

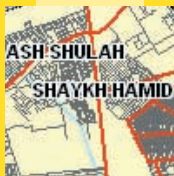
Welcome to issue 13 of the MapMechanics newsletter.

We have noticed that new customers are increasingly referring to us as "The MapMechanics" without reference to our original company name, Kingswood Ltd. In response, this newsletter, our web site and correspondence will now all carry the new name. And when we answer the phone, you may no longer hear us mention Kingswood. The name is different, but the team remains the same with the same commitment to seeing our customers as individuals and striving to find exactly the right data and software to meet your specific needs.

INSIDE



GeoConcept Internet Server brings enlightenment to education sector



From Iraq to Colombia – New street-level mapping



Door-drop efficiency with MM Postman



GeoConcept underpins demand-led passenger transport system

Suppose you're taking bookings for a community bus service, for a staff transport operation or for a vehicle hire business. Which vehicle should you allocate to ensure you get each job done quickly, efficiently and cost-effectively, and also meet all your public service or contractual commitments? What happens if subsequent bookings completely upset your schedule?

Tackling the maze of variables involved in this kind of operation is the speciality of Logical Transport Ltd (LT), a software house that has built up a leading position in the complex world of dynamic planning for demand-led transport.

The company's latest range of solutions, based on its LT Enterprise suite, draws heavily on GeoConcept, the digital mapping and geographic information system from MapMechanics. Already some versions of the software can take account of online Web bookings (Vodafone uses this feature on a staff transport service in Oxfordshire).

In the latest development now being rolled

GeoConcept is now fundamental to LT Enterprise. When travel requests come in, the pickup address is first processed by QuickAddress, which works out the correct map location; then GeoConcept works out the quickest or shortest route for the journey, along with the expected travel time.

The system can then display the routes on screen, either as a map using GeoConcept components, or in the form of GANTT charts. The call centre operator can click on each journey and "drill down" to see precise details of it, and inform the caller of the arrangements.

The system is particularly sophisticated in handling incremental scheduling – where new journey requests come in over a period of time. The system finds the most appropriate vehicle to take new calls without departing from agreed service-level

parameters, then dynamically "shuffles" the whole schedule to fit in the extra trip.

A current high-profile user in the local authority sector is Transport for London, whose CapitalCall service uses private hire operators to transport people who cannot use normal public transport, and is managed on its behalf by Hackney Community Transport. ➔

“GeoConcept’s open nature makes it very easy to make it do what we want it to. The MapMechanics people have provided invaluable backup support from the first” Alan Willson, Logical Transport

out to early adopters such as Suffolk County Council, the system can also deliver journey details to drivers via mobile data terminals, along with satellite navigation details to guide them to pickup points. The company has also been developing systems allowing drivers to send messages back to base, reporting arrival at pickup points or other status details.

Mapping, in a flash!

Digital maps delivered over an intranet or the Internet and viewed on Web browsers can be downloaded more quickly and displayed more smoothly, thanks to new Flash mapping capability introduced by MapMechanics.

Users also get the benefit of more seamless transitions between different map views – for instance, when panning or zooming round the map. Map views seem to “dissolve” from one to the next, rather than changing abruptly.

Flash mapping also opens new opportunities for developers, who will be able to create map-based animations more easily. For example, they will be able to trace the route taken by a vehicle by drawing a line as the user watches, or chart geographically-related variations in activity over time by means of graphs or images that flex and change on screen.

Yet the process of creating the

maps on the Web server, using the GeoConcept geographic information system, is not changed from existing practice. Developers need not learn new techniques or programming concepts. They simply designate either Flash or Java (the previous standard) as the preferred technology for generating



and displaying the maps.

More and more organisations want to offer users panning and zooming functionality, or the ability to pop up information by clicking selectively on the map. This kind of capability frequently requires some kind of browser “plug-in” client

software, which may need downloading the first time the user accesses maps from the source in question.

