

**BUREAU OF INDIAN STANDARDS**  
**DRAFT FOR COMMENTS ONLY**

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***Draft Indian Standard***

**Information Technology —  
Coding of Audio-Visual Objects —  
Part 12: ISO Base Media File Format  
(First Revision)**

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**सूचान प्रौद्योगिकी —  
श्रव्य-दृश्य वस्तुओं की कोडिंग —  
भाग 12: आईएसओ बेस मीडिया फ़ाइल स्वरूप  
(पहला पुनरीक्षण)**

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## **NATIONAL FOREWORD**

(Formal clauses will be added later)

This Draft Indian Standard (Part 12) which is identical with ISO/IEC 14496-12: 2022 ‘Information technology — Coding of audio-visual objects — Part 12: ISO base media file format’ issued by International Organization Standardization (ISO) and International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Coding and Processing of Audio, Picture, Multimedia and Hypermedia Information Sectional Committee, LITD 23 and approval of the Electronics and Information Technology Division.

This standard was originally published in 2019 and was identical to IS/ISO/IEC 14496-12: 2015. The first revision of the Indian Standard has been taken up to align it with the latest version of ISO/IEC 14496-12:2022.

The main changes are as follows:

- re-organization of all the introductory material, such that it the material needed by a specific audience or applying to specific aspects is brought together;
- terminology with respect to timing is more consistent and simpler;
- replacing the word 'metadata' as describing the structural data, as the word metadata is also used with another meaning, and the dual use was confusing;
- providing better wording for the Track Header flags;
- other minor editorial improvements.

Other parts of ISO/IEC 14496 series are already published as Indian standards.

Part 1 Systems

Part 2 Visual

Part 3: Audio

Part 4 Conformance Testing

Part 5 Reference Software

Part 6 Delivery Multimedia Integration Framework

Part 8 Carriage of ISO / IEC 14496 Contents over IP Networks

Part 10 Advanced Video Coding

Part 14 MP4 File Format

Part 15 Carriage of Network Abstraction Layer Nal Unit Structured Video in the ISO Base Media File Format (First Revision)

Part 18 Font Compression and Streaming

Part 19 Synthesized Texture Stream

Part 20 Lightweight Application Scene Representation ( LAsER ) and Simple Aggregation Format ( SAF )

Part 21 MPEG-J Graphics Framework extensions (GFX)

Part 22 open font format

Part 23 Symbolic Music Representation

Part 24 Audio and Systems Interaction

Part 25 3D Graphics Compression Model

Part 26 Audio Conformance

Part 27 3D Graphics Conformance

Part 28 Composite Font Representation

Part 29 Web Video Coding

Part 30 Timed Text and Other Visual Overlays in ISO Base Media File Format

Part 33 Internet Video Coding

The text of ISO/IEC Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current Practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for editions indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

<b>International Standard</b>	<b>Corresponding Indian Standard</b>	<b>Degree of Equivalence</b>
ISO/IEC 14496-1 : 2010, ‘Information technology — Coding of audio-visual objects — Part 1 : Systems	IS/ISO/IEC 14496-1 : 2010 Information Technology - Coding of Audio-Visual Objects Part 1 Systems	Identical
ISO/IEC 14496-10 : 2014 ‘Information technology — Coding of audio-visual objects — Part 10: Advanced video coding’	IS/ISO/IEC 14496-10 : 2014 Information Technology - Coding of Audio-Visual Objects Part 10 Advanced Video Coding	Identical

ISO/IEC 15938-1, Information technology — Multimedia content description interface — Part 1: Systems	IS 16125 (Part 1) : 2014 Information technology - Multimedia content description interface: