

mapmechanisms



Welcome to issue 9 of *MapMechanisms*, the periodical newsletter of Kingswood MapMechanics.

INSIDE



e-government mapping systems



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Scheduling more efficiently in a fraction of the time



Milk processor and haulier Robert Wiseman Dairies has significantly increased the number of milk collections it makes and the company has paid tribute to the essential role played in the planning process by the TruckStops routing and scheduling system, which was supplied by Kingswood MapMechanics.

Previously the company's tankers would complete two trips in a day. Now, with the aid of the additional collections and TruckStops' scheduling, many of the same vehicles will complete three round trips in a day.

Group transport manager William Callaghan explains that in the past the

trunking vehicles. As a matter of routine, it is now used quarterly to revise all vehicle movements in the light of changing operating requirements. "Until we looked closely at TruckStops, we couldn't believe such a reasonably-priced system could be so powerful and sophisticated," Mr Callaghan says.

"One of the challenges in scheduling milk collection is that the vehicles start off each day empty, and ideally end up fully loaded," he says. "It's the exact reverse of a normal delivery operation." He adds: "We found TruckStops ideal for this purpose. We're finding it allows us to get better utilisation from our vehicles than any other system we've looked at."

One of TruckStops' strengths is its ability to consider multiple pickup points and multiple drop points when building schedules – an ability which makes it ideally suited to planning product collections, and especially for working with Wiseman's reload system, in

"Until we looked closely at TruckStops, we couldn't believe such a reasonably-priced system could be so powerful and sophisticated" William Callaghan, Wiseman Dairies

company scheduled collections manually with the aid of maps. "But we simply couldn't keep up with the complexity of the task with a manual system. In any case, TruckStops does the scheduling much more efficiently in a fraction of the time. So it's been a key to the developing operation."

The company has been a pioneer in the use of "reload" vehicles – maximum-capacity artics that are stationed at strategic bases throughout the country, and serve as mobile collection points. Locally-based rigids deliver milk either direct to factories, or to reload artics making longer distances more efficient.

TruckStops is now being used right across the company to plan schedules both for the collection vehicles and for the articulated

"One of TruckStops' strengths is its ability to consider multiple pickup points and multiple drop points"

which end points as well as starting and interim points may be variable.

TruckStops has proved invaluable in forward planning and "first-cut" costing of collections from potential new suppliers. ■

DATA UPDATES

3.4 million business locations

The Blue Sheep data base is now more comprehensive with 3.4 million locations together with company name, details of business type (SIC code) and employee size. Available for just £4,950.

Understand the lifestyles of people across the world

The already extensive range of Cameo demographic counts and neighbourhood profiling now provides more detail (e.g. street level profiling in Germany) and covers a wider area (e.g. now includes Australia as well as Europe, New Zealand and USA).

New postcodes

Release 37 Geoplan postcode sector, district and area boundaries are now available. Kingswood MapMechanics have reaggregated all business and demographic datasets to ensure your data (e.g. 2001 Census, Prizm profiling etc) matches these boundaries.

New AA mapping

2004 maps are significantly enhanced with:

- brighter raster maps
- improved symbology to make it easier to distinguish between different types of points of interest
- New roads. e.g. the M6 Birmingham relief toll road and M8 in the Glasgow area
- New small population sprawl added to AA 1:200,000 and 1:500,000 vector map data makes it possible to represent small settlements (any with over 3,000 population) as built area outlines.
- 2001 Census population data

Cartoplus e-government system provides dynamic online local plans

Internet mapping that allows members of the public to view and query complex multi-layer maps has been added to the Cartoplus e-government mapping system from Cook Hammond & Kell (CHK). The enhancements have been achieved using the power and flexibility of GeoConcept Internet Server (GCIS).



of different information sources (for instance, local policy on housing development, proposed employment or areas of outstanding natural beauty). When they click on the map, GCIS drills down through it and automatically finds cross-references to each relevant part of the appropriate policy document. For every mouse click, links to the document are displayed on screen adjacent to the map.

A further feature of GCIS that has been used effectively in this application is its ability to store "saved positions", or pre-defined map views. In the browser window, these views are presented as a drop-down list of local areas. Selecting one automatically delivers the relevant map to the map window. A gazetteer of street

The same underlying map database can also be used to generate high-quality hard copy litho printed maps. There has been no need to "reinvent the wheel" to handle these two different functions.

CHK's Cartoplus system helps local authorities to produce dynamic online versions of Local Plans and Unitary Development Plans, pursuant to the Government's objective of providing wider public access to such information through electronic communication channels.

Thanks to the interactive capabilities of GCIS and some underlying C++ programming by Kingswood MapMechanics, users can be presented with maps that contain layers relating to a variety

names and postcodes has also been added. Users can type a street name or postcode to display the relevant segment of map.

Early adopters of the system include Canterbury, Salford and Wigan, and an interactive demonstration of the Salford implementation can be viewed on the CHK Web site at www.cartoplus.co.uk/salford/salford.html. ■

When users click on the map, GCIS drills down through it and automatically finds cross-references to each relevant part of the appropriate policy document.

