

OGC Standards in Aviation, Security and Maritime

Until the end of the nineties, high-end systems in the aviation, security and maritime sectors were custom-built, monolithic proprietary software systems that were expensive to develop and maintain. With the arrival of object-oriented technology, systems integrators and software developers have realised the benefits of open, component-based software solutions and have adopted this technology.

This shift has created new opportunities for developers of air-traffic control and command-and-control systems, enabling them to take advantage of Open Geospatial Consortium, Inc (OGC) standards, along with other open standards, in order to combine best-of-breed solutions from different vendors and efficiently use and reuse geographical data.

Luciad has been a supplier of high-end standards-based GIS software components for air-traffic control, command-and-control and maritime applications since 1999. As an Associate Member of OGC, the company follows the latest developments in OGC standards in order to provide its clients with open software for building systems that seamlessly interoperate with other systems.

Luciad's core product, LuciadMap, complies with OGC standards including the OGC Geography Markup Language (GML) Encoding Specification and the Web Map Service (WMS), Web Feature Service (WFS), Web Coverage Service (WCS), and Styled Layer Descriptors (SLD) Implementation Specifications.

In addition to OGC standards, Luciad provides specialised packages for other important standards and formats, such as JPEG 2000, the ISO 19115/19139 metadata standard, IHO ECDIS S-57/S-52, AIXM, M2525b, and VPF. Key to the design of these packages is performance and ease of integration with Luciad's OGC Web Services. The company's clients can also benefit from a complete Application Programming Interface (API) which enables them to develop their own Luciad Web Map Server.

NATO recently adopted Luciad's OGC-compliant WMS and WFS technology to build the interim Geo Spatial Intelligence Tool (iGeoSIT) system that provides field commanders with accurate geographical information to optimise their situational awareness and reduce decision-making cycle time. OGC WMS technology enables iGeoSIT users to easily query operational geo-information using a standard web browser, simple hardware and limited bandwidth. Via the OGC transactional WFS, staff officers can retrieve original feature-level data originating from distributed operational databases. The WFS transforms this data into standard GML encoding. The use of WFS separates the application logic from the database, thus improving interoperability between diverse data sources.

As an OGC member Luciad can better provide its clients with the many benefits derived from adopting and implementing OGC standards. Luciad's ongoing support for OGC standards gives its clients wider product selection, greater ability to exploit data resources, faster productivity gains and improved interoperability with other systems.

The OGC has firmly established itself as an influential body and Luciad is pleased to be a part of its important work in shaping the future of geo-processing. Luciad will continue to participate in OGC developments and will maintain its commitment to providing open standard-based solutions for its clients.