

# Centrico BRIEFING NOTE

Using ITS to manage Europe's busiest roads



## Digital Video Surveying: SAPN using RouteMapper Interactive

### SUMMARY

SAPN is using RouteMapper spatially encoded video technology as a tool to assist in the planning, management and operation of its motorway network between Paris and the Normandy coast.

### Introduction

The SAPN (Société des Autoroutes Paris-Normandie) manages 380 km of motorways that connect Paris with the cities of Rouen, Le Havre and the Normandy coast.



### The Needs

This tool helps road operators to assess the configuration of their infrastructure (bridges, VMS, signage, hard-shoulder, visibility ...) when planning roadworks or emergency intervention.

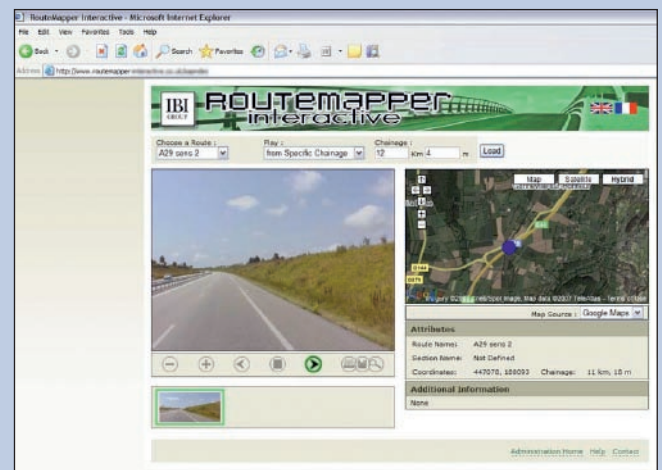
Road operators use such applications in order to visualise specific details of their network infrastructure without having to go to site.



By being able to view an image of virtually any location of the surveyed network, this tool saves staff time, reduces costs and improves the overall safety of the highway maintenance and operations task.

### SAPN's Experience

Thorough knowledge of their network infrastructure is a priority for the SAPN, particularly on the heavily trafficked A13 motorway due to its high traffic volumes and high density of HGVs, but also on less busy motorways.



Since 2005, the SAPN has been using RouteMapper digital video technology to provide its employees with access to spatially encoded video of its highway network via a standard web browser.

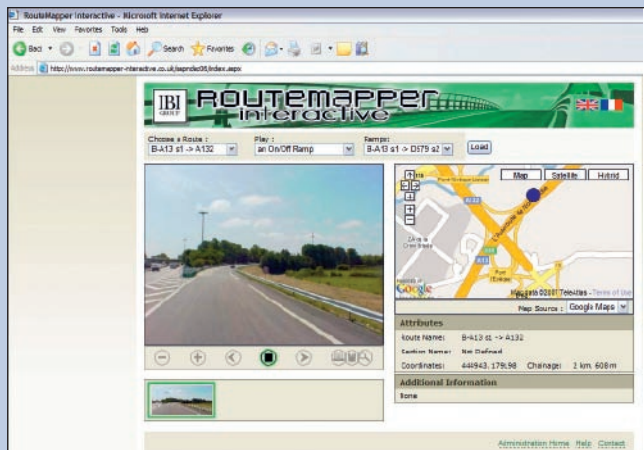
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The RouteMapper Interactive software enables users to visualise and navigate virtually on the SAPN's physical network. The system provides access to the video imagery, with the location of the image shown simultaneously on the corresponding map.

## The Technology

The video survey is converted into individual high resolution digital images, taken roughly every 10 m from a surveying vehicle. Each picture is geo-referenced using GPS, which makes it possible to watch a video of the network as if one was driving on the motorway.



The video is dynamically linked to a map, and when the video plays, the user can see an icon on a map corresponding to the image seen. All the data and information displayed in the window are dynamically updated.

## RouteMapper Interactive application

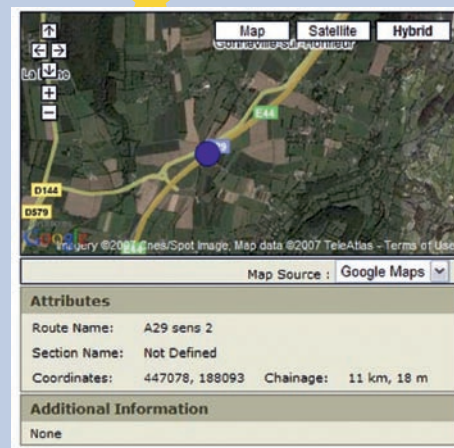
The RouteMapper Interactive software has all the general features of a video browser, accessible via a web interface. Users can play the video backward or forward, one frame at a time, etc. It is also possible to have a multi-camera survey (in order to have a full coverage of the road).

Other features of the application include map navigation (zoom in/out, satellite or engineering map), an integrated location referencing module (route/section name and linear distance co-ordinates), and a facility to annotate the video through the site's administration pages.

## Way Forward

Having used this application since 2005, the SAPN is now considering making the digital video available to its operational partners.

The company is also considering the frequency with which the video will be updated, to ensure a reasonable current view of the asset.



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