



XML-BASED DATA IN GIS

AS THE POPULARITY OF GEORSS GROWS, THE IMPACT ON GIS RELATED APPLICATIONS AND POSSIBILITIES IS ALSO GROWING AND CHANGING.

With the ever increasing use of specialised Web sites as repositories of reliable, up-to-date and useful information on all manner of topics, more and more GIS users are turning to the Internet to get the information they need, whether it's for use in their professional capacity or as a private individual.

GeoRSS plug-in.

Really Simple Syndication (RSS), a family of XML (eXtensible Markup Language) formats for exchanging news, particularly about web pages or other web content, is used by many dynamic web sites, e.g. news sites, 'blogs', etc., to provide 'feeds' of their new or changed content. These feeds typically contain only basic information, such as author, date, title and brief description, enabling the reader, or an RSS aggregator service, to decide which materials are worth further investigation.

GeoRSS, which is supported by the OGC, is a simple extension to RSS feeds to describe the location of the information in geographic coordinates. As RSS becomes more prevalent as a means of publishing and sharing information, GeoRSS is expected to become increasingly important in enabling applications to request, aggregate, and share geographically tagged feeds.

"These new plug-ins for XML-based data – each with very different contents aimed at very different groups of users - will allow the Cadcorp SIS user to easily overlay and correlate the information with his own data in a wide variety of uses," says Martin Daly, technical director, Cadcorp. "GeoRSS in particular, although a relatively

recent development, is rapidly becoming the format of choice for 'geotagging' everything from earthquake locations to mountain bike trails"

GeoRSS-enabled services will make it possible to search using various geographic criteria. For example, a local authority could make GeoRSS feeds of planned and actual street works available through its web site, enabling other organisations involved in street works, such as utility companies, to obtain up-to-date information on the location of new road openings.

Estate agents will be able to use GeoRSS feeds to allow prospective buyers to keep up to date with new properties for sale, of a particular value and in a given area. In addition, all 'new' street works in a given road could be delivered to the in-boxes of all interested parties. Other possible uses of GeoRSS envisaged by Cadcorp include anything that is incident related, such as traffic news, police and fire service incident notifications and local council activity calendar updates.

GPX plug-in

Designed from the ground up to be the standard XML format for exchanging GPS (Global Positioning System) data, the GPX (Global Positioning eXchange) format encodes GPS data (waypoints, routes, tracks) and enables the data to be shared between software programs and between web services. The GPX plug-in will allow Cadcorp SIS users to read GPX data exported from third party GPS software without conversion or translation.

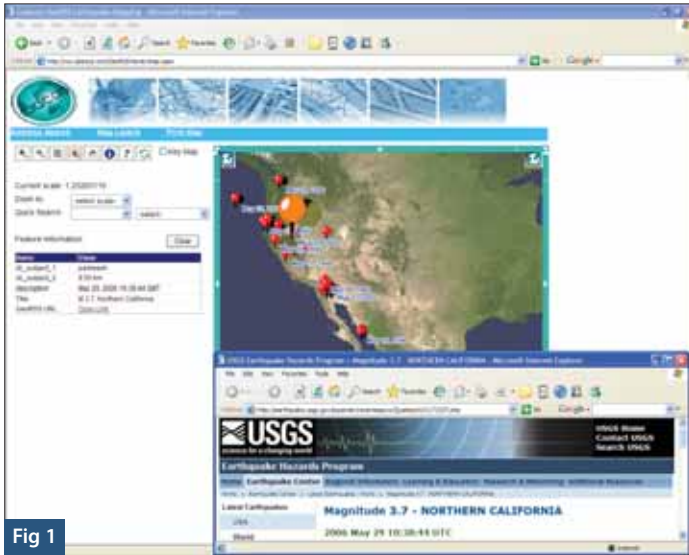


Fig 1

FIG. 1: Locations of recent earthquake activity.

FIG. 2: Tracking locations marked.

With GPX being used by an increasing number of software programs and Web services for GPS data exchange, mapping and geo-caching, users of the new GPX plug-in for Cadcorp SIS will be any organisation that uses GPS and wants to exchange data with other GPS users, who might not be using the same software. The ease of data exchange enabled by the GPX plug-in also extends to the consumer GPS world.

MIDAS XML Plug-in.

Developed under the auspices of English Heritage to support interoperability for the UK's Historic Environment Information Resources (HEIRs), MIDAS XML is a set of World Wide Web Consortium (W3C)-compliant XML schemas that cover specific information categories, such as monuments, events (e.g. investigations), people and spatial data etc., relating to the UK's national historic

environment.

While the HEIRs information system is used both by professionals and enthusiasts to document and analyse the UK's historic environment, a wide range of HEIRs records has developed independently over the years due to the fact that, for any given place or feature of historic environment, there are often many different organisations that might have an interest in it.

For example, a prehistoric burial mound could be recorded simultaneously by a local authority for development control purposes, by a national body for purposes of legal protection, by the landowner for land management and by a thematic national survey of sites of a particular type. In addition to this diversity of purpose for a given site, no two features of a particular type of the historic environment are identical.

As a result, in order to achieve a full picture of the existing knowledge of a single feature in the historic environment, it is often necessary for professionals and enthusiasts alike to draw on information from a variety of

different HEIRs. To review the full range of knowledge about a particular aspect of the historic environment on a national scale means consulting dozens of separate HEIRs.

MIDAS was developed to help overcome this interoperability problem by defining the 'units of information' (or metadata elements) that are recommended for inclusion in various types of record of the UK's historic environment.

Daly explains, "Using the Cadcorp SIS MIDAS XML plug-in, historic information users such as local authorities - who receive listed-building data from English Heritage in MIDAS format - university-based research projects, professional heritage managers and national thematic study groups, etc., will be able to access, share and make best use of the vast quantity of historic environment information maintained by a wide variety of national bodies of record".

For more information and download: http://www.cadcorp.com/resources_digital_mapping/cadcorp_sis_plugins.htm

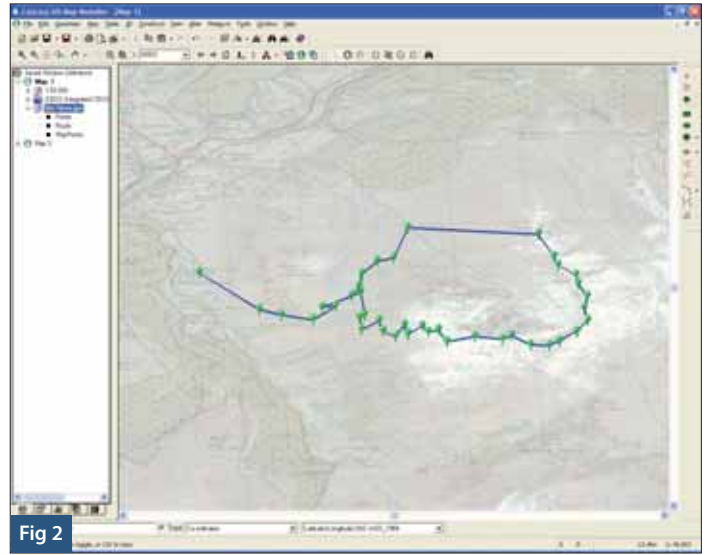


Fig 2



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