

Australian/New Zealand Standard™

**Geographic information—Rules for
application schema**



AS/NZS ISO 19109:2006

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-004, Geographical Information/Geomatics. It was approved on behalf of the Council of Standards Australia on 11 January 2006 and on behalf of the Council of Standards New Zealand on 27 January 2006.
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PREFACE

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

This Standard is identical with, and has been reproduced from ISO 19109:2005, *Geographic information—Rules for application schema*.

The objective of this Standard is to provide geographic information designers and analysts with defined rules for creating and documenting application schemas, including principles for the definition of geographic feature.

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.

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<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		ISO	
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19108	Geographic information—Temporal schema	19108	Geographic information—Temporal schema
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
19115	Geographic information—Metadata	19115	Geographic information—Metadata
ISO/TS		ISO/TS	
19103	Geographic information—Conceptual schema language	19103	Geographic information—Conceptual schema language
19501	Information technology—Open Distributed Processing—Unified Modeling Language (UML) Version 1.4.2	—	

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INTRODUCTION

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, the data structures for data access and exchange must be fully documented. The interfaces between systems, therefore, need to be defined with respect to data and operations, using the methods standardized in this International Standard. For the construction of internal software and data storage within proprietary systems, any method may be used that enables the standardized interfaces to be supported.

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.

AUSTRALIAN/NEW ZEALAND STANDARD

Geographic information — Rules for application schema**1 Scope**

This International Standard defines rules for creating and documenting application schemas, including principles for the definition of features.

The scope of this International Standard includes the following:

- conceptual modelling of features and their properties from a universe of discourse;
- definition of application schemas;
- use of the conceptual schema language for application schemas;
- transition from the concepts in the conceptual model to the data types in the application schema;
- integration of standardized schemas from other ISO geographic information standards with the application schema.

The following are outside the scope:

- choice of one particular conceptual schema language for application schemas;
- definition of any particular application schema;
- representation of feature types and their properties in a feature catalogue;
- representation of metadata;
- rules for mapping one application schema to another;
- implementation of the application schema in a computer environment;
- computer system and application software design;
- programming.

2 Conformance

Any application schema claiming conformance to this International Standard shall pass all of the requirements described in the abstract test suites in Annex A.