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WHAT IS GIS?

Why Use GIS?



1. [Improve organizational integration.](#)
2. [Make better decisions.](#)
3. [Make maps.](#)

Improve Organizational Integration

One of the main benefits of GIS is improved management of your organization and resources. A GIS can link data sets together by common locational data, such as addresses, which helps departments and agencies share their data. By creating a shared database, one department can benefit from the work of another—data can be collected once and used many times.

Make Better Decisions

The old adage "better information leads to better decisions" is true for GIS. A GIS is not just an automated decision making system but a tool to query, analyze, and map data in support of the decision making process.

For example, GIS can be used to help reach a decision about the location of a new housing development that has minimal environmental impact, is located in a low-risk area, and is close to a population center. The information can be presented succinctly and clearly in the form of a map and accompanying report, allowing decision makers to focus on the real issues rather than trying to understand the data. GIS products can be produced quickly, multiple scenarios can be evaluated, and decisions can be made effectively.

Make Maps

For simplicity's sake we often call GIS "mapping software." We most often associate maps with physical geography, but the map to the right demonstrates that GIS is flexible enough to map any kind of terrain, even the human body. GIS can map any data you wish.

Making maps with GIS is much more flexible than traditional manual or automated cartography approaches. A GIS creates maps from data pulled from databases. Existing paper maps can



maps from data pulled from databases. Existing paper maps can be digitized and translated into the GIS as well.

The GIS-based cartographic database can be both continuous and scale free. Map products can then be created centered on any location, at any scale, and showing selected information symbolized effectively to highlight specific characteristics. A map can be created anytime to any scale for anyone, as long as you have the data.

This is important because often we say "I see" to mean "I understand." Pattern recognition is something human beings excel at. There is a vast difference between seeing data in a table of rows and columns and seeing it presented in the form of a map. The difference is not simply aesthetic, it is conceptual—it turns out that the way you see your data has a profound effect on the connections you make and the conclusions you draw from it. GIS gives you the layout and drawing tools that help present facts with clear, compelling documents.