

**ISO/TC 211 Geographic information / Geomatics
Newsletter No 6 October 2004**



Dear Colleagues,

This ISO/TC 211
Newsletter is intended
for the members of

ISO/TC 211 and its Class A Liaison organizations.

As this Newsletter, a service provided by the ISO/TC 211 Advisory Group on Outreach, develops and evolves, we hope it will also become informative to the global geographic community and eventually to the public at large.

Our mission is to provide information on the standardization of geographic information and related activities.

This issue of the Newsletter covers a broad cross-section of standards related items of interests.

Sincerely,

Henry Tom, Editor
ISO/TC 211 Newsletter.



***It Is a Milestone in Enabling Customers to
Build Interoperable Web Services
Applications***

SAN JOSE, Calif., ARMONK, N.Y., REDMOND, Wash., WALLDORF, Germany, and SANTA CLARA, Calif. - BEA Systems Inc., IBM Corp., Microsoft Corp., SAP AG and Sun Microsystems Inc. today announced the submission of the latest version of a key Web services specification, WS-Addressing, to the World Wide Web Consortium (W3C) as input into the standardization process.

WS-Addressing helps enable organizations to build reliable and interoperable Web services applications by defining a standard mechanism for identifying and exchanging Web services messages between multiple end points. With a standard way to express where a message should be delivered in a Web services network, developers are able to simplify Web services communication and development and avoid the need to develop costly, ad hoc solutions that are often difficult to interoperate across platforms.

With today's acknowledgement by the W3C, the joint submission of WS-Addressing represents a milestone in the collaboration among BEA, IBM, Microsoft, SAP and Sun to further advance Web services technology. Backed by significant industry support, the submission of WS-Addressing is also a part of a longer term effort to provide a standards-based foundation for the development of secure, transacted, asynchronous and reliable Web services.

WS-Addressing is a key part of the core Web services architecture. In particular, the specification is designed to underlie other specifications, such as WS-ReliableMessaging, WS-Federation and WS-AtomicTransaction, providing a consistent, interoperable and standards-based mechanism for Web services addressing.

The submission also further demonstrates all the co-authors' commitment to the development of open industry standards to drive widespread adoption of Web



Sun Microsystems

WS-Addressing

**BEA, IBM, MICROSOFT, SAP AND SUN
MICROSYSTEMS SUBMIT WS-ADDRESSING
SPECIFICATION TO W3C FOR STANDARDIZATION**
August 10, 2004

Company: [Sun Microsystems](http://www.directionsmag.com/companies/Sun_Microsystems/)
http://www.directionsmag.com/companies/Sun_Microsystems/
Industry: Internet/Web Mapping/Web Services,
Interoperability and Data Integration, Business
Intelligence
Location: San Jose, CA, United States of America



services. With the intent of easing adoption, the co-authors will not charge royalties in conjunction with WS-Addressing. The co-authors of this specification look forward to future collaboration in bringing together a cohesive Web services architecture.



What's in a Name Change?

By [Carl Reed III](#) September 8, 2004 Directions Magazine

Why did we change the name of the OGC and why now? Good questions. The former name "Open GIS Consortium" has been used since 1994. There is strong name recognition – not just in the US but globally. So why change the name?

The short answer is that the scope of work has changed over the last ten years. When the OGC was formed, our initial focus was defining interface standards that allowed seamless format and vendor independent access and interchange of GIS data (content). The Consortium's ongoing work now encompasses content and service discovery, access and interoperability. Our work is not just for GIS technology interoperability but also for solving interoperability issues in such technology domains as image processing, location services, sensor networks, digital rights management, security and intelligent transportation systems.

What were the evolutionary elements of this change? In 1999, our members demonstrated the ability for a simple



HTML based web client to transparently query, access and display GIS data from multiple, geographically distributed sources. This

was accomplished by implementing the OGC Web Map Service (WMS) Interface specification. A WMS implementation utilizes a fairly simple http based query/response protocol.

