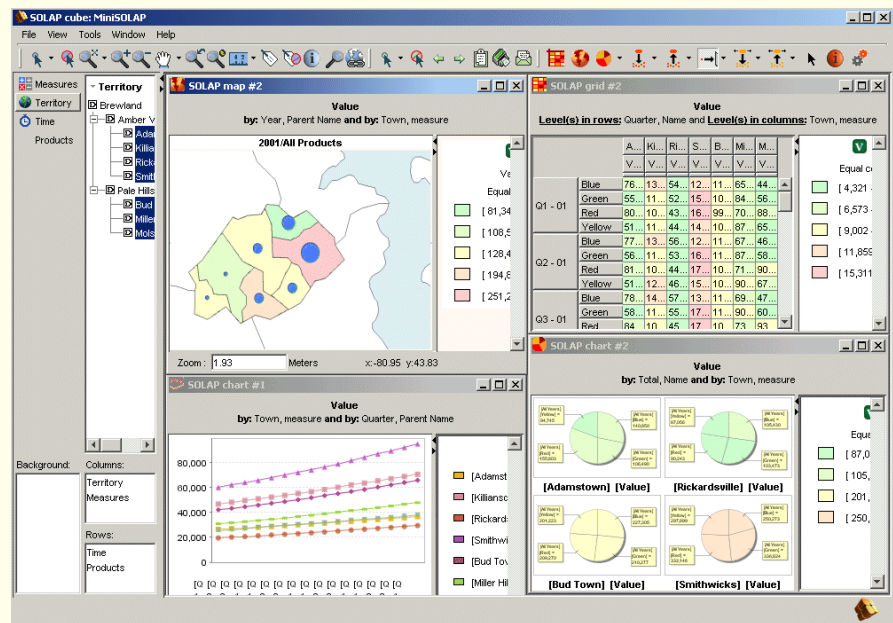


## JMap® Spatial OLAP

KHEOPS Technologies is unveiling its new business intelligence product **JMap Spatial OLAP** – OLAP stands for *On-Line Analytical Processing*.

By binding GIS and business intelligence capabilities, this new **JMap** extension leverages the **JMap** geospatial server, one of the most robust and extensible enterprise GIS solutions on the market. The Spatial OLAP extension adds to **JMap** a new OLAP-type client environment in which the mapping element is completely embedded, which represents a world premiere for a commercial application.

Says Dr. Yvan Bédard, a specialist in geospatial databases and the main architect of JMap Spatial OLAP: "For a number of years, research and commercial projects have been trying to improve the interaction between geospatial systems and business intelligence systems. Current examples of technology integration consist of unidirectional, or sometimes bidirectional, links between traditional OLAP environments and a mapping interface. However these solutions do not offer real time synchronization between maps on one side and other elements such as



histograms, charts or tables. With **JMap Spatial OLAP**, the analysts have at the tip of their fingers a rich thematic mapping component that is fully integrated with an OLAP environment. The graphical user interface allows them to navigate through the spatial component using tools like drilling-down or drilling-up through a region, extending a query through a higher level of territorial aggregation, and synchronizing the maps in real time with tables and charts. All this is done using an environment that is 100% consistent between maps and other OLAP components. With **JMap Spatial OLAP**, the map has become an analytical and interactive tool in the exact same way as more traditional OLAP objects."

The development of **JMap Spatial OLAP** is a joint effort between KHEOPS and the Centre for Research in Geomatics at Laval University (Quebec). It has benefited from several R&D initiatives, including a partnership with Quebec Transport and projects for GEOIDE Network of Centres of Excellence. The general availability of **JMap Spatial OLAP** is effective immediately. Three systems are currently running: one at Transport Quebec, one at the Executive Vice-President Office at Laval University, and one at the Quebec National Institute of Public Health. Several research projects are also using the product. ♦

### JMap selected by the University of Waterloo

The Faculty of Environmental Studies at the University of Waterloo, one of the foremost institutions for geomatics studies in Canada, has entered an agreement with KHEOPS for the use of JMap in a research and education context. In particular, JMap will be used within the scope of a new project that aims at significantly improving collaboration between various teams of decision makers in the process of urban planning. This project is funded by GEOIDE, the pan-Canadian network of centres of excellence in geomatics. ♦

### A new ArcSDE access module

JMap now offers an access module to ArcSDE, ESRI's geospatial storage system in a relational environment. This new module reinforces JMap's position as the most versatile enterprise geomatics solution available on the market.

