

Closing Session: Interoperability

"NSF-CNPq Collaborative Research on Integrating Geospatial Information"

Geographic information systems provide some of the basic tools for storing and displaying geospatial data, however current commercial GISs lacks a sufficient support to perform analyses across heterogeneous geospatial data sets that may have been collected by different scientists or organizations. Such data sets typically expose semantic gaps and incompatibilities due to the use of different views and spatial data models. The same geographic phenomenon may be captured differently depending on the domain and the task to be performed. For example, what is a road for one modeler, may be a highway or street for another. Different schemata in geographic databases make the process linking them a difficult task to perform. An international cooperation funded by NSF/CNPq will investigate a number of computational issues related to development of methodologies and techniques for achieving interoperability in geographical information systems, including: semantic modeling of spatial data, query languages and access methods for geographical data base and Web access to geographical data repositories. The project aims to produce innovate research results and tools which will illustrate the ideas developed and serve as practical support for addressing interoperability issues in the GIS area. The research groups involved on the Brazilian side are:

DPI/INPE: Image Processing Division

National Institute for Space Research
www.dpi.inpe.br

LIS/IC/UNICAMP: Laboratory of Information Systems

Computing Institute
University of Campinas
www.dcc.unicamp.br

TECGRAF/PUC-RIO: Laboratory for Technology on Computer Graphics

Catholic University of Rio de Janeiro
www.tecgraf.puc-rio.br

On the USA side, the research group involved is:

NCGIA/UMaine: National Center for Geographic Information and Analysis

University of Maine
www.ncgia.maine.edu