More mapping functionality throughout the organisation with no additional cost

Now for the same low price (from as little as £20 per user), GeoConcept Intranet Server version 3.0 offers organisations an opportunity to give every employee access to more sophisticated mapping analysis tools without the need for extensive training and the headache of maintaining individual machines.

GeoConcept Intranet Server (which can also be used on extranet or Internet) provides ready-made interfaces to enable your users to create shaded maps and pie charts, view, pan and zoom multiple map views, in addition to retrieving

information about items at any location (photos, scanned plans, spreadsheets, links to HTML pages and other web sites).

And now new free interface examples enable remote users to edit maps, add new objects via their web browser (e.g. points such as potential sites for new outlets, new incidents, patient or delivery locations or boundaries such as catchments, areas of special interest, crime scenes, team areas). You choose whether these edits and additions are only seen by the individual making the changes or are made as permanent changes and viewed by all.

Of course you can use the development kits to further enhance the functionality (add an interface to the routing functionality, for instance), but with each release of GeoConcept Intranet Server there are more JAVA examples to offer instant access to browser-based map functions, making development cheaper and faster than ever before. You can just edit the examples in notepad to refer to the layers of information that are important to your particular organisation.

To find out how your organisation can do more for less, call 020 8568 7000 and ask to speak to a mapping specialist.

Leading doordrop company overhauls territory definitions

Circular Distributors, the UK's leading door drop marketing company, has just completed what is described as "a major overhaul" of its territory definition process, putting into place a system which allows delivery area creation by unit postcode for the first time, and gives the company unprecedented power to update and refine its distribution routes in-house.

According to Circular Distributors' planning director Charles Neilson: "The project has kept us at the leading edge of territory definition. Kingswood MapMechanics came up with a pragmatic solution, then worked with us on implementation."

At the heart of the project was Circular Distributors' wish to produce better-defined delivery areas that could be served as cost-effectively as possible by its thousands of distributors, and in which households could be selected to meet customers' target profiling requirements as accurately as possible.

Not only has the project divided all the company's target areas across the country into units making up efficient, manageable delivery areas based on addresses; the system can also print out maps of any selected area or group of areas, with lists of every target address within each area (but excluding commercial addresses or any that have been omitted for other reasons).

It also meets the informal objective of creating routes you could describe to someone on the phone in terms like 'Go down the left-hand side of the street, then turn left at the crossroads and work your way up to the railway station'.

The Kingswood MapMechanics solution draws on the power of GeoConcept mapping software and, unusually, it has involved a degree of manual processing to determine logical delivery areas. Yet this approach was



chosen in competition with more automated solutions proposed by rivals in the tendering process.

Kingswood MapMechanics was able to show Circular Distributors that a human operator interacting with a powerful GIS

would produce more effective real-world delivery areas than a fully-automated system merely trying to interpret predefined rules.

The rules laid down the maximum and minimum number of households allowed per CD delivery area (known as CD Microsectors), and also dealt with issues such as the extent of the area and the question of whether the resultant route would cross key immovable barriers. These barriers might be railways and rivers, or even major roads which would be difficult for distributors to cross repeatedly.

Circular Distributors will use the system regularly to update its delivery areas in-house. "It gives us a valuable degree of self-sufficiency," Charles Neilson says.

Prior to starting the project, Kingswood MapMechanics used "auto-correlation" tools in GeoConcept to distinguish between areas where it would be practical and impractical to deliver. This enabled Circular Distributors to eliminate uneconomic areas.

Using this methodology, a team at Kingswood MapMechanics worked methodically through the country, coding every area.

Completing the coding was an iterative process. In the early stages, sample routes were presented to the Circular Distributors team, who were able to adjudicate on instances where two rules were in conflict (for instance, the maximum number of houses per route and the need to avoid highly irregular delivery areas). The end result was a map identifying all the target areas in Britain and dividing them into CD Microsectors representing viable distribution routes.

Printing utilities are provided with the system, including a routine that prints multiple route lists in batches, and one that automatically scales and prints street maps of routes on a single or double A4 sheet. All the printing utilities generate formatted PDF files which can be output later, transmitted by email or archived for future reference.

"The great beauty of the new system is that it's completely updatable," says CD director Charles Neilson. "The postcode universe is constantly changing, so this

feature is very useful to us." He adds: "Until now we haven't been able to stand back and consider the question of route definition so thoroughly.

We're very pleased with the outcome and the work that the Kingswood team have put into the project." ■

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Charles Neilson, Circular Distributors

A human operator interacting with a powerful GIS produces more effective real-world delivery areas than a fully-automated system merely trying to interpret predefined rules.

DIARY DATES

KINGSWOOD MAPMECHANICS SEMINARS, TRAINING AND OTHER EVENTS:

SEMINARS

Easy Mapping for Each and Every Department

27 January - London - AM

Banks, retailers and other commercial organisations are increasingly offering their staff a central information portal and health, police and local authority services need to implement e-government solutions to provide wider public access to information through electronic communication channels. This seminar shows how geographic innovations make both analysis and sharing of mapped information cheaper and easier than ever before.

