



Exchanging the Context between OGC Geospatial Web clients and GIS applications using Atom

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Currently, the discovery and sharing of geospatial information over the web still presents difficulties. News distribution through website content was simplified by the use of Really Simple Syndication (RSS) and Atom syndication formats. This communication exposes an extension of Atom to redistribute references to geospatial information in a Spatial Data Infrastructure distributed environment. A geospatial client can save the status of an application that involves several OGC services of different kind and direct data and share this status with other users that need the same information and use different client vendor products in an interoperable way. The extensibility of the Atom format was essential to define a format that could be used in RSS enabled web browser, Mass Market map viewers and emerging geospatial enable integrated clients that support Open Geospatial Consortium (OGC) services.

Since OWS Context has been designed as an Atom extension, it is possible to see the document in common places where Atom documents are valid. Internet web browsers are able to present the document as a list of items with title, abstract, time, description and downloading features. OWS Context uses GeoRSS so that, the document can be to be interpreted by both Google maps and Bing Maps as items that have the extent represented in a dynamic map. Another way to explode a OWS Context is to develop an XSLT to transform the Atom feed into an HTML5 document that shows the exact status of the client view window that saved the context document. To accomplish so, we use the width and height of the client window, and the extent of the view in world (geographic) coordinates in order to calculate the scale of the map. Then, we can mix elements in world coordinates (such as CF-NetCDF files or GML) with elements in pixel coordinates (such as WMS maps, WMTS tiles and direct SVG content). A smarter map browser application called MiraMon Map Browser is able to write a context document and read it again to recover the context of the previous view or load a context generated by another application. The possibility to store direct links to direct files in OWS Context is particularly interesting for GIS desktop solutions. This communication also presents the development made in the MiraMon desktop GIS solution to include OWS Context. MiraMon software is able to deal either with local files, web services and database connections. As in any other GIS solution, MiraMon team designed its own file (MiraMon Map MMM) for storing and sharing the status of a GIS session. The new OWS Context format is now adopted as an interoperable substitution of the MMM. The extensibility of the format makes it possible to map concepts in the MMM to current OWS Context elements (such as titles, data links, extent, etc) and to generate new elements that are able to include all extra metadata not currently covered by OWS Context. These developments were done in the nine edition of the OpenGIS Web Services Interoperability Experiment (OWS-9) and are demonstrated in this communication.