

AS/NZS 4225.1:1994
ISO/IEC TR 10183-1:1993

Australian/New Zealand Standard

Information technology—Text and office systems—Office document architecture and interchange format—Technical report on AS 3951 (ISO 8613) implementation testing

Part 1: Testing methodology

[ISO/IEC TR title: Information technology—Text and office systems—Office document architecture and interchange format—Technical report on ISO 8613 implementation testing, Part 1: Testing methodology]

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AS/NZS 4225.1:1994

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1 on Information Systems—Interconnection. It is identical with and has been reproduced from ISO/IEC TR 10183-1:1993, *Information technology—Text and office systems—Office Document Architecture (ODA) and interchange format—Technical Report on ISO 8613 implementation testing, Part 1: Testing methodology*.

This Standard is issued as a Joint Standard under the terms of the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

The objective of this Standard is to provide users of office document architecture with a definition of a testing methodology and a framework for specifying abstract test cases for implementation testing.

This Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, Standards Australia will be providing, through the OSI Help Desk, a service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

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Reference to International Standard or other publication		Australian or Joint Australian/New Zealand Standard	
ISO		AS	
8613	Information processing—Text and office systems—Office Document Architecture (ODA) and interchange format	3951	Information processing—Text and office systems—Office Document Architecture (ODA) and interchange format
8613-1	Part 1: Introduction and general principles	3951.1	Part 1: Introduction and general principles
8613-2	Part 2: Document structures	3951.2	Part 2: Document structures
8613-4	Part 4: Document profile	3951.4	Part 4: Document profile
8613-5	Part 5: Office Document Interchange Format (ODIF)	3951.5	Part 5: Office Document Interchange Format (ODIF)
8613-6	Part 6: Character content architectures	3951.6	Part 6: Character content architectures
8613-7	Part 7: Raster graphics content architectures	3951.7	Part 7: Raster graphics content architectures
8613-8	Part 8: Geometric graphics content architectures	3951.8	Part 8: Geometric graphics content architectures

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ISO/IEC	AS
8613-9 Part 9: Audio content architecture	—
8613-10 Part 10: Formal specifications	3951.10 Part 10: Formal specifications
	AS/NZS
9646 Information technology—Open Systems Interconnection—Conformance testing methodology and framework	4103 Information technology—Open Systems Interconnection—Conformance testing methodology and framework
9646-1 Part 1: General concepts	4103.1 Part 1: General concepts
10183 Information processing—Text and office systems—Office Document Architecture (ODA) and interchange format—Testing methodology and abstract test cases—Implementation testing methodology	
10183-2 Part 2: Abstract test suites	—
ISO/IEC ISP	
10610 Information technology—International Standardized Profile FOD11—Office Document Format— Simple document structure— Character content architecture only	
10610-1 Part 1: Document application profile	—
11181 Information technology—International Standardized Profile FOD26—Office Document Format— Enhanced document structure— Character, raster graphics and geometric graphics content architectures	
11181-1 Part 1: Document application profile	—
11182 Information technology—International Standardized Profile FOD36—Office Document Format— Extended document structure— Character, raster graphics and geometric graphics content architectures	
11182-1 Part 1: Document application profile	—

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AUSTRALIAN/NEW ZEALAND STANDARD

Information technology—Text and office systems—Office document architecture and interchange format—Technical report on AS 3951 (ISO 8613) implementation testing**Part 1:
Testing methodology****1 Scope**

This part of ISO/IEC TR 10183 defines a testing methodology and provides a framework for specifying abstract test cases for ISO 8613 implementation testing, the overall objective being the provision of a suitable base for testing the *interworking* capability of ODA implementations.

Such testing will assist in the analysis of an implementation's ability to interwork in an environment of implementations of ISO 8613 and implementations of International Standardized Profiles (ISPs) based on ISO 8613. ISPs are standardized document application profiles that have been internationally harmonized. As such they represent agreed stabilized subsets of ISO 8613 designed for the interworking of ODA systems at different levels of functionality.

In ISO 8613 the term "conformance" refers to the conformance of a data stream to the rules specified in ISO 8613. This includes the conformance of a data stream to a document application profile based on ISO 8613. Conformance testing methodology as defined in ISO 8613-1 Annex G covers the analysis of data streams without regard to the capabilities of implementations to generate or receive conforming data streams. To achieve an environment of interworking ODA systems, it is necessary to have a testing methodology that can verify implementation support for ISO 8613 and DAP's at the semantic level as well as the data stream or syntax level.

Hence, implementation testing is additional testing that supplements the conformance testing of data streams. It increases the probability that different implementations of ISO 8613 and ISPs are able to interwork. Implementation testing is based on the concept of measuring an implementation's ability to generate and/or receive a representative set of documents. If an implementation can exhibit this capability, then it is more likely to successfully interwork with other verified implementations exchanging a wider range of documents.

The implementation testing methodology introduces the requirement for abstract test cases as well as procedures for their use in the generation and reception testing of implementations.

In establishing a framework for implementation testing, a conceptual model of ODA systems has been developed to describe, in an abstract sense, the multitude of configurations and limitations of real ODA systems.

The methodology contained in this technical report caters for the testing of implementations of ISP's based on ISO 8613. The methodology may also be used for testing other Document Application Profiles based on ISO 8613.

This part of ISO/IEC TR 10183

- defines terms used in the context of Implementation testing;
- presents a conceptual model of ODA implementations;
- gives a phased approach to testing implementations;
- determines the functional components in generation and reception testing;
- gives the requirements for abstract test cases.

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This part of ISO/IEC TR 10183 does not cover the testing of user interfaces in an ODA based system. Any suitable system interface is only used as a point of control and observation to verify that ODA document transformations associated with the various ODA processes have been carried out as claimed by an implementor.

Where appropriate, concepts and terminology described in ISO 9646 have been used in this Technical Report. In some cases, definitions and concepts have been adapted to cater for the fact that ODA is not an OSI protocol.

2 References

ISO 8613-1:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 1: Introduction and general principles*.

ISO 8613-2:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 2: Document structures*.

ISO 8613-4:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 4: Document profile*.

ISO 8613-5:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 5: Office Document Interchange Format (ODIF)*.

ISO 8613-6:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 6: Character content architectures*.

ISO 8613-7:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 7: Raster graphics content architectures*.

ISO 8613-8:1989, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 8: Geometric graphics content architectures*.

ISO/IEC 8613-9:–¹⁾, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 9: Audio content architecture*.

ISO/IEC 8613-10:1991, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Part 10: Formal specifications*.

ISO/IEC 9646-1:1991, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*.

ISO/IEC 10183-2:–¹⁾, *Information processing – Text and office systems – Office Document Architecture (ODA) and interchange format – Testing methodology and abstract test cases – Implementation testing methodology – Part 2: Abstract test suites*

ISO/IEC ISP 10610-1:–¹⁾, *Information technology – International Standardized Profile FOD11 – Office Document Format – Simple document structure – Character content architecture only – Part 1: Document application profile*

ISO/IEC ISP 11181-1:–¹⁾, *Information technology – International Standardized Profile FOD26 – Office Document Format – Enhanced document structure – Character, raster graphics and geometric graphics content architectures – Part 1: Document application profile*.

ISO/IEC ISP 11182-1:–¹⁾, *Information technology – International Standardized Profile FOD36 – Office Document Format – Extended document structure – Character, raster graphics and geometric graphics content architectures – Part 1: Document application profile*.

1) To be published.