



FOR TORONTO—THE SIGNAL IS CLEAR

LOCATION

Toronto, Ontario—Canada

TYPE OF SOLUTION

SIGNALview

POPULATION

2,481,494

WEBSITE

<http://www.city.toronto.on.ca>

KEEPING A LARGE CITY ORGANIZED

With nearly 2.5 million people in the City of Toronto, it is important for the Transportation Services Division to keep its traffic signals running smoothly to minimize traffic jams, along with keeping its citizens safe. To manage their traffic signal assets, the city implemented CartêGraph's SIGNALview.

GETTING STARTED

In 1999, in preparation for “the end of the world,” better known as Y2K, Toronto was gathering all of their information on their traffic signals and trying to put it in one single database. With a number of different groups maintaining their own databases and no single source of information, they created an Access database and began merging Excel spreadsheets and other information together. They selected SIGNALview with the anticipation of consolidating all data (drawings, photos, equipment lists, geographical coordinates, firmware references, communication costs, electrical costs, etc.) in one place and having the ability to report this information using a GIS.

Before the city purchased 10 SIGNALview licenses, they spent time developing common indices for the variety of data sources and developing references for the location of the equipment.

CartêGraph

Better Government 

CartêGraph

A CartêGraph Champion



Htet H.

Wunn is a Systems Integrator for the City of Toronto's Transportation Services Division and is described by her supervisor as a "SIGNALview Champion" and a primary factor behind the city's successful implementation of CartêGraph.

"Having someone who is focused on the success of the implementation is very important," said Lisa Maasland, Senior Systems Engineer for Transportation Services. "A focused person can maintain the database, take care of the clients' needs, create desired reports, know the ins and outs of the database and can modify the fields. Having one person track all of the data allows me to rest easy, because I know she is doing it accurately. Without one focused person who is responsible for maintaining the data, it can become a bit chaotic."

Wunn is an important part of the city's success. She handles all user issues including installation, training and demos. She creates reports based on user requirements, upgrades SIGNALview to new CartêGraph versions, modifies forms and any associated Visual Basic software code based on user requirements. She reports difficulties to CartêGraph, administers the links used by external software applications—which extract data from the SIGNALview Oracle database—and maintains data integrity by resolving data information issues. She enters the signal asset data, updates and maintains all associated ESRI data layers, and compares data between SIGNALview, Oracle tables and associated ESRI data layers regularly.

It is easy to see why Maasland feels a focused, driven individual like Wunn is important for their success with CartêGraph's SIGNALview.

TRACKING YOUR SIGNALS

The City of Toronto knew that changes had to be made when simple requests from senior staff, such as what was the exact number of operating signals in the city on a specific date, took employees nearly two hours to formulate an accurate reply. This was increasingly important as up to 40 new signals were being added to the network each year. Currently Toronto is operating 2000 traffic signals, along with 583 pedestrian crossovers and 364 beacons. With SIGNALview they can keep detailed asset information relating to traffic signals, pedestrian crossovers and beacons, generate accurate reports whenever required and plot information on city street maps.

Besides knowing the actual number of signals, the city has been collecting all of the data on the hardware related to each signal. With this information, the city will be able to calculate the total value of their traffic control systems network. Another unique way Toronto uses SIGNALview is to track the electric and telephone communication consumption of the traffic network. Each month, the city receives invoices from the electric supply and telephone companies showing consumption for the signals; with SIGNALview, they can verify the actual use. On telephone consumption alone they saved close to \$100,000 a year.

USING THE INTERNET WITH SIGNALview

With the increase of technology and the popularity of the internet, the City of Toronto has incorporated several intranet and internet application links (URLs) into SIGNALview. This allows the user to access from SIGNALview, links to multiple sources of information related to the selected SIGNALview record. The SIGNALview record number is automatically inserted in the URL so that the next application is opened at the record of interest.

The Transportation Signals group worked together with the group, Land Information Toronto, who designed an intranet GIS-based program to display traffic signal locations together with other GIS-related information such as political boundaries, street addresses, aerial photos, etc. When this program is opened through SIGNALview, it automatically zooms into a close-up view of the selected SIGNALview record.

Signal timings, digital photos, as well as the intersection engineering drawings are also automatically located by URLs within SIGNALview. Instead of the user having to keep track of related data locations, all of the file and application URLs are embedded into SIGNALview. The Transportation Signals group, as well as remote users in the various district offices scattered throughout Toronto, have a convenient consolidated source for traffic signal-related data.

CREATING THEIR OWN METHODS

Toronto continues to find new ways to use SIGNALview software to meet their needs. The city has five different groups of people that are using SIGNALview. Each group can see all of the data, but the information they can modify is controlled by the group username and password.

The SIGNALview Oracle database serves as a central source of traffic signal-related information for both users and other software applications. A number of software applications extract views from the SIGNALview Oracle database to ensure that the same accurate and up-to-date data is used by all of the applications.

Better Government 