Geospatial Portal

Interactive access to geospatial information using open web services
Overview

Geospatial Portal is a browser-based, multilingual web application that can be used for finding, viewing, querying, analysing and consuming geospatial data and web services. These web services can be published by other solutions from Hexagon or by third-party products. Geospatial Portal offers advanced client-side discovery, connection, and interaction through a simple client geo-browser that provides an intuitive and attractive user experience. In addition, Geospatial Portal integrates multiple sources into a single 2D or 3D map view that can be easily navigated.
Flexible access

Geospatial Portal is powering the next generation of web applications, providing a far wider community with simple and interactive access to geospatial information using open web services. Its flexibility enables it to connect to a variety of web services based on open standards and proprietary services. Those services can originate from Hexagon’s products, other server technologies, or a combination of both. Geospatial Portal greatly optimises the client browsing experience when connecting to Spatial Data Infrastructure (SDI) services.

Modern navigation and tools

Geospatial Portal simplifies the process of finding, connecting to, and displaying spatial data published through web services and provides a modern and attractive user experience. It ensures smooth browsing through intuitive navigation controls and technical advances such as asynchronous communication that ensures panning and zooming are not interrupted by having to wait for servers to respond. The client’s utility is enhanced by additional tools, such as area and distance measure, customisable map layers, and the ability to save and recall favorite map compositions. Geospatial Portal supports accessing all web services and open standards required for a modern SDI client application.

Integration with Google services

View more, explore more, search for more with integrated Google services. Users of Geospatial Portal can display Google Maps layers and search for interesting objects by using Google Maps Places search service. Pins show the search result and feature details can be displayed in the Feature Info dialog. All available Google Map types — roadmap, hybrid, traffic, satellite, or terrain — are supported. Moreover, explore the real Street View, in user-friendly Consumer Portal layout.

Geocoding and location-based searches

Geospatial Portal offers robust search mechanisms out-of-the-box. Such mechanisms include geographic name and point-of-interest (POI) searches based on the gazetteer specification (OGC WFS-G) and geocoding search, for example via Open Location Service (OpenLS). Search capabilities can be customised using Geospatial Portal configuration. The built-in coordinate search in Consumer Portal layout allows users to locate with ease any point on the globe by providing its geographic coordinates.

Easy editing

Geospatial Portal facilitates the creation and update of attribute data. Supporting the editing workflow is the industry standard OGC WFS-T, used to edit, update and delete features in the database.
**Exciting 3D experiences**

Geospatial Portal provides a modern 3D view based on HxGN visualisation technology that lets you visualise your data in real-world context and view it from a new perspective. The globe view supports a base map and can display numerous raster and vector data sources from Open Geospatial Consortium (OGC) Web Map Service (WMS), Web Map Tile Service (WMTS), and Web Feature Service (WFS) on top of 3D terrain. Using the mTransformer tool, 3D object models and terrain scenes can be produced for display in the Geospatial Portal.

- Extrude vector data to update your view based on the latest warehouse content
- Highlight vectors to gain valuable insight into attribute data via tooltips
- Visualise sunlight and shadows for more accurate urban planning
- “Walk through” your data with a new perspective using the 3D first-person view

**Consumer Portal layout**

Simplified and user-friendly entry-level layout for non-professional consumers of geospatial data is dedicated to end users who use maps for discovery and visualisation, with minimum clicks required. It is optimised for performance and user experience and takes advantage of the most up-to-date web technologies and standards. Modern and fresh-looking user interface is designed to enhance the most important user workflows with the displayed data, including accessibility features.

Consumer Portal, integrated with Google and other third party services and search engines, allows finding information with minimal effort and better understanding of GIS data by placing it in the appropriate geographical context.
Multi-language capabilities

As a multilingual application, Geospatial Portal provides a variety of language settings. In addition, the list of languages can be extended to fully localise the product. Geospatial Portal will detect your web browser language settings and attempt to conform to that language. Geospatial Portal supports both LTR (left-to-right) and RTL (right-to-left) direction of written languages. The application layout is automatically adapted to the language type.

Customise and extend

The powerful Geospatial Portal Software Development Kit (SDK) lets developers create customised portal workflows and experiences using extensive APIs, documentation, and reusable code examples. The SDK can also be used in conjunction with other Hexagon server products that include Geospatial Portal as the client application, including GeoMedia WebMap and ERDAS APOLLO.

Offerings

Hexagon’s Spatial Data Infrastructure (SDI) solutions support geospatial industry standards, including those from International Organization for Standardization (ISO) and OGC, as well as U.S. National SDI, Canadian Geospatial Data Infrastructure, and the United Nations SDI. Geospatial Portal enables organisations to collaborate with government agencies, commercial businesses, and the public — all while adhering to government mandates to ensure users have access to authorised data.

Geospatial Portal supports development of SDIs by providing discovery, view, download, and transformation services. It also supports control of infrastructure with the results of the monitoring process shown on the map or in tabular form. Detailed information on a particular service and its performance can also be presented as a pie chart.
One connected solution

Geospatial Portal is the integrated client supporting all browser-based geospatial server products in the Power Portfolio, providing a seamless solution to geo-enable your enterprise.

Supported standards

Supported protocol and encoding standards include: WMS 1.3.0 [time dimension], WMS 1.1.1 [time dimension], WMTS 1.0.0, WFS 1.1.0, WFS 2.0.0, WFS(G) AP 1.1.0, CSW 2.0.2, ISO AP 1.0, WCTS 0.3.0, OpenLS [OLS] 1.1, WMC 1.1, GeoRSS, FE 1.1, and GML 3.2.1, according to the technical specifications listed in the product documentation.

Geospatial Portal follows the Infrastructure for Spatial Information in the European Community (INSPIRE) Technical Guidances and is INSPIRE ready and compatible, as well as work with INSPIRE Network Services. The INSPIRE directive establishes an infrastructure for sharing spatial information among public authorities in Europe.

Join the community

To better support extending and customising the Geospatial Portal platform by our large, global development community, we provide the means for these experience-builders to connect with each other, share knowledge and ultimately build better solutions. Participate in the community forum that gives you access to the most recent information on the SDK, APIs, and code samples from the product team.
Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications. Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon’s Safety, Infrastructure & Geospatial division improves the resilience and sustainability of the world’s critical services and infrastructure. Our solutions turn complex data about people, places and assets into meaningful information and capabilities for better, faster decision-making in public safety, utilities, defense, transportation and government.

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