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Open Geospatial Consortium

OGC EMISSION EVENT MODELING LANGUAGE (EMISSIONML) DISCUSSION PAPER

DRAFT STANDARD

DRAFT

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Note

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KEYWORDS

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

ogcdoc, OGC document, emissions, climate change

PREFACE

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. Security Considerations

No security considerations have been made for this Standard.

v. Submitting organizations

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

Organization name(s)

vi. Submitters

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

Table 1

Name	Affiliation
Steve Liang	University of Calgary / SensorUp
Ryan Ahola	Natural Resources Canada

SECURITY CONSIDERATIONS

No security considerations have been made for this document.

IV SUBMITTING ORGANIZATIONS

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

- SensorUp Inc.
- Natural Resources Canada
- University of Calgary

1 SCOPE

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

2

NORMATIVE REFERENCES

2 NORMATIVE REFERENCES

There are no normative references in this document.

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)

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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)

3 TERMS AND DEFINITIONS

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No terms and definitions are listed in this document.

This document uses the terms defined in OGC Policy Directive 49, 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 Standard and OGC documents do not use the equivalent phrases in the ISO/IEC Directives, Part 2.

This document also uses terms defined in the OGC Standard for Modular specifications (OGC 08-131r3), also known as the 'ModSpec'. The definitions of terms such as standard, specification, requirement, and conformance test are provided in the ModSpec.

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

Emission Event	An Emission Event is an occurrent representing the release of a substance into the atmosphere over a non-zero duration. It is characterized by its start time and end time, the Source Feature from which the substance originated, and the identity and quantity of the emitted substance.
Feature	Abstraction of real world phenomena (Source: ISO 19101-1:2014)
Measurement	Set of operations having the object of determining the value of a quantity (Source: ISO/OGC 19156:2023)
Mechanism	A Mechanism is a classification of the specific physical, chemical, or operational process that constitutes the direct cause or pathway for an emission. It is a member of a controlled vocabulary and is defined independently of the Source Feature — including its identity, structure, or purpose — allowing Mechanisms to be consistently reused across different types of Source Features.
Observation	Act carried out by an observer to determine the value of an observable property of an object (feature-of-interest) by using a procedure, with the value provided as the result (Source: ISO/OGC 19156:2023)
Source Feature	A Source Feature is an ISO 19101 feature whose geometry provides the geospatial reference for one or more Emission Events. A Source Feature is characterised solely by its own identity, geometry, intended function, and lifecycle; it is explicitly agnostic to the Mechanism by which any associated Emission Event occur.
Unit of Measure	Reference quantity chosen from a unit equivalence group (Source: ISO/OGC 19156:2023)
term name	text of the definition

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CLAUSES NOT CONTAINING NORMATIVE MATERIAL

4 CLAUSES NOT CONTAINING NORMATIVE MATERIAL

Paragraph

4.1. Clauses not containing normative material sub-clause 1

Paragraph

4.2. Clauses not containing normative material sub-clause 2

A

ANNEX A (INFORMATIVE) BIBLIOGRAPHY

A ANNEX A (INFORMATIVE) BIBLIOGRAPHY

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

– Actual References:

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

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