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AS/NZS ISO 19127:2006

Australian/New Zealand Standard™

**Geographic information—Geodetic
codes and parameters**



AS/NZS ISO 19127:2006

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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The following are represented on Committee IT-004:

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Association of Crown Research Institutes New Zealand
Australasian Fire Authorities Council
Australian Antarctic Division
Australian Bureau of Statistics
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This Standard was issued in draft form for comment as DR 05528.

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OF
AS/NZS ISO 19127:2006
Geographic information—Geodetic codes and parameters

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NOTES

Australian/New Zealand Standard™

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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/TS 19127:2005, *Geographic information—Geodetic codes and parameters*.

The objective of this Standard is to provide system designers and analysts the rules for the population and maintenance of registers of geodetic codes and parameters and to identify the data elements, in compliance with ISO 19111 and ISO 19135, required within these registers.

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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- (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	
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

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

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INTRODUCTION

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 object available to interested parties.

ISO 19111 describes elements necessary to define fully coordinate reference systems and coordinate systems so that coordinates for positions on or near the Earth's surface can be unambiguously referenced. ISO 19111 also describes elements to define coordinate operations that change coordinate values from one coordinate reference system to coordinate values based on another coordinate reference system.

Currently, many lists of geodetic codes and parameters exist in national standards, standards of liaison organizations, and industrial specifications and software products. Little guidance is provided on applicability and appropriate use of these geodetic codes and parameters. Applicability and appropriate use are of great concern, as geographic information systems become more widely available to non-experts in cartography and geodesy.

This Technical Specification describes how the procedures specified in ISO 19135 are to be applied to registers of elements applicable to spatial referencing by coordinates in compliance with ISO 19111. Some elements that are optional in ISO 19111 become mandatory in this Technical Specification to provide guidance on applicability and appropriate use.

Geographic information — Geodetic codes and parameters

1 Scope

This Technical Specification defines rules for the population and maintenance of registers of geodetic codes and parameters and identifies the data elements, in compliance with ISO 19111 and ISO 19135, required within these registers. Recommendations for the use of the registers, the legal aspects, the applicability to historic data, the completeness of the registers, and a mechanism for maintenance are specified by the registers themselves.

2 Conformance

To conform to this Technical Specification, a register of items of geographic information shall satisfy all of the conditions specified in the Abstract test suite (Annex A).

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

ISO 19112, *Geographic information — Spatial referencing by geographic identifiers*

ISO 19135:—¹⁾, *Geographic information — Procedures for item registration*

4 Terms and definitions

For the purposes of this document, the terms, definitions, symbols, notations and abbreviated terms given in ISO 19111 and ISO 19135 apply.

5 Registers of geodetic codes and parameters

The ISO geodetic registry network is defined as:

- a) The ISO register of geodetic registers. This principal register holds a set of items that describe the subregisters described in b) and c);
- b) The ISO register of geodetic codes and parameters. This subregister shall contain coordinate reference system data and coordinate transformation data that conform to ISO 19111 and are international in

1) To be published.