



# MAPMECHANICS GIS, MAP DATA AND DEVELOPMENT

## MAPMECHANICS HELPS PEUGEOT FINE TUNE DEALER CATCHMENT PLANNING AND STREAMLINES REPORTING

Peugeot has streamlined the way it plans its franchised UK dealer network, and helped its dealers target customers more precisely and analyse their performance more effectively, by introducing a geographic information system and map data from MapMechanics.

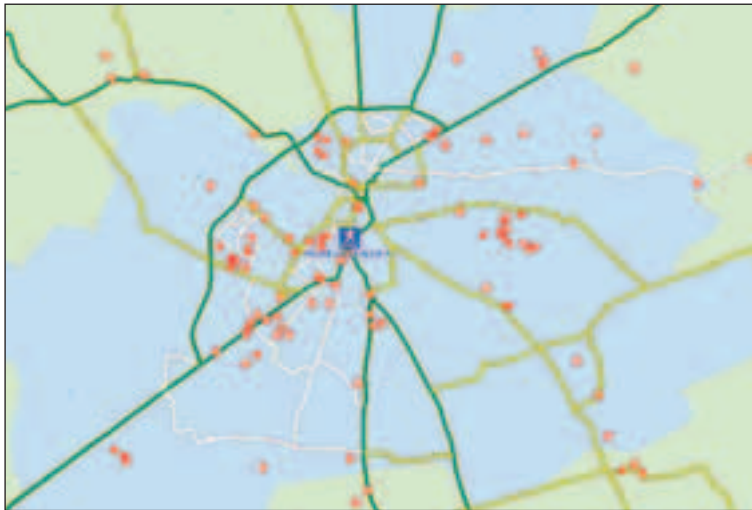
"The system makes it much easier for us to understand our market and make sure we're serving it as productively as we can," says franchise network planning manager Andrew Bury, who adds: "It's brought a vast improvement in usability over the systems we were using before."

Peugeot's network development department looks after a network of some 300 franchised sales outlets around the UK and a further 40 repair-only operations. "It's a constantly changing picture," Andrew Bury says. "There are always opportunities to increase coverage in specific areas, or review markets in order to maximise sales opportunities."

Peugeot has developed its own gravity modelling software to monitor the extent of its coverage, monitor dealer catchments and identify possible "holes" in the network. However, the company wanted more flexibility in the way it presented and analysed this data in relation to the potential market.

It also wanted to streamline the production of monthly sales reports for each dealer – a significant task in view the extent of the network – and give the results more visual impact.

MapMechanics has supplied Peugeot with GeoConcept Expert, the powerful PC-based geographic information system, plus NAVTEQ vector digital map data and ITIS road speeds. ITIS data



Peugot dealerships and catchments mapping

applies typical real-world speeds to every segment of road, drawing on millions of readings gathered from GPS-tracked vehicles in daily use.

### Modelling Catchments and Drive Times

Armed with these resources, Peugeot is able to model drive times to each franchised outlet, and establish the attractiveness of each location. This information is then correlated with historical sales data and with the demographic profile of the area, drawn from Acorn demographic data. Other key factors such as the branding, visibility and accessibility of each outlet are also taken into account.

The result is a detailed picture of the franchise network in relation to past sales and market potential, which GeoConcept can present thematically on screen and in print by means of graphs, charts and similar devices. This helps the company to identify network over- or under-provision, to resolve overlaps between

catchments, to plan new franchise locations and to target advertising and promotion on a local and national basis.

Using the GIS and digital mapping package supplied by MapMechanics, Peugeot can model the catchments of each of its franchised dealerships, and can then evaluate its attractiveness by factoring in other aspects such as its visibility, public profile and branding. Using GeoConcept and NAVTEQ mapping from MapMechanics, along with an application built with a Visual Basic development kit, Peugeot is able to generate maps automatically showing the sales catchment for each dealer, overlaid with recent sales by location.

Automating the preparation of monthly sales reports for each franchise has seen a notable improvement with the new system. The company wanted to be able to create and distribute maps each month showing the catchment of each territory, overlaid with sales for that area; but this presented various challenges. For instance, since catchments vary widely in size, the system had to be intelligent enough to adopt different zoom levels for each map "on the fly".

Peugeot has tackled the task by using a GeoConcept Visual Basic development kit to build a bespoke utility that automates the whole process. "This gives us a high level of control over the task," Andrew Bury says. The program uses GeoConcept's ability to read live sales data in directly from an Oracle database – "something we've never been able to do before." The reports themselves are produced with Business Objects software, which reads in the maps generated by GeoConcept. "The whole process just takes about an hour."

