OGC Project Document 12-142r1

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| TITLE: | Points of Interest (POI) Standards Working Group Charter |
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| CATEGORY: | Charter for SWG |

To:  OGC members & interested parties:

The OGC members listed below have proposed the OGC Points of Interest (POI) Standards Working Group (SWG). The proposal in this document meets the requirements of the OGC Technical Committee (TC) Policies and Procedures as a charter for this working group.

The SWG name, statement of purpose, scope, list of deliverables, audience and language specified in the proposal will constitute the SWG's official charter. Submissions of technology for consideration by the SWG, and the beginning of technical discussions may occur no sooner than the SWG's first meeting.

This SWG will operate under the OGC 2007 IPR Policy. The eligibility requirements for becoming a participant in the SWG at the first meeting are that:

1. You must be an employee of an OGC member organization or an individual member of OGC;
2. The OGC member must have signed the OGC membership agreement;
3. You must notify the SWG chair of your intent to participate to the first meeting. Members may do so by visiting the Observer Page on the OGC portal and joining the SWG; and
4. You must attend the first meeting of the SWG, at the time and date fixed below. Attendance may be by teleconference.

Of course, participants also may join the SWG later. The OGC and the SWG welcomes all interested parties.

Non-OGC members who wish to participate may contact us about joining the OGC. In addition, the public may access some of the resources maintained for each SWG: the SWG public description, the SWG Charter, Change Requests and public comments, which will be linked from the SWG’s page.

Please feel free to forward this announcement to any other appropriate lists. The OGC is an open standards organization; we encourage your feedback.

# Points of Interest

A “point of interest” (POI) is a location for which information is available. A POI can be as simple as a set of coordinates, a name, and a unique identifier, or more complex such as a three-dimensional model of a building with names in multiple languages, information about opening and closing hours, and a civic address. POI data has many applications, including augmented reality browsers, location-based social networking games, geocaching, mapping and navigation systems.

In practice, POIs are usually those places that serve a public function. As such, POIs generally exclude facilities such as private residences, but include many private facilities that seek to attract the general public such as retail businesses, amusement parks, industrial buildings, etc. Government buildings and significant natural features are POIs as well.

Considering how ubiquitous the need for POI information is, surprisingly international standardization efforts have been so few up to now. In many ways, one could consider POIs a most fundamental requirement of any spatial data infrastructure. We also see their importance in the commercial sector for navigation applications and social networks. In fact, Facebook has made location such an integral part of their data model that every activity a user does can be tagged with location, weaving places of interest seamlessly into the fabric of their social platform.

OGC has had a gazetteer best practice specification for years, but it has not seen widespread adoption. This is odd because as with POI data, the need for gazetteers touches every industry. Most obviously, all personal navigation systems have at their information core a gazetteer. Further, academics, scientists, and business information analysts also have strong needs to query for standard, structured ways to manage basic place information. Perhaps the lack of a single, unified data model has hampered the adoption of the gazetteer as a service model. Having a POI data model could play a significant role in accelerating the success of the gazetteer service model.

# Purpose of the Standards Working Group

The purpose of the POI SWG is to produce a version 1.0 encoding standard of points of interest data that includes an abstract data model and JSON and XML Schema implementations of that data model.

# Scope of Work

The SWG shall review, edit and expand upon the draft specification developed by the World Wide Web Consortium (W3C) POI Working Group to produce a version 1.0 implementation standard. The review shall be both a technical and editorial review.

As the W3C work already uses GML 3.3 compact encoding for the geometries of a POI, it is not expected that further harmonization with the OGC standards baseline is necessary.

The items that need to be addressed by the SWG include:

1. Update to conform to the latest OGC document directives:
   1. While not mandated for an encoding specification the SWG will conform to the Modular Specifications Policy as appropriate.
2. Add a JSON encoding, with particular attention paid to considering GeoJSON
3. Add an abstract test suite.
4. Validate all schemas and examples.
5. Study the interactions between service model and data encoding approaches to POI and gazetteer functions.
6. Address any other technical and/or editorial issues that arise during the review period.

The SWG will develop the specification in a public repository in GitHub, carry out its document review and comment process using those tools provided in that system.

## What is out of scope?

Positioning this encoding standard in a web services environment is out of scope.

Developing encodings other than those described in this Charter or in the World Wide Web Consortium draft specification is out of scope.

Specifying civic addresses, other than adopting an existing specification such as VCARD, is out of scope.

Specification of a formal metadata model is out of scope, although this is recognized as an important item for future work.

Change requests and comments submitted through GitHub as well as through traditional processes identified in the Policy and Procedures shall be addressed.  Any items suggested through emails, vocal discussions, etc. will be outside of the scope of this SWG.

## Existing Work as a Starting Point

### World Wide Web Consortium POI Working Group

The starting point for this implementation standard shall be prior work begun, but abandoned, by the W3C with OGC participation, described at <http://www.w3.org/2010/POI/>. This effort generally conforms to the ISO information model as described in 19112 (see below), although it has fewer required properties, and extends that model in some very important ways that reflect its focus on the architecture of the Web. In terms of similarities with the ISO and OGC standards, POI’s primary properties for gazetteer items are a name and a geographic identifier (location) that can be either direct, indirect, or both. POI expands upon this model with a mandatory URI-based globally unique ID, along with Categories and Links.

### ISO 19112 – Spatial referencing by geographic identifiers

ISO 19112 describes a basic framework for describing items in a gazetteer. It links “indirect” geographic references, which are things like addresses and town names, to “direct” references, which are geographic coordinates. In other words, ISO 19112 defines a standard information model for saying that a place is located at a specific position on the Earth. The standard goes far beyond that baseline though. Positions on the Earth can be described in any number of ways, such as by a rough bounding box, an exact polygon boundary, or a point in the center of the place. ISO 19112 also describes a host of metadata that can be associated with the place, such as the administrative agency responsible for the data, in what part of the world the data should be used, and in what time period it’s valid.

