

GEOWorld Industry Outlook

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by David Schell

OGC is busy working through the third -- and most important -- Internet Mapping Revolution.

The First Revolution involved using the net for map display. Most vendors in our industry fielded early web mapping applications. It became easy to click to new online mapping locations, but each location was an island. Outside a single vendor's client/server world, users could not overlay one map on another, or plot points from one server on a map served by another, or register maps from different sources, or request scale, symbols, etc.

The Second Revolution was launched with OGC's Web Mapping Testbed. Geodata servers became embryonic ASPs, turning data into answers. Clients could encapsulate requests for service in queries, and servers could encapsulate an answer as a JPEG or TIFF image.

Suddenly -- requiring only the simplest client and an easy extension to server software at participating map server sites -- users could overlay and register "transparent" map layers. But still only JPEGs and TIFFs -- no user interaction with feature information.

The Third Revolution involves crafting web clients that can cope with complex vector data -- geometry and attributes that describe geographic features. The goal is to "wrap" these objects in standard wrapping that participating servers can understand. The OpenGIS Web Feature Server (WFS) Interface Specifications are the enabling standards, and they are key requirements for Location Services. They enable the client and its tiers of servers to dynamically allocate resources to the user's satisfaction while balancing the complex computational loads typified by location-based services.

The third revolution is the most important. Why? Because it enables the solution of man-on-the-street problems. The ability to provide Location Services, and the need for them, will generate a new market where billions of dollars will change hands. Many "don't know where" frustrations and inefficiencies will be overcome, and many lives will be saved. The world owes a debt of gratitude to the companies, agencies, and people who struggle to reach consensus on the technologies that make it possible.

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