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OGC API-Common Users Guide

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i. Abstract

<Insert Abstract Text here>

ii. Keywords

The following are keywords to be used by search engines and document catalogues.

ogcdoc, OGC document, <tags separated by commas>

iii. Preface

NOTE

Insert Preface Text here. Give OGC specific commentary: describe the technical content, reason for document, history of the document and precursors, and plans for future work. > Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The Open Geospatial Consortium shall not be held responsible for identifying any or all such patent rights.

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iv. Submitting organizations

The following organizations submitted this Document to the Open Geospatial Consortium (OGC):

Organization name(s)

v. Submitters

All questions regarding this submission should be directed to the editor or the submitters:

Name Affiliation

Chapter 1. Scope

NOTE

Insert Scope text here. Give the subject of the document and the aspects of that scope covered by the document.

Chapter 2. Conformance

This Best Practice defines XXXX.

Requirements for N target types are considered: * AAAA * BBBB

Conformance with this Best Practice shall be checked using all the relevant tests specified in Annex A (normative) of this document.

In order to conform to this OGC® Best Practice, a software implementation shall choose to implement: * Any one of the conformance levels specified in Annex A (normative). * Any one of the Distributed Computing Platform profiles specified in Annexes TBD through TBD (normative).

All requirements-classes and conformance-classes described in this document are owned by the document(s) identified.

Chapter 3. References

The following normative documents contain provisions that, through reference in this text, constitute provisions of this document. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the normative document referred to applies.

Insert References here. If there are no references, state “There are no normative references”.

References are to follow the Springer LNCS style, with the exception that optional information may be appended to references: DOIs are added after the date and web resource references may include an access date at the end of the reference in parentheses. See examples from Springer and OGC below.

Smith, T.F., Waterman, M.S.: Identification of Common Molecular Subsequences. *J. Mol. Biol.* 147, 195–197 (1981)

May, P., Ehrlich, H.C., Steinke, T.: ZIB Structure Prediction Pipeline: Composing a Complex Biological Workflow through Web Services. In: Nagel, W.E., Walter, W.V., Lehner, W. (eds.) *Euro-Par 2006. LNCS*, vol. 4128, pp. 1148–1158. Springer, Heidelberg (2006)

Foster, I., Kesselman, C.: *The Grid: Blueprint for a New Computing Infrastructure*. Morgan Kaufmann, San Francisco (1999)

Czajkowski, K., Fitzgerald, S., Foster, I., Kesselman, C.: Grid Information Services for Distributed Resource Sharing. In: 10th IEEE International Symposium on High Performance Distributed Computing, pp. 181–184. IEEE Press, New York (2001)

NOTE

Foster, I., Kesselman, C., Nick, J., Tuecke, S.: *The Physiology of the Grid: an Open Grid Services Architecture for Distributed Systems Integration*. Technical report, Global Grid Forum (2002)

National Center for Biotechnology Information, <http://www.ncbi.nlm.nih.gov>

ISO / TC 211: ISO 19115-1:2014 Geographic information — Metadata — Part 1: Fundamentals (2014)

ISO / TC 211: ISO 19157:2013 Geographic information — Data quality (2013)

ISO / TC 211: ISO 19139:2007 Geographic information — Metadata — XML schema implementation (2007)

ISO / TC 211: ISO 19115-3: Geographic information — Metadata — Part 3: XML schemas (2016)

OGC: OGC 15-097 OGC Geospatial User Feedback Standard. Conceptual Model (2016)

OGC: OGC 12-019, OGC City Geography Markup Language (CityGML) Encoding Standard (2012)

OGC: OGC 14-005r3, OGC IndoorGML (2014)

Chapter 4. Terms and Definitions

This document uses the terms defined in Sub-clause 5.3 of [OGC 06-121r8], 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 conform to this Best Practice.

For the purposes of this document, the following additional terms and definitions apply.

4.1. term name

text of the definition

Chapter 5. Conventions

This sections provides details and examples for any conventions used in the document. Examples of conventions are symbols, abbreviations, use of XML schema, or special notes regarding how to read the document.

5.1. Identifiers

The normative provisions in this document are denoted by the URI

<http://www.opengis.net/spec/{standard}/{m.n}>

All requirements and conformance tests that appear in this document are denoted by partial URIs which are relative to this base.

Chapter 6. Users Guide

The OGC API Users Guide document contains information useful to a developer or user of OGC API-Common. This information is not normative. That is, it is not mandatory. However, it may prove essential to fully understand the normative text in the OGC API - Common Standards.

6.1. Link Relations

provides a discussion of link relations, the governing policies and standards, as well as how they should be used.

