
**Information technology — Multimedia
application format (MPEG-A) —**

**Part 12:
Interactive music application format**

*Technologies de l'information — Format pour application multimédia
(MPEG-A) —*

Partie 12: Format d'application musicale interactive

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.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2010

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

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Overview.....	2
4.1 General	2
4.2 File contents and organization	2
4.3 Usage model	2
5 Supported components of Interactive Music AF.....	3
6 File Structure	4
6.1 Table for boxes	4
6.2 File structure for a single type file	5
6.3 File structure for a multiple type file	6
6.4 Backward compatibility to legacy music player	6
6.5 Hierarchical structure of audio tracks.....	7
6.6 Preset Information	9
6.7 Interactivity Rules.....	13
6.8 Timed text data	19
6.9 Metadata	20
7 Brand Identification	22
Annex A (informative) Mode Usage in Interactive music AF player	23
Annex B (informative) Personal-mix Usage Example	26

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.

ISO/IEC 23000-12 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 23000 consists of the following parts, under the general title *Information technology — Multimedia application format (MPEG-A)*:

- *Part 1: Purpose for multimedia application formats* [Technical Report]
- *Part 2: MPEG music player application format*
- *Part 3: MPEG photo player application format*
- *Part 4: Musical slide show application format*
- *Part 5: Media streaming application format*
- *Part 6: Professional archival application format*
- *Part 7: Open access application format*
- *Part 8: Portable video application format*
- *Part 9: Digital Multimedia Broadcasting application format*
- *Part 10: Video surveillance application format*
- *Part 11: Stereoscopic video application format*
- *Part 12: Interactive music application format*

Introduction

The market for interactive music service which provides users with an experience of recomposing the music to their taste is getting formed and matured. Hence, a standardized form needs to be specified to guarantee the interoperability of the interactive music contents in order to broaden and to boost the interactive music service market.

Interactive music application format (IM AF) defines a file format designed for interactive music service. It specifies how to combine the multiple audio tracks before conventional mixing process, with associated information for a presentation in a well-defined format that facilitates storage, interchange, management, editing, and presentation of interactive music contents in interoperable ways.

Information technology — Multimedia application format (MPEG-A) —

Part 12: Interactive music application format

1 Scope

This part of ISO/IEC 23000 specifies a file format designed for interactive music services. It integrates the multiple audio tracks with appropriate additional information for enabling users to experience various preset mixes and to make their own mixes complying with interactivity rules imposed by the producer.

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 10918-1:1994, *Information technology — Digital compression and coding of continuous-tone still images: Requirements and guidelines*

ISO/IEC 11172-3:1993, *Information technology — Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s — Part 3: Audio*

ISO/IEC 14496-3:2009, *Information technology — Coding of audio-visual objects — Part 3: Audio*

ISO/IEC 14496-12:2008, *Information technology — Coding of audio-visual objects — Part 12: ISO base media file format*

ISO/IEC 15938-5:2003, *Information technology — Multimedia content description interface — Part 5: Multimedia description schemes*

ISO/IEC 23003-2, *Information technology — MPEG audio technologies — Part 2: Spatial Audio Object Coding (SAOC)*

3GPP TS 26.245, Version 6.1.0, *Transparent end-to-end Packet switched Streaming Service (PSS) — Timed text format*