With the release of this new module, JMap now connects to all common GIS file formats as well as to Oracle Spatial and ArcSDE. These two systems represent the vast majority of the installed base for geospatial storage within a relational environment. ♦

## The City of Blainville chooses JMap

The City of Blainville is one of the fastest growing communities in Canada. With a current population of 42,000, it plans to welcome an extra 10,000 people in the next decade, mostly young families. This represents a major challenge in terms of urban planning and the efficiency of municipal services is a must for a smooth management of this influx of residents. The efficient exchange of information between departments, from planning to public works to financial services and parks and recreation, is capital in that respect.

Robert Lavoie, GIS coordinator at the City of Blainville's IT department, notes that "the City was impressed with the quality of all responses to our Enterprise GIS request for proposal. All five candidates made interesting bids, but in the end, the technological superiority of JMap, the ease of integration within our existing technological environment, and the unparalleled experience of KHEOPS for this type of system guided our decision."

A first municipal intranet application was deployed in March, 2005. ♦

## The JMap Expert: how to develop JMap extensions

In this issue, the JMap Expert proposes a quick outline of the methodology used to build your own JMap extensions.

JMap extensions allow developers to extend JMap's feature set by providing new interactive tools within the user's interface. The JMap Edition Extension, which provides to users a number of edition tools that are not included within the basic version of JMap, is a good example of this architecture. There are two types of extensions: the ones that only imply processing on the client side, and the ones that require execution of routines on the server.

Client side extensions are integrated in JMap applications by adding their own menus and toolbars (images on the right)

With the JMap SDK, you can develop your own client-side extensions using Java. Each extension is an instantiation of a class that implements the `com.kheops.jmap.tools.JMapClientExtension` interface. That interface contains the following methods:

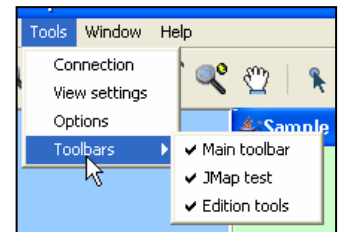
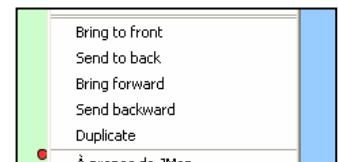
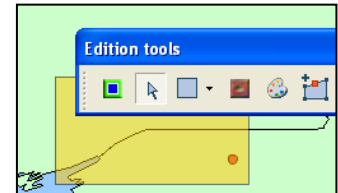
`JMenu[] getMenu()` – lists the menus that will be added to the application

`JMenuItem[] getPopupMenuItems()` – provides the items to be added to the popup menus

`JToolBar[] getToolBars()` – provides the toolbars that will be added to the application

When developing a JMap extension, you have access to the very rich JMap API, which considerably eases the development effort. With JMap extensions, it is now easier than ever to customize your JMap applications.

In the next issue of JMapNews, the JMap expert will outline the way to deploy JMap extensions. Deploying extensions enables the calling of these extensions in the client environment and the integration of dedicated configuration pages in JMapWebAdmin. ♦



## In Brief...



The Second **Location Technology and Business Intelligence** Conference is taking place in Philadelphia on May 2-4, 2005. JMap will be well represented, since KHEOPS' business partner Syntell will present its **Geolap** technology, which manages online business intelligence regarding all meta-data of a large map and spatial data publisher. The mapping interface of Geolap was entirely built on JMap technology.

In parallel, Dr. Yvan Bédard, of Laval University, will make a presentation on the fundamental concepts of the Spatial OLAP technology. This new approach consists of embedding a geospatial dimension directly into business intelligence solutions.

Those two presentations are perfectly aligned with the major trend outlined at this conference, that is, the gradual integration of geospatial technology and analytical systems. ♦



## Matricis delivers a management system for all street intersections

**Matricis Informatique**, a KHEOPS business partner, delivered recently a management system for the supervision of street intersections at the City of Montreal.

This system allows City technicians to browse dynamically through a JMap interface across all street intersections through the City of Montreal. Users are able to visualize traffic volumes, the characteristics of any traffic light system, and all accident statistics at the intersection. It also maintains a database of drawings and photos for each intersection and puts those at the user's fingertip from the mapping interface.

KHEOPS congratulates Matricis for this first JMap project. ♦

Send comments and suggestions to [jmap-news@kheops-tech.com](mailto:jmap-news@kheops-tech.com)



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