The WMS demonstration was a pivotal moment in the evolution (and recognition) of the work of the OGC. First, the demonstration proved to many that GIS interoperability could be achieved – interoperable access and use of GIS content was no longer a dream. Second, and perhaps even more importantly, the WMS work represented a shift from working on GIS interoperability standards for tightly coupled architectures, such as CORBA and OLE/COM, to developing interfaces and encoding standards that are implemented in loosely coupled, highly distributed architectures, such as the Internet or mobile wireless infrastructures. The success of the WMS interoperability initiative shortly led to subsequent interoperability initiative activities including GeoSpatial Fusion and Web Map Service Testbed 2, both of which broadened our work into new geospatial technologies areas.

As a result, the OGC membership began addressing interoperability issues beyond format neutral access and display of GIS content. In 2000, the OGC membership decided that solving interoperability issues in the Location Services domain was very important. In 2001, we released an OGC white paper on OGC Web Services. Since then, the OGC membership has collaborated to define and approve interface specifications for Web Services applications. In 2001, we also began doing more work in defining interface standards for services, such as geocoding and routing, not just data access. In 2002, we began looking at transparent and vendor neutral access to sensor networks and image processing workflows. And in the last year, the membership has been defining requirements for addressing interoperability issues in Digital Rights Management for spatial content, CAD/GIS integration, and in simulation.



On the surface, one could still say that much of this work is still GIS centric. Perhaps, but the standards development work of the

last several years has taught us many lessons and caused us to move into technology areas that are far removed from “traditional” GIS. Through our work in Web Services and related application environments, we have come to understand that our standards work does not exist in isolation. More than ever, we interact with other standards organizations, not just ISO, but groups such as OASIS and the W3C. Our members are now working with other mainstream IT standards such as XML, SOAP, WSDL, BPEL, ebRIM, ebXML, and SAML. Why? Two reasons. First, OGC standards must support the ability for spatial services and content to be integrated and to interoperate within the much broader Information and Communications Technology (ICT) context – not just within or between specific GI systems. Second, there is a growing recognition of OGC’s unique role outside the GIS community as an authority on geospatial interoperability and that our Abstract Specification can be used as a foundation for enabling substantive discussion with other standards bodies such as TC211, IEEE, and the Open Mobile Alliance.

Further, we must be responsive to the interoperability and integration requirements of enterprise application integration, including enterprise workflows and service-oriented architectures. There is a requirement to find, bind, and use geospatial content and services on demand. There is a need to integrate content and services from multiple providers. There is a need to integrate a variety of stovepipe legacy systems and content into new workflows. A typical workflow might be to access sales information from a distributed database, geocode the sales records, and then pass the result to a financial modeling system. This sales information may be maintained in multiple databases in different formats in different regional offices. The workflow needs the required service and content when they need them and the service and content must seamlessly integrate with the enterprise application workflow. The Canadian Forestry’s [enterprise application](#) (<http://www.opengeospatial.org/press/C2>) for capturing and consolidating provincial timber resource statistics is a very good example of the trend toward enterprise application integration – even in the GIS domain space.

Market forces have dictated the broadening of the scope of standards work of the OGC, reinforced the recognition that we must exist within the larger IT and Enterprise frameworks, and that there are many other applications than “just GIS” that create and use content that has a location element.



Therefore, earlier this year the OGC Board of Directors recommended that the OGC change our name to the Open Geospatial

Consortium. The name change is not a statement that GIS is no longer important. Instead, our community recognizes that there are many other application domains that collect and use spatially referenced content that do not use – and may not even have heard of – GIS. Spatial content and services have importance and value way beyond the traditional scope of GIS. There is increasing recognition that spatial content and services are critically important components in many value chains and enterprise workflows.

