

Australian/New Zealand Standard™

**Geographic information—Core profile of
the spatial schema**



AS/NZS ISO 19137:2008

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 25 July 2008 and on behalf of the Council of Standards New Zealand on 21 July 2008.
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RECONFIRMATION
OF
AS/NZS ISO 19137:2008
Geographic information–Core
profile of the spatial schema

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PREFACE

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

The objective of this Standard is to define a core profile of the spatial schema specified in ISO 19107 that specified in accordance with ISO 19106, a minimal set of geometric elements necessary for the efficient creation of application schemata.

This Standard is identical with, and has been reproduced from ISO 19137:2007, *Geographic information—Core profile of the spatial schema*.

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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References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS ISO	
19107	Geographic information—Spatial schema	19107	Geographic information—Spatial schema
19111	Geographic information—Spatial referencing by coordinates	19111	Geographic information—Spatial referencing by coordinates

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.

CONTENTS

	<i>Page</i>	
1	Scope	1
2	Conformance	1
3	Normative references	1
4	Terms, definitions, symbols and abbreviated terms	1
5	Geometry packages	1
5.1	Class diagram	1
5.2	Omitted constructs	3
5.3	Classes retained without additional constraints	3
5.4	Concrete classes made abstract	3
5.5	Associations	3
5.6	GM_Position	5
5.7	GM_CurveSegment	5
5.8	GM_CurveInterpolation	5
5.9	GM_SurfaceInterpolation	5
5.10	GM_SurfacePatch	5
5.11	GM_Polygon	6
5.12	GM_CompositeCurve	6
6	Topology packages	6
Annex A	(informative) Supported specifications	7
Annex B	(normative) Abstract test suite	8
Annex C	(informative) Extending the core	9
Annex D	(informative) Examples	11
Bibliography	13

INTRODUCTION

This International Standard provides a core profile of the geometry part of the spatial schema specified in ISO 19107 that is easy to understand and has a low cost of implementation. The profile is intentionally small and limited in order to increase the chance of gaining widespread market acceptance.

A simple topology package extension of the profile might be developed as a future part of this International Standard. Many user communities have requirements that go beyond the capabilities provided by this International Standard, and they may define custom profiles.

While ISO 19136 also implements a profile of ISO 19107, it is a comprehensive profile, not a core profile.

This International Standard supports data types for geometric primitives of 0, 1 and 2 dimensions. It satisfies the conformance test A.1.1.3 of ISO 19107:2003. It is in conformance class 1 of ISO 19106.

Annex A lists some specifications that were supported by this International Standard at the time of its publication. Annex B specifies an abstract test suite for determining whether an application schema or profile is conformant to the core profile. Annex C discusses how to extend the core profile. Annex D presents two examples.

AUSTRALIAN/NEW ZEALAND STANDARD

Geographic information — Core profile of the spatial schema

1 Scope

This International Standard defines a core profile of the spatial schema specified in ISO 19107 that specifies, in accordance with ISO 19106, a minimal set of geometric elements necessary for the efficient creation of application schemata.

This International Standard supports many of the spatial data formats and description languages already developed and in broad use within several nations or liaison organizations.

NOTE Data modelled with this International Standard are consistent with spatial models already developed and used by a number of organizations; see Annex A.

2 Conformance

An abstract test suite for this International Standard is given in Annex B.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 19107:2003, *Geographic information — Spatial schema*

ISO 19111:2003, *Geographic information — Spatial referencing by coordinates*

4 Terms, definitions, symbols and abbreviated terms

For the purposes of this document, the same terms, definitions, symbols and abbreviated terms given in ISO 19107 apply.

5 Geometry packages

5.1 Class diagram

Figure 1 depicts the complete profile of ISO 19107. The constraints on ISO 19107 are too many to be shown graphically in Figure 1, but are described in 5.2 to 5.12. This International Standard is limited to applications in which

- there is a 1:1 mapping between features and geometric primitives,
- all geometric primitives are referenced to a single coordinate reference system,