Geographical information is now coming into its own as a tool for improving direct mail targeting. Ken Gofton looks at how four companies have benefited from GIS software

Tell me where you live and I'll tell you how you live. That has always been been the perception of how geographic information systems (GIS) work. After all, knowing about a potential customer's neighbourhood will at least indicate whether he or she is likely to be more interested in buying a case of *en primeur* claret than a crate of bootleg lager or investing in a stakeholder pension rather than a trust fund for the grandchildren.

But we all know GIS isn't that simple. Complicated and intensive are just a few of the words that many marketers use to describe this clever direct marketing tool, and at this month's GIS 2001 show in London (*www.gisexpo.com*), the latest in geo-logistics and digital mapping could be either converting or confusing many more.

It never used to be this way. CACI with Acorn and what is now Experian with Mosaic led the way in the early 80s with classification systems for all neighbourhoods, drawing on a range of data sources, including the national census. In targeting terms, this was a big step forward from simply using cold lists. Later, these systems lost ground to lifestyle databases, but when it was recognised these could be bolted on, GIS started to take a new form.

Today, desktop systems are available for just a few hundred pounds. Low cost, however, doesn't always mean easy-to-use. Andrew Hindson, database director at Brann Discovery, warns that first-time users still need to be cautious. "Data requirements change constantly," he says. "You might be expanding now but contracting in two years' time and being disciplined with data is difficult."

Moreover, while GIS can be extremely useful, there is now a bewildering range of tools on the market to meet a growing range of needs. Besides improving direct mail marketing, GIS can be used to find optimal locations for retail stores. Other common applications include mapping sales territories or determing where telesales would be preferable to having a rep on the road due to distance.

But with all this exciting promise, who is using GIS and for what specific purpose? This month, as well as including a useful terminology detangler, we take a look at how four companies are using GIS software in completely different ways.

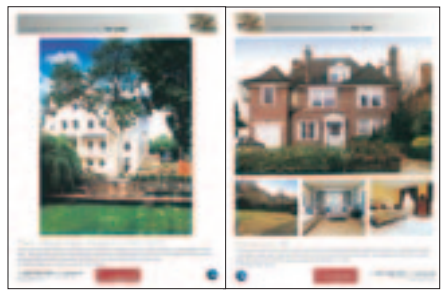
Case study 1 Redwood

Residents in the smarter parts of London, like Mayfair, Regent's Park and Hampstead, are generally not short of the readies. It might be assumed they're not low on self-esteem, either. But a number of estate agents concluded that what's been missing from these people's lives is a publication to make them feel good about themselves and their properties.

The estate agents formed the REAP consortium specifically to commission a monthly lifestyle magazine called *Fabric*. Aimed at residents of properties valued at between £250,000 and £10 million, the contract to produce it was won by Redwood Publishing. The first issue, boasting a circulation of 80,000, appeared in April.

Redwood is the UK's largest publisher of customer magazines, but unlike most of its competitors, it also sees itself as a specialised direct marketing agency. As it points out, it sends targeted communications to named individuals in order to influence attitudes and elicit response.

Strategic planning director Steve Martucci says his department uses the popular geo-demographic systems "all the time" to provide a better understanding of the readers of magazines produced for the likes of Marks & Spencer and Boots. The greater the understanding, the easier it is to produce relevant editorial material.



Fabric: **lifestyle magazine that understands readers' needs, resulting in better targeting**

In *Fabric*'s case, overlaying postcode data with other economic and lifestyle information helped refine distribution in central and north London. Readership responses are checked against the geodemographic models to get a feel for what kind of people are interacting with the magazine.

The publication has been created with a bias towards advertising – the planned ratio is 70 per cent advertising (much of it for property) to 30 per cent editorial. There is a need, however, for third-party advertising, both for balance and to subsidise production costs. For potential advertisers, GIS systems will help build a picture of who reads the magazine and how they spend their money.

◀◀ Case study: Dell

Case study 2 Betterware

Betterware, the £100 million-turnover home and kitchenware catalogue distributor, knows better than most how the need for geographical information can affect turnover. The UK's largest door-to-door homewares company has to constantly analyse which areas will produce the highest returns, and how its army of catalogue distribution agents can door drop most efficiently.

Territory analysis, however, was something the company had only done to a limited extent, until it recently turned to InfoTech Enterprises to develop a tool to allow area managers to have access to Betterware's central database and make spatial enquiries to measure the effectiveness of its agents. By web enabling AutoDesk's MapGuide, area managers can now tap into the database and use GIS to identify which customers buy the most and how to target better prospects. Abusive

Betterware: improving turnover through GIS

or disinterested home occupiers also have flags next to them. The programme will even suggest the most manageable distribution route for agents to deliver the catalogues. It will notify the user of impractical paths such as having to walk through rivers, which used to cause problems before the system was in place.

