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ISO/IEC 15938-7:2003

Australian Standard™

Information technology—Multimedia content description interface

Part 7: Conformance testing

STANDARDS AUSTRALIA

This Australian Standard was prepared by Committee IT-029, Coded Representation of Picture, Audio and Multimedia/Hypermedia Information. It was approved on behalf of the Council of Standards Australia on 5 March 2004 and published on 4 May 2004.

The following are represented on Committee IT-029:

Australian Broadcasting Authority

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Australian Communications Industry Forum

Australian Consumers' Association

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Australian Information Industry Association

Australian Subscription Television and Radio Association

Commercial Television Australia

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The University of New South Wales

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PREFACE

This Standard was prepared by the Standards Australia Committee IT-029, Coded Representation of Picture, Audio and Multimedia/Hypermedia Information. This Standard is identical with and has been reproduced from ISO/IEC 15938-7:2003, *Information technology—Multimedia content description interface,* Part 7: *Conformance testing*.

The objective of this Standard is to provide a standardized set of technologies for describing multimedia content. This Standard addresses a broad spectrum of multimedia applications and requirements by providing a metadata system for describing the features of multimedia content.

This Standard is Part 7 of series AS 15938, *Information technology—Multimedia content description interface*, which is published in parts as follows:

Part 1: Systems
Part 2: Description definition language
Part 3: Visual
Part 4: Audio
Part 5: Multimedia description schemes
Part 6: Reference software
Part 7: Conformance testing (this Standard)
Part 8: Extraction and use of MPEG-7 descriptions

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. 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.

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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		AS	
3166	Codes for the representation of names of countries and their subdivisions	2632	Codes for the representation of names of countries and their subdivisions
3166-1	Part 1: Country codes	2632.1	Part 1: Country codes
		AS/NZS	
		2632	Codes for the representation of names of countries and their subdivisions
3166-2	Part 2: Country subdivision code	2632.2	Part 2: Country subdivision code
		AS	
4217	Codes for the representation of currencies and funds	3759	Codes for the representation of currencies and funds
8601	Data elements and interchange formats—Information interchange—Representation of dates and times	AS/NZS 3802	Data elements and interchange formats—Information interchange—Representation of dates and times

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INTRODUCTION

ISO/IEC 15938, also known as "Multimedia Content Description Interface," provides a standardized set of technologies for describing multimedia content. It addresses a broad spectrum of multimedia applications and requirements by providing a metadata system for describing the features of multimedia content.

The following are specified in ISO/IEC 15938:

- **Description Schemes (DS)** describe entities or relationships pertaining to multimedia content. Description Schemes specify the structure and semantics of their components, which may be Description Schemes, Descriptors, or datatypes.
- **Descriptors (D)** describe features, attributes, or groups of attributes of multimedia content.
- **Datatypes** are the basic reusable datatypes employed by Description Schemes and Descriptors.
- **Systems tools** support delivery of descriptions, multiplexing of descriptions with multimedia content, synchronization, file format, and so forth.

ISO/IEC 15938 is subdivided into eight parts:

Part 1 — Systems: specifies the tools for preparing descriptions for efficient transport and storage, compressing descriptions, and allowing synchronization between content and descriptions.

Part 2 — Description Definition Language: specifies the language for defining the standard set of description tools (DSs, Ds, and datatypes) and for defining new description tools.

Part 3 — Visual: specifies the description tools pertaining to visual content.

Part 4 — Audio: specifies the description tools pertaining to audio content.

Part 5 — Multimedia Description Schemes: specifies the generic description tools pertaining to multimedia including audio and visual content.

Part 6 — Reference Software: provides a software implementation of ISO/IEC 15938.

Part 7 — Conformance testing: specifies the guidelines and procedures for testing conformance of implementations of the standard.

Part 8 — Extraction and Use: provides guidelines and examples of the extraction and use of descriptions.

This part of ISO/IEC 15938 specifies the conformance part of the ISO/IEC 15938 standard by specifying the guidelines and procedures for testing conformance of implementations of the standard.

AUSTRALIAN STANDARD

Information technology — Multimedia content description interface —

Part 7: Conformance testing

1 Scope

1.1 Organization of the document

ISO/IEC 15938 specifies a metadata system for describing multimedia content. This part of ISO/IEC 15938 specifies how tests can be designed to verify whether descriptions and description consuming terminals meet the specifications of parts 1, 2, 3, 4 and 5 of ISO/IEC 15938. In this part of ISO/IEC 15938, the creation or extraction of descriptions from multimedia content is not addressed specifically. A system producing descriptions may be said to be an ISO/IEC 15938 compatible description production system if it produces descriptions (binary or textual) that conform to the specifications of parts 1, 2, 3, 4 and 5 of ISO/IEC 15938.

The characteristics of descriptions and the terminals consuming descriptions are defined for parts 1, 2, 3, 4 and 5 of ISO/IEC 15938 as follows.

— **Descriptions**: the characteristics of a specific description are defined according to syntax and semantics of elements from ISO/IEC 15938 that are used in the description.

— **Terminals**: the characteristics of a terminal consuming a description are defined according to the required description decoding process for the elements used in the description. An example of a description decoding property is the arithmetic accuracy in which the value of element are represented. The capabilities of a description consuming terminal are determined by the domain of descriptions and elements that the terminal is capable of decoding. A description can be decoded by a terminal if the elements of the description are within the subset of ISO/IEC 15938 specified for a given definition of decoder capabilities.

In this document, procedures are described for testing conformance of descriptions and terminals according to the specifications of parts 1, 2, 3, 4 and 5 of ISO/IEC 15938. Given a set of claimed characteristics (descriptions and terminals), the requirements for conformance are fully determined by parts 1, 2, 3, 4 and 5 of ISO/IEC 15938. This part of ISO/IEC 15938 summarizes the requirements and defines how conformance can be tested. Guidelines are given on constructing tests to verify conformance of descriptions and terminals. This document provides additional guidelines on how to construct test suites for checking conformance of terminals. In addition, some test descriptions are provided.

2 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 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*