

Geographic Information System (GIS)

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Definition: The term geographic information system (GIS) has been defined by countless authors. Here are just a few of the ways GIS has been defined:

- “an integrated collection of computer software, spatial data, related information, and supporting infrastructure used to visualize and analyze spatial relationships, model spatial processes, and manage spatial information,” (ESRI, 2005).
- “a facility for preparing, presenting, and interpreting facts that pertain to the surface of the earth. This is a broad definition . . . a considerably narrower definition, however, is more often employed. In common parlance, a geographic information system or GIS is a configuration of computer hardware and software specifically designed for the acquisition, maintenance, and use of cartographic data,” (Tomlin, 1990).
- “an information system that is designed to work with data referenced by spatial or geographic coordinates. In other words, a GIS is both a database system with specific capabilities for spatially-reference data, as well [as] a set of operations for working with data . . . In a sense, a GIS may be thought of as a higher-order map,” (Star and Estes, 1990).

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