

Open Geospatial Consortium

Approval Date: 2013-2-13

Publication Date: 2013-06-18

Posted to Pending Date: 2012-12-27

Reference number of this document: OGC 12-081

OGC Name of this document: <http://www.opengis.net/doc/pol-nts/ont/1.0>

Version: 1.0

Category: OGC® Policy

Editor: Simon Cox

Name type specification – ontology resources

Copyright © 2013 Open Geospatial Consortium.
To obtain rights of use, visit <http://www.opengeospatial.org/legal/>.

Warning

This document defines an OGC Policy. This document is subject to change without notice. This document is an official position of the OGC membership on this particular topic.

Document type:	OpenGIS® Policy
Document subtype:	Name Type Spec
Document stage:	1.0
Document language:	English

License Agreement

Permission is hereby granted by the Open Geospatial Consortium, ("Licensor"), free of charge and subject to the terms set forth below, to any person obtaining a copy of this Intellectual Property and any associated documentation, to deal in the Intellectual Property without restriction (except as set forth below), including without limitation the rights to implement, use, copy, modify, merge, publish, distribute, and/or sublicense copies of the Intellectual Property, and to permit persons to whom the Intellectual Property is furnished to do so, provided that all copyright notices on the intellectual property are retained intact and that each person to whom the Intellectual Property is furnished agrees to the terms of this Agreement.

If you modify the Intellectual Property, all copies of the modified Intellectual Property must include, in addition to the above copyright notice, a notice that the Intellectual Property includes modifications that have not been approved or adopted by LICENSOR.

THIS LICENSE IS A COPYRIGHT LICENSE ONLY, AND DOES NOT CONVEY ANY RIGHTS UNDER ANY PATENTS THAT MAY BE IN FORCE ANYWHERE IN THE WORLD.

THE INTELLECTUAL PROPERTY IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE DO NOT WARRANT THAT THE FUNCTIONS CONTAINED IN THE INTELLECTUAL PROPERTY WILL MEET YOUR REQUIREMENTS OR THAT THE OPERATION OF THE INTELLECTUAL PROPERTY WILL BE UNINTERRUPTED OR ERROR FREE. ANY USE OF THE INTELLECTUAL PROPERTY SHALL BE MADE ENTIRELY AT THE USER'S OWN RISK. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR ANY CONTRIBUTOR OF INTELLECTUAL PROPERTY RIGHTS TO THE INTELLECTUAL PROPERTY BE LIABLE FOR ANY CLAIM, OR ANY DIRECT, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM ANY ALLEGED INFRINGEMENT OR ANY LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR UNDER ANY OTHER LEGAL THEORY, ARISING OUT OF OR IN CONNECTION WITH THE IMPLEMENTATION, USE, COMMERCIALIZATION OR PERFORMANCE OF THIS INTELLECTUAL PROPERTY.

This license is effective until terminated. You may terminate it at any time by destroying the Intellectual Property together with all copies in any form. The license will also terminate if you fail to comply with any term or condition of this Agreement. Except as provided in the following sentence, no such termination of this license shall require the termination of any third party end-user sublicense to the Intellectual Property which is in force as of the date of notice of such termination. In addition, should the Intellectual Property, or the operation of the Intellectual Property, infringe, or in LICENSOR's sole opinion be likely to infringe, any patent, copyright, trademark or other right of a third party, you agree that LICENSOR, in its sole discretion, may terminate this license without any compensation or liability to you, your licensees or any other party. You agree upon termination of any kind to destroy or cause to be destroyed the Intellectual Property together with all copies in any form, whether held by you or by any third party.

Except as contained in this notice, the name of LICENSOR or of any other holder of a copyright in all or part of the Intellectual Property shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Intellectual Property without prior written authorization of LICENSOR or such copyright holder. LICENSOR is and shall at all times be the sole entity that may authorize you or any third party to use certification marks, trademarks or other special designations to indicate compliance with any LICENSOR standards or specifications

Contents	Page
1 Scope.....	1
2 Normative references.....	1
3 Terms and Definitions	1
3.1 T-box.....	1
3.2 A-box	1
4 Naming rule	2
4.1 OGC name schemes.....	2
4.2 Production rule for ontology names.....	2
5 Name assignment policy.....	3
6 Examples.....	3
7 Bibliography	3
Revision History	4

i. Preface

This document specifies a rule for constructing OGC names that may be used for identifying ontology resources.

ii. Document terms and definitions

This document uses the normative terms (SHALL, SHOULD, etc) defined in Subclause 5.3 of [OGC 06-121r3], which is based on the ISO/IEC Directives, Part 2: Rules for the structure and drafting of International Standards. In particular, the word “shall” (not “must”) is the verb form used to indicate a requirement to be strictly followed to comply with this specification.