Historically, a Java plug-in has been the preferred option for adding this kind of functionality, but Flash offers an attractive new alternative. According to Macromedia, its originator, Flash is available on 98 per cent of users’ computer desktops – more than other such plug-in technologies. It also tends to be slightly quicker to install the first time it is used; and map files (.SWF files) destined for Flash rendering can be up to about 25 per cent smaller than equivalent Java-based files, which means a faster Internet or intranet user experience.

All the familiar GeoConcept Internet Server capabilities are present, including the icons for panning, zooming, selecting areas of interest and popping up information.

INBRIEF

MasterMap

- “Change-only” updates of the Ordnance Survey’s new large-scale MasterMap series are now available in GeoConcept. They can be imported seamlessly into the core dataset. It is also possible to remove duplicate objects in overlapping map sections, and to reposition slightly misplaced objects on earlier, less accurate maps.
- Fast Compressed Mapping of MasterMap datasets is now available. Typically an FCM dataset can reduce a MasterMap dataset to around half the previous size, while retaining the essential elements of the original.

Data Updates

- CodePoint: Q4-2004
- OSCAR Traffic-Manager GB: Q2-2004 update
- Boundary-Line: Q2-2004
- AA vector and raster mapping GB: 2005
- Navteq GB Q3-2004

Demand-led passenger transport *continued from page 1*

In this system, GeoConcept uses Ordnance Survey mapping to calculate the shortest distance for each journey and the expected travel time, which can be calculated on the spot and reported to the customer in real time.

“GeoConcept has proved ideal for integrating with our system,” says Logical Transport director Alan Willson. “Its open nature makes it very easy to make it do what we want it to, and to customise it to our particular requirements. It’s powerful and capable, and the MapMechanics people have provided invaluable backup support from the first.”

Logical Transport uses GeoConcept’s optional Delphi developer’s kit and Com kit to produce bespoke mapping features and integrate GeoConcept fully with its core systems.

Already the system can be programmed to take account of different running speeds at different times of day, and to distinguish between different types of environment (motorway running and urban journeys, for example). ■

From Iraq to Colombia – new street-level maps

A wide selection of additional digital road and street map datasets, many covering remoter parts of the world, have been added to the range offered by MapMechanics.

Afghanistan, Iraq and Colombia are among the countries covered in the company’s latest digital mapping releases, along with many locations that are less often in the news.

Areas covered by the new mapping include countries in Central and South America, the Middle East and the Asia Pacific region. Among them are Brazil, Cameroon, China, Colombia, Chile, Costa Rica, Ecuador, El-Salvador, Indonesia, Iraq, Malaysia, Mexico, Panama, Uruguay and Venezuela.

The new maps for Brazil, Iraq and Mexico are particularly detailed. The Iraqi datasets, for instance, feature street-level maps at 1:10,000 of a dozen major cities, as well as cartographic reference files for Baghdad and Basra, and satellite imaging of all cities. Mapping of other smaller locations is also available.



GeoConcept Technology Forum

“Browser-based geographic analysis is fantastic now, and more and more people are finding they can use it instead of traditional desktop applications.” That was one of the key messages delegates heard at MapMechanics’ Technology Forum in Birmingham this winter.

Speakers from MapMechanics presented and demonstrated the latest GIS technology, including

Intranet Intelligence for sharing mapping and information, and W@M for Web-based mapping. Commercial director Chris Greenwood reminded visitors of the pedigree of GeoConcept, tracing its evolution back to its founding nearly fifteen years ago.

Other main topics included Fast Compressed mapping – ideal in portable GIS applications, which were now easier to synchronise with corporate systems; Flash and Smartvector mapping (covered elsewhere in this issue); gravity modelling and territory management; and advances in routing, scheduling and isochrone calculation.

Map Analysis picks GeoConcept to underpin education sector Web portal

Maps generated by GeoConcept Internet Server that illustrate and analyse patterns and trends in local and regional education can be downloaded directly over the Internet by clients using a brand new Web portal.

