

Keeping Track of Cars, Boats

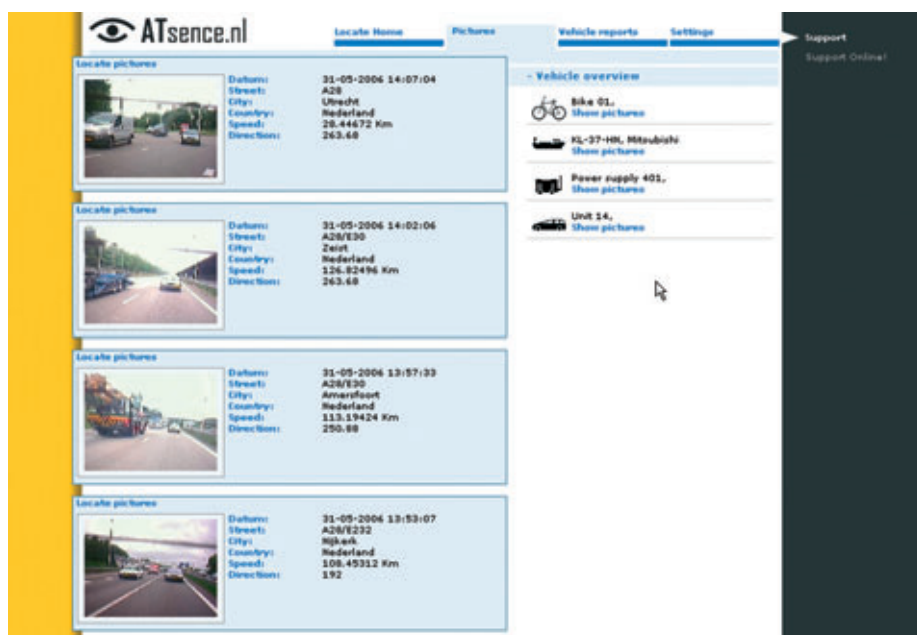
On-line Track and Trace Service also Available Outside

Track & Trace is used to determine the location of objects or persons.

Fleet management, tracing containers, or retrieving stolen cars are just a few

examples of applications in this area.

By Sonja de Bruijn



Overview of Locate with graphical reports.

Positioning Data and Events

What is needed is a GPS receiver with antenna, a GPRS/GSM modem (dual, tri or quad band), a GPRS license, a (solar) battery, and external connections for hardware like cameras or a PDA. Furthermore a certain amount of memory is essential to store positioning data and events in areas without GPRS/GSM coverage, as well as a licence software to handle the data. A solid enclosure for rough environments and you are ready to install the device in your car, boat or truck and use it to be able to track and trace it everywhere at any time.

TraceMe

Kolf Computer Supplies (KCS), whose original activities were developing and composing printed circuit boards for use in devices for hospitals, PC cards and professional video editing equipment, is now also active in the development of a Track& Trace apparatus. Since the launch of the so-called 'TraceMe' three years ago, about 4,000 devices have been sold all over the world. For 95 per cent TraceMe is applied for fleet management but according to PR manager Bram Vorster keeping track of Diesel generators for example is becoming more and more popular. Often these are located near roads or other public places where it is quite easy to steal them. Since the TraceMe module does not only offer GSM and GPS but also GPRS, it is mostly used by professional users. Vorster: "The advantage of GPRS is that users are able to achieve a considerable amount of real-time data at short intervals and against monthly costs that are quite low. TraceMe is also capable of operating via

SMS only, which can be a low-cost solution for car rental companies for example that want to get a message once a car is moved while nobody should be driving it."

Speed Limits

According to Vorster TraceMe is quite unique in the fact that multiple links are possible. "All kinds of signals can be linked and made visible. It can detect whether a tailboard is open or closed, or when speed limits are exceeded. Furthermore multiple connections with external hardware are possible, for example with I-buttons (for identification), cameras and an LCD screen and keyboards." Vorster gives an example: "TraceMe can be linked to our LCD and configured by the user in a way that it's going to behave like an on-board computer, in order to send messages like 'return', 'call me' or 'arrival'. Various internal parameters can also be presented on the LCD and in/outputs can be viewed or controlled by a small keyboard and the remote server".

In near future a user can also connect a PDA or plug in a memory stick, for example to record the route and be able to see what happened just before an accident occurred by viewing the last images of the on-board camera.

