

Innovation in the Sault



The Sault Ste. Marie Innovation Centre has been working with EDS Canada to develop and implement an integrated geomatics model that will provide a complete decision support mechanism for the City of Sault Ste. Marie and the local Public Utilities Commission.

This unique model utilizes ESRI Canada's newest ArcInfo Suite Version 8.1 to integrate the municipality's land base, water, sewer, administrative, electric and telecommunications information into a comprehensive Geodatabase model. This model will provide the city and utility employees with a state of the art management tool to increase their efficiency, productivity and security.

The Innovation Centre's model has a solid business plan that has been developed to provide a municipality with a complete decision support tool. This includes customization of the system for integration with corporate system, strategic directions, and specialized software packages.

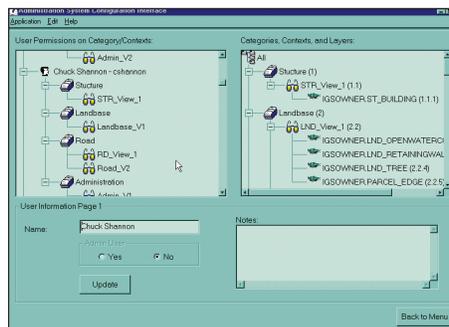
The result is a corporate database system that is accessed over fibre optics networks by City, PUC, public works, police, fire, and transit employees. Patrick Planting, Geographic Information Systems Co-ordinator for the City of Sault said, "Our goal from the onset of this project was to develop a network tool to assist all departments in the efficient retrieval, reproduction and analysis of all spatially related municipal infrastructure."

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The model provides three levels of functionality including a Viewer, Analysis and Editing Client (ArcIMS). Each level of functionality involves an increasing level of skill. The viewer client provides an easy to

use interface to view, query and print data. The Editing Client ArcEditor provides the full range of GIS functionality including modifying and adding data. The Analysis Client is a mid range interface provided to users with high end spatial analysis needs.



Access to the Sault Ste. Marie Innovation Centre's GIS data is controlled using a Security system developed by the centre's staff to control who has access to each feature, up to the attribute level. Another advantage of this interface is to group inside one tool all permission-granting operations (Windows NT/2000, RDBMS and ArcSDE).

The city and PUC data are protected by a custom designed security system that controls access to each feature, up to the attribute level. Each user of the Geodatabase has a profile that defines specifically what he/she can see or modify within the system. All features within the Geodatabase are grouped into contexts based on similar access privileges and common usage.

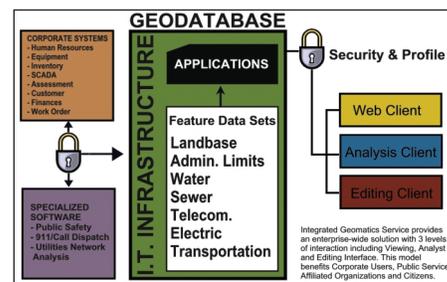
The Web enabled approach of the Innovation Centre's system also provides an opportunity for the community to interact with GIS information, including road maps, transit routes and utility notices.

The Innovation Centre has a staff of highly skilled GIS Architects, Analysts, Technician and Programmers. The Municipality and PUC of Sault Ste. Marie participated in the project to assure that the system fulfills not only current municipal needs but and also future needs.

The Innovation Centre and EDS Canada are pursuing new opportunities to replicate this Corporate geomatics model in other communities across Canada. Gerry Taylor, the Chief Executive Officer of the Innovation Centre states, "It's a won-

derful, easy to use model for people to gather and organize vast amounts of data. The Innovation Centre would like to work with other communities across Canada to create unique GIS models utilizing ESRI technologies and the centre's expertise to help municipalities and utility companies better manage their resources and operations."

The excitement regarding Geomatics and Geodatabase technology can be felt throughout the organization. Mario Chabot, EDS Program Manager for the Innovation Center project states, "The new Web enabled ESRI Geodatabase technology integrates GIS into the mainstream of Information Systems and Technologies. Consultants like EDS will now be able to transparently integrate GIS into any organization's corporate system. Over the next years, the true power of GIS will finally be unleashed and we will assist at an explosion of GIS usage inside corporations. As a computer scientist specialized in GIS, I have been dreaming of such a new technology for more than 10 years."



All data are grouped into context to simplify access, a context is group of features that have the same access privileges and are commonly together to perform a task used.

Recent meetings with mayors and reeves from small and rural communities have identified a need for a specialized Geomatics Model for smaller municipalities due to costs and maintenance capabilities. The Innovation Centre is pursuing this opportunity by developing a lighter version of the current models based on the concept of shared infrastructures among adjacent municipalities or townships.

Sault Ste. Marie Innovation Centre - www.ssmic.com