AS/NZS 14478.1:2000
ISO/IEC 14478-1:1998

Australian/New Zealand Standard™

Information technology—Computer graphics and image processing—Presentation environment for multimedia objects

Part 1: Fundamentals of presentation environment for multimedia objects

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT/1, Information Systems—Interconnection. It was approved on behalf of the Council of Standards Australia on 17 December 1999 and on behalf of the Council of Standards New Zealand on 20 December 1999. It was published on 20 April 2000.

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

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Australian/New Zealand Standard™

Information technology—Computer graphics and image processing—Presentation environment for multimedia objects

Part 1: Fundamentals of presentation environment for multimedia objects

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1, Information Systems—Interconnection. This Standard is identical with and has been reproduced from ISO/IEC 14478-1:1998, *Information technology—Computer graphics and image processing—Presentation Environment for Multimedia Objects (PREMO)*, Part 1: *Fundamentals of PREMO*.

The objective of this Standard is to provide designers of multimedia systems with the motivational overview, overall architecture and common semantics of a specification for the construction of, presentation of, and interaction with multimedia objects such as still and moving computer graphics, synthetic graphics, audio, and still and moving images.

This Standard is Part 1 of AS/NZS 14478, *Information technology—Computer graphics and image processing—Presentation environment for multimedia objects*, which is published in parts as follows:

Part 1: Fundamentals of presentation environment for multimedia objects (this Standard)
Part 2: Foundation component
Part 3: Multimedia systems services
Part 4: Modelling, rendering and interaction component

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:

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

(b) In the source text 'this part of ISO/IEC 14478' should read 'this Australian/New Zealand Standard'.

(c) 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 or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
ISO/IEC		AS/NZS	
14478	Information technology—Computer graphics and image processing—Presentation Environment for Multimedia Objects (PREMO)	14478	Information technology—Computer graphics and image processing—Presentation environment for multimedia objects
14478-2	Part 2: Foundation Component	14478.2	Part 2: Foundation component
14478-3	Part 3: Multimedia Systems Services	14478.3	Part 3: Multimedia systems services
14478-4	Part 4: Modelling, Rendering, and Interaction Component	14478.4	Part 4: Modelling, rendering and interaction component

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1 Scope

ISO/IEC 14478 specifies techniques for supporting interactive single, and multiple media applications which recognize and emphasize the interrelationships among user interfaces, multimedia applications, and multimedia information interchange.

ISO/IEC 14478 defines a flexible environment to encompass modular functionality and is extensible through the creation of future components, both within and outside of standards committees. It supports a wide range of multimedia applications in a consistent way, from simple drawings up to full motion video, sound, and virtual reality environments.

ISO/IEC 14478 is independent of any particular implementation language, development environment, or execution environment. For integration into a programming environment, the standard shall be embedded in a system dependent interface following the particular conventions of that environment. ISO/IEC 14478 provides versatile packaging techniques beyond the capabilities of monolithic single–media systems. This allows rearranging and extending functionality to satisfy requirements specific to particular application areas. ISO/IEC 14478 is developed incrementally with parts 1 through 4 initially available. Other components are expected to be standardized by ISO/IEC JTC1 SC24 or other subcommittees.

ISO/IEC 14478 provides a framework within which application–defined ways of interacting with the environment can be integrated. Methods for the definition, presentation, and manipulation of both input and output objects are described. Application–supplied structuring of objects is also allowed and can, for example, be used as a basis for the development of toolkits for the creation of, presentation of, and interaction with multimedia and hyper–media documents and product model data.

ISO/IEC 14478 is able to support construction, presentation, and interaction with multiple simultaneous inputs and outputs using multiple media. Several such activities may occur simultaneously, and the application program can adapt its behaviour to make best use of the capabilities of its environment.

ISO/IEC 14478 includes interfaces for external storage, retrieval and interchange of multimedia objects.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 14478. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 14478 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 14478-2:1998, *Information technology — Computer graphics and image processing — Presentation Environment for Multimedia Objects (PREMO) — Part 2: Foundation Component.*

ISO/IEC 14478-3:1998, *Information technology — Computer graphics and image processing — Presentation Environment for Multimedia Objects (PREMO) — Part 3: Multimedia Systems Services.*