Links between elements of an OGC API are encoded using the link relation schema provided in [Figure 1](#).

Link Schema

```
type: object
required:
  - href
  - rel
properties:
  href:
    type: string
    example: http://data.example.com/buildings/123
  rel:
    type: string
    example: alternate
  type:
    type: string
    example: application/geo+json
  hreflang:
    type: string
    example: en
  title:
    type: string
    example: Trierer Strasse 70, 53115 Bonn
  length:
    type: integer
```

6.1.1. Href Attribute

The **href** attribute is mandatory.

"The Locator Attribute (href) supplies the data that allows an application to find a remote resource or resource fragment. The value of this attribute is an IRI which serves as the Uniform Resource Identifier for the remote resource." (W3C XLink Version 1.1)

6.1.2. Rel Attribute

The **rel** attribute is mandatory.

"In the simplest case, a link relation type identifies the semantics of a link. For example, a link with the relation type "copyright" indicates that the current link context has a copyright resource at the link target.

Link relation types can also be used to indicate that the target resource has particular attributes, or exhibits particular behaviours; for example, a "service" link implies that the link target can be used as part of a defined protocol (in this case, a service description).

Relation types are not to be confused with media types [RFC2046]; they do not identify the format of the representation that results when the link is dereferenced. Rather, they only describe how the current context is related to another resource.

Relation types SHOULD NOT infer any additional semantics based upon the presence or absence of another link relation type, or its own cardinality of occurrence. An exception to this is the combination of the "alternate" and "stylesheet" registered relation types, which has special meaning in HTML for historical reasons.

There are two kinds of relation types: registered and extension." (RFC8288)

Relation types are discussed in more detail in [Relation Types](#).

6.1.3. Type Attribute

The **type** attribute is optional

"The "type" attribute, when present, is a hint indicating what the media type of the result of dereferencing the link should be. Note that this is only a hint; for example, it does not override the Content-Type header field of a HTTP response obtained by actually following the link. The type attribute MUST NOT appear more than once in a given link-value; occurrences after the first MUST be ignored by parsers." (RFC8288)

6.1.4. Hreflang Attribute

The **hreflang** attribute is optional.

"The "hreflang" attribute, when present, is a hint indicating what the language of the result of dereferencing the link should be. Note that this is only a hint; for example, it does not override the Content-Language header field of a HTTP response obtained by actually following the link. Multiple hreflang attributes on a single link-value indicate that multiple languages are available from the indicated resource." (RFC8288)

6.1.5. Title Attribute

The **title** attribute is optional.

"The "title" attribute, when present, is used to label the destination of a link such that it can be used

as a human-readable identifier (e.g., a menu entry) in the language indicated by the Content-Language header field (if present). The title attribute MUST NOT appear more than once in a given link; occurrences after the first MUST be ignored by parsers." (RFC8288)

6.1.6. Length Attribute

The **length** attribute does not appear to be defined in the normative standards.

6.2. Relation Types

There are two kinds of relation types; registered and extension.

Registered relation types are registered in the IANA register at <https://www.iana.org/assignments/link-relations/link-relations.xhtml>. Registered relation types are used in OGC API standards whenever appropriate.

Extension relation types are those which are not registered with IANA. These extension types are in the form of "--- a URI [RFC3986] that uniquely identifies the relation type. Although the URI can point to a resource that contains a definition of the semantics of the relation type, clients SHOULD NOT automatically access that resource to avoid overburdening its server.

The URI used for an extension relation type SHOULD be under the control of the person or party defining it or be delegated to them.

When extension relation types are compared, they MUST be compared as strings (after converting to URIs if serialised in a different format) in a case-insensitive fashion, character by character. Because of this, all-lowercase URIs SHOULD be used for extension relations.

Note that while extension relation types are required to be URIs, a serialisation of links can specify that they are expressed in another form, as long as they can be converted to URIs." (RFC8288)

Extension relation types used in OGC API Standards are registered at <https://github.com/opengeospatial/NamingAuthority/blob/master/registers/linkrelations.csv>

Annex A: Revision History

Date	Release	Editor	Primary clauses modified	Description
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Annex B: Bibliography

Example Bibliography (Delete this note).

The TC has approved Springer LNCS as the official document citation type.

Springer LNCS is widely used in technical and computer science journals and other publications

NOTE

- For citations in the text please use square brackets and consecutive numbers:
[1], [2], [3]

– Actual References:

[n] Journal: Author Surname, A.: Title. Publication Title. Volume number, Issue number, Pages Used (Year Published)

[n] Web: Author Surname, A.: Title, <http://Website-Url>

[1] OGC: OGC Testbed 12 Annex B: Architecture. (2015).