Name production rules in this document are expressed using ABNF (IETF RFC 5324).

Name type specification – ontology resources

1 Scope

An OGC name is required for ontology resources published by OGC. This includes OWL ontologies, classes and properties.

NOTE: This set of names is intended to be used for ‘T-box’ ontology elements. ‘A-box’ ontology elements, and supporting elements such as functions and rules, are identified with /def/ identifiers, as described in <http://www.opengis.net/doc/def-names-1>

2 Normative references

IETF RFC 3986 Uniform Resource Identifier (URI): Generic Syntax (2005)

<http://tools.ietf.org/html/rfc3986>

IETF RFC 5234 Augmented BNF for Syntax Specifications: ABNF (2008)

<http://tools.ietf.org/html/rfc5234>

OGC 05-020r10, Technical Committee Policies and Procedures

<http://www.opengis.net/doc/tc-policies>

OGC 09-046r2, OGC Naming Authority – Procedures <http://www.opengis.net/doc/ogc-na-policies>

3 Terms and Definitions

3.1 T-box

T-Box statements describe a conceptualization, a set of concepts and properties for these concepts.

NOTE: T-Box statements are broadly equivalent to a ‘schema’ or data model, classes and their properties.

3.2 A-box

A-Box statements are T-Box-compliant statements.

NOTE: A-Box statements are broadly equivalent to ‘data’, instances and individuals.

4 Naming rule

4.1 OGC name schemes

A http URI scheme [IETF RFC 3986] is defined by OGC to provide persistent names for resources of interest in geographic information infrastructures. The generic syntax for OGC names is described in [OGC Naming Authority – Procedures].

The generic syntax for OGC http URIs is

```
URI = "http://www.opengis.net/" OGCResource "/" ResourceSpecificPath
```

The following ABNF adapted from [IETF RFC 3986] provides some basic definitions required in the rest of this document.

```
segment          = *pchar

segment-nz-nc    = 1*pchar-nc

pchar            = unreserved / pct-encoded / sub-delims / ":" / "@"

pchar-nc         = unreserved / pct-encoded / sub-delims / "@"

pct-encoded      = "%" HEXDIG HEXDIG

unreserved       = ALPHA / DIGIT / "-" / "." / "_" / "~"

reserved         = gen-delims / sub-delims

gen-delims       = ":" / "/" / "?" / "#" / "[" / "]" / "@"

sub-delims       = "!" / "$" / "&" / "'" / "(" / ")"

                  / "*" / "+" / "," / ";" / "="
```

4.2 Production rule for ontology names

The basic form for an OGC name that identifies an ontology resource shall be produced using the following rule:

```
OGCResource      = "ont"

ResourceSpecificPath = [ aggregate "/" ] ontology [ "#" code ]

aggregate
  ontologies      = segment-nz-nc ; token denoting a set of

ontology         = segment-nz-nc ; token denoting the ontology

code             = segment-nz-nc ; localname for ontology element
```

The base URI (i.e. without the ‘#’ separator and ‘code’ element) is used to identify an ontology as a whole, which may import other ontologies.

A full URI denotes an ontology class or property.

5 Name assignment policy

The register of names <http://www.opengis.net/register/ogc-na/name> is controlled by OGC-NA. Changes to this register (addition, deletion, and supersession) shall be initiated by a submission to the OGC Naming Authority names@opengeospatial.org.

6 Examples

The following ontology resources are defined in OGC's GeoSPARQL standard <http://www.opengis.net/doc/geosparql> :

- <http://www.opengis.net/ont/geosparql>
the GeoSPARQL ontology.
- <http://www.opengis.net/ont/geosparql#SpatialObject>
the SpatialObject class from the GeoSPARQL ontology.
- <http://www.opengis.net/ont/gml#Polygon>
the Polygon class from the GML ontology.
- <http://www.opengis.net/ont/geosparql#hasGeometry>
the hasGeometry property from the GeoSPARQL ontology.

7 Bibliography

OGC 11-052 *GeoSPARQL* <http://www.opengis.net/doc/geosparql>

OGC 09-047r3 *Name type specification – definitions – part 1 – basic name* <http://www.opengis.net/doc/def-names-1>

Revision History

Date	Internal version	Editor	Sections modified	Description
29 June 2012	0.1 Draft	Simon Cox	N/A	Initialised Draft Document. Using 09-047r3 as template
24 July 2012	0.2 Draft	Simon Cox, Clemens Portele	3.2	Added step in URI for aggregates of ontologies