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Geographic information — General feature model and rules for application schema

Information géographique — Modèle général des entités et règles relatives au schéma d'application

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This document was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 287, *Geographic Information*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 19109:2015), which has been technically revised.

The main changes are as follows:

— changes in the title and scope;

— new sub-clauses discussing the concept of the General Feature Model;

— re-organization of Clause 7 to include only concepts of the General Feature Model and moving the general rules for application schema to Clause 8;

— updating the references to other ISO/TC 211 standards in applicable cases to reflect classes in respective latest versions;

— removing the dependencies to other ISO/TC 211 standards related to attributes of features.

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Any description of reality is always an abstraction, always partial, and always just one of many possible "views", depending on the application field.

The widespread application of computers and geographic information systems (GIS) has led to an increased use of geographic data within multiple disciplines. With current technology as an enabler, society's reliance on such data is growing. Geographic datasets are increasingly being shared and exchanged. They are also used for purposes other than those for which they were produced.

To ensure that data will be understood by both computer systems and users, it is necessary to fully document the data structures for data access and exchange. The interfaces between systems, therefore, need to be defined with respect to data and operations, using the methods standardized in this document. For the construction of internal software and data storage within proprietary systems, any method is acceptable provided it supports the standardized interfaces.

An application schema provides the formal description of the data structure and content required by one or more applications. An application schema contains the descriptions of both geographic data and other related data. A fundamental concept of geographic data is the feature.

This document aims to express the importance of continuing the modelling of geospatial information according to the concepts contained in this document. The name and contact information of the maintenance agency for this document can be found at www.iso.org/maintenance_agencies.