

OGC's column for February 2003 GeoWorld

Title: An Overview of OGC Progress

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Over the last nine years, the OGC membership and staff have achieved a number of major accomplishments. Given the range of complex technologies and difficult organizational and competitive obstacles that had to be overcome, building an institutional and technical framework for geoprocessing interoperability is an extraordinary accomplishment. The work continues to be extremely fruitful. OGC members have approved eleven implementation specifications, and these form a core interoperability framework for implementation in the geospatial community. Additionally, a wide array of OGC Discussion Papers (<http://www.opengis.org/info/discussion.htm>) provide a major view into potential specifications to come from the OGC process.

The latest OGC accomplishment is the OGC Reference Model (ORM). The ORM provides a baseline model and service framework for all OGC technical activities - current and projected. This document wraps together every formal technical agreement reached in the OGC since 1994. The OpenGIS Abstract Specification and adopted OpenGIS Implementation Specifications provide the technical baseline for the ORM. Scores of software products now on the market interoperate through interfaces that implement existing OGC specifications. The list of conformant products and the list of conformance tests for products implementing new specifications continue to grow. Our new Conformance and Interoperability Test and Evaluation (CITE) Initiative, launched in December 2002, will yield a sharp increase in conformance tests, conformance testing, and interoperability verification and validation.

To appreciate OGC's impact, it is important to understand that adopted specifications and products that officially conform to those specifications are only the visible tip of the iceberg. The overall Framework, planned specifications and specifications that are in progress have a strong guiding influence on the market. OGC members work closely together in OGC-facilitated projects called Interoperability Initiatives that are the birthplace for new specifications. Initiatives also provide an environment to rigorously test existing specifications in a multi-vendor environment. New specifications typically begin as Interoperability Program Reports (IPRs) and Draft IPRs (DIPRs). These documents, based on working prototypes and lessons learned in the initiatives, represent consensus or near-consensus on many technical points. They are also the foundation documents from which new OpenGIS Specifications are derived. Despite the fact that IPRs and DIPRs are not yet adopted specifications, they guide not only development and procurement, but they also guide members' commitment of resources to fill gaps in the OGC specification framework.

The process clearly works: Members are pushing specifications to completion and implementing them in the marketplace. An increasing number of specifications are approved each year, and more and more members are assigning one or more staff people to work full time in OGC programs. And members are putting in place more streamlined and robust certification and validation testing (the CITE initiative) to hasten the delivery and widespread use of interoperable products.

It is easy to understand why members are committed to OGC.

Consider the significance of the Critical Infrastructure Protection Initiative (CIPI). CIPI aims to test the application of interoperable technology to meet critical infrastructure protection needs. It supports coordination of geospatial data and services between national, state, provincial, and local governments as well as commercial and non-government organizations. A key CIPI goal is the development of a collaborative, distributed network of critical infrastructure information sources and services based on open standards and specifications. Many countries are developing and incorporating legislation for Spatial Data Infrastructures and Homeland Security. Clearly, OGC members are supplying a key technology element required for these application areas.

And consider the significance of the Geospatial Information for Sustainable Development Initial Capability Pilot (GISD-ICP). In collaboration with the U.S. Department of State, the U.S. Agency for International Development (USAID), Natural Resources Canada and the US Federal Geographic Data Committee, OGC provided cost-sharing funds to partially offset expenses of technology providers who participated in this first of a series of projects to help make geographic information more discoverable, accessible and useful to decision makers working on sustainable development problems. Thirty-seven organizations, most of them located in Africa, are sharing data and providing requirements to OGC in GISD-ICP. This project, presented at the World Summit on Sustainable Development in Johannesburg--August 2002, has been very well received by people who are directly involved in programs to help African nations meet the extraordinary challenges they face. The global sustainable development community is aware of GISD, and it will be relatively easy to extend the network to benefit this whole global community.

Visit OGC's web site (<http://www.opengis.org>) to see details. Consider how involvement in OGC might help your organization accomplish what it is trying to accomplish.

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