Geographic information systems

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Vehicle fleet control.

In today's world, the need to migrate carto-graphic sources from analog to digital media is becoming increasingly clear. This is opening up new opportunities for the automation of spatial analysis processes which, prior to the appearance of computer systems, used to be extremely costly.

The solution to these needs arrived in the form of a type of computer environment for the administration of data that can be georeferenced known as the Geographic Information System (GIS). Through these systems graphic elements found on various cartographic documents (maps, plans) of the territory analyzed can be directly linked with their alphanumeric data, traditionally stored in database managers, so that all the information available within an organization is jointly administered. Moreover, this linking makes it possible to perform highly complex analyses which include multiple variables and which facilitate decision-ma-king in a variety of economic and administrative fields.

For this reason, the ICC opted to introduce these computer systems into the field of carto-graphic production, initially to automate internal workflow, and then, given the extraordinary results, as a commitment to the development of GIS applications for our cartographic data clients, so that a complete made-to-measure solution could be provided for any environment in which geographic data may be used.

Given the way in which GIS and the world of technologies in general have evolved, the ICC has explored and developed tools for multiple environments that make the concept of locally resident data and applications a thing of the past. The widespread implementation of computer networks, and more recently, of the Internet, has globalized the use of GIS, and users are reached who to not have a computing background, but who need simple and fast tools which will enable them to carry out their everyday tasks. Continuing in this direction, the ICC develops and integrates solutions based on data servers integrated in client-server environments, providing support for a wide range of user profiles, from users who have a broad knowledge of the underlying data structures, and who are therefore capable of managing very powerful and complex tools, to those who do not need to be aware of this complexity and use simplified tools (applications accessible with Internet navigators, for example).

Generalitat de Catalunya
Institut Cartogràfic de Catalunya

Applications

The field of application of GIS is enormous, and the following is a small list of the various areas in which they can be used:

Management and analysis of land registry data. Tools that support access to all the information available about a particular plot, and, for example, to the thematic representation of the different land registry values of an urban nucleus.

Environmental impact evaluation. Evaluation of the environmental impact of various infrastructures within the territory.

Vehicle fleet control. Through the use of GPS and telecommunications systems, tools are available for the generation of optimum routes.

Management of the resources available in the event of emergencies. Determination of risk zones and evaluation of impact according to the different variables involved.

Infrastructure network management. Minimization of operation costs with the detection of operational anomalies and provision of solutions.
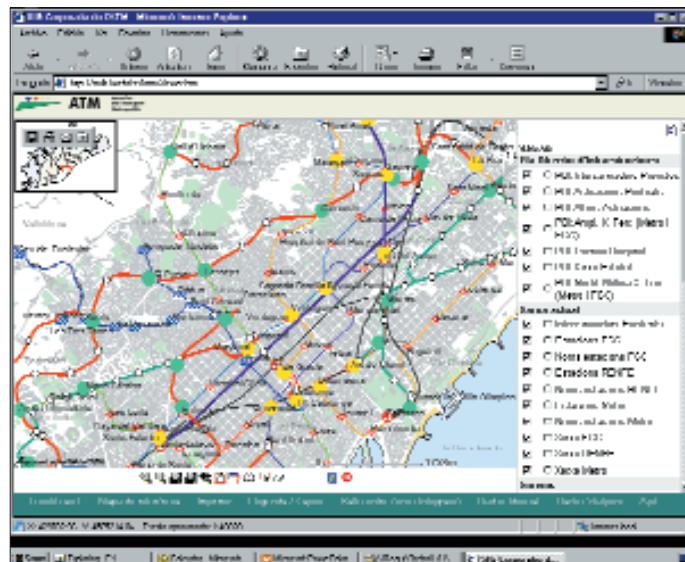
View of the corporate geographic information system application with Internet access.

View of the emergency services application.