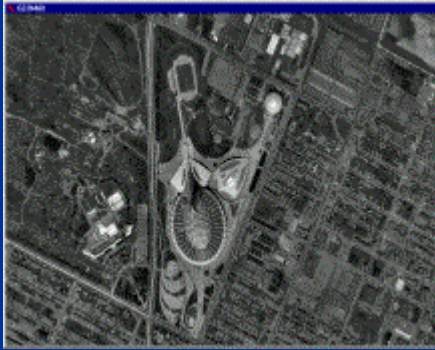


INNOVATING AND FLEXIBLE GIS SOLUTIONS

GEOMAX Core Technology



GEOMAX is a leader in the development and the distribution of innovating and flexible solutions that allow the control and management of spatial reference data. GEOMAX's software package gives you a complete set of tools for your needs, allowing you to optimize your existing spatial data.

Decades of innovations

GEOMAX has developed, during the last two decades, a core technology that serves has a foundation to answer the needs of municipalities, governments and public services.

GEOMAX's commitment to performance, efficiency and flexibility has always been at the heart of our design approach. The open and scalable architecture offers a wide range of implementation types, from a single PC to multiple distributed server environments.

The GEOMAX technology allows organizations to exploit existing maps or CAD drawings, combine them to corporative and/or department databases as well as allowing to gather initial information or updating it. All of it can be done from the administrative office or directly from the field.

GEOMAX offers a complete set of editing tools to create and manage sets of geomatic data, including CAD capacities or cartography, land survey, warehousing and data diffusion (WEB, LAN, etc.), etc.

The GEOMAX technology also offers a robust and proven development environment. This environment has been used to develop multiple generic products to create solutions for electrical network inventory management, network analysis (telecommunication, aqueducts, etc.), to manage the cadastral reform, aid in security, etc.

The modular architecture offers the possibility to create evolutive solutions. Modules can be added to perform tasks like: spatial analysis, querying, thematic mapping, report generation, etc.

GEOMAX's incomparable strengths

GEOMAX has opted for a strategy oriented toward solutions where, with our clients and our business partners, we can offer solutions at the size of your business. This allows to give solutions:

- at low costs;
- at low risks;
- with fast implementations;
- scalable according to specific needs;
- with a warranty of protection of investment;



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Spatial database management

The geomatic core of the GEOMAX system is complete by itself: no additional software from a third company is necessary for its operation. It provides the storing and the management of graphic and textual data. The architecture of the core supports multi-users configurations, notably Client / Server modes (networks, personal computers, WEB clients, etc.). The core also allows to create dynamic links (in real-time) to other RDBMS of the industry.

The management of data can be done in continuous mode. GEOMAX gives an environment without cartographic limits, which allows the integrity of data and a flexibility of access to information. Data is "georeferenced" and independent of any cartographic grid (no "tiles").

This way, even large objects that can cover a vast territory, such as a river or the primary component of a communication network, will be stored as a single object in the GEOMAX environment. The localization, or the updates, of information can be done on a single object or on a group of elements, at the user's choice.

Project management

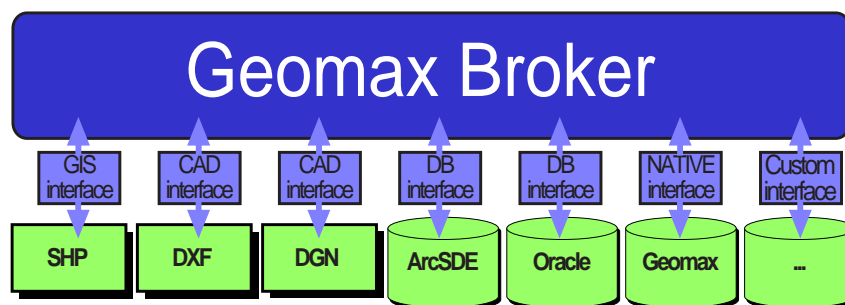
An authorized user can directly update an object generated by the database. When a deeper analysis of an update group that can affect multiple components or a part of the territory is required, the user can then define an update project.

