AS ISO/IEC 14496.12—2004

Australian Standard™

Information technology—Coding of audio-visual objects

Part 12: ISO base media file format

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 27 October 2004.
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Australian Broadcasting Authority
Australian Broadcasting Corporation
Australian Consumer Association
Australian Subscription Television
CSIRO Information and Communication Technology Centre
DSTC
Department of Defence (Australia)
Free TV Australia
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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 14496-12:2004, *Information technology—Coding of audio-visual objects*—Part 12: *ISO base media file format*.

The objective of this Standard is to provide multimedia developers with information regarding the implementation and use, local or via a network or other stream delivery mechanism, of the ISO base media file format of the MPEG-4 object-oriented audio-visual coding series.

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.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian Standard/New Zealand Standard*	
ISO/IEC		AS/NZS	
14496	Information technology—Coding of audio-visual objects	14496	Information technology—Coding of audio-visual objects
14496-1	Part 1: Systems	14496.1	Part 1: Systems
ISO/IEC		AS	
15444-1	Information technology—JPEG 2000 image coding system—Core coding system	15444.1	Information technology—JPEG 2000 image coding system—Core coding system

Only referenced documents that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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INTRODUCTION

The ISO Base Media File Format is designed to contain timed media information for a presentation in a flexible, extensible format that facilitates interchange, management, editing, and presentation of the media. This presentation may be 'local' to the system containing the presentation, or may be via a network or other stream delivery mechanism.

The file structure is object-oriented; a file can be decomposed into constituent objects very simply, and the structure of the objects inferred directly from their type.

The file format is designed to be independent of any particular network protocol while enabling efficient support for them in general.

The ISO Base Media File Format is a base format for media file formats.

It is intended that the ISO Base Media File Format shall be jointly maintained by WG1 and WG11. Consequently, a subdivision of work created ISO/IEC 15444-12 and ISO/IEC 14496-12 in order to document the ISO Base Media File Format and to facilitate the joint maintenance.

This technically identical text is published as ISO/IEC 14496-12 for MPEG-4, and as ISO/IEC 15444-12 for JPEG 2000, and reference to this specification should be made accordingly. The recommendation is to reference one, for example ISO/IEC 14496-12, and append to the reference a parenthetical comment identifying the other, for example "(technically identical to ISO/IEC 15444-12)".

NOTES

AUSTRALIAN STANDARD

Information technology — Coding of audio-visual objects —

Part 12:
ISO base media file format

1 Scope

This International Standard specifies the ISO base media file format, which is a general format forming the basis for a number of other more specific file formats. This format contains the timing, structure, and media information for timed sequences of media data, such as audio/visual presentations.

This part of ISO/IEC 14496 is applicable to MPEG-4, but its technical content is identical to that of ISO/IEC 15444-12, which is applicable to JPEG 2000.

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 639-2:1998, *Codes for the representation of names of languages — Part 2: Alpha-3 code*

ISO/IEC 11578:1996, *Information technology — Open Systems Interconnection — Remote Procedure Call (RPC)*

ISO/IEC 14496-1:2001, *Information technology – Coding of audio-visual objects — Part 1: Systems*[1)]

ITU-T Rec.T.800 | ISO/IEC 15444-1, *Information technology — JPEG 2000 image coding system: Core coding system*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
Box
An object-oriented building block defined by a unique type identifier and length (called 'atom' in some specifications, including the first definition of MP4).

3.2
Chunk
A contiguous set of samples for one track.

3.3
Container Box
A box whose sole purpose is to contain and group a set of related boxes.

1) Refer, in particular, to Clause 14, Syntactic Description Language (SDL).