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Part 2: Fragment request units

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Partie 2: Unités de demande de fragment

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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.

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 23001-2 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 23001 consists of the following parts, under the general title *Information technology — MPEG systems technologies*:

— *Part 1: Binary MPEG format for XML*

— *Part 2: Fragment request units*

— *Part 3: XML IPMP messages*

— *Part 5: Bitstream Syntax Description Language (BSDL)*

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Introduction

Today the use of Extensible Markup Language (XML) for many applications is widespread. This includes ISO International Standards such as ISO/IEC 15938 and ISO/IEC 21000. In addition there is increasing growth of applications being developed for resource constrained environments such as mobile platforms and set top boxes. Information utilized by such applications is often expressed in XML. When the size of such XML documents can be large, it is desirable to be able to request only those fragments of the XML required at a given time by the application. The technology in this International Standard is intended to address this.

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.

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Information technology — MPEG systems technologies —

Part 2:
Fragment request units

1 Scope

This part of ISOIEC 23001 specifies the fragment request unit technology. It comprises a syntax and semantics for expressing a request for fragments of XML. It also specifies how such requests can be used in XML based systems such as ISO/IEC 15938-1 and ISO/IEC 23001-1. The technology can be used in resource constrained environments so that only the fragments of XML of interest at a given time need be transmitted to a requesting peer from a responding peer. It can also be used for node-by-node navigation of a remote XML document.

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 15938-1, *Information technology — Multimedia content description interface — Part 1: Systems*

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

W3C XML, *Extensible Markup Language (XML) 1.0 (Fourth Edition)*, W3C Recommendation, 29 September 2006

W3C XML NAMES, *Namespaces in XML 1.0 (Second Edition)*, W3C Recommendation, 16 August 2006

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

W3C XPATH 1, XML Path Language (*XPath) Version 1.0*, W3C Recommendation, 16 November 1999

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