The project, and the updates he contains, can be saved as long as the user wishes: he's not forced to update the central databank when he leaves the office (such as in the case of a single transaction). He can then resume his work in the state where he left it the day before, without affecting the other users of the system.

Furthermore, he can create and save numerous update scenarios, to do compare analysis (planning, cost evaluation, etc.) and to make each version of the project evolve independently. At the end of the process, he can then "integrate" the changes contained in his project into the central databank. The other users of the system are notified of the existence of current projects.

Universal access to data

The GEOMAX broker allows access to most GIS and CAD data formats of the industry. He can integrate data from a variety of existing systems in a single session without having to transfer or translate these sets of data. The broker also adds more flexibility to your existing architecture by allowing other GIS clients to connect to it to access different formats of data. The broker acts as a traffic cop by integrating heterogeneous systems and by giving an access without limits for the user.



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Spatial analysis, queries and report generation.

The GEOMAX core includes a complete spatial analysis engine with thematic map creation and report generation capabilities, among others. Queries and reports can be created interactively ("ad-hoc") or preserved in a usual query and report bank (to simplify even more the use of frequently selected queries and reports).

The user can specify the type of research domain (ex.: for the whole of the territory, for a given zone, according to the logical structure of a distribution network, etc.) on which queries must be applied as well as textual criterias to be considered to isolate objects of interest (ex: type of property, level of risk, etc.). He can also specify the type of treatment to apply to objects satisfying all the research criterias specified (thematic maps creation, localization, updates, tabular report generation, selected objects exportation to other systems, etc.).

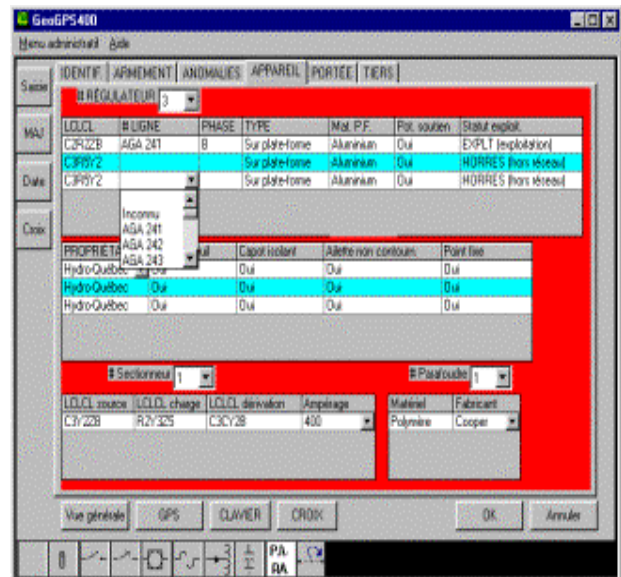
Exemples of browser functions:

- Tools for the recovering of topologic maps
- Tools for proximity analysis
- Buffer zone creation
- Spatial analysis and logic tools
- Connectivity tools
- Query tools on databases
- Polygon analysis

Design of real objects

GEOMAX offers an environment allowing to design objects as they are in the field. For exemple, the GEOMAX core will recognize that a single line on the screen is a "road" and not only a graphic element. Furthermore, the environment includes a generic and powerful toolbox that allows to build and maintain application layers on these objects (ex: aqueduct networks distribution, fire security, cadastral reform, etc.).

The definition layer of objects allow the application designer to add the graphic representation of the historic data model, the addition/update model to be used for integrating and managing the database as well as the user interface (update templates) to be used to filter textual data entries, including controlled vocabulary. The integration of these components assures that specific rules of company/enterprise management are maintained during the update process.

