ADDRESS GEOCODING

Integral to almost all the areas of business and government is address and with the now prevalent use of GPS address geocoding has become a common and powerful business tool. For those in the spatial industry the concept of geocoding is well known and understood as being the process of assigning a code (eg. name, number) to a geographic feature and usually also to a standard reference grid. Geocoding can be undertaken to develop a standardised digital street address file and the resultant address file is then described as being geocoded.

Address geocoding therefore involves the conversion of descriptive address locations to the geographic coordinate data for those locations as exemplified by the PSMA Australia *Geocoded National Address File* (G-NAF® & see: http://www.psma.com.au/datasets/g-naf). G-NAF® is Australia's first authoritative geocoded address index for the whole country, listing all valid physical addresses in Australia. It contains approximately 12.6 million physical addresses, each linked to its unique geocoded (specific latitude and longitude of the address). Data used to build G-NAF® comes from contributors including the Australian Electoral Commission, Australia Post and Australia's government mapping agencies and land registries.

A key application of a gecoded address file is through the use of web services. The recent technical developments in both web services and Open Standards enables the power of address to be realised. Address acts as a key to vast arrays of location information (ie. administration boundaries, statistics, socio-demographic inforamtion, related features). It also creates time savings as it allows multiple business applications to access and utilise the same address file from a single point, also reducing duplication and currency issues. A current example of a web service of this nature is the *Victorian Mapping and Address Service (VMAS).*

Key applications of a geocoded address file include:

* Validation of an address;
* Mapping directory information;
* Finding location information about or around the address;
* Component of routing;
* Quick customised map of the address and surrounds;

* Ability to track service delivery through use of the address;
* Strategic planning