

What is GIS?

A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

GIS allows us to view, understand, question, interpret, and visualize data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts.

A GIS helps you answer questions and solve problems by looking at your data in a way that is quickly understood and easily shared.

GIS technology can be integrated into any enterprise information system framework.

Top Five Benefits of GIS

GIS benefits organizations of all sizes and in almost every industry. There is a growing awareness of the economic and strategic value of GIS. The benefits of GIS generally fall into five basic categories:

- [Cost Savings and Increased Efficiency](#)

GIS is widely used to optimize maintenance schedules and daily fleet movements. Typical implementations can result in a savings of 10 to 30 percent in operational expenses through reduction in fuel use and staff time, improved customer service, and more efficient scheduling.

- [Better Decision Making](#)

GIS is the go-to technology for making better decisions about location. Common examples include real estate site selection, route/corridor selection, evacuation planning, conservation, natural resource extraction, etc. Making correct decisions about location is critical to the success of an organization.

- [Improved Communication](#)

GIS-based maps and visualizations greatly assist in understanding situations and in storytelling. They are a type of language that improves communication between different teams, departments, disciplines, professional fields, organizations, and the public.

- [Better Recordkeeping](#)

Many organizations have a primary responsibility of maintaining authoritative records about the status and change of geography. GIS provides a strong framework for managing these types of records with full transaction support and reporting tools.

- [Managing Geographically](#)

GIS is becoming essential to understanding what is happening—and what will happen—in geographic space. Once we understand, we can prescribe action. This new approach to management—managing geographically—is transforming the way that organizations operate

What Can You Do with GIS?

GIS gives us a new way to look at the world around us. With GIS you can:

- [Map Where Things Are](#)

Mapping where things are lets you find places that have the features you're looking for and to see patterns.

- [Map Quantities](#)

People map quantities to find places that meet their criteria and take action. A children's clothing company might want to find ZIP Codes with many young families with relatively high income. Public health officials might want to map the numbers of physicians per 1,000 people in each census tract to identify which areas are adequately served, and which are not.

- [Map Densities](#)

A density map lets you measure the number of features using a uniform areal unit so you can clearly see the distribution. This is especially useful when mapping areas, such as census tracts or counties, which vary greatly in size. On maps showing the number of people per census tract, the larger tracts might have more people than smaller ones. But some smaller tracts might have more people per square mile—a higher density.

- [Find What's Inside](#)

Use GIS to monitor what's happening and to take specific action by mapping what's inside a specific area. For example, a district attorney would monitor drug-related arrests to find out if an arrest is within 1,000 feet of a school—if so, stiffer penalties apply.

- [Find What's Nearby](#)

GIS can help you find out what's occurring within a set distance of a feature by mapping what's nearby.

- [Map Change](#)

Map the change in an area to anticipate future conditions, decide on a course of action, or to evaluate the results of an action or policy. By mapping where and how things move over a period of time, you can gain insight into how they behave. For example, a meteorologist might study the paths of hurricanes to predict where and when they might occur in the future.

What is GIS Day?

GIS Day is a global event during which GIS (Geographic Information Systems) users work to expand the understanding of how GIS technology and geography make a difference in our lives. GIS, a computer-based tool used to map and analyze features and events, combines the power of a database with the visualization capabilities offered by maps. Hundreds of thousands of people in the world use GIS to solve problems in areas such as environmental protection, pollution, health care, land use, asset deployment and routing, natural resources, conservation, business efficiency, education and social inequities.

GISday

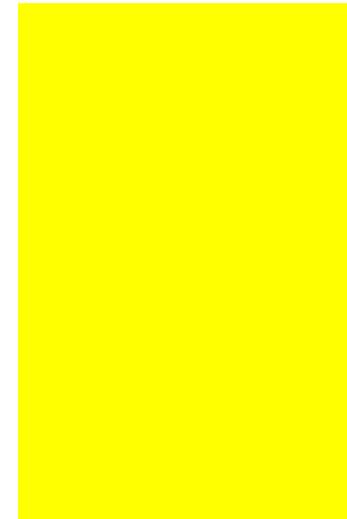
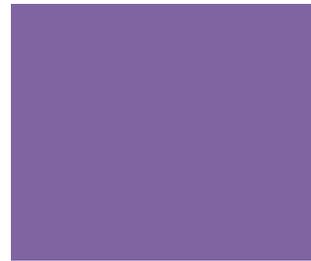
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What is GIS?

"GIS is an integrated system of computer hardware, software, and trained personnel linking topographic, demographic, utility, facility, image and other resource data that is geographically referenced." NASA

