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

**Part 2:  
Digital Item Declaration**

*Technologies de l'information — Cadre multimédia (MPEG-21) —  
Partie 2: Déclaration d'article numérique*

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## 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.

ISO/IEC 21000-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology, Subcommittee SC 29, Coding of audio, picture, multimedia and hypermedia information*.

This second edition cancels and replaces the first edition (ISO/IEC 21000-2:2003), which has been technically revised.

ISO/IEC 21000 consists of the following parts, under the general title *Information technology — Multimedia framework (MPEG-21)*:

- *Part 1: Vision, Technologies and Strategy [Technical Report]*
- *Part 2: Digital Item Declaration*
- *Part 3: Digital Item Identification*
- *Part 5: Rights Expression Language*
- *Part 6: Rights Data Dictionary*
- *Part 7: Digital Item Adaptation*
- *Part 8: Reference Software*
- *Part 9: File Format*
- *Part 10: Digital Item Processing*
- *Part 11: Evaluation Tools for Persistent Association Technologies [Technical Report]*
- *Part 12: Test Bed for MPEG-21 Resource Delivery [Technical Report]*
- *Part 15: Event Reporting*
- *Part 16: Binary Format*

The following parts are under preparation:

- *Part 4: Intellectual Property Management and Protection Components*
- *Part 14: Conformance Testing*

## Introduction

Today, many elements exist to build an infrastructure for the delivery and consumption of multimedia content. There is, however, no “big picture” to describe how these elements, either in existence or under development, relate to each other. The aim for MPEG-21 is to describe how these various elements fit together. Where gaps exist, MPEG-21 will recommend which new standards are required. ISO/IEC JTC 1/SC 29/WG 11 (MPEG) will then develop new standards as appropriate while other relevant standards may be developed by other bodies. These specifications will be integrated into the multimedia framework through collaboration between MPEG and these bodies.

The result is an open framework for multimedia delivery and consumption, with both the content creator and content consumer as focal points. This open framework provides content creators and service providers with equal opportunities in the MPEG-21 enabled open market. This will also be to the benefit of the content consumer providing them access to a large variety of content in an interoperable manner.

The vision for MPEG-21 is to define a multimedia framework *to enable transparent and augmented use of multimedia resources across a wide range of networks and devices* used by different communities.

This second part of MPEG-21 (ISO/IEC 21000-2) specifies the mechanism for declaring the structure and makeup of Digital Items.

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draw attention to the fact that it is claimed that compliance with this document may involve the use of a patent.

The ISO and IEC take no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the ISO and IEC that he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the ISO and IEC. Information may be obtained from the companies listed in Annex A.

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

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

## Part 2: Digital Item Declaration

### 1 Scope

This document describes the ISO/IEC 21000 Digital Item Declaration technology, which is Part 2 of the ISO/IEC 21000 series of International Standards. It specifies:

- the Digital Item Declaration Model (see 6),
- the Digital Item Declaration Representation in XML (see 7), and
- XML schemas comprising grammars for the Digital Item Declaration representation in XML (see 8).

### 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 21000 (all parts), *Information Technology — Multimedia Framework (MPEG-21)*

IETF RFC 2045, *Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies*, IETF Request for Comments: 2045, November 1996

IETF RFC 2616, *Hypertext Transfer Protocol – HTTP/1.1*, IETF Request for Comments: 2616, June 1999

IETF RFC 3548, *The Base16, Base32, and Base64 Data Encodings*, IETF Request for Comments: 3548, July 2003

IETF RFC 3986, *Uniform Resource Identifier (URI): Generic Syntax*, IETF Request For Comments: 3986, January 2005

W3C XINCLUDE, *XML Inclusions (XInclude) Version 1.0*, W3C Recommendation, 20 December 2004

W3C XML, *Extensible Markup Language 1.0 (Second Edition)*, W3C Recommendation, 6 October 2000

W3C XMLC14N, *Canonical XML Version 1.0*, W3C Recommendation, 15 March 2001

W3C XMLNAMES, *Namespaces in XML*, W3C Recommendation, 14 January 1999

W3C XMLSCHEMA, *XML Schema Part 1: Structures Second Edition* and *XML Schema Part 2: Datatypes Second Edition*, W3C Recommendations, 28 October 2004