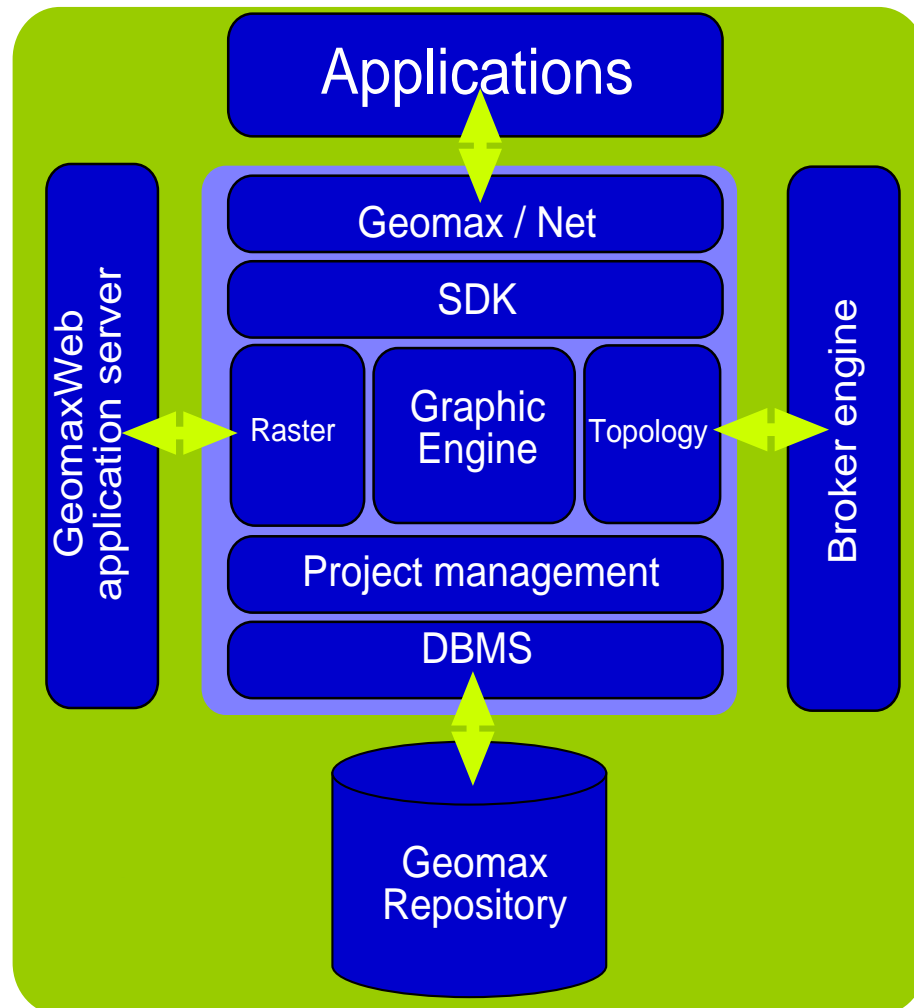


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The GIS core

The technological core of GEOMAX resolves the problems associated to the manipulation of data. It supports the whole types of geomatic informations, such as topologic environments (linears or polygons), raster data or vectorial data. All these kinds of data can be combined to textual data describing different objects managed by the database.

The information can be entirely managed by the basic solution of GEOMAX or reside in commercial external databases. A unique and efficient system for indexation optimize the use of spatial data.



