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GML 3.1.1 simple dictionary profile

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Contents Page

i.   Preface

This document defines a profile of the Geography Markup Language (GML) version 3.1.1 for encoding simple dictionaries. This profile can be used without a GML Application Schema, and such use is assumed in this document.

Suggested additions, changes, and comments on this document are welcome and encouraged. Such suggestions may be submitted by email message or by submitting a formal Change Request Proposal as described in the Technical Committee Policies and Procedures.

ii.   Document terms and definitions

This document uses the specification terms defined in Subclause 5.3 of [OGC 05-008]. In particular, the word "shall" (not "must") is the verb form used to indicate a requirement to be strictly followed to conform to this specification

iii.   Document contributor contact points

All questions regarding this document should be directed to the editor or the contributors:

Name	Organization
Arliss Whiteside	BAE Systems E&IS

iv.   Revision history

Date	Release	Editor	Primary clauses modified	Description
2005-10-14	0.0.0	Arliss Whiteside	All	Initial release
2005-11-02	0.0.1	Arliss Whiteside	7, Attachments	Miscellaneous editing, examples updated
2005-11-14	0.0.2	Arliss Whiteside	All	Miscellaneous editing

v.   Changes to OGC Specifications

No previously approved OGC™ Specifications need to be changed to accommodate the technical contents of this document.

vi.   Future work

Improvements in this document may be desirable. There will be a 30-day public comment period to solicit input and comments from the broader geospatial community.

Foreword

This document specifies a subset profile of the existing OGC Implementation Specification for the Geometry Markup Language (GML) version 3.1.1 [OGC 03-105r1 and 04-093r4], and does not modify it. This is a GML profile as specified in Subclause 22 of [OGC 03-105r1]. This document does not replace any existing OGC document**.**

This document includes one normative annex: Annex A.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The OGC shall not be held responsible for identifying any or all such patent rights.

Introduction

This document specifies a GML profile for XML encoding of simple dictionaries. This XML schema is a profile of the OGC Geography Markup Language (GML) version 3.1.1. These "simple" dictionaries do not allow including remote resources within the dictionary.

GML 3.1.1 simple dictionary profile

1   Scope

This GML 3.1.1 profile is defined for XML encoding of simple dictionaries. These "simple" dictionaries do not allow including remote resources within the dictionary. This profile supports the following concrete XML elements:

a) Dictionary

b) Definition

c) dictionaryEntry

d) "id"

e) "name"

f) "description"

This profile does not support encoding of the other concrete elements defined in GML 3.1.1.

2   Compliance

All dictionaries encoded using this profile shall produce XML documents that are fully compliant with the normative XML Schema Documents associated with this specification, named:

a) gmlSimpleDictionaryProfile.xsd

b) basicTypes.xsd

c) dictionary.xsd

d) gmlBase.xsd

Except for gmlSimpleDictionaryProfile.xsd, all these XML Schema Documents contain the subset of the corresponding GML 3.1.1 document that is needed by this GML 3.1.1 Simple Dictionary profile. This was done to facilitate checking that this profile is a strict subset of GML 3.1.1. This also facilitates comparing each document with the original, to determine which elements, attributes, and types were retained, and which were removed.

XML documents compliant with this profile shall import the gmlSimpleDictionaryProfile.xsd XML Schema Document schema, which will be available following approval of this document at http://schemas.opengis.net/gml/3.1.1/Profiles/SimpleDictionary/1.0.0/.

More specifically, compliance with this specification shall be checked using all the relevant tests specified in Annex A (normative).

3   Normative 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.

ISO 19105:2000, *Geographic information — Conformance and Testing*

OGC 03-105r1, *OpenGIS Geography Markup Language (GML) Implementation Specification*, Version 3.1.0,

OGC 04-092r4, *GML 3.1.1 schemas*

OGC 05-008, *OGC Web Services Common Specification*, Version 1.0.0

W3C, *Extensible Markup Language (XML) 1.0* (Second Edition), W3C Recommendation, 6 October 2000, http://www.w3.org/TR/REC-xml

W3C, *XML Schema Part 1: Structures*, http://www.w3.org/TR/xmlschema-1

W3C, *XML Schema Part 2: Datatypes*, http://www.w3.org/TR/xmlschema-2

W3C, *Namespaces in XML*, http://www.w3.org/TR/1999/REC-xml-names-19990114

In addition to this document, this specification includes four normative XML Schema Document files. Following approval of Version 1.0.0 of this specification, all of these documents will be posted online at the URL: http://schemas.opengis.net/gml/3.1.1/Profiles/SimpleDictionary/1.0.0/. In the event of a discrepancy between the bundled and online versions of the XML Schema files, the online files shall be considered authoritative.

