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A URN namespace for the Open Geospatial Consortium (OGC)

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Abstract

This document describes a URN (Uniform Resource Name) namespace that is engineered by the Open Geospatial Consortium (OGC) for naming persistent resources published by the OGC (such as OGC Standards, XML (Extensible Markup Language) Document Type Definitions, XML Schemas, Namespaces, Stylesheets, and other documents). The formal Namespace identifier (NID) is "ogc".

1. Introduction

The Open Geospatial Consortium (OGC) produces many kinds of technical documents, including: specifications, working drafts, technical reports, discussion papers, and XML schemas. The OGC wishes to provide persistent, location-independent identifiers for these resources.

The core mission of the OGC is to develop spatial interface specifications that are openly available and royalty free. Products and services that conform to OGC interface specifications enable users to freely exchange and process spatial information across networks, computing platforms, and products. Interoperability in such an environment is facilitated by the use of a system of persistent identifiers that are global in scope.

Motivated by these concerns, the OGC would like to assign formal URNs to published resources in order to provide persistent, location-independent identifiers for them. The process for registering a namespace identifier is documented in RFC 3406 [2]. The official IANA registry of URN namespaces is available online: <http://www.iana.org/assignments/urn-namespaces>.

2. Specification Template

Namespace ID:

"ogc" requested.

Registration Information:

Registration Version Number: 1
Registration Date: 2004-09-20

Declared registrant of the namespace:

Open Geospatial Consortium, Inc. (Headquarters)
35 Main Street, Suite 5
Wayland, MA 01778-5037, USA
c/o Carl Reed (creed@opengeospatial.org)

Declaration of structure:

The Namespace Specific String (NSS) is structured in accord with the syntax described RFC 2141 [1]. All of the URNs assigned by the OGC will have a hierarchical structure in which there are four top-level category branches:

"specification", "service", "tc", "def"

The general structure of the NSS for all categories of the hierarchy follows the same general form, based on Extended Backus-Naur Form:

```
urn:ogc:{category.label}:{resource.group}:{resource.type}  
{-resource.subtype}?{[doc.id]}?:{[resource.label]}?:{[release]}?:  
{[parameters]}
```

where the parts are as follows:

category.label - one of "specification", "service", "def" or "tc"

resource.group - a unique identifier for a particular collection or group of resources. An example of a useful grouping might be 'catalogue' which groups resources created during the development of the OGC Catalogue specification. This would be indicated with a URN string beginning with:

```
urn:ogc:specification:catalogue
```

resource.type - identifies the type of resource, such as a document, working group, interface, schema, stylesheet, or model

resource.subtype - may be used to refine the resource type [e.g. document subtypes such as "is" (implementation specification), "dp" (discussion paper), "ap" (application profile), and "adt" (abstract data type)]. The subtypes are assigned by the OGC Technical Committee Chair with concurrence of the OGC Document Subcommittee.

doc.id - OGC document number if one has been assigned [optional].

resource.label - a short, mnemonic label for the resource [optional].

release - version number or ISO date string [optional].

Parameters – for category def only. A set of parameters related to a service call.

Each category branch is described below and some examples for each branch are provided; these examples are provided for informa-

tional purposes only.

Specification Branch [urn:ogc:specification]

The "specification" branch of the hierarchy identifies all published OGC specifications and related supporting schemas.

Examples:

urn:ogc:specification:gml:doc-is(02-023r4):3.00
urn:ogc:specification:gml:schema-xsd:feature:3.01
urn:ogc:specification:catalogue-profile:doc-ap(03-094):0.8.0
urn:ogc:specification:catalogue-profile:schema-xsd:discovery:0.8.0
urn:ogc:specification:wfs-1.0:wsdl-1.1:interfaces:1.1

Service Branch [urn:ogc:service]

The "service" branch of the hierarchy identifies access to an OGC enabled service.

Examples:

urn:ogc:service:CatalogueService:2.0:HTTP
urn:ogc:service:wms:3.0:HTTP
urn:ogc:service:CRS:2.0:HTTP:ebRIM
urn:ogc:service:WebFeatureService:1.0:HTTP

TC Branch [urn:ogc:tc]

The "tc" branch of the hierarchy identifies work products of the various OGC Working Groups, SIGS, and committees of the OGC technical committee.

Examples:

urn:ogc:tc:ows-2:doc-rfq(03-ijk):20031127
urn:ogc:tc:arch:doc-atb(03-040):refmodel:0.1.2
urn:ogc:tc:plenary:doc-minutes:20040620

Definition Branch [urn:ogc:def]

The "def" branch of the hierarchy currently references definitions of coordinate reference systems, coordinate (transformation) operations,

and components thereof, that are specified or recognized by the OGC in a formal OGC document. The use of the “def” category may be expanded in the future to accommodate the needs of new OGC standards.

Examples:

urn:ogc:def:crs:EPSG:26986:6.3

urn:ogc:def:crs:OGC:WMS2:1.3

urn:ogc:def:crs:OGC:42003:1.3:1:-100:45

Relevant ancillary documentation:

None

Namespace Considerations:

There is currently no available namespace that will allow the OGC to uniquely specify and access resources, such as schemas and registries, that are required by organizations implementing OGC standards. There is also a need for other standards organizations, such as OASIS and the IETF to be able to access OGC specific resources.

Community Considerations

Many of the current OGC standards require access to resources, such as schemas, registries, catalogues, OGC documents, and OGC enabled services. In order for the larger IT community to be able to effectively implement applications that access OGC resources, a unique namespace is required. We desire these resources to be freely and openly available as a set of community resources.

Identifier uniqueness considerations:

Identifier uniqueness will be ensured by the OGC when assigning a URN to a resource

Identifier persistence considerations:

The OGC is committed to maintaining the accessibility and persistence of all the resources that are assigned URNs.

Process of identifier assignment:

OGC may delegate authority for assignment of portions of its

namespace to other parties. Assignment is limited to the authorized entity only and may not be re-assigned.

Process of identifier resolution:

No special resolution process is identified here, however it is expected that OGC catalogue services will provide a facility for retrieving resources by URI in a direct or brokered manner.

Rules for Lexical Equivalence:

URNs are lexically equivalent if they are lexically identical.

Conformance with URN Syntax:

No special considerations.

Validation mechanism:

None specified. Users are recommended to confirm the validity of OGC URN's by consulting the original documents.

Scope:

Global

3. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general.

References

- [1] Moats, R., "URN Syntax", RFC 2141, May 1997. Available [online]: <<http://www.ietf.org/rfc/rfc2141.txt>>
- [2] Daigle, L. et al., "Uniform Resource Names (URN) Namespace Definition Mechanisms", RFC 3406, October 2002. Available [online]: <<http://www.ietf.org/rfc/rfc3406.txt>>

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