It is the product of Map Analysis Ltd, a geographic information systems consultancy specialising in the education sector.

The system revolutionises the way people in education-related organisations such as colleges and research consultancies can access geographically-based information, says managing director Katherine Button. "It means they can call up relevant material on demand, in a range of formats that suit their particular requirements. They can focus on specific geographical areas, call up a range of map views and reports based on different criteria, and print out the results."

She adds: "They can now do all this from their desks through the new Web portal, without having to speak to us or request additional research. It means much greater empowerment for them, and cost savings all round."

A further benefit of the system, she says, is that it provides a showcase for the attractions of mapping in the education sector. "It's difficult to explain the benefits of mapping and GIS in words alone, but when you put maps on screen, people immediately understand how useful they can be."

Users are expected to adopt the system for a range of tasks such as analysing catchment areas of individual colleges, travel patterns to



customer, save a selection of map views, themes and positions, and then make these accessible to users via simple on-screen tabs and drop-down boxes. And if we need to change the setup later, we can simply add another tab."

Users for their part can access pre-defined areas of maps, navigate round them, perform their analysis, and print out the required results. "This is far better than with our old system, where users might not know at the outset exactly what they wanted, and had to keep requesting additional maps.

"They also avoid the waste involved in requesting massive sheaves of hard-copy print-outs, just to make sure that these include anything they might need later. Now they can be selective, knowing that they can access whatever they need when they need it."

He says he is particularly impressed with the way GeoConcept gathers all the mapping resource files together in one place.

"This makes version management much easier, because if we update a customer application, there's just one file to upload to the server."

Updating is also smoother, Andrew Button says. "With previous systems, clients had to notify us of things like boundary changes. With

SmartVector

When vector mapping is viewed in most browser-based GIS systems, the user receives a raster image which has been created from the vector on the server. Now, with new SmartVector from GeoConcept, the definition of the vector data can be sent to the browser and recreated locally, so some of the processing is performed at the client end using an ActiveX plug in. So SmartVector enables more clients to access the server at one time and each user has access to mapping in a more intelligent format.

Working interactively, users can enlarge or reduce the view, select parts of the map, view or hide particular features, and list information relating to areas they identify by drawing shapes on the map – all without having to download further information or different views from the server.

Developers can now create maps with inbuilt intelligence – maps that in effect know how to display themselves without any separate software, apart from the "helper" ActiveX plug-in.

The plug-in is the same whether you choose to create a web application, a Pocket PC or CD ROM product, making GeoConcept one of the most flexible mapping technologies available.

GeoConcept, the updating can be done quickly and centrally."

The Map Analysis service draws on a range of standard data held by the company, including for instance Census data and the full National Training Records database. These are linked with mapping such as

"They can now do all this from their desks through the new Web portal, without having to speak to us or request additional research. It means much greater empowerment for them, and cost savings all round."



Ordnance Survey's latest map data.

He points out: "Budgets in the education sector are inevitably tight, and few organisations have the funding or human resources to embark on major GIS projects.

"This new portal service offers on-demand GIS capability that's powerful yet intuitive enough for non-experts to use." ■

"This makes version management much easier, because if we update a customer application, there's just one file to upload to the server." Andrew Button, Map Analysis

educational establishments, age profiles of students in different areas, and relative levels of education funding. GeoConcept can display the results vividly on maps in the form of graphs, pie charts, shading, flow diagrams and similar devices.

Director Andrew Button says GeoConcept Internet Server has proved particularly effective in setting up the system. "It allows us to run the initial analysis required by each



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BRIEFINGS

Efficient Routing & Scheduling

25 FEBRUARY 2005 – BIRMINGHAM (see above)

Using Geography Profitably

11 MARCH 2005 – READING

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.