The OGC is no longer just developing standards that enable interoperability of GIS content. As the OGC vision states, we believe in “A world in which everyone benefits from geospatial information and services made available across any network, application, or platform.”

September 9, 2004, Wayland, Massachusetts. David Schell, Chairman and CEO of the Open Geospatial Consortium (OGC) announced today that the OGC Board of Directors has voted to appoint Dr. Carl Reed as Chief Technology Officer (CTO) and that George Percivall has joined the OGC as Executive Director, Interoperability Architecture.

These staff changes reflect OGC’s commitment to maintaining the technology management excellence that has made it the preeminent consensus standards organization in the geospatial technologies industry.

As CTO, Dr. Reed will assume the role of lead technologist, responsible for ensuring that the technology policy of the corporation supports the strategic direction set by the Board of Directors. Dr. Reed has served as the OGC Executive Director, Specification Program since 2001. Dr. Reed will continue to manage the process by which OGC Implementation Specifications are developed and adopted by the OGC membership. He will also continue to facilitate the Planning Committee meetings and work with the OGC Interoperability Program as a member of the architecture team.

Before joining the OGC, Dr. Reed was vice president of geospatial marketing at Intergraph Corporation. Reed joined Intergraph in April 1998 after a long tenure at Genasys II, where he had served as chief technology officer for Genasys II Worldwide. Dr. Reed received a PhD in Geography, specializing in GIS technology, from the State University of New York at Buffalo in 1978. Mr. Percivall is an accomplished technology leader who has played key roles in the development of international

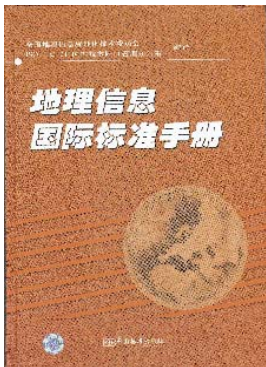


standards for geospatial information. He will be responsible for managing OGC's Interoperability Program, which involves

planning and coordinating testbeds, pilot projects, interoperability experiments, etc., and for running OGC's compliance testing program.

Prior to joining OGC, Mr. Percivall had leadership roles on several NASA contracts. He was Chief Engineer of the Earth Observing System Data and Information System (EOSDIS) - Landsat/Terra release; Principal engineer for NASA's Geospatial Interoperability Office; Director of the Geospatial Interoperability Group of GST, Inc.; and represented NASA in OGC, ISO TC211, and CEOS. He holds a BS in Physics and an MS in Electrical Engineering from the University of Illinois.

The OGC is an international voluntary consensus standards organization of 250 companies, government agencies and universities participating in a consensus process to develop publicly available geoprocessing interface specifications. OpenGIS® Specifications support interoperable solutions that "geo-enable" the Web, wireless and location-based services, and mainstream IT.



Guide to the ISO 19100 Series of Standards for Geographic Information

By Jiang Jingtong, He Jian Bang, Jiang Zhuqin, Du Dao Sheng, Liu Ruomei
(in Chinese)

This comprehensive guide was published during this past Summer, 2004. It is the first one available in China. It was compiled and written by the Head, Professor Jiang Jingtong, and other members of the original Chinese Delegation that attended and participated in the work of ISO/TC 211 from 1994 – 2002.



ESRI – Europe Sponsors Geographic Information Standards Committee

Company: [ESRI](http://www.esri.com)

<http://www.directionsmag.com/companies/ESRI/>

Location: Redlands, CA, United States of America

Redlands, California— ESRI, the world's leading developer of geographic information system (GIS) software, announces that its European office, ESRI–Europe, will sponsor Technical Committee 287 (TC 287), organized by the European Committee for Standardization (CEN).

TC 287 is responsible for coordinating working group discussions about European geographic information (GI) standards. Most of the resulting recommendations will be based on standards put forth by the International Organization for Standardization (ISO) TC 211 but may be adjusted to accommodate European requirements.

