

GEOGRAPHIC INFORMATION SYSTEMS

TUTORIAL PRESENTATION

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GIS combines two mature computer applications: CAD and data base and presents the combination with a graphical user interface. The applications of spatially referenced data are exploding, led by 911-type emergency response, environmental impact studies, land use planning for economic development, political redistricting, and assessment. Since these applications affect every governmental body, there is a growing demand for specialists and systems.

Computer Science departments can get involved through the technology. At LSU-Shreveport we have joined CS and Geography so that we can spearhead cooperative projects with the city and local industry. GIS has been introduced in the Computer Literacy course, in the computer graphics course, and in the CAD course. Computer majors have been employed on several contracts with the Air Force. In many institutions there is either little technological orientation in the geography department or no geography department. GIS is therefore found often in Civil Engineering and sometimes in planning and architecture programs.

This tutorial will introduce the basic architecture of GIS software and demonstrate some of the techniques of generating and analyzing maps. It will overview what is taught in various computer science courses at LSU-Shreveport and the how the department coordinates with the community interests in GIS.