
**Information technology — Coding of
audio-visual objects —**

**Part 1:
Systems**

**AMENDMENT 2: 3D compression profile
and level indication**

Technologies de l'information — Codage des objets audiovisuels —

Partie 1: Systèmes

AMENDEMENT 2: Profil de compression 3D et indication du niveau

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO/IEC 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 2 to ISO/IEC 14496-1:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

ISO/IEC 14496 specifies a system for the communication of interactive audio-visual scenes. The specification includes the following elements:

- 1) the coded representation of natural or synthetic, two-dimensional (2D) or three-dimensional (3D) objects that can be manifested audibly and/or visually (audio-visual objects) (specified in ISO/IEC 14496 parts 1, 2 and 3);
- 2) the coded representation of the spatio-temporal positioning of audio-visual objects as well as their behaviour in response to interaction (scene description, specified in of ISO/IEC 14496 parts 11 and 20);
- 3) the coded representation of information related to the management of data streams (synchronization, identification, description and association of stream content, specified in of ISO/IEC 14496 parts 11 and 20);
- 4) a generic interface to the data stream delivery layer functionality (specified in ISO/IEC 14496-6);
- 5) an application engine for programmatic control of the player: format, delivery of downloadable Java byte code as well as its execution lifecycle and behaviour through APIs (specified in ISO/IEC 14496-11); and
- 6) a file format to contain the media information of an ISO/IEC 14496 presentation in a flexible, extensible format to facilitate interchange, management, editing and presentation of the media.

The information representation, specified in ISO/IEC 14496-1, ISO/IEC 14496-11 and ISO/IEC 14496-20 describes the means to create an interactive audio-visual scene in terms of coded audio-visual information and associated scene description information. The encoded content is presented to a terminal as the collection of elementary streams. Elementary streams contain the coded representation of either audio or visual data, scene description information or user interaction data. Elementary streams may as well themselves convey information to identify streams, to describe logical dependencies between streams, or to describe information related to the content of the streams. Each elementary stream contains only one type of data.

This amendment specifies the 3D compression profile to represent encoded 3D graphic objects. This profile will facilitate the creation of the bitstream which is suitable for the 3D contents as 3D games, GUIs and various 3D-based applications.

Part 16 of MPEG-4 “Animation Framework eXtension” (ISO/IEC 14496-16) defines a new set of tools for 3D static and animation data. In order to enable faithful and reliable reproduction of three-dimensional content in MPEG-4 presentations, the data format, bitstream, its stream type and its configuration are defined. The document also establishes new dimension of MPEG-4 3D compression profiles and levels and defines the 3D compression profiles and levels.

New 3D compression profiles and levels shall be signalled in MPEG-4 Systems to insure conformance. The scope of this amendment is to define new tools that will enable the signalling of the newly established 3D Compression Profile dimension and to specify 3D Compression Profile and Level Indication values.

IECNORM.COM : Click to view the full PDF of ISO/IEC 14496-1:2004/Amd 2:2007