What Is GIS?

Geographic information systems (GIS) are used to create spatial pictures of data in the form of maps, globes, reports, and charts. Visualizing information geographically allows us to reveal relationships, patterns, and trends that inform decision makers.

People intuitively understand maps. When a decision needs to be made, GIS helps us gather information and place it on a digital map. The maps are used to evaluate decisions geographically by looking for trends and patterns. Once we fully understand the geographic consequences, we can make an informed decision.

Examples of GIS at Work

Business Intelligence—Companies can use GIS to identify the best locations to open new retail stores or place products. They can input information about what people purchase and use that to make better business decisions.

Crime Analysis—City and county governments use GIS to look at crime statistics in their jurisdictions to identify areas that need more or fewer police. This data can also be analyzed using time to identify variations in crime rates by time of day or year.

Monitoring Sea-Level Change—Scientists use GIS to understand how sea levels are changing. They can layer weather and other data over the sea level maps to look at the effects on the environment.
GIS can use any type of information with a location reference, including an address, an area (such as a country or city), a highway mile marker, a surveyor benchmark, a street intersection, an entrance gate, a point of sale (POS) location, longitude-latitude, or CAD data.

GIS can be used on your desktop or portable device, such as a smartphone or tablet, and accessed from the cloud.

**What Can GIS Do for My Organization?**

GIS has an economic and strategic value for organizations of all sizes in almost every industry. The benefits of GIS generally fall into five basic categories:

- Cost savings resulting from greater efficiency
- Better decision making
- Improved communication
- Better record keeping for location-based information
- Ability to manage people, products, services, and decisions geographically

**More Information**

For detailed case studies that describe GIS in action, visit [esri.com/casestudies](http://esri.com/casestudies).

For more information about GIS, visit [gis.com](http://gis.com).

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