable framework for identifying, accessing, preparing, assimilating, predicting, managing, analyzing, mining, and visualizing the broad array of meteorological data and model output, independent of format and physical location. The LEAD science gateway is based on the DOE/NSF OGCE portal consortium software and the Java CoG Kit for access to the Grid middleware. It will both advance research on the science of mesoscale weather modeling and provide resources for education. In addition, it is planned to be part of a national network of early-warning crisis management cyberinfrastructure tools. LEAD involves the University of Oklahoma (project leader), NCSA, Indiana University, UCAR, Howard University, the University of Alabama, UNC, and Millersville University.