Doc No. : LITD 22 (23729)
IS/ISO 19136-1:2020
October 2023

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

Draft Indian Standard

Geographic information — Geography Markup Language (GML) — Part 1: Fundamentals

First Revision

मसौदा भारतीय मानक

भौगोलिक जानकारी - भूगोल मार्कअप लैंग्वेज (जीएमएल) - भाग 1: बुनियादी बातें

पहला संशोधन

ICS: **35.240.70**

LITD 22 Geospatial Information Sectional Committee

Last date for comments: 10 Dec 2023

NATIONAL FOREWORD

(Formal clauses will be added later)

This draft Indian Standard which is identical with ISO 19136-1: 2020 'Geographic information — Geography Markup Language (GML) — Part 1: Fundamentals' issued by ISO *may be* adopted by the Bureau of Indian Standards on the recommendation of the Geospatial Information Sectional Committee LITD 22 and the approval of the Electronics and IT Division Council.

This standard was originally published in December 2017 and was identical to ISO 19136-1: 2007.The First Revision of this Standards Indian Standard has been taken up to align it with the latest version of ISO 19136-1: 2020

The text of ISO Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for editions indicated:

International Standards	**Corresponding Indian Standard**	**Degree of Equivalence**
ISO/TS 19103:2005	IS 17007 : 2018 Geographic information - Conceptual schema language	Identical

Geographic information — Conceptual schema language		
ISO 19109 : 2015 Geographic information — Rules for application schema	IS 16970 : 2018 Geographic information - Rules for applications schema	Identical

The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard.

International Standards	**Title**
ISO 19107	Spatial schema (geometry and topology objects)
ISO 19111	Spatial referencing by coordinates (coordinate reference systems)
ISO 19108	Temporal schema (temporal geometry and topology objects, temporal reference systems)
ISO 19123	Schema for coverage geometry and functions.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 ‘Rules for rounding off numerical values (Second Revision)’.The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

Doc No. : LITD 22 (23729)
IS/ISO 19136-1:2020
October 2023

Scope of ISO 19136-1:2020 is as follows:

The Geography Markup Language (GML) is an XML encoding in accordance with ISO 19118 for the transport and storage of geographic information modeled in accordance with the conceptual modeling framework used in the ISO 19100 series of International Standards and including both the spatial and non-spatial properties of geographic features.
This document defines the XML Schema syntax, mechanisms and conventions that:

- Provide an open, vendor-neutral framework for the description of geospatial application schemas for the transport and storage of geographic information in XML;
- Allow profiles that support proper subsets of GML framework descriptive capabilities;
- Support the description of geospatial application schemas for specialized domains and information communities;
- Enable the creation and maintenance of linked geographic application schemas and datasets;
- Support the storage and transport of application schemas and datasets;
- Increase the ability of organizations to share geographic application schemas and the information they describe.

Implementers can decide to store geographic application schemas and information in GML, or they can decide to convert from some other storage format on demand and use GML only for schema and data transport.

Head
Electronics & IT Department
Bureau of Indian Standards
9, B.S. Zafar Marg,
New Delhi-110002
Email: litd@bis.gov.in, ashishtiwari2205@bis.gov.in
Tele: 011-23608501