

# JMap® News

A KHEOPS TECHNOLOGIES PUBLICATION  
ISSUE #3, JUNE 2004

## JMap powers CMTEK's Smartrak Online solution measures impact of mobile advertising campaigns

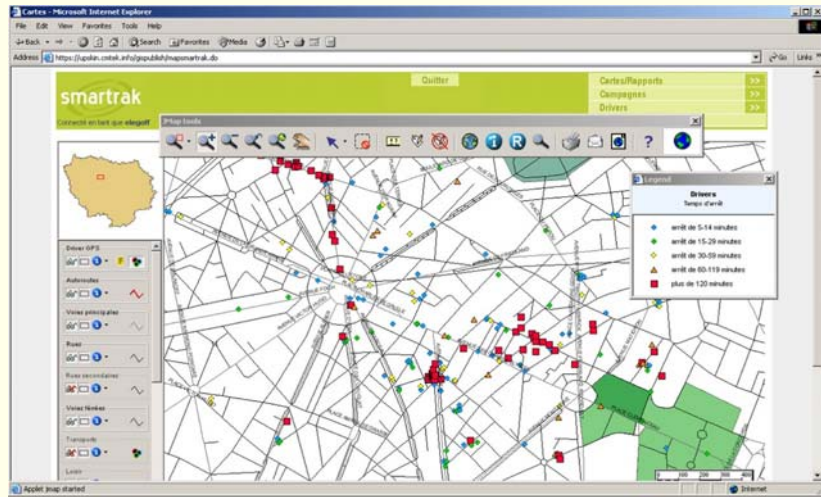
CMTEK, a Montreal-based technology company and KHEOPS business partner, is using JMap as its geospatial module for its new Smartrak solution. Smartrak is CMTEK's system for analyzing the impact of mobile advertising campaigns.

As large cities become saturated with fixed advertising space ranging from billboards to bus shelters to subway stations, ad agencies are on the lookout for creative ways to get their message to the public. Vehicles such as buses, taxicabs and private cars represent a new and promising medium to reach broad audiences in metropolitan markets. In order to be viable, however, this new medium must show its effectiveness to potential advertisers.

Smartrak is an innovative solution that computes cumulated audiences for mobile advertising media. A multi-tiered system, it contains a vehicle-bound GPS chip that provides minute-by-minute sequences of locations for all vehicles. Its JMap-powered module correlates these locations with statistical data on the population flow across the metropolitan area. The resulting measurements are available online. Smartrak's customers can log on to the Smartrak extranet and, using a JMap-based cartographic display, check the impact of their campaign throughout the area. Eric Le Goff, COO of CMTEK, notes that "Smartrak is able to provide, on an on-line and on-demand basis, a precise measure of total audience per campaign, per time period, and/or per territory. Thanks to our solution, owners of mobile advertising space are now able to compare the value of their assets to those of more traditional media and to develop a business model that is very attractive to prospective clients".



The Smartrak system was first implemented in the spring of 2004 by UpSkin ([www.upskin.com](http://www.upskin.com)), a French agency whose Smart cars roam through large European cities promoting blockbuster movies, fashion items, cell phone operators and the like. UpSkin selects drivers based on a commuting profile and pays part of their car leasing contract. In exchange, drivers are required to check in monthly, at which time a new skin is wrapped around the car body, a technical checkup is performed, and the GPS information is downloaded for transfer into the Smartrak system.



UpSkin advertisers can check the effectiveness of their campaign by logging on to the Smartrak extranet