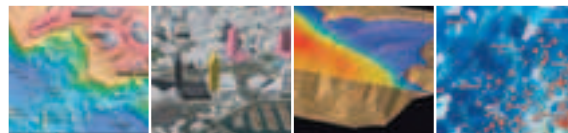
GeoConcept is also used to monitor and evaluate competitors' sales, using data available within the motor industry to plot sales down to postcode sector level. Geographical sales patterns can also be identified by plotting retail customers at full postcode level. "In the past, many dealers have done this manually by entering their customers on to a wall chart," Andrew Bury says. "The new system saves a lot of time and is much more accurate."

# UNIGIS

## Study for a postgraduate qualification in GIS by distance learning

With over 16 years of experience presenting distance learning courses to professional standards, UNIGIS offers you access to the premier international network of Universities in GIS education.

Our courses meet the learning needs of busy professionals, or those seeking to enter the GIS industry. We support you with personal tutors, on-line help and optional residential workshops. Our courses are assessed by coursework - there are no examinations.



### WE ALSO OFFER:

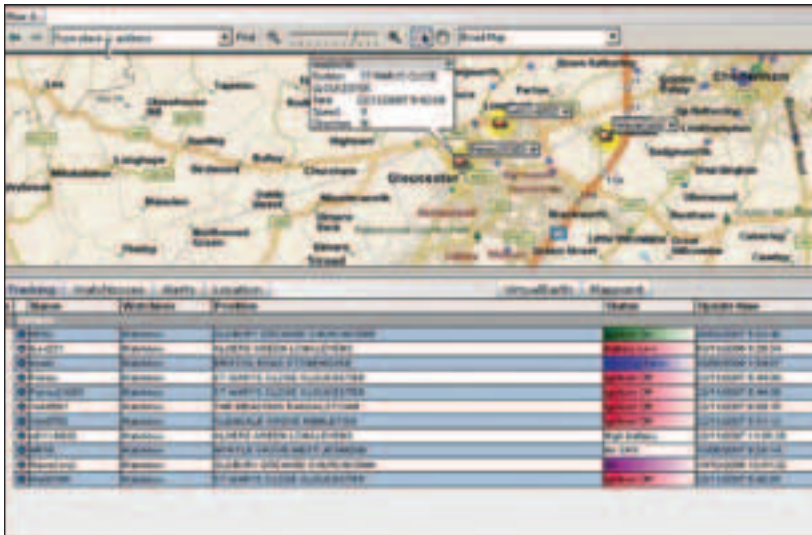
- Flexible entry requirements
- Specialist pathways in GIS, GI Science, GIS & Management and GIS & Environment
- Course modules supported by key textbooks, software and on-line resources
- Flexible study options - full distance learning or distance learning plus residential workshops
- No examinations - full continuous assessment, plus credit for prior learning or experience
- Networking with an international community of GIS professionals

Find out why the UNIGIS postgraduate courses are so successful: call +44 161 247 1581, fax. +44 161 247 6344, email [unigis@mmu.ac.uk](mailto:unigis@mmu.ac.uk), or visit our web site at <http://www.unigis.org/uk>



Educating GIS Professionals Worldwide

[www.unigis.org/uk](http://www.unigis.org/uk)



managing director and founder Tim Ryland.

The mapping supplied by MapMechanics is NAVTEQ's street-level vector data for Britain and Northern Ireland, which allows Fleet Observer's tracking screens to display the location of tracked assets with a high degree of precision. Since even its standard service includes updates as frequently as every two minutes, it was considered essential to be able to show each instance accurately and convincingly on the road network.

Using the NAVTEQ street-level mapping supplied by MapMechanics, Fleet Observer's Web-based screens are able to show the location of tracked vehicles with a high degree of precision on named roads. Hovering the mouse over a location displays details about the address and the vehicle.

Using NAVTEQ data has also provided the opportunity for the company to add mapping more easily for foreign locations where its systems are now sold.

"NAVTEQ data follows a similar format across the world," says Tim Ryland, "so we don't have to adopt different strategies for each location." Alongside Australia and America, other places where Fleet Observer systems are sold include Singapore and Jamaica.

Fleet Observer is also using the NAVTEQ data in another way. Its standard report formats include provision to show the street addresses of tracked assets – ideal, for instance, in managing "watch boxes" (places checked for arrivals and departures) and in congestion zone monitoring. Reverse geocoding is used to work out addresses from the NAVTEQ data from the coordinates supplied by the tracking system.