4   Terms and definitions

For the purposes of this specification, the following definitions shall apply.

4.1
profile
specified logical subset of XML Schema specified elements and types, defined to enhance interoperability and to curtail ambiguity [adapted from GML 3.0]

4.2
Uniform Resource Identifier (URI)
simple and extensible means for identifying a resource; a short string or address; classified as a name, a locator, or both [RFC 2396]

5   Conventions

The abbreviated terms used in this document include:

GML   Geography Markup Language

IETF   Internet Engineering Task Force

ISO   International Organization for Standardization

OGC   Open Geospatial Consortium

URL   Uniform Resource Locator

URN   Universal Resource Name

XML   Extensible Markup Language

6   Simple dictionary profile

6.1   Background

GML 3.1.1 includes an XML Schema Document for encoding dictionaries of definitions, named dictionary.xsd. That XML Schema Document uses only parts of three other GML 3.1.1 documents, named

a) gmlBase.xsd

b) basicTypes.xsd

c) xlinks.xsd

However, this set of four XML Schema Documents supports many abilities that are rarely used for encoding dictionaries. Therefore, a "simple dictionary" profile of this part of GML 3.1.1 is significantly simpler and thus easier to understand and use.

EXAMPLES   Simple dictionaries that could use this profile are specified in several existing OGC documents, including in Recommendation Paper [OGC 05-010] "URNs of definitions in ogc namespace". In that document, these dictionaries are axisDirection.xml, derivedCRSType.xml, pixelInCell.xml, rangeMeaning, and verticalDatumType.xml.

This profile was produced by retaining only those parts of the four GML 3.1.1 XML Schema Documents mentioned above that are useful for recording "simple" dictionaries. All other parts were removed.

6.2   Overview

This GML 3.1.1 profile is defined for encoding simple dictionaries of definitions. This GML 3.1.1 Simple Dictionary profile retains only the following XML elements used by simple dictionaries:

g) Dictionary, Definition, and dictionaryEntry in dictionary.xsd

h) _Object, _GML, "id", "name", and "description" in gmlBase.xsd

In addition to the above listed XML elements, the types needed to support those were also retained. Essentially all other parts were removed, including all deprecated parts.

This GML 3.1.1 Simple Dictionary Profile removes optional and alternative contents elements and attributes from the above-listed XML elements and the corresponding types, when these options and alternatives are rarely used in dictionaries. In addition to removing all deprecated parts, the removed contents elements and attributes include:

a) metaDataProperty, from StandardObjectProperties in gmlBase.xsd

b) indirectEntry, from Dictionary in dictionary.xsd

c) AssociationAttributeGroup, from DictionaryEntryType in dictionary.xsd

7 XML schema documents

This GML 3.1.1 Simple Dictionary Profile is specified in the four normative XML Schema Documents included in the zip file with this text document, which are named:

a) gmlSimpleDictionaryProfile.xsd, which "includes" the following three documents

b) basicTypes.xsd

c) dictionary.xsd

d) gmlBase.xsd

All these XML Schema Documents contain documentation of the meaning of each element and attribute, and this documentation shall be considered normative as specified in Subclause 11.6.3 of [OGC 05-008].

After OGC acceptance of Version 1.0.0 of this specification, all of these XML Schema Documents will also be posted online at the URL http://schemas.opengis.net/gml/3.1.1/Profiles/SimpleDictionary/1.0.0. In the event of a discrepancy between the bundled and online versions of the XML Schema Documents, the online files shall be considered authoritative.

In addition to the normative XML Schema Documents listed above, six example XML documents using this profile are included in the zip file with this text document. Five of those examples are essentially identical to the dictionaries included in Recommendation Paper [OGC 05-010] "URNs of definitions in ogc namespace".

Annex A
(normative)

Abstract test suite

An abstract test suite is not provided in this version of this Profile Implementation Specification.