

GIS Types and Available GIS Softwares

Management and analysis

- GIS **statistical software** uses standard database queries to retrieve data and analyse data for decision making.

Web Application Programming Interface (API) is a set of subroutines designed to manage GIS data for its delivery to a web browser client from a GIS server using scripting language such as VBA or JavaScript.

Distributed GIS are web-based GIS, Mobile GIS, Corporate GIS and GRID computing.

Mobile GIS - implementations on mobile devices. With the widespread adoption of GPS, GIS has been used to capture and integrate data in the field.

Open-source GIS software

- freely available over Internet downloads. They adopt OGC standards for networked servers, development of open source software continues to evolve, especially for web and web service oriented applications.
- Well-known open source GIS software includes GRASS GIS, Quantum GIS, MapServer, uDig, OpenJUMP, gvSIG and many others.
- PostGIS provides an open source alternative to geo-databases such as Oracle Spatial, and ArcSDE.-proprietary and open data formats such as the Shape File format for vector data and the Geotiff format

Web mapping

- Google Maps, and Live Maps give the public access to street maps and aerial/satellite imagery that support such features as geocoding, searches, and routing functionality.
- MapInfo's MapXtreme, Intergraph's GeoMedia WebMap, ESRI's ArcIMS, ArcGIS Server, AutoDesk's Mapguide and the open source MapServer offer users to create custom applications .

Open Geospatial Consortium (OGC) standards

- Open Geospatial Consortium (OGC) is an international industry consortium of companies, government agencies and universities to develop publicly available geo-processing specifications.
- Open interfaces and protocols (Web Map Service (WMS) and Web Feature Service (WFS)) defined by Open GIS Specifications support interoperable solutions that enable the Web, wireless and location-based services, and mainstream IT, and empower technology developers to make complex spatial information and services

Commercial or proprietary GIS software

- ESRI – Products include ArcView 3.x, ArcGIS, ArcSDE, ArcIMS, and ArcWeb services.
- GRAM++ GIS – Low-cost GIS software product developed by CSRE, IIT Bombay.
- Autodesk –MapGuide and other products that interface with its AutoCAD software package.
- Cadcorp – Developers of GIS software and OpenGIS standard
- Intergraph –GeoMedia, GeoMedia Profesional, GeoMedia WebMap
- ERDAS IMAGINE –GIS, Remote Sensing, and Photogrammetry software by Leica Geosystems Geospatial Imaging.
- IDRISI –GIS developed by Clark Labs.
- MapInfo –MapInfo Professional and MapXtreme. integrates GIS software, data and services.
- MapPoint –GIS product developed by Microsoft.
- Caliper –Maptitude, TransCAD and TransModeler for transportation.
- CARIS (Computer Aided Resource Information System) for hydrography and cadastral systems.
- GMS – Three-dimensional environment for building geologic and groundwater models
- TatukGIS – Products include a GIS development toolkit, Internet Map Server, GIS Editor, free GIS Viewer, Aerial Imagery Corrector.
- Aexpand –cartography product by Axes Systems for data import/export, automatic generalization, visualization and on-screen editing, pre-print configuration.

Open source software

- GRASS –U.S. Army Corps of Engineers, open source: a complete GIS
- MapServer – Web-based mapping server, by the University of Minnesota.
- Chameleon – Environments for building applications with MapServer.
- GeoNetwork open source – A catalog application to manage spatially referenced resources
- ILWIS (Integrated Land and Water Information System) integrates image, vector and thematic data.
- MapWindow GIS – Free, open source GIS desktop application and programming component.
- PostGIS – Spatial extensions for the open source PostgreSQL database, allowing geospatial queries.
- TerraView – GIS desktop that handles vector and raster data stored in a relational or geo-relational database.

Other GIS software

- AccuGlobe – Fully functional GIS and geoanalysis software platform for Windows developed by DDTI (ddti.net)
- CrossView for ArcGIS – created by A-Prime Software, is a wizard based ArcGIS plug-in, which enables map cross-sectioning and profile creation.
- GeoBase –developed by Telogis. focus on real-time processing for reverse-geocoding, geofencing,
- My World GIS –GIS platform for Windows and Mac OSX with robust/intuitive geoprocessing tools,
- Panorama – Russian GIS for military uses.
- SPRING – GIS software developed at INPE –
- SavGIS – Free and complete GIS software available in French, English