
**Information technology — Multimedia
framework (MPEG-21) —**

Part 9:
File Format

AMENDMENT 1: MIME type registration

Technologies de l'information — Cadre multimédia (MPEG-21) —

Partie 9: Format de fichier

AMENDEMENT 1: Enregistrement de type MIME

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 2008

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 21000-9:2005 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

Information technology — Multimedia framework (MPEG-21) —

Part 9: File Format

AMENDMENT 1: MIME type registration

After Annex C add the following new annex:

Annex D (normative)

MIME type registration

MIME media type name: application

MIME subtype name: mp21

Required parameters: none

Optional parameters: none

Encoding considerations: base64 is generally preferred; files are binary and should be transmitted without CR/LF conversion, 7-bit stripping, etc. Note that although files conforming to ISO/IEC 21000-2 are textual XML the mp21 file which contains it is binary.

Security considerations: It is possible to inject non-compliant MPEG streams (Audio, Video, and Systems) in the MP21 file to overload the receiver/decoder's buffers. This might compromise the functionality of the receiver or even crash it.

An MP21 file supports the storage of stream types, including commands that are executed on the terminal such as Digital Item Methods based on ECMAScript for which also bindings to Java(TM) and C++ exists. It is possible to use one or more of the above in a manner non-compliant to MPEG to crash the receiver or temporarily make it unavailable.

Authentication mechanisms can be used to validate of the sender and the data to prevent security problems due to non-compliant malignant MP21 files.

Interoperability considerations: A number of interoperating implementations exist within the ISO/IEC 21000 community, and that community has reference software for reading and writing the file format.

Published specification: ISO/IEC 21000-9:2005

Applications which use this media type: Multimedia

ISO/IEC 21000-9:2005/Amd.1:2008(E)

Additional information:

Magic number(s): none

File extension(s): m21 and mp21 are both declared at <http://www.fileinfo.net> and <http://filext.com/>.

Macintosh File Type Code(s): mp21 is registered with Apple.

Person & email address to contact for further information: David Singer, singer@apple.com

Intended usage: COMMON

Author/Change controller: David Singer, ISO/IEC 21000 file format chair