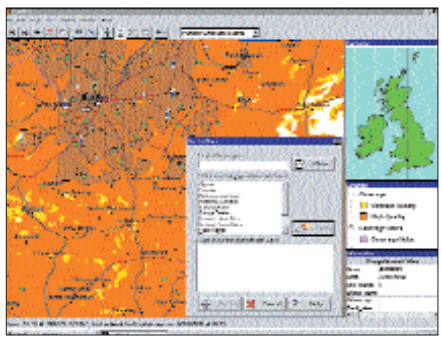
Case study 3 Orange

In the fiercely competitive world of mobile phones, customer service is seen as one of the best ways of building a better reputation at the expense of rivals.

The Orange network has 7,500 customer service representatives to cope with the enquiries of its 11 million customers in five call centres across the UK. Until recently, only half of these operatives had access to MapInfo's MapX mapping software. Now the package is being rolled out to all service points, at a cost of around £250,000.

The aim is to provide call centre staff with accurate and interactive maps of Orange's network coverage. Useful details like the locations of stockists are also shown, but the key feature is that it provides information on where Orange transmitters are, which ones are down, where new ones are being built and when they will be brought on line.

All of which means that when irate customers ring in to say that their calls are breaking up, it is an easy matter to



Orange: GIS can quickly locate faulty masts

provide an explanation. Maybe the caller is on the edge of a transmission area or the mast is broken-down. With GIS information at their fingertips, customer service will know exactly what the problem is or whether they need to start a different line of enquiry.

Not only can staff identify problems, with access to GIS data they can also see how far away the nearest engineers are to estimate when the situation is likely to improve. All data is regularly updated so that information is readily available to customers.

Yet with all these functions, it is the speed of access to information which is the greatest benefit. Customers appreciate a rapid response to their enquiry, says Steve Harper, Orange's GIS system manager. He maintains feedback from users has so far been very positive. Customer complaint calls can also prove useful for the maintenance of their network. "Information on network faults can be captured from the call centres and fed through to our engineers," he says. "Problems are identified and rectified as soon as possible."

An additional benefit is that a speedy response raises productivity, allowing the centres to handle more incoming calls each day. Also, if a centre receives a cluster of calls in one area about poor transmission quality, it could be a sign of a fault developing – and all this information is relayed directly to the company's engineers.

Harper adds that providing exceptional customer service is a key mission for Orange, and that GIS usage plays a critical part in achieving this goal.

Jargon Busters

Matthew Spencer, EMEA marketing programmes and communications manager, MapInfo, cuts through the GIS jargon

Geocoding Adding geographic information to a file, or database, so that it can be displayed on a map. The file must contain data that is geographic in nature (county, post codes, or street addresses). Other associated data, such as census data, can then be attached to it.
Thematic mapping Displaying selected information on a map by using hotspots, (dot-density) shading, line thicknesses or a range of symbols to reflect different values in the underlying data.
Penetration analysis The analysis of actual vs potential incidents. Can be used with thematic mapping to gauge how response rates to a marketing campaign vary across a map.
Redistricting Allocating geographical areas (like post code boundaries) to territories so that each territory represents an equal opportunity or workload. Often used for building sales territories.
Grid mapping Displaying data as continuous colour gradations across a map to highlight hotspots in the underlying data. For example, high concentrations of customers.
Isochrone/Drive time A line of equal time enclosing an area that can be reached within a certain time, eg 30 minutes drive from a chosen location. Essential for catchment areas.

Peugeot: GIS supported the campaign for the 307

Case study 4 Peugeot

Car manufacturer Peugeot believes the way it uses geographical information gives it a clear edge over competitors. It takes it so seriously that the company even has a specialist from its supplier CACI resident on site at the Coventry headquarters.

Like its rivals, Peugeot has a wealth of data on existing and potential customers and to analyse this the databases from its HQ and four regional offices are linked directly to CACI's InSite GIS software.

Anthony Gough, Peugeot's manager for franchise development, says InSite was used extensively for the launch of the new 307 model, by identifying post code areas with high sales potential. Mapping this information then helped dealers visualise their marketing plans and invitation lists.

"We can look at a dealer's territory and see how he is doing for market share," says Gough. "If it seems like a dealer isn't achieving his potential, we can suggest a remedy. Perhaps his showroom is too far away, and competitors are nearer."

This isn't the only way Gough says he uses GIS. "With the little 106, it might be right to promote the high-performance versions in residential areas where it will be bought as a second or third car," he says. "Where it will be a family's first car, it may be better to stress easy financial terms."

The system has been made as user friendly as possible to encourage maximum usage. Routine analysis can be obtained at the press of a button while the permanent CACI representative is on hand to deal with more unusual enquiries.

Gough stresses the benefits of using mapping tools over columns of dry data. "If we produce a map down to street level, the dealer can relate to it and add the extra dimension that makes it really work," he says.