With reverse geocoding, Fleet Observer uses the NAVTEQ street-level mapping supplied by MapMechanics to find out and display the address of tracked vehicles on

screen.

The Fleet Observer tracking system is entirely Web-based, and was one of the first tracking systems to move to this operational model. Users can log on from any suitable Web-enabled computer and track their vehicles or assets via a standard Web browser. Features include geofencing, driver message alerting and distance monitoring. It is a systems-focused product, and works with any compatible on-board hardware. This can include a basic GPS-GPRS module, which is usually installed covertly to allow stolen vehicle tracking in the event of theft; and a range of driver interface devices such as a PDA or an in-cab computer such as one from the Dilu range.

There are also interfaces to allow direct connection with navigation systems such as TomTom and signature capture via a suitable touch-screen device.

Fleet Observer also supplies a personal tracking and SOS alerting system, which Tim Ryland says is proving increasingly popular and employers address the requirements of health and safety and duty of care legislation.

The company markets its products entirely through resellers such as Weighsoft in the UK and Armada in the United States – usually on a "white label" basis (in which the reseller uses its own branding). Fleet Observer itself concentrates on software development and hosting, and one of its strong selling points is its ability to create custom reporting and other bespoke features to suit the needs of individual customers.

User-companies range in size from small van fleet operators with just a handful of vehicles to large haulage and tipper lorry operators with hundreds of vehicles. The system is also used to track trailers, construction plant, machinery and other mobile assets.

*Article based on information provided by MapMechanics.*

He says these maps are given much more impact by GeoConcept's ability to display its fifteen main competitors' logos automatically against their sales locations. "It might seem a simple thing," he says, "but it's surprising how helpful something like this can be in making the meaning of the display clear at a glance."

"GeoConcept has proved much more intuitive than previous GIS software used by the company," Andrew says, "and much easier to get to grips with." Two staff members went on a MapMechanics induction course, which he describes as "very useful", adding: "On the rare occasions when we've needed backup, the MapMechanics support line has been particularly effective."

### Vehicle Tracking with Fleet Observer

Underpinning the launch this year of Fleet Observer, a new brand name in vehicle and personal tracking and location, the company behind it has switched to a more detailed form of on-screen location mapping from MapMechanics, its long-time map data supplier, and has augmented the data with new mapping for the United States and Australia.

Fleet Observer ([www.fleetobserver.co.uk](http://www.fleetobserver.co.uk)) was known previously as Three Counties Management Services, or 3CMS, and is one of Britain's longest-established vehicle tracking and telematics specialists. The team behind it were instrumental in developing the Datatrak network in the early 1990s, and then ten years ago went on to set up their own tracking business, which now has an extensive customer base both in the UK and overseas.

The Fleet Observer name has now been adopted to identify the company more closely with its tracking and telematics products. Meanwhile, the new mapping has been introduced to add more detail to its map displays and more power to the location plotting process behind them. "We needed a product that was accurate down to street level, and included detail such as street names," says

# SOUTH LASER SERIES COMING NOW



**Total Station NTS 350R Series**  
 Measuring range without prism: 200m  
 Accuracy: 5+3ppm  
 Measuring range with prism: 4000m  
 Accuracy: 2+2ppm



**Hand-held Laser Distance Meter PD Series**  
 Accuracy:  $\pm 2$ mm  
 Measuring Range: 80m  
 Laser: 635nm Level II  
 Weight: 150g  
 Measurement: Length, Area, Perimeter



**Laer Theodolite ETL series**  
 Absolute Encoding  
 Large Display

## Self-leveling Crossline Laser



**ML-312**      **ML-313**      **ML-314**  
 1 Horiz.&2Vert.    1 Horiz.& 3 Vert.    1 Horiz.& 4 Vert.

Laser Diode: Class II, 635nm, below 1mw  
 Levelling Accuracy:  $\pm 1$ mm/5m, magnetically  
 dampened compensation  
 Levelling Range:  $\pm 3^\circ$   
 Working Range: 200m (with detector)  
 Sensitivity of Detector:  $\pm 2$ mm

# SOUTH

**SOUTH SURVEYING & MAPPING INSTRUMENT CO.,LTD.**

Add: 5/F, No.8, Jiangong road, Tian He Software Park, Zhongshan Avenue West, Guangzhou 510665, China  
 Tel: +86-20-85529099/85524990      Fax: +86-20-85524889/85529089  
 E-mail: mail@southsurvey.com    export@southsurvey.com    <http://www.southsurvey.com/english>