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Name type specification - specification elements

Warning

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

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i.   Preface

This document specifies a rule for constructing OGC names that may be used for identifying specification elements defined in the OGC Specification Model – Modular Specification.

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).

iii.   Revision History

Date	Internal version	Editor	Sections modified	Description
1 April 2009	0.1.0 Draft	Simon Cox	N/A	Initial Draft Document.
21 May 2009	0.2	Simon Cox	3	Replaced EBNF with ABNF
23 June 2009	1.0	Simon Cox	All	Final scrub for publication
April 2010	2.0c1	Simon Cox	All	ABNF revised to match RFC 3986; http URI syntax made explicit spec-element names restructured to reflect context and modular-specifications dependencies

Name type specification - specification elements

1 Scope

An OGC name must be provided for each *normative element* within an OGC specification, as described in the OGC Specification Model – Modular Specifications (OGC 08-131r3). These include *requirement*, *requirements-module*, *requirements-class*, *conformance-test*, *conformance-module*, *conformance-class*, and the *specification* as a whole.

Note that a specification as a whole is the structure composed of constituent requirements- and conformance-classes. This is distinguished from a specification *document* or standard, which is identified by an OGC name from the 'doc' branch.

2   Normative references:

IETF RFC 2141 *URN Syntax* (1997) http://tools.ietf.org/html/rfc2141

IETF RFC 2616 *Hypertext Transfer Protocol -- HTTP/1.1* (1999)
http://tools.ietf.org/html/rfc2616

IETF RFC 3986 *Uniform Resource Identifier (URI): Generic Syntax* (2005)
http://tools.ietf.org/html/rfc3986

IETF RFC 4395 *Guidelines and Registration Procedures for New URI Schemes* (2006)
http://tools.ietf.org/html/rfc4395

IETF RFC 5141 *A Uniform Resource Name (URN) Namespace for the International Organization for Standardization (ISO)* (2008) http://tools.ietf.org/html/rfc5141

IETF RFC 5165 *A Uniform Resource Name (URN) Namespace for the Open Geospatial Consortium (OGC)* (2008) http://tools.ietf.org/html/rfc5165

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/POL/PnP

OGC 09-046r2, *OGC Naming Authority – Procedures*
http://www.opengis.net/doc/POL/OGC-NA

OGC 09-047r2, *OGC-NA Name type specification – documents*
http://www.opengis.net/doc/POL-NTS/DOC

OGC 08-131r2, *OGC Specification Model – Modular Specifications*
http://www.opengis.net/doc/POL/SPEC

3   Naming rule

3.1 OGC name schemes

URI schemes [IETF RFC 3986] are 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-nc     = *pchar-nc

segment-nz     = 1*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     = "!" / "$" / "&" / "'" / "(" / ")"

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

3.2 Production rule for specification element names

An OGC name for a normative specification element shall be produced using the following rule:

```
OGCResource   = "spec"

ResourceSpecificPath = standard "/" version [ "/" class "/" name
     *("/" name) ]

standard = segment-nz-nc ; value registered as a doc-name for an OGC
     standard according to [OGC-NA Name type specification –
     documents]
```

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```
version = 1*DIGIT "." 1*DIGIT ["." 1*DIGIT] ; value registered as a
     doc-version for an OGC implementation standard according to
     [OGC-NA Name type specification – documents]

class = "req" / "conf"

name = segment-nz-nc
```

3.3 Explanation

This policy document provides a URI structure for specification components, as required by Req 2 in the OGC Policy document [OGC Specification Model – Modular Specifications]:

> Req 2 Each component of the standard, including requirements, requirements modules, requirements classes, conformance test cases, conformance modules and conformance classes shall be assigned a URI as specified by the OGC naming authority or its equivalent.

The policy also includes the following requirement relevant to the naming scheme design:

> Req 14 For the sake of consistency and readability, all requirements classes and all conformance test classes shall be explicitly named, with corresponding requirements classes and conformance test classes having similar names.

The consistency constraint described in Req 14 links the names of conformance classes to requirements classes. This is not formalized in the production rules, but will be checked during the registration process.

Names for Requirements Classes or Conformance Classes are constructed by appending fields to the name for the Specification. Names for Modules, Requirements and Tests are constructed by appending additional fields to the names for the Requirements Class or Conformance Class. In this way the names reflect the fact that each Module, Requirement and Test is owned by a single Requirements Class or Conformance Class, and each Requirements Class or Conformance Class is owned by a single Specification [*OGC Specification Model – Modular Specifications* http://www.opengis.net/doc/POL/SPEC].

4 Name assignment policy

4.1 Names

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.

5 Examples

5.1 Specification

Example 1   A specification

```
http://www.opengis.net/spec/OMXML/2.0
```

NOTE: The specification as a whole has a single version designator. Elements within the specification cannot be versioned independently from the specification as a whole.

5.2 Requirements class

Example 2   A requirements class within the previous specification

```
http://www.opengis.net/spec/OMXML/2.0/req/measurement
```

NOTE: The first step after the /req/ field provides the name of a requirements-class.

5.3 Specification requirement

Example 3   A specification requirement, within the previous requirements class:

```
http://www.opengis.net/spec/OMXML/2.0/req/measurement/result-measure
```

NOTE: The second step after the /req/ field provides the name of a requirements-module or requirement.

5.4 Conformance class

Example 4   A conformance class within the previous specification

```
http://www.opengis.net/spec/OMXML/2.0/conf/measurement
```

NOTE: The first step after the /conf/ field provides the name of a conformance-class.

5.5 Conformance test

Example 5   A conformance test within the previous conformance-class

```
http://www.opengis.net/spec/OMXML/2.0/conf/measurement/result-measure
```

NOTE: The second step after the /conf/ field provides the name of a conformance-module or conformance-test.