Because CEN is the official organization for standardization in Europe, recommendations made by TC 287 are of considerable importance. Ultimately, the standards approved by CEN may be made compulsory in conjunction with regulations developed by the European Union (EU).

Says Henri Aalders, chairman of TC 287, "Having the support of the GIS industry means that there is a genuine interest in supporting the decision making process for European GI standards. These standards are important for developing a pan-European GI infrastructure that works. Many data sets are currently available, but in many cases interoperability is not yet possible. With established standards, we will be able to overcome several of the existing hurdles that prevent us from developing pan-European GIS portals."

Adds David Danko, ESRI's standards specialist, "We are pleased to support CEN's efforts in European geographic information standardization. Over the past several years, we have been intensely involved with the decision making process in the International Organization for Standardization and the Open GIS Consortium, and being involved with CEN is a logical next step."

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About CEN

CEN is contributing to the objectives of the European Union and European Economic Area with voluntary technical standards. These standards promote free trade, the safety of workers and consumers, interoperability of networks,

environmental protection, exploitation of research and development programs, and public procurement. Standardization diminishes trade barriers; promotes safety; allows interoperability of products, systems, and services; and promotes common technical understanding.

About ESRI

For more than 30 years, ESRI has been the leading developer of GIS software with more than 300,000 clients worldwide. ESRI software is used in all 200 of the largest cities in the United States and in more than 60

percent of counties and municipalities nationwide. Headquartered in California, ESRI has regional offices throughout the United States, international distributors in more than 90 countries, and more than 1,600 business partners. ESRI's goal is to develop comprehensive tools that enable users to efficiently manage, use, and serve geographic information to make a difference in the world around them. ESRI also provides consulting, implementation, and technical support services. ESRI can be found on the Web at www.esri.com.

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The US Federal Geographic Data Committee is a 19 member interagency committee composed of representatives from the Executive Office of the President, Cabinet-level and independent agencies. The FGDC is developing the National Spatial Data Infrastructure (NSDI) in cooperation with organizations from State, local and tribal governments, the academic community, and the private sector. The NSDI



encompasses policies, standards, and procedures for organizations to cooperatively produce and share geographic data.

l a t e s t n e w s

- [Training Opportunities for American Indians](http://www.fgdc.gov/tribal/) - <http://www.fgdc.gov/tribal/>
- [FGDC Summer Newsletter](http://www.fgdc.gov/publications/newslet.html) - <http://www.fgdc.gov/publications/newslet.html>
- [New publication 'Beyond Boundaries' online](http://www.fgdc.gov/publications/documents/geninfo/strategy.html) - <http://www.fgdc.gov/publications/documents/geninfo/strategy.html>
- [Success Stories - Geospatial Information Making a Difference](http://www.fgdc.gov/publications/success/) - <http://www.fgdc.gov/publications/success/>
- [FGDC Announces 2004 Cooperative Agreements Program Projects](http://www.fgdc.gov/whatsnew/cap_proj) - http://www.fgdc.gov/whatsnew/cap_proj
- [FGDC Opens Public Review of Framework Data Standards](http://www.fgdc.gov/whatsnew/whatsnew.html#framework_data) - http://www.fgdc.gov/whatsnew/whatsnew.html#framework_data
- [Geospatial One-Stop, FGDC, and The National Map Relationship](http://www.fgdc.gov/publications/articles/index.html) - <http://www.fgdc.gov/publications/articles/index.html>
- [RAND "Mapping the Risks"](http://www.rand.org/publications/MG/MG142/) - <http://www.rand.org/publications/MG/MG142/>
- [FGDC Future Directions Project](http://www.fgdc.gov/FutureDirections/) - <http://www.fgdc.gov/FutureDirections/>
- [NSDI Communications Toolkit Available](http://www.fgdc.gov/nsdi/docs/communications/index.html) - <http://www.fgdc.gov/nsdi/docs/communications/index.html>

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