

In addition we see a trend towards more web based processing applications, be that via Web based GIS solutions, Web Portal Services or web-enabled image processing tools.

RSI, with its technologies and solutions – ENVI, IDL and IAS, is well positioned to play a major role in the growing geospatial market. In particular to extract as much information as possible from every pixel within an image. This information is largely untapped to date in the Geospatial world.

ENVI has evolved greatly from its inception in 1992, maintaining its strength as the most powerful tool to exploit hyperspectral imagery, but also expanding its capabilities to provide a complete suite of geospatial information processing. These tools provide all the required functions needed to not only extract the spectral information from imagery, but also provides exceptional tools to extract features in a manner ready to use in all major GIS systems. RSI will continue to provide additional functionality allowing the end users to extract the needed information from imagery, through easy to use tools and modules. The recently released DEM (Digital Elevation Model) Module, which fully automatically correlates two stereo images (even without any Ground control points) demonstrates RSI's commitment to bringing intuitive tools to users of geospatial information. As the company moves into 2006, RSI will focus heavily on "Ease of Use" and "Productivity" enhancements as well as ensuring that our solutions interface with "Enterprise Solutions" that adhering to commonly accepted industry standards, such as the OGC. In addition RSI will release a number of new modules and add further functionality to its existing solutions, which will prove to be of exceptional value to the end user within the Geospatial world.

For more advance users, IDL will continue to be the ideal solution to streamlining, modifying or developing new workflows or functionality within ENVI, to meet ever changing requirements of customers. Finally with IAS (Image Access Solutions), RSI owns a unique solution to convert image data into JPEG2000 compliant form and then distribute that information in seconds rather than minutes or even hours.

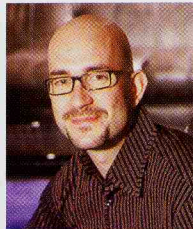
CARLOS DOMINGO, CEO - LIZARDTECH

Geospatial imagery is becoming widely available at higher resolutions and lower prices than ever before thanks to many factors. Among these factors are the adoption of digital airborne cameras, initiatives such as USDA NAIP (the National Agriculture Imagery Program) which enables city and county governments and other end-users to buy imagery of almost any US county at high resolution for as little as \$42

(\$50), and investments being made by the National Geospatial-Intelligence Agency (NGA) into commercial satellite companies. Moreover, new consumer offerings such as Google Maps, Google Earth and MSN Virtual Earth that offer rich Web interfaces are raising the awareness of the usefulness of geospatial imagery to convey geospatial information, even down to the consumer level.

The increased amount of imagery available, combined with the increase in distributed network environments and the immediate need for image accessibility (as manifest by the emergency efforts following recent events such as the Indian Ocean Tsunami and Hurricane Katrina) have only served to highlight one of the problems in our industry that is yet to be solved: the efficient management and distribution of geospatial imagery. There are some recent technology trends in our industry that point towards a solution.

First, as anyone from the content management industry knows, to have good digital content management you need to take advantage of the standards that are available for metadata, since metadata is the primary means of tagging and searching for content. Recent progress in defining an OGC standard based on GML (Geography Markup Language) looks very promising for providing a mechanism for



interoperability that will be flexible enough to keep up with the increased sophistication of imagery-based applications, including critical georeferencing information.

Second, data needs to be placed in a repository where it can be efficiently managed. The recent increased reliance on databases for storing geospatial data is a step in the right direction, but there is still plenty of work that needs to be done to manage and store imagery more efficiently across networks and among distributed databases. In particular, imagery needs to be loaded and accessed quickly and in a flexible manner so that it can be rapidly modified for each particular application.

Finally, once the image is properly tagged, stored and searchable, you need to be able to have a good communication mechanism for applications to access these database-driven image repositories. The continued development and adoption of Web service standards, such as OGC's Web Map Server and Catalogue Service specifications, are positive developments for solving this problem.

Solving image management and distribution issues will be the focus of our company in the coming years and we are confident that our experience in wavelet image compression and streaming, using GML for geospatial imagery metadata and content management in general makes us uniquely suited to help the geospatial community envision, attain and acclimate to the imaging territory ahead of us.

VANESSA LAWRENCE, DIRECTOR GENERAL AND CHIEF EXECUTIVE - ORDNANCE SURVEY

The industry is ever evolving. Responding to changing customer needs and attitudes is the challenge facing all suppliers to the marketplace. During 2005 we have seen the launch of 'disruptive technologies' from major IT players such as Google. Does Google feel part of the GI industry? I expect not. Such technologies have made a major impact on the awareness of location and geography in the few short months since their launch in this market; certainly raising much greater awareness of their importance than the industry has managed in many years. However, most users do not relate to our industry or have even heard of it; they are just using 'location' in their decision-making. I do believe it is one sign that the industry is moving into the mainstream, with consumer, professional and enterprise users.

During 2006 I believe there will be an increasing use of consumer-led mapping on the web fuelled in part by 'mash-up' tools such as those from Google Earth, which are driving the popularity of web applications combining content from more than one source. This interest will also, I feel, be reflected in the growth of web-based topography map sites aimed at specific consumer communities such as walking and geocaching.

It is likely that the location market will see the rebirth of location-based services as Local Search tools are developed for business communities. Google Local is championing the trend in delivering local search capabilities on a national scale, with technology from Yahoo!, A9 from Amazon and O2 mobile internet also driving progress. The consumer market will take the first steps towards delivering these services, reflected in the growth in sales of sub £100 personal/car navigation systems.

For Ordnance Survey, 2006 will see the delivery of a number of key operational projects.

OS Net, a publicly-available GPS correction network will enable centimetre-accuracy data collection. This will enhance our field staff survey efficiencies and offer huge potential for construction, land survey and agriculture through the level of precision achieved without lengthy set-up or post processing. The enhancement of data quality will also generate opportunities for our developer partners, who use sample mapping data to design and test marketable products.