## New Centre at University of Toronto has chosen JMap

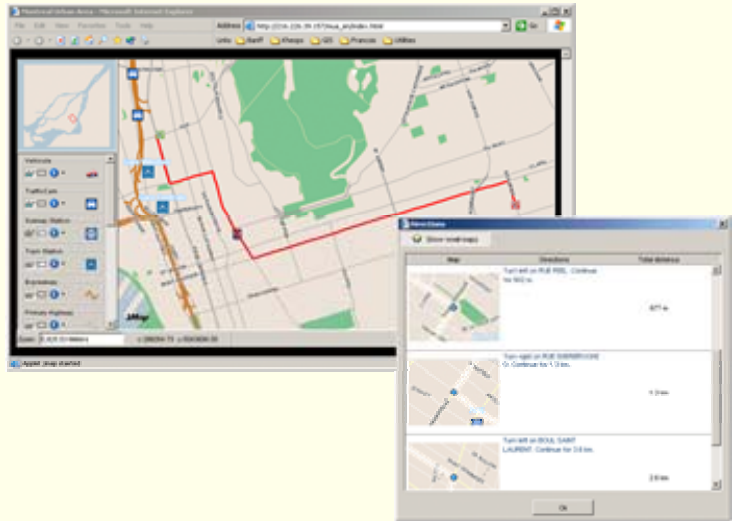
The Centre for Information Systems in Infrastructure and Construction (I2C) is a new facility in the Department of Civil Engineering at the University of Toronto. This interdisciplinary centre's mission is "to participate through cutting-edge research, innovative course work and active industry engagement in creating a breakthrough in the infrastructure information ecology that instills an effective leadership role for the construction industry in the new knowledge-based economy." The Centre will only use the most sophisticated software solutions, and it chose JMap as a major part of its geospatial architecture. Professor Tamer El Diraby, Director of the I2C, explains: "We were looking for a robust open geospatial technology to share precise thematic mapping of construction sites and to analyze the vast amount of georeferenced data that will be input into our system. JMap makes perfect sense because its availability through the Web fosters the interdepartmental exchange this centre promotes. JMap's Java approach will also let our team of researchers build sophisticated applications dedicated to smart infrastructure management".

## Product announcement : JMap Networking Extension

This new extension provides best route within the JMap online environment

Since June 2004, JMap customers can acquire the JMap Networking Extension, which provides the optimal route between two end points. Building on the power of the JMap Geocoding Extension, it can be used to localize end points by their street addresses, and then find the best route between them.

The JMap Networking Extension is flexible enough to work with most commercial or custom street datasets. Parameters found in those datasets can be set as traffic constraints, in particular maximum speed on segments, one way segments, and illegal turns. User-defined criteria include the shortest route, shortest time, and any set of intermediary points required. The result is highlighted in an online JMap display and available as a report that includes directions, distances, and detailed maps of intersection areas.



### The JMap Expert: Smart Address Matching

One of the most complex issues in automated address matching is to reconcile addresses that were misspelled, partially entered, or ambiguous. The JMap Geocoding Extension offers a number of highly sophisticated tools to solve these problems. For example, the administrator can enter an unlimited set of simple rules, such as equating the strings "Road" and "RD", "Boulevard" and "BD" and other usual abbreviations. These rules follow the *regular expression model*, offering a very high level of flexibility.

The most common source of errors occurs when addresses are entered into the system on the basis of verbal information. The various ways to spell a particular phoneme will often lead users to guess the spelling of a street or city name. JMap uses a specialized phonetic algorithm to compute the proximity between the spelled and recorded names, and then proposes an ordered list of most likely names. The Extension also works on orthographic proximity. With each potential result, a confidence percentage is provided, combining the accuracy of the street name or city name, the existence of the street number, and others.

The batch procedure of the Extension is used to enter long lists of addresses stored in a table or file, and to geocode them into map coordinates. In order to help the resolution of ambiguous entries, administrators can set the confidence threshold in order to fine tune the degree of automation and manual reconciliation. A wizard then helps the user finalize the entries that remain ambiguous. The resulting table of geocoded addresses can be inserted as a layer in a JMap project and displayed inside client applications.

### In Brief...

#### A new JMap business partner in Asia



KHEOPS and Harmony Co., a Hanoi-based technology company, signed an agreement in May 2004, whereby Harmony will sell JMap in Vietnam as part of its portfolio of software products. With over 100 consultants in several large cities Harmony, is one of the most dynamic technology companies in Vietnam. It is currently working with

KHEOPS on the cadastral reform project at the City of Hanoi, an ambitious undertaking where JMap is playing a pivotal role.

#### JMap Quiz

*How many subway stations are located within 1 km of Montreal's "Gare Centrale" railway station?*

Hint: you can use the querying and measuring tools of the *Montreal* demo, which is available on KHEOPS' Web site to all *myJMap* registered users. Send you answer via email to [jmap-news@kheops-tech.com](mailto:jmap-news@kheops-tech.com), with subject "JMap Quiz". The first person who gives a correct answer to the question will win a superb JMap polo shirt with the compliments of KHEOPS. Good luck!

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



#### KHEOPS Technologies

300 Saint Sacrement Street  
Suite 114  
Montreal, Quebec H2Y 1X4  
Phone : (514) 285-1211  
Fax : (514) 285-1177

[www.kheops-tech.com](http://www.kheops-tech.com)

JMap News is a publication of KHEOPS Technologies.

JMap is a registered trademark of KHEOPS Technologies.

All other trademarks are the property of their respective owners.

Copyright © KHEOPS Technologies 2004. All rights reserved.