It is the customer who decides how far he wants to go. Vorster admits that the settings program delivered with the device is quite broad and that it can take quite some time for a customer to customize it according to his needs. "On the other hand the advantage is that they don't need to get back to us because they can control TraceMe's parameters completely", he comments. Fine tuning the settings program is the customer's job, what KCS offers is coding the GPRS data, changing settings and tracking and tracing units when a customer is not able to reach them for some reason.

Solar Panel

The TraceMe standard memory is 32Mb, 'for making and saving pictures when there is no GPRS connection for example' says Vorster. TraceMe needs 5,5 Volt to be operational, and can work on a solar panel. The antenna doesn't need to be visible which means it can be built in easily. Many optional sensors can be connected and configured, like a

and Trucks with TraceMe Europe



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motion detector, tilt sensor, et cetera. An accuracy of 10 to 20 meters can be achieved and in an altitude of 5,000 meters is no problem, as KCS found out when they sponsored Reach for the Sky Limited, an English hot air balloon firm taking part in the Filzmoos (Austria) Hot Air Balloon Week in January 2006. Though the device was exposed to both cold (because of the height) and heat (the flame for warming the air in the balloon), it didn't show any effects. The very mountainous environment was no problem for transmitting the exact location, height, speed and direction of the balloon. This enabled the ground crew to closely follow the flown route and even to be at the landing spot in time instead of the usual five hours after landing.

On-line Dynamic Mapping Services

ATsence is a software company based in the Netherlands who designed LocatePlaza.com, where users can find on-line GPS, track and trace applications for the TraceME units. "We have designed the services on LocatePlaza.com in close cooperation with KCS around their TraceME units, giving clients optimal access to their corporate trace information", says Bart van Heijningen, Managing Director of ATsence. When users log on to the website they are presented with a dynamic on-line map of their vehicles displaying not only their exact location but also giving access to real-time information such as direction, route, speed, altitude, address, temperature and even the monitoring of other digital inputs/outputs,

such as a door opening and closing.

"Actually, any information a manager would be interested to see in the pursuit of operational effectiveness can be presented within the online service", Van Heijningen continues. ATsence can tailor applications for special needs. "When a customer starts using the LocatePlaza.com services we often see that once all the information becomes available, managers want to use it in their corporate software systems. LocatePlaza Pro has been specially designed for that purpose."

Sceptical

Live on-line pictures taken from moving vehicles is one of Locate's most eye-catching Unique Selling Propositions (USPs). Van Heijningen: "At first when KCS prompted us on the availability of the camera we were a bit sceptical about the usage of live pictures from a vehicle. The GPRS bandwidth however proved to be more than sufficient for transferring pictures. In some countries where security issues are a problem, having live pictures from the vehicle interior, the cargo area or even the surrounding area can prove to be crucial." The camera is also used in public and private transport for monitoring the passenger safety. In this case it is used in combination with a panic button. When pushed by the driver the button will transmit a silent alarm and take live pictures from inside the vehicle which are then made available online. This information can result in actions by police or private security firms.

Arab Version

Since 1 January 2006 'LocatePlaza.com' track and trace services are available outside Europe as well. "We now have services available for the Middle East area for which we have designed an Arab version with local partners from Dubai and Jordan. We currently are extending LocatePlaza coverage to North America and Brazil on top of South Africa, which was added in Junethis year."

The interface is standard for users of Locate 'lite' and 'basic.' For clients with the 'plus' to 'pro' package the application can be converted to an own look and feel, or integrated into the company's website. From the 'plus' version upwards, random symbols can be used to display each vehicle.

Geofencing Options

'Locate Lite' is the entry level version for tracing one single vehicle on an interactive map. For business solutions there is 'Locate Basic', which includes drive administration and five built-in geofencing options. With geofencing, particular boundaries or locations are set within the map that lead to a pre-programmed action when these are crossed or approached. That may be a phone call with a set text, or an SMS or e-mail message.

'Locate Pro' has a number of geofencing possibilities, including automated messaging to a customers own clients; delivery vehicle arriving, car rental returning, bus or coach arriving. This is all made easier by a link to address details from a programme such as Outlook. Geofences can also be used for marketing purposes; a road side restaurant can send an offer as the vehicle arrives in the area. Through the decrease of the usage costs of data-transport via GPRS and GSM there is a perceptible growth in the application of LocatePlaza.com. Increasingly so, affordable mobile machines and tools are being produced with a GPS module for easy, real-time orientation.

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