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ISO 19105:2000

Australian/New Zealand Standard™

Geographic information—Conformance and testing

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

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The following are represented on Committee IT-004:

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Australasian Fire Authorities Council
Australasian Urban and Regional Information Systems Association
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PREFACE

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

This Standard is identical with and has been reproduced from ISO 19105:2000, *Geographic information—Conformance and testing*, one of the ISO 19100 series of Standards on geographical information.

The objective of this Standard is to provide users of the ISO 19000 series of Standards with the framework, concepts and methodology for testing and criteria to be achieved to claim conformance to those Standards.

The ISO 19100 series standardizes relevant aspects of the description and management of geographic information and geographic information services. This standardization will—

(a) increase the understanding and usage of geographic information;

(b) increase the availability, access, integration, and sharing of geographic information;

(c) promote the efficient, effective, and economic use of digital geographic information and associated hardware and software systems; and

(d) contribute to a unified approach to addressing global ecological and humanitarian problems.

The terms ‘normative’ and ‘informative’ have been used in this Standard 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:

(i) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(ii) In the source text ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.

(iii) A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian Standards, as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
10303	Industrial automation systems and integration—Product data representation and exchange	10303	Industrial automation systems and integration—Product data representation and exchange
10303-31	Part 31: Conformance testing methodology and framework: General concepts	10303.31	Part 31: Conformance testing methodology and framework: General concepts
19106	Geographic information—Profiles		
19113	Geographic information—Quality principles		

Reference to International Standard		*Australian Standard*	
ISO/IEC			
9646	Information technology—Open—Systems Interconnection—Conformance testing methodology and framework		
9646-1	Part 1: General concepts.		
9646-2	Part 2: Abstract Test Suite specification		
9646-5	Part 5: Requirements on test laboratories and clients for the conformance assessment process		
10641	Information technology—Computer graphics and image processing—Conformance testing of implementations of graphics standards		
TR 13233	Information technology—Interpretation of accreditation requirements in ISO/IEC—Accreditation of Information Guide 25—Technology and Telecommuni-cations testing laboratories for software and protocol testing services		
17025	General requirements for the competence of calibration and testing laboratories	ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
	OWEN, JON. STEP An Introduction, Information Geometers, Winchester, UK, 1993		

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AUSTRALIAN/NEW ZEALAND STANDARD

Geographic information — Conformance and testing

1 Scope

This International Standard specifies the framework, concepts and methodology for testing and criteria to be achieved to claim conformance to the family of ISO geographic information standards. It provides a framework for specifying abstract test suites (ATS) and for defining the procedures to be followed during conformance testing. Conformance may be claimed for data or software products or services or by specifications including any profile or functional standard.

Standardization of test methods and criteria for conformance to geographic information standards will allow verification of conformance to those standards. Verifiable conformance is important to geographic information users, in order to achieve data transfer and sharing.

This International Standard is applicable to all the phases of conformance and testing. These phases are characterized by the following major activities:

a) the definition of ATS for conformance to the ISO geographic information standards;

b) the definition of test methods for conformance to the ISO geographic information standards;

c) the conformance assessment process carried out by a testing laboratory for a client, culminating in the production of a conformance test report.

This International Standard specifies the requirements for, and gives guidance on, the procedures to be followed in conformance testing for the ISO geographic information standards. It includes only such information as is necessary to meet the following objectives:

1) to achieve confidence in the tests as a measure of conformance;

2) to achieve comparability between the results of corresponding tests applied in different places at different times;

3) to facilitate communication between the parties responsible for the activities described in 1) and 2).

This International Standard provides a framework for certification (an administrative procedure which may follow conformance testing) in informative annex B.

The following topics are outside the scope of this International Standard.

a) The description of requirements for procurement and contracts.

b) Testing by means of test methods which are specific to particular applications or systems.

c) Acceptance testing, performance testing and robustness testing.

The framework established by this International Standard includes the concept of executable test suites (ETS). These, by their very nature, cannot be standardized; consequently, standardization of ETS is outside the scope of this International Standard.