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Australian Standard®

Information technology—Coding of audio-visual objects

Part 21: MPEG-J Graphics Framework eXtensions (GFX)

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 24 September 2008.
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- Australian Communications and Media Authority
- Australian Electrical and Electronic Manufacturers Association
- Australian Information Industry Association
- Australian Subscription Television and Radio Association
- CHOICE
- CSIRO Information and Communication Technologies Centre
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- University of New South Wales
- University of Sydney
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- Victoria University

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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 14496-21:2006, *Information technology—Coding of audio-visual objects—Part 21: MPEG-J Graphics Framework eXtensions (GFX),* and its Corrigendum, ISO/IEC 14496-21:2006/Cor1:2007, which is included here following the ISO text.

The objective of this Standard is to provide the Australian multimedia industry with a specification for the MPEG-J Graphics Framework eXtension (GFX), which enables Java based applications to control the rendering and composition of synthetic and natural media in a programmatic manner.

Standards Australia is in the process of adopting most of the ISO/IEC 14496 series of Standards. Refer to the Standards Australia website for the current list.

The term 'normative' has been used in this Standard to define the application of the annex to which it applies. A 'normative' annex is an integral part of a Standard.

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 part of ISO/IEC 14496-21' should read 'this Australian Standard'.

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

Reference to International Standard		*Australian Standard*	
ISO/IEC		AS ISO/IEC	
14496	Information technology—Coding of audio-visual objects	14496	Information technology—Coding of audio-visual objects
14496.11	Part 11: Scene description and application engine	14496.11	Part 11: Scene description and application engine

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

CONTENTS

Page

AUSTRALIAN STANDARD

Information technology—Coding of audio-visual objects

Part 21:
MPEG-J Graphics Framework eXtensions (GFX)

1 Scope

This International Standard specifies MPEG-J Graphics Framework eXtension (GFX). This extension enables Java-based applications to control the rendering and composition of synthetic and natural media in a programmatic manner.

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/IEC 14496-1:2004, *Information technology — Coding of audio-visual objects — Part 1: Systems*

ISO/IEC 14496-11:2005, *Information technology — Coding of audio-visual objects — Part 11: Scene description and application engine*

JSR-135, *Mobile Media API (MMAPI)* — http://jcp.org/aboutJava/communityprocess/final/jsr135/index.html

3 Symbols and abbreviated terms

List of symbols and abbreviated terms.

API	Application Programming Interface
BIFS	BInary Format for Scenes
ES	Elementary Stream
IOD	Initial Object Descriptor
JCP	Java Community Process
JSR	Java Specification Request
M3G	Mobile 3D Graphics API for Java
MPEG-J	MPEG Java Application Engine
OD	Object Descriptor

4 Notations

The UML (Unified Modelling Language) notation [18] is used extensively in this specification for class, sequence, collaboration, state and component diagrams.