OGC API-Common Best Practices

Warning

This document defines an the OGC Best Practices on the implementation and use of the OGC API-Common standard. This document is not an OGC Standard and may not be referred to as an OGC Standard. It is subject to change without notice. However, this document is an official position of the OGC membership on this particular technology topic.

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Table of Contents

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. |
| | Recipients of this document are requested to submit, with their comments, notification of any relevant patent claims or other intellectual property rights of which they may be aware that might be infringed by any implementation of the standard set forth in this document, and to provide supporting documentation. |

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.

NOTE

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)

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. OGC API Philosophy

The Best Practices document contains information useful to a developer of user of OGC API-Common, but not required by the standard.

Chapter 7. Modular APIs

This section of the Best Practice discusses OGC principals and practices regarging modular APIs.

Chapter 8. Navigation

Navigating the API

This section of the Best Practice addresses the different ways to navigate an API, the features of OGC Web APIs to facilitate navigation, and the impact of different navigation techniques on the client.

Chapter 9. API Description

Using and Abusing ApenAPI

OpenAPI is a useful tool for documenting the design of an API. In addition, numerous tool vendors have produced products to assist in the use of OpenAPI documents. These go so far as to generate stub-code for the use of API and client developers.

However like so many other good tools, OpenAPI was not designed for the size and complexity that we are seeing in Geospatial APIs. This section discusses various features of the OpenAPI specification that can be abused to provide a scalable API Description.

Chapter 10. Clause containing normative material

Paragraph

10.1. Requirement Class A or Requirement A Example

Paragraph – intro text for the requirement class.

Use the following table for Requirements Classes.

Requirements Class	
http://www.opengis.net/spec/ABCD/m.n/req/req-class-a	
Target type	Token
Dependency	http://www.example.org/req/blah
Dependency	urn:iso:ts:iso:19139:clause:6
Requirement 1	http://www.opengis.net/spec/ABCD/m.n/req/req-class-a/req-name-1 requirement description
Requirement 2	http://www.opengis.net/spec/ABCD/m.n/req/req-class-a/req-name-2 requirement description
Requirement 3	http://www.opengis.net/spec/ABCD/m.n/req/req-class-a/req-name-3 requirement description

10.1.1. Requirement 1

Paragraph - intro text for the requirement.

Use the following table for Requirements, number sequentially.

Requirement 1	/req/req-class-a/req-name-1
	Requirement 'shall' statement

Dictionary tables for requirements can be added as necessary. Modify the following example as needed.

Names	Definition	Data types and values	Multiplicity and use
name 1	definition of name 1	float	One or more (mandatory)

Names	Definition	Data types and values	Multiplicity and use
name 2	definition of name 2	character string type, not empty	Zero or one (optional)
name 3	definition of name 3	GML:: Point PropertyType	One (mandatory)

Names	Definition	Data types and values	Multiplicity and use
name 2	definition of name 2	character string type, not empty	Zero or one (optional)
name 3	definition of name 3	GML:: Point PropertyType	One (mandatory)

Annex A: Conformance Class Abstract Test Suite (Normative)

NOTE   Ensure that there is a conformance class for each requirements class and a test for each requirement (identified by requirement name and number)

A.1. Conformance Class A

A.1.1. Requirement 1

Test id:	/conf/conf-class-a/req-name-1
Requirement:	/req/req-class-a/req-name-1
Test purpose:	Verify that…
Test method:	Inspect…

A.1.2. Requirement 2

Annex B: Title ({Normative/Informative})

NOTE   Place other Annex material in sequential annexes beginning with "B" and leave final two annexes for the Revision History and Bibliography

Annex C: Revision History

Date	Release	Editor	Primary clauses modified	Description
2016-04-28	0.1	G. Editor	all	initial version

Annex D: Bibliography

> **NOTE**
>
> *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
>
> - 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).