

INTERNATIONAL
STANDARD

ISO/IEC
21000-15

First edition
2006-07-15

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

**Part 15:
Event Reporting**

*Technologies de l'information — Cadre multimédia (MPEG-21) —
Partie 15: Rapport d'événement*

Reference number
ISO/IEC 21000-15:2006(E)



© ISO/IEC 2006

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 2006

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	vi
1 Scope	1
1.1 General.....	1
1.2 Organisation of the Document	1
2 Normative References	1
3 Terms and Definitions	2
4 Symbols and Abbreviated Terms.....	3
5 Namespace and Conventions.....	3
5.1 Namespace	3
5.2 Schema Wrapper.....	3
5.3 Use of namespace prefixes	4
6 Reference Architecture	4
6.1 Background to Event Reporting.....	4
6.2 Creating and Processing Event Reports	6
6.3 Relationship of Event Reporting with other Parts of ISO/IEC 21000.....	7
7 Event Report Requests	8
7.1 Introduction	8
7.2 High-level Structure.....	8
7.3 Event Report Request Descriptor	9
7.4 Event Report Specification	11
7.5 Event Condition Descriptor	16
8 Event Reports.....	19
8.1 Introduction	19
8.2 High-level Structure.....	20
8.3 Event Report Descriptor	21
8.4 Event Report Data.....	22
8.5 Embedded Event Report Requests.....	24
9 Data Types.....	25
9.1 Introduction	25
9.2 TimeType	25
9.3 PeerId Type.....	27
9.4 UserId Type	27
9.5 ExternalOperator.....	28
9.6 InternalOperator.....	28
9.7 DescriptionType.....	29
9.8 ModificationType	29
9.9 RecipientType	30
Annex A (informative) XML Schema Definition	31
Annex B (informative) An Example Event Report Request.....	40
Annex C (informative) An Example Event Report	43
Annex D (informative) A description of Event Reporting processes	44

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 21000-15 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 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 4: Intellectual Property Management and Protection Components*
- *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 14: Conformance Testing*
- *Part 15: Event Reporting*
- *Part 16: Binary Format*

- *Part 17: Fragment Identification of MPEG Resources*
- *Part 18: Digital Item Streaming*

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 ISO/IEC 21000 is to describe how these various elements fit together. Where gaps exist, ISO/IEC 21000 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 ISO/IEC 21000 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 ISO/IEC 21000 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 part of MPEG-21 (ISO/IEC 21000-15) specifies Event Report Requests and Event Reports and how to use these in an ISO/IEC 21000 environment.

Information technology — Multimedia framework (MPEG-21) —

Part 15: Event Reporting

1 Scope

1.1 General

This part of ISO/IEC 21000 specifies

- how to express Event Report Requests (ER-R) that contain information about which Events to report, what information is to be reported and to whom;
- how to express Event Reports (ER) which are created by an MPEG-21 Peer in response to an Event Report Request when the conditions specified by an ER-R are met.

Event Reports Requests are used for specifying a set of conditions upon which a Peer will generate an Event Report and send it to a Recipient. Event Report Requests also specify what information is to be included in the resulting Event Report. The scope of Event Reporting is limited to reporting of Events between Peers, and does not include internal reporting of Events within a Peer.

1.2 Organisation of the Document

This part of ISO/IEC 21000 comprises nine clauses. This first clause provides scope and the organisation of the specification. Clauses 2 to 5.3 contain a set of references, terms and definitions and abbreviations.

Clause 6 introduces a high level architecture for Event Reporting, while clauses 7 and 8 specify the syntax and semantics of Event Report Requests, and Event Reports. Clause 9 then specifies the data types that are frequently used throughout this part of ISO/IEC 21000.

Finally, Annex A contains the XML Schema definition for the descriptors defined in clauses 7 and 8 and Annex B and Annex C provide examples of Event Report Requests and Event Reports.

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 3986, *Uniform resource identifier (URI): Generic syntax*, 2005

W3C, *XML Schema — Part 1: Structures*, Second edition, 2004

W3C, *XML Schema — Part 2: Datatypes*, Second edition, 2004

W3C, REC-xml-names-19990114, *Namespaces in XML*, 14 January 1999