Scalable solutions

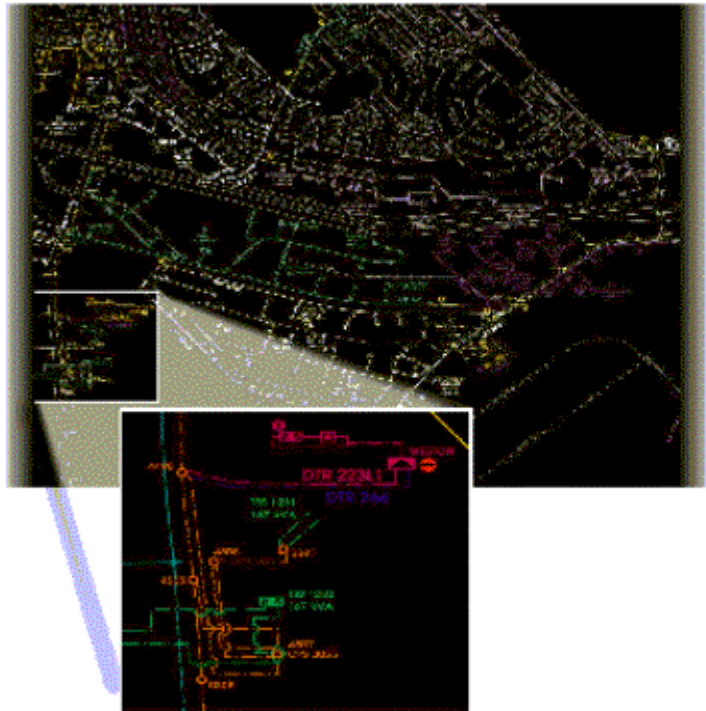
The technological core of GEOMAX allow the implementation of an evolutive solution that offers the flexibility to distribute your applications throughout your enterprise. The architecture of GEOMAX has been created to work with a client/server architecture closely related to a multi-access database. This environment allow the efficient management of information traffic through different sources and offer access to it using the Internet.

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Complete edition environment

At the heart of our technology, a powerful CAD engine is used for the manipulation of graphic elements. A complete set of commands allow to:

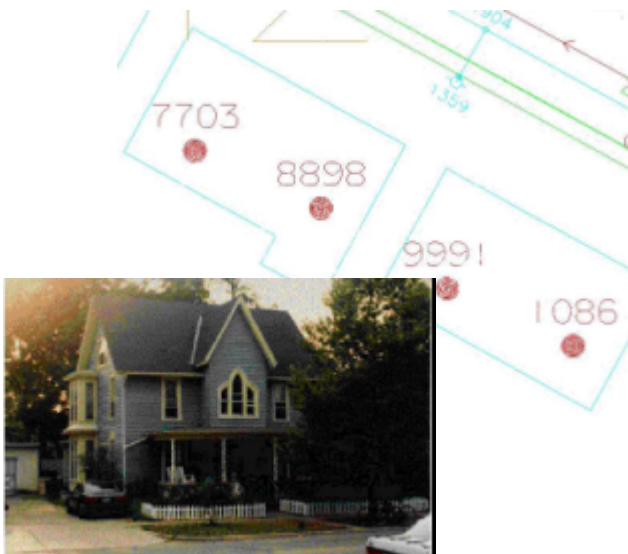
- create and modify a variety of basic graphic element types;
- create and use symbols;
- create text and annotations;
- define new kind of lines or new characters;
- structure drawings in layers;
- store drawings in real coordinates;
- use digitizing tables;
- create "macro" commands for automatic tasks.



Thematic maps dynamically generated from the database

Elements can be generated dynamically from their values issued directly from the database.

Concerning map output, GEOMAX has a set of tools that allow to do page layouts according to the preferences of the user.



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Complete development environment

GEOMAX is made to be enhanced by programmers using standard programming tools and additional optimized tools. This characteristic can be used to create links with dynamic libraries (ex: C, C++, Visual Basic, DML-G, etc.) and allow an application code created by a user to be used in GEOMAX, and to modify GEOMAX itself!

By offering an open environment, the technological core of GEOMAX allow compatible WEB development by using industry standards such as HTML, XML, JavaScript/JScript and Java. This "web oriented" approach allow the implementation of the technology on independant platforms (Windows, Linux, etc.). GEOMAX furthermore uses modelization and programming "objects" environments recognized throughout the industry.

