AS/NZS ISO 19115:2005
ISO 19115:2003
A1 | ISO 19115:2003/Cor.1:2006
(Incorporating Amendment No. 1)

AS/NZS ISO 19115:2005

Australian/New Zealand Standard™

# Geographic information—Metadata


This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-004, Geographical Information. It was approved on behalf of the Council of Standards Australia on 4 April 2005 and on behalf of the Council of Standards New Zealand on 18 March 2005.
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The following are represented on Committee IT-004:

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ANZLIC-the Spatial Information Council
Association of Aerial Surveyors Australia
Association of Crown Research Institutes, New Zealand
Australasian Fire Authorities Council
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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Australian/New Zealand Standard™

# Geographic information—Metadata

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# PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-004, Geographical Information.

*This Standard incorporates Amendment No. 1 (October 2008). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

A1 This Standard is identical with, and has been reproduced from ISO 19115:2003, *Geographic information—Metadata*, and its corrigendum, ISO 19115:2003/Cor.1:2006.

The objective of this Standard is to specify, and provide geographic information system, developers with, the schema required for describing geographic information and services. It provides information about the identification, the extent, the quality, the spatial and temporal schema, spatial reference, and distribution of digital geographic data.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

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| *Reference to International Standard* | | *Australian/New Zealand Standard* | |
|---|---|---|---|
| ISO | | AS | |
| 3166 | Codes for the representation of names of countries and their subdivisions (all parts) | 2632 | Codes for the representation of names of countries and their subdivisions (all parts) |
| 8879 | Information processing—Text and office systems—Standard Generalized Markup Language (SGML) | 3514 | Information processing—Text and office systems—Standard Generalized Markup Language (SGML) |
| ISO/IEC | | AS/NZS | |
| 10646 | Information technology—Universal Multiple-Octet Coded Character Set (UCS) | 4189 | Information technology—Universal Multiple-Octet Coded Character Set (UCS) |
| 10646-1 | Part 1: Architecture and Basic Multilingual Plane | 4189.1 | Part 1: Architecture and Basic Multilingual Plane |
| ISO | | AS/NZS ISO | |
| 19106 | Geographic information—Profiles | 19106 | Geographic information—Profiles |
| 19107 | Geographic information—Spatial schema | 19107 | Geographic information—Spatial schema |

| ISO | | AS/NZS ISO | |
|---|---|---|---|
| 19108 | Geographic information—Temporal schema | 19108 | Geographic information—Temporal schema |
| 19111 | Geographic information—Spatial referencing by coordinates | 19111 | Geographic information—Spatial referencing by coordinates |
| 19112 | Geographic information—Spatial referencing by geographic identifiers | 19112 | Geographic information—Spatial referencing by geographic identifiers |
| 19113 | Geographic information—Quality principles | 19113 | Geographic information—Quality principles |
| 19114 | Geographic information—Quality evaluation procedures | 19114 | Geographic information—Quality evaluation procedures |

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

# CONTENTS

*Page*

*Page*

*Page*

*Page*

# INTRODUCTION

A revival in the awareness of the importance of geography and how things relate spatially, combined with the advancement of electronic technology, have caused an expansion in the use of digital geographic information and geographic information systems worldwide. Increasingly, individuals from a wide range of disciplines outside of the geographic sciences and information technologies are capable of producing, enhancing, and modifying digital geographic information. As the number, complexity, and diversity of geographic datasets grow, a method for providing an understanding of all aspects of this data grows in importance.

Digital geographic data is an attempt to model and describe the real world for use in computer analysis and graphic display of information. Any description of reality is always an abstraction, always partial, and always just one of many possible "views". This "view" or model of the real world is not an exact duplication; some things are approximated, others are simplified, and some things are ignored. There is seldom perfect, complete, and correct data. To ensure that data is not misused, the assumptions and limitations affecting the creation of data must be fully documented. Metadata allows a producer to describe a dataset fully so that users can understand the assumptions and limitations and evaluate the dataset's applicability for their intended use.

Typically, geographic data is used by many people other than the producer. It is often produced by one individual or organization and used by another. Proper documentation will provide those unfamiliar with the data with a better understanding, and enable them to use it properly. As geographic data producers and users handle more and more data, proper documentation will provide them with a keener knowledge of their holdings and will allow them to better manage data production, storage, updating, and reuse.

The objective of this International Standard is to provide a structure for describing digital geographic data. This International Standard is intended to be used by information system analysts, program planners, and developers of geographic information systems, as well as others in order to understand the basic principles and the overall requirements for standardization of geographic information. This International Standard defines metadata elements, provides a schema and establishes a common set of metadata terminology, definitions, and extension procedures. When implemented by a data producer, this International Standard will:

1) Provide data producers with appropriate information to characterize their geographic data properly.

2) Facilitate the organization and management of metadata for geographic data.

3) Enable users to apply geographic data in the most efficient way by knowing its basic characteristics.

4) Facilitate data discovery, retrieval and reuse. Users will be better able to locate, access, evaluate, purchase and utilize geographic data.

5) Enable users to determine whether geographic data in a holding will be of use to them.

This International Standard defines general-purpose metadata, in the field of geographic information. More detailed metadata for geographic datatypes and geographic services are defined in other ISO 19100 series standards and user extensions.

AUSTRALIAN/NEW ZEALAND STANDARD

# Geographic information — Metadata

## 1 Scope

This International Standard defines the schema required for describing geographic information and services. It provides information about the identification, the extent, the quality, the spatial and temporal schema, spatial reference, and distribution of digital geographic data.

This International Standard is applicable to:

— the cataloguing of datasets, clearinghouse activities, and the full description of datasets;

— geographic datasets, dataset series, and individual geographic features and feature properties.

This International Standard defines:

— mandatory and conditional metadata sections, metadata entities, and metadata elements;

— the minimum set of metadata required to serve the full range of metadata applications (data discovery, determining data fitness for use, data access, data transfer, and use of digital data);

— optional metadata elements – to allow for a more extensive standard description of geographic data, if required;

— a method for extending metadata to fit specialized needs.

Though this International Standard is applicable to digital data, its principles can be extended to many other forms of geographic data such as maps, charts, and textual documents as well as non-geographic data.

NOTE Certain mandatory metadata elements may not apply to these other forms of data.

## 2 Conformance

### 2.1 Conformance requirements

Metadata shall be provided as specified in Clause 6 and Annexes A and B.

User-defined metadata shall be defined and provided as specified in Annex C.

Any metadata claiming conformance with this International Standard shall pass the requirements described in the abstract test suite presented in Annex D.

### 2.2 Metadata Profiles

Any profile conforming to this International Standard shall conform to the rules in Annex C, Clause C.6.