

[Environmental Domain Linked Features and Observations](#) [1]



Submitted by [dblodgett](#) on Mon, 2016-10-10 09:33 Thursday, January 12, 2017 - 14:00

Event: [Winter Meeting 2017](#) [2]

Session Type: [Breakout](#) [3]

Room Location: [Linden Oak](#) [4]

Expertise Level: [Beginner](#) [5]

Collaboration Area: [Discovery](#) [6]

[Documentation](#) [7]

[Information Technology and Interoperability](#) [8]

Abstract/Agenda:

Discovery of data related to a place or topic often requires traversal of physical or semantic links that connect the data of interest to the place or topic being studied. This session seeks applications (successful or not) that address this basic concept. A series of presentations describing the systems will be followed by a discussion of their strengths and weaknesses in order to inform future activities in this space.

Establishing and maintaining indexes of links between domain features (such as waterbodies, ecosystems and cities) that are relevant to decisions and data related to those features is a challenge we all face. There are numerous approaches that could be considered for exposing, discovering, and establishing links between environmental, hydrologic, and related features. Systems in this space tend to have components like a search engine—crawlers that index data sources, an index that can form relationships between indexed data according to relevant queries, and search services that expose indexed information in interesting ways. In the hydrology domain, this would be implemented as a search service that can traverse the river network, where other domains would have their own relevant spatial or other type of index. Recent work to standardize features in the hydrology domain has resulted in HY_Features for surface water, GWML2 for groundwater, and SoilML for soils. The Observations and Measurements standard and others that follow the same pattern of “observing” and “observed” features provides a standardized model to follow but the landscape of systems implemented to leverage this pattern is varied.

In this session, speakers are invited to present proven methodologies for solving one or more aspects of the problem of linking domain features to each other and to observations such that users can ask questions rooted in their domain. Of special interest are methods and technologies that allow 1) a domain-specific crawler to discover information automatically, 2) an index of related features to be used in domain-relevant queries, and 3) search service APIs and data services that expose search results and data products. The session will take the form of a series of short presentations followed by a facilitated discussion. The outcomes of this session will help inform a planned OGC interoperability experiment working toward formal best practices for such systems.

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Environmental Domain Linked Features and Observations

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Teaser: Wish you could search using the semantics or geospatial framework of your domain? Join our session!

Accepted:

Keywords: [geospatial framework](#) [18]
[semantic links](#) [19]
[domain index](#) [20]
[environmental features](#) [21]

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