POSTCODE MAPS TO OPEN UP MASS MARKET

Doing Business with GIS

Postcode maps are key for the GIS industry in opening up the mass business market. Virtually all companies today need spatial data for sales, marketing and controlling departments and the postcode is a feature to which every type of information can be easily linked. The author argues that postcode maps combined with standardised GIS environments will help turn GIS into an inevitable tool for doing business.

The GIS industry is in the process of developing and marketing more and more elaborate techniques for producing more and more precise data. In doing so, it is losing sight of the genuine needs of the largest group of potential users: sales, controlling, marketing and strategy departments in the mass business market. Here there is a universal demand for complete and recent spatial data. Postcode maps, together with standardised GIS environments, will help turn GIS into an inevitable tool for doing business, just as word processing and internet browsers are today.

Too often one sees in the eyes of a GIS expert a certain lack of understanding regarding the purpose and necessity of postcode maps. Questions arise, such as "What scale is a postcode map?" and "Have you got all the streets to go with it?" But this is not the crucial point! Business mapping and geomarketing are apparently so exotic to most GIS experts that they seem not to be able to appreciate them. And this while these sectors represent the greatest opportunity after almost thirty years for the GIS industry to step out of the shadows of universit-ies and research centres. Geomarketing can create attractive products and solutions for companies active in B-2-B and B-2-C markets. Here lie the challenges: geomarketing offers enormous growth potential for the GIS industry! The world's largest IT fair, the annual CeBIT, demonstrates how little attention the GIS community has paid to these markets up to now: it is virtually impossible to encounter a GIS vendor here.

Postcode Maps
The boundaries of a postcode map are defined implicitly by the addresses grouped together by a national postal organisation for logistical reasons; postcode boundaries are not measured. As a result of social dynamics such as migration, construction activities and local business-supply changes the volume of letters and packages to be delivered within a postcode area undergoes continual change. In response, the number, size and shape of postcode districts change accordingly. In rural areas individual communities or groups of communities usually have just one postcode. In urban areas, distinct postcodes may have been assigned to single districts, a few blocks, the left and right-hand sides of a street, single houses or to a few floors of a multi-storey building. Moreover, every postal organisation has its own exceptions and special cases. As a consequence, clear-cut conversion of official postcode lists into maps is often difficult and sometimes even impossible. Most providers of postal maps, for example, are able to offer at best national coverage or coverage of urban districts of the most prominent cities. The Romanian postal organisation completely converted from four to six-digit postcodes in 2004, leading to the subdivision of some cities into very small units. The third largest city in the country, Timisoara, with around 350,000 inhabitants, is split up into 1,800 districts, and the capital Bucharest, with around 2 million inhabitants, has 12,000 districts. Compare this to Berlin, a city with a population of around 3.6 million, divided into about 180 postal districts, or with Warsaw where 1.7 million inhabitants have been subdivided into almost 4,000 districts.

Quality Criteria
The quality of maps is often considered in terms of geodetic precision. However, precision as required in micro-geographic analysis and technical planning plays a secondary role here. Further, boundaries cannot and do not have to comply with any official map. What then are the distinguishing features of a good postcode map? The quality requirements include (1) cartographic properties, including accuracy of boundaries, absence of overlapping and special generalisation techniques and (2) completeness. Attribute assignment is also very critical, including features such as territorial numbers and names, in both Latin and local characters where applicable, and a date; the last because of changes to postcode areas. These quality requirements apply because virtually all business processes can be linked to a postcode. Therefore business users need postcodes as interface for reading corporate and customer data into a Business GIS.

Spatial referencing and geo-coding of corporate data is done with the help of postcodes because address data is usually unavailable for all areas required, and is often insufficiently distinct. When using GIS in business, simplicity and completeness are much more import-ant than geodetic precision.
Shortcomings typically involve not wrong scale but gaps between areas and overlaps between postcode districts resulting from lack of adequate data. Incomplete or inconsistent attribute assignment reduces much of the value of an otherwise good map. Another widespread failing is the presentation of a postcode district on a map as a spot or, even worse, a derivation from Theissen or Voronoi polygons from spots. No complete map coverage of the many different postal systems is available to date, even for Europe. Na-tional postal organisations often lack map display of their territories, so a lot of blank areas are still present on the postcode map of the world.

Out of the Corner

It will be obvious by now that the GIS industry is still a long way from what providers of CRM and ERP software have achieved: the mass distribution of standardised business tools. Instead of providing a huge market with a proper basis for the localisation of customers, branches and market potential, the suppliers prefer in various GIS forums to discuss among them-selves the latest technical gadgetry - of no interest to those outside the incrowd. In contrast, commercial GIS service providers usually operate on a project-specific basis for a very specialised customer-base. If the GIS industry wants to get out of this corner it must ensure that the use of GIS software becomes as natural a thing as using word processing or spreadsheet programs, and just as simple too. The user should not need to worry about fonts when typing a letter. Indeed, a well-equipped map package including postcode maps (!) should be an elementary component of a Business GIS.

Mass-market
The postcode is the bridge between the GIS industry and the mass Business market. Until recently most Business Mapping was done by sticking pins into a hikers€™ map. The trivial step of translating pin-sticking into its digital counterpart amounts to a quantum leap for this group of users. So the development of software and digital maps should first and foremost be accompanied by making accessible as-simple-as-possible basic maps: postcode maps or those of CRESTA zones or pharmaceutical regions for specialised users. Through the availability of ready-to-use maps, the abstract topic of GIS will evolve into an attractive tool offering tangible, measurable benefits for all types of companies. Any resultant mass-market of this kind could provide the GIS sector with a rapidly increasing demand for more comprehensive and more complex GIS tools.