

First edition
2008-02-15

Information technology — MPEG systems technologies —

Part 5: Bitstream Syntax Description Language (BSDL)

*Technologies de l'information — Technologies des systèmes MPEG —
Partie 5: Langage de description de la syntaxe bitstream (BSDL)*

Reference number
ISO/IEC 23001-5:2008(E)



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Published in Switzerland

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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.

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ISO/IEC 23001-5 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 4: Codec configuration representation*
- *Part 5: Bitstream Syntax Description Language (BSDL)*

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Introduction

This international standard specifies BSDL (Bitstream Syntax Description Language), a language based on W3C XML Schema to describe the structure of a bitstream with an XML document named BS Description.

BSDL provides a normative grammar to describe in XML the high-level syntax of a bitstream; the resulting XML document is called a Bitstream Syntax Description (BS Description, BSD). This description is not meant to replace the original binary format, but acts as an additional layer, similar to metadata. In most cases, it will not describe the bitstream on a bit-per-bit basis, but rather address its high-level structure, e.g., how the bitstream is organized in layers or packets of data. Furthermore, the BS Description is itself scalable, which means it may describe the bitstream at different syntactic layers, e.g., finer or coarser levels of detail, depending on the application.

This language was initially developed in the context of Digital Item Adaptation (ISO/IEC 21000-7) as a generic tool for adapting scalable multimedia content. However, its use is not restricted to adaptation and may be relevant for any application parsing a bitstream. This is why this International Standard extracts the BSDL specification from ISO/IEC 21000-7 to make it available to other contexts.