

Column for October 2004 GeoWorld
by David Schell
President, OGC

Title: A New Name for OGC Reflects Maturation of GeoSpatial as part of Enterprise IT

OGC originally set out to enable geospatial data interoperability between different GIS systems, thus the original name, "Open GIS Consortium, Inc." OGC's new name, "Open Geospatial Consortium, Inc.," reflects the fact that the work of the OGC has gone far beyond traditional GIS. Our members are now working interoperability issues and architectures for sensor webs, image processing, digital rights management and many other non-GIS topics – all critical areas of geospatial content creation and processing. Homeland security, enterprise application integration, mobile computing, and service oriented architectures are some of the key market forces driving the current interoperability focus of the members. The interoperability that makes a multi-vendor network of geospatial components and services possible results largely from open interface and encoding standards developed in the OGC and other IT standards organizations.

This represents tremendous progress for those who are able to re-adjust their thinking and take advantage of the expanded reality.

The paradigm shift of the focus of the work of the OGC from GIS centric to "geospatial" supports "spatial enablement" of the enterprises, the web, and information communities. That is, it makes it much easier to provide, throughout the enterprise or community, spatial capabilities that could have been provided before only at great expense. It also supports "location intelligence," which means that "where" information is available to any user whose task could benefit from knowing where something or someone is.

80% of data records in databases have always had spatial fields, but now data's "spatialness" is easily leveraged. The spatial field might be a street address, an area code, a zip code or a reference to some place or region defined inside or outside the database. Most of this data is simple location data, but services like geocode/reverse geocode (made openly accessible through interfaces compliant with the OGC Open Location Services Specification) make that simple data valuable in a wide variety of applications, from optimizing sales routes to telling citizens what voting district or watershed they're in.

Spatial data that derives from sophisticated geospatial technologies can be leveraged to enrich applications of all kinds. Components and services descended from GIS can write data from GIS, earth imaging, GPS, RFID (radio frequency identification), digital surveying systems and other spatial technologies into a general purpose database. Other components and services enable diverse clients to use the data. For example, a Web-based client might get two raster maps, depend on one of the map servers to make them geo-register to the same coordinate system, and put them on a page in a desktop publishing application. The possibilities are no longer limited by the proprietary hooks available for integration with complete GIS packages. Complex spatial data and spatial capabilities can, with little effort, be integrated into the user's information environment. The integration code is standards-based and thus broadly re-usable.

Technology providers of all types benefit from participation in OGC. Vendors share the cost of interface development and find a ready market for componentized versions of their products. Integrators and infrastructure suppliers join to make the best possible use of the diversity of resources in the market, and to get their requirements quickly into the Enterprise Architecture mix and begin planning business processes that take full advantage of spatial intelligence. To delay is to let their bigger competitors tie customers into more proprietary solutions, creating expensive dependencies for those customers.

The August, 2003 Delphi Group standards survey, "The Value of Standards," showed that major corporations have learned the value of open IT standards. In the World Wide Web Consortium

(W3C), OASIS, OGC, and other consensus standards organizations, agencies and technology-using corporations have also learned the value of being active partners with technology providers in evolving open standards. Participation in such organizations is the best way to learn what's possible and to shape what will be possible.

User organizations, government and commercial, join OGC to provide requirements to help shape specifications; to learn about available products; and to learn which vendors and integrators can best serve them in designing and implementing spatial architectures. There's still a lot of shaping to do: Standards in areas like Web pricing and ordering, geospatial digital rights management, sensor web enablement, "fusion" of multimedia data that references place, and methods for generating Web or non-web code from UML models are some of the current activities in the OGC. That in-progress work builds on a solid core of more than 200 commercial products that implement already-adopted OGC interface specifications. Scores of technology providers in OGC have already built standards-based systems for hundreds of customers.

If you are in the IT services department at an agency or company, we would like to help you understand how your organization can benefit from spatial enablement and location intelligence. We invite you to look at the OGC Web site (<http://www.opengis.org>) and give us a call.

###