### ISO 19115:2012 – Place identifier

In ISO 19155, the identifier of a place is referred to as a Place Identifier (PI). A single “place” may be identified using several separate Place Identifiers.

Place descriptions are used for information retrieval. In reality, those identifiers often refer to the same place. Currently these relationships are difficult for machines to correctly distinguish, which impedes the discovery and retrieval of information. The conceptual architecture and reference model defined in ISO 19155 provides a mechanism for solving these problems.

When implemented, this architecture would enable the access and sharing of place descriptions using the Place Identifier as the standardized method.

Within the reference model, place descriptions are defined using a PI. A PI consists of a reference system (RS), a value, and the valid temporal period of that value.

### OGC Gazetteer Service – Application Profile of the Web Feature Service

Using the ISO standard as a foundation, the Open Geospatial Consortium (OGC) defined a gazetteer service in 2006. It takes the information model for gazetteer data from ISO 19112, and the web service information request model from OGC’s Web Feature Service (WFS) to define the Gazetteer Service - Application Profile of the Web Feature Service Implementation Specification. This service is a “best practices document” -- not yet a formal international standard – but has recently advanced towards full standard status. The OGC gazetteer service implements the ISO abstract data model in XML using the OGC Geography Markup Language (GML) standard, and describes how to make web requests for information from the gazetteer using WFS.

## Determining when the Work of the SWG has been Completed

This SWG shall be dissolved after the following three milestones have been achieved:

The SWG has produced a V1.0 POI candidate standard.

SWG membership approves a recommendation to submit the document to the TC for consideration as an OGC Adopted Standard.

The candidate standard has been approved by the OGC Technical and Planning Committees as an Adopted OGC standard.

# Description of deliverables

There shall be three deliverables:

* Points of Interest (POI) Core Encoding Specification version 1.0.
* Points of Interest (POI) XML Encoding Specification version 1.0.
* Points of Interest (POI) JSON Encoding Specification version 1.0.

# IPR Policy for this SWG

The IPR Policy for the Points of Interest SWG will be RAND and Royalty Free.

# Anticipated Audience

Any organization that has a requirement for information sharing of points of interest data, such as organizations providing gazetteers, historical place name researchers, and navigation data providers.

# Other informative information about the work of this SWG

## Similar or applicable standards work (OGC and elsewhere).

The following standards and projects may be relevant to the SWG's planned work, although none currently provide all the functionality anticipated by this committee's deliverables:

* *Atom Syndication Format* (RFC 4287) <http://tools.ietf.org/html/rfc4287>
* *GeoJSON Format Specification* <http://www.geojson.org>
* Indoor GML SWG <https://portal.opengeospatial.org/?m=projects&a=view&project_id=399&tab=0>
* *MIME Media Types* <http://www.iana.org/assignments/media-types/index.html>
* OGC 08-131r3 *The Specification Model — A Standard for Modular specifications* <https://portal.opengeospatial.org/files/?artifact_id=34762>
* OGC 10-034r4 *OGC MovingObjectSnapshot: An application schema of the OGC Geography Markup Language* <https://portal.opengeospatial.org/files/?artifact_id=46682&version=1>
* OGC 11-122r1 *Gazetteer Service - Application Profile of the Web Feature Service Best Practice (1.0)* <https://portal.opengeospatial.org/files/?artifact_id=46964>
* OGC 09-025r1 *OpenGIS Web Feature Service 2.0 Interface Standard / ISO/DIS19142* <http://portal.opengeospatial.org/files/?artifact_id=39967>
* OGC 12-132r2 *OGC Augmented Reality Markup Language 2.0 (ARML 2.0)* <https://portal.opengeospatial.org/files/?artifact_id=52739>
* Open Street Map (OSM) <http://www.openstreetmap.org>, <http://wiki.openstreetmap.org/wiki/Main_Page>
* RFC 3986, *Uniform Resource Identifier (URI): Generic Syntax*, January 2005, <http://www.ietf.org/rfc/rfc3986.txt>
* Schema.org place representation, <http://schema.org/Place>
* W3C Recommendation 4 February 2004, *Extensible Markup Language (XML) 1.0* (Third Edition), <http://www.w3.org/TR/REC-xml>
* W3C Recommendation 2 May 2001: *XML Schema Part 0: Primer,* <http://www.w3.org/TR/2001/REC-xmlschema-0-20010502/>
* W3C Recommendation 2 May 2001: *XML Schema Part 1: Structures,* <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/>
* W3C Recommendation 2 May 2001: *XML Schema Part 2: Datatypes,* <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>
* *Web Linking* (RFC 5988) <http://tools.ietf.org/html/rfc5988>
* *Uniform Resource Identifier (URI): Generic Syntax* <http://www.ietf.org/rfc/rfc3986.txt>
* *vCard Format Specification* (RFC 6350)  
  <http://tools.ietf.org/html/rfc6350>
* *XML Base (Second Addition)*, W3C Recommendation 28 January 2009, <http://www.w3.org/TR/xmlbase/>

## Details of the first meeting

The first meeting of the committee will be held by telephone conference call on August 22, 2013 at 10am eastern. Call-in information will be provided to the SWG's e-mail list and on the portal calendar in advance of the meeting.

## Projected on-going meeting schedule

The work of the committee will be carried out primarily by email and conference calls, every two weeks on Thursdays at 10am eastern, with face-to-face meetings during each of the OGC TC meetings.

## Supporters of the Proposal

The following people support this proposal and are committed to the Charter and projected meeting schedule.

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