EXHIBITIONS

Logistics Link • Stand No. 13

1-2 February 2005, London (Sandown Park)

An opportunity to see MapMechanics demonstrate: TruckStops routing and scheduling software to save time and money; Optisite supply chain planning and optimisation to reduce costs and improve customer service; Intranet Intelligence and other map-based logistics solutions to ensure information is shared efficiently and that customer care is improved.

Technology for Marketing • Stand No. C75

8-9 February 2005, London (Olympia)

MapMechanics will demonstrate a wide range of new products including MM Territories, MM Postman and OptiSite to manage media planning, sales, franchise and door-to-door territories. Enhanced Isochrone and Service Allocator modules will be used to show how major retailers and franchise holders plan store locations and allocate new leads to franchisees. Intranet Intelligence will be demonstrated to prove how easy it is to share information with other parts of your organisation and your customers.

TRAINING

GeoConcept Standard
19-20 January
16-17 February
16-17 March

TruckStops
12-13 January
9-10 February
2-3 March

GeoConcept Extension Course
24 February
31 March

TruckStops Extension Course
10 March

GeoConcept Internet Server
13 April

TruckStops 3.0 Workshops
27 January
Please call for additional dates

GeoConcept Kits
30 March

FOR MORE DETAILS call 020 8568 7000,
email info@mapmechanics.com,
or look at our web site:
www.mapmechanics.com

Efficient Routing and Scheduling

DATE | FRIDAY, 25 FEBRUARY, 2005 TIME | 9.15 for 9.45am – 1pm
PLACE | BIRMINGHAM followed by FREE LUNCH and Q&A session

Are you concerned about...
rising fuel costs? the Working Time Directive? fleet efficiency?

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 of 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 number of depots required can be reduced and business strengths capitalised on. Calculate the latest possible times which orders can be accepted, for collection from (or delivery to) locations all over the UK.

FOR MORE INFORMATION AND TO RESERVE YOUR PLACE
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MM Postman – smarter rounds



Organisations making house-to-house deliveries now have a new way to work out the most efficient walking routes for delivery staff automatically. It's done with a product called **MM Postman**, which has been developed by MapMechanics, the mapping and digital information specialist.

MM Postman ensures delivery staff walk the shortest distance without doubling back on themselves or crossing roads unnecessarily. It can also print out a list of the streets for staff to visit, helping to reassure them they are taking the right route. It even prints address ranges for sections of streets, confirming the direction of the route where there is a choice.

The product works in conjunction with GeoConcept, the geographic information system. Using an on-screen map display, managers define the area for each walking route. They can specify a postcode sector or other geographical unit, or alternatively they can work interactively, drawing a freeform shape on screen to encompass the proposed area of the route. They can amend the result to add or remove areas in order to produce a route with the right length and number of properties.

MM Postman then calculates the optimal walking route, taking the delivery man or woman along each side of each street separately. This is displayed on a map, complete with arrow symbols to indicate the sequence and direction. The size of the arrows can be varied to suit the scale of the display or density of the streets.

The information about addresses is drawn from the underlying NAVTEQ street-level map data, which includes address range information.

NEW Postcode Formatter version 1.2.0

This GeoConcept module helps overcome many of the problems caused by inaccurate postcode data entry. Commonly, an "o" might be typed instead of a zero or, if caps lock is on by mistake, a "£" instead of a "3". Postcode Formatter looks for these and other errors, such as excess spaces, and corrects them. This powerful tool increases the number of records which will successfully match postcode files and therefore geocode correctly to appear on your map.

The new version handles a greater variation in postcode structure (e.g. RG04 1TX or RG 4 1TX) where the postcode information is incomplete and it is difficult to distinguish between a sector or district (e.g. OX 21 could be OX2 1 or OX21). The system provides only the area (OX) which has a greater degree of certainty. Full postcode cleaning call MapMechanics and ask about address management software.

NEW GeoConcept Service Release SR1c

This service release from GeoConcept is packed with new features, including faster import to and export from external databases. The release is available to all maintained users immediately. If you do not receive your copy in January, please call to ensure your maintenance program is up to date.

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