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Title: **OGC Pilot Takes Web Mapping to a New Level**

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OGC's Military Pilot Project, Phase 1 (MPP-1) is the most recent OGC Interoperability Initiative. Most OGC Interoperability Initiatives are testbeds or pilot projects. Testbeds are organized for fast-track definition and development of new candidate OpenGIS specifications. Pilots test and exercise newly developed OGC specifications in a near-operational user environment. In a Pilot, major customers get to see real world proof of interoperability between commercial software products from different vendors, interoperability that is enabled by interfaces implementing OpenGIS Specifications.

MPP-1 is OGC's third major Pilot Project. Last year, the Upper Susquehanna-Lackawanna Pilot , (USL Pilot) February, 2000 – May, 2000, helped the US Army Engineer Research and Development Center (ERDC) assess the feasibility of implementing a multi-user, multi-vendor web-enabled mapping and planning framework in Central and Northeastern Pennsylvania. That was followed by the Geospatial Fusion Pilot, January 2001 – April, 2001, which successfully implemented Geospatial Fusion Services capabilities in a user setting to apply geospatial data fusion to intelligence analysis problems and to demonstrate the utility and effectiveness of these new technologies. *Geospatial Fusion* in OGC refers to standard methods of "fusing" disparate kinds of geospatially referenced data into one spatial framework, so that text, for example, can easily be geo-indexed, integrated with other spatial data, and shared with other users across the Internet. The first GFS testbed and pilot addressed text. Fusion of geospatial data with video, sound, and photos will be addressed in future initiatives.

Running April, 2001 – July, 2001, MPP-1 is a similar collaborative effort that contributes to the "operational validation" of interoperable commercial geoprocessing products for the defense and intelligence domain. The Initiative's sponsors are ERDC and In-Q-Tel, the Central Intelligence Agency's (CIA) independent technology "venture catalyst." Technology provider participants include Cubewerx, Intergraph, Skyline Software, Syncline, Lockheed Martin, Compusult, University of Alabama in Huntsville, 3i, Ionic Software, Polexis, and Laser-Scan.

In MPP-1, a simulated set of users employed in defense and intelligence operations access online intelligence, surveillance, andreconnaissance data sources via restricted access intranets and the Internet. The types of data include urban terrain features, image base maps, multi-spectral imagery, NIMA Foundation Data, raster maps, lines of communication and obstacles, topography, image annotations, weather information, sensor data from a variety of sources, dynamic fused views, Web-based perspective views, and custom, user-generated data. Progress is being made in expanding OpenGIS Specifications to accommodate 3d photo-realistic terrain views over the internet. The emphasis is on expanding users' powers of visualization, discovery, and value adding by

expanding their network of web-based interoperable geoprocessing resources. In this capacity, MPP-1 will provide a window on the future, highlighting new tools for a collaborating community of topographic and intelligence specialists distributed across the battlespace and even on different continents. MPP-1 will develop prototype commercial-off-the-shelf software for MPP-2 demonstrations.

This expansion of powers is considerable. MPP-1 exercises many of the interfaces developed in OGC's Web Mapping Testbeds, and in recent months many of the vendors have released commercial products that implement the specifications. There is a dramatic increase in users' ability to find and immediately use data that was previously difficult to find and use because differences between geoprocessing systems imposed barriers. Open interfaces remove those barriers. MPP-1 will also investigate a number of enhancements to current specifications based on lessons learned during the pilot.

A growing number of US Department of Defense Coordinating Organizations and projects (CFBLnet, etc.) are becoming involved in MPP-1. Coordinating Organizations are provided with MPP-1 software"toolkits" and access to a restricted section of OGCN (OGC's new OGCNetwork web resource). OGCN is an online forum for information exchange and a portal to on-line resources such as servers, service registries, clients, schemas, DTD's (digital instructions for interpreting and presenting XML-encoded geospatial data, i.e. OGC's GML), on-line technical support, technical support documentation, tutorials, reusable software components, user documentation, training resources, service descriptions, and links to related sites. Most military Coordinating Organizations are already using some of the commercial products that vendors are now "opening up" with interfaces that implement OpenGIS Specifications, so it is easy for these organizations to connect to MPP-1's network of spatial resources. With knowledge gained in the Pilot, it will be easier for Coordinating Organizations to continue testing and deploying interoperable products after MPP-1 ends.

The companies providing technology and expertise for MPP-1 all share the objective of making their products work smoothly with other vendor products in a heterogeneous network environment. They all share the ultimate goal of selling their products and services broadly, to civil government and commercial customers as well as military customers.

If you are interested in learning about MPP-1 outcomes, OGC invites you to visit http://www.opengis.org in August to get a full report. And if you think your organization could benefit from participation in a testbed or pilot project, please give me a call.

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