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

Part 3:

MPEG photo player application format

**AMENDMENT 1: Reference software for
photo player MAF**

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

Partie 3: Format pour application «MPEG photo player»

AMENDEMENT 1: Logiciel de référence pour lecteur photo MAF

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 2009

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 1 to ISO/IEC 23000-3:2007 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC 23000-3:2007/Amd 1:2009

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

Part 3: MPEG photo player application format

AMENDMENT 1: Reference software for photo player MAF

After Annex E, add the following new annex:

Annex F (informative)

Reference software

The reference software consists of (a) functional components and (b) command-line programs.

A) The following components are provided

Functional unit	Software module name
I/O Subroutines and MPEG-4 File system	libisomedia
User Interface (command line or GUI)	(command line programs as below)
BiM encoder/decoder	ppbim
Visual D extraction engine	xmvisual

B) The following command line programs are provided

Name	Function
pp_itembuilder	Builds a Photo-Player MP4 file
pp_dataparser	Lists image collections contained in a Photo-Player MP4 file.
pp_getimage	Extracts image(s) and corresponding item-level metadata from a Photo-Player MP4 file

Examples of usage:

```
pp_itembuilder collection.xml list.txt pp_item.mp4
```

This command builds a Photo-Player MP4 file.

- The first argument is a file containing collection-level metadata.
- The second argument is a file containing an image list. Each line of the image list should contain an image identifier followed by the image file name and item-level metadata file. They should be separated by commas or semicolons – for example, as follows:

```
1;image1.jpg;image1.xml  
2;image2.jpg;image2.xml
```

The item-level metadata will be appended by visual features: Dominant Color, Color Layout, Color Structure, Edge Histogram, Scalable Color, and Homogeneous Texture. Visual features are extracted from the images. If the item-level metadata points to external (primary) resource, visual features are not extracted – that is, the external file is not accessed. Image identifiers should correspond to track identifiers (track_ID) in collection-level metadata. Each track id in collection-level metadata should have a corresponding image in the image list.

```
pp_dataparser pp_item.mp4
```

This command lists image collections contained in a Photo-Player MP4 file. The collection listing prints collection names, track ids of resources in the collections, the type of resource: internal/external, and media URIs of external primary resources.

```
pp_getimage pp_item.mp4  
  
pp_getimage pp_item.mp4 2
```

The first command extracts all images and all item-level metadata files from Photo-Player MP4 file. The second command extracts only the image referenced in the MP4 file by a track identifier specified as the second parameter (track_ID=2), and item-level metadata corresponding to the image. The file names of the extracted image and its metadata are created by adding extensions “.jpg” and “.xml” to the track identifier.