Australian STANDARD

Geographic information—Procedures for item registration

Part 1: Fundamentals

STANDARDS Australia

AS ISO 19135.1:2018

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Australian Hydrographic Office
Bureau of Meteorology (Australian Government)
Curtin University of Technology
Department of Defence (Australian Government)
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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee IT-004, Geographical Information/Geomatics, to supersede AS/NZS ISO 19135:2006, *Geographic information — Procedures for item registration*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify procedures to be followed in establishing, maintaining, and publishing registers of unique, unambiguous, and permanent identifiers and meanings that are assigned to items of geographic information. In order to accomplish this purpose, AS ISO 19135.1 specifies elements that are necessary to manage the registration of these items.

This Standard is identical with, and has been reproduced from, ISO 19135-1:2015, *Geographic information — Procedures for item registration — Part 1: Fundamentals.*

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text 'this part of ISO 19135' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

Contents

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 211, *Geographic information/Geomatics*.

This first edition of ISO 19135-1 cancels and replaces ISO 19135:2005, which has been technically revised.

ISO 19135 consists of the following parts, under the general title *Geographic information — Procedures for item registration*:

— *Part 1: Fundamentals*

— *Part 2: XML Schema Implementation*

Introduction

This part of ISO 19135 specifies procedures for the registration of items of geographic information. ISO/IEC JTC 1 defines registration as the assignment of an unambiguous name to an object in a way that makes the assignment available to interested parties. Items of geographic information that may be registered are members of object classes specified in technical standards such as those developed by ISO/TC 211.

NOTE In this International Standard, the definition of registration has been changed so that registration is the assignment of linguistically independent identifiers, rather than names, to items of geographic information.

Registration of items of geographic information offers several benefits to the geographic information community. Registration

a) supports wider use of registered items both by providing international recognition to the fact that such items conform to an ISO International Standard and by making them publicly available to potential users,

b) provides both immediate recognition to extensions of an International Standard and a source for updates to that International Standard during the regular maintenance cycle,

c) may provide a single mechanism to access information concerning items that are specified in different standards,

d) provides a mechanism for managing temporal change,

NOTE Items specified in a standard or in a register may change over time either due to changes in technology or for other reasons. Published standards do not clearly document what changes may have occurred, and do not include information about earlier versions of specified items. Such information can be maintained in a register.

e) may be used to make sets of standardized tags available for encoding of registered items in data sets, and

f) supports cultural and linguistic adaptability by providing both a means for recording equivalent names of items used in different languages, cultures, application areas and professions and a means for making those equivalent names publicly available.

This part of ISO 19135 specifies procedures to be followed in preparing and maintaining registers of items of geographic information. Any organization may choose to establish registers of items of geographic information that conform to this part of ISO 19135. Annex C is particularly applicable to registers established under the auspices of ISO/TC 211.

A goal of this part of ISO 19135 is to achieve a balance between minimizing the number of registers for items of geographic information and minimizing the burden on the registration authorities.

Following experience of setting up registers in user communities, there are fewer requirements in this version than previously. Because of this, implementations of the previous edition of ISO 19135 should be conformant to this part of ISO 19135. A log of changes from the previous version (ISO 19135:2005) is provided in Annex F.

The level of abstraction for the UML model described in ISO 19135-1 is the “Abstract Schema level” according to ISO 19103 requirement 4.

Australian Standard®

Geographic information—Procedures for item registration

Part 1: Fundamentals

Section 1 Scope

This part of ISO 19135 specifies procedures to be followed in establishing, maintaining, and publishing registers of unique, unambiguous, and permanent identifiers and meanings that are assigned to items of geographic information. In order to accomplish this purpose, this part of ISO 19135 specifies elements that are necessary to manage the registration of these items.

Section 2 Conformance

2.1 General

This part of ISO 19135 defines three conformance classes for registers:

— Core schema – the minimum requirements for establishing, maintaining, and publishing registers;

— Extended schema – additional requirements to be conformant to the most frequently used model elements in the previous edition (ISO 19135:2005);

— Hierarchical register.

To conform to this part of ISO 19135, a register of items of geographic information shall satisfy all of the requirements specified in one of the three conformance levels described in 2.2 to 2.4, with the corresponding abstract test suite given in Annex A.

2.2 Core conformance class

Table 1 defines the characteristics of the core conformance class.

Table 1 — Core conformance class

Conformance class identifier	core
Standardization target	registers
Dependency	ISO 19103: Conformance classes UML 2, Model documentation ISO 19115-1: Clause 2 Conformance requirements
Requirements	All requirements in Clauses 5 to 7
Tests	All tests in A.1

2.3 Extended conformance class

Table 2 defines the characteristics for the extended conformance class.

Table 2 — Extended conformance class

Conformance class identifier	extended-schema
Standardization target	registers
Dependency	hierarchical