Using Geography Profitably

24 February - Manchester - AM

Where should we target our resources for maximum return on investment? What is the cheapest way to deliver services and goods? Where is the optimal site to locate your store, custody suite, depot or sales force? Where are we meeting service level agreements and are there places where our performance is below acceptable limits? Use geography to ensure you maximise opportunities to reduce costs, increase revenues and improve your customer service.

Mapping for Retail, Banks and Financial Institutions

23 March - Birmingham - AM

This seminar focuses on the needs of those in the retail and financial sectors. Presentations will show how mapping helps these organisations improve CRM, manage property assets, monitor performance, help customers and call centre staff find the nearest, use trend analysis to replicate success, calculate market penetration, define catchments and optimise territories.

Efficient Routing and Scheduling

27 January - London - PM

24 February - Manchester - PM

23 March - Birmingham - PM

Find out how organisations save time and money with TruckStops routing and scheduling. Real examples given of organisations who have cut 100,000s of km off travel from their monthly delivery cycle and made massive savings (one organisation saved £1.2 million, another reports £100,000 - savings depend on size of operation). See how depots can be rationalised and business strengths capitalised on. Calculate the latest possible times at which orders can be accepted for collection from (or delivery to) locations all over the UK.

EXHIBITIONS

Technology for Marketing

10-11 February 2004, London

Softworld Supply Chain

2-3 March 2004, Birmingham

TRAINING

GeoConcept Standard

20-21 January
17-18 February
16-17 March

GeoConcept Kits

14 January
17 March

TruckStops

14-15 January
4-5 February
3-4 March

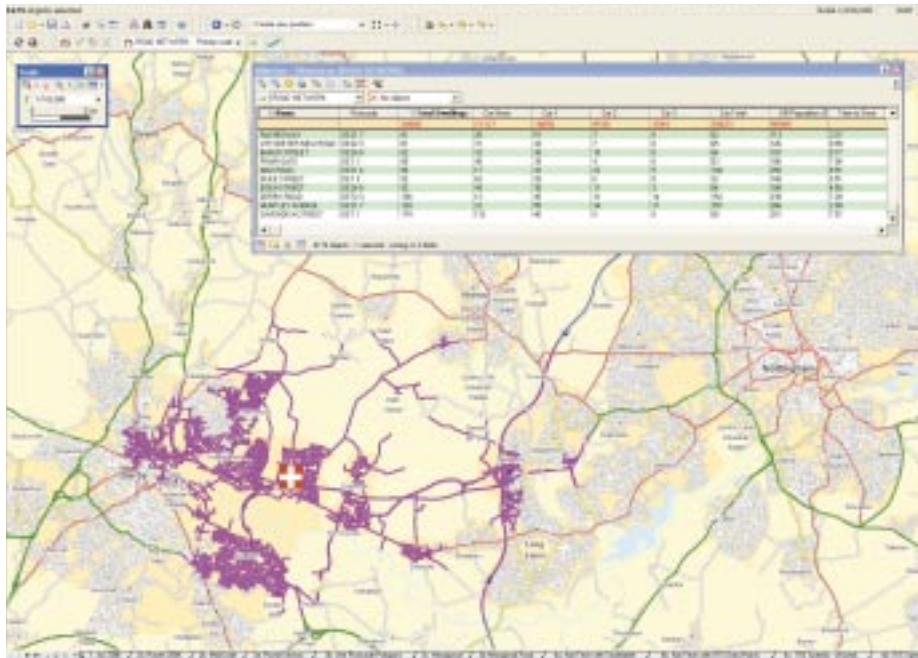
FOR MORE DETAILS call 020 8568 7000.

email info@mapmechanics.com.

or look at our web site: www.mapmechanics.com

People live on streets, not in Census output areas!

Take a new approach to accurate demographic analysis



Kingswood MapMechanics continues to push for more innovative solutions to increase speed and accuracy of results and is now causing excitement amongst retail and site location analysts with the new street-level Census and boundary-less drive time methodology.

Kingswood MapMechanics's new street-level Census data calculates the proportion of population in each output area that is likely to be living on each road link (because people live on streets not in output areas). This method does not break any confidentiality thresholds as it will not show with any certainty the profile of the families living on any particular street, but when a number of streets are added together (for example all those that can be reached within 9

minutes), the results are far more likely to be correct than when whole output areas or less sophisticated proportional calculations are undertaken.

And how can we be more confident

about precise specifications like 9-minute drive times?

By using Kingswood

MapMechanics street-level networks with speeds calculated from millions of GPS signals collated from real journeys by time of day.

Don't continue in the old way - improve your analysis and targeting with new data, new methods and new approaches. If you want

to find out more about innovation in catchment area and demographic analysis call Theresa Barlow or Chris Greenwood on 020 8568 7000. ■

New street-level Census and boundary-less drive time methodology

Speeds calculated from millions of GPS signals

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