INTERNATIONAL STANDARD

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Information technology — MPEG video technologies —

Part 3:
Representation of auxiliary video and supplemental information

Technologies de l'information — Technologies vidéo MPEG —

Partie 3: Représentation de vidéo auxiliaire et des informations complémentaires

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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 23002-3 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 23002 consists of the following parts, under the general title *Information technology — MPEG video technologies*:

— *Part 1: Accuracy requirements for implementation of integer-output 8×8 inverse discrete cosine transform*

— *Part 2: Fixed-point 8×8 IDCT and DCT*

— *Part 3: Representation of auxiliary video and supplemental information*

Introduction

In this part of ISO/IEC 23002, auxiliary video streams are data coded as video sequences and supplementing a primary video sequence. Depth maps and parallax maps are the first specified types of auxiliary video streams, relating to stereoscopic-view video content.

In this context, this part of ISO/IEC 23002 specifies syntax and semantics for conveying information describing the interpretation of auxiliary video streams.

Syntax for such information is specified herein as a stream of data referred to as a supplemental information (SI) message stream. Provisions for extensibility have been included, so that additional types of data can be defined in future extensions of the current SI message stream syntax by ISO/IEC.

An SI message stream can contain several concatenated SI messages, hence conveying various types of information. The auxiliary video SI (AVSI) is the only currently-defined type of SI (other than reserved SI message types that are reserved for future specification by ISO/IEC and are to be ignored by decoders if present). An AVSI message characterizes the interpretation of an auxiliary video sequence that accompanies a primary video sequence. For instance, an AVSI can indicate that the auxiliary video represents depth map information, and can provide parameters for the proper interpretation of the auxiliary video as such depth information. The means for identifying the primary video stream and the auxiliary video stream to which these messages pertain is a system-level issue that is outside the scope of this part of ISO/IEC 23002.

Although the auxiliary video SI is the only type of SI that is currently specified herein, the SI message format has been defined in a generic fashion so that it can potentially be used for purposes other than aiding in the interpretation of auxiliary video sequences. Any kind of data could potentially be carried in the SI message format.

This part of ISO/IEC 23002 addresses two types of auxiliary video and their supplemental information: depth and parallax. They can be used to create stereoscopic images for both glasses-based displays and auto-stereoscopic displays in a large variety of products, ranging from large, very high quality television sets to tiny mobile devices. Further information on depth, parallax and the relation between them can be found in the annexes of this part of ISO/IEC 23002.

Other auxiliary video types and supplemental information messages might be defined in future extensions of this part of ISO/IEC 23002.

Information technology — MPEG video technologies —

Part 3:
Representation of auxiliary video and supplemental information

1   Scope

This part of ISO/IEC 23002 defines auxiliary video streams as data coded as video sequences and supplementing a primary video sequence. Depth maps and parallax maps are the first specified types of auxiliary video streams, relating to stereoscopic-view video content.

In this context, this part of ISO/IEC 23002 specifies syntax and semantics for conveying information describing the interpretation of auxiliary video streams.

Syntax for such information is specified herein as a stream of data referred to as a supplemental information (SI) message stream. Provisions for extensibility have been included, so that additional types of data can be defined in future extensions of the current SI message stream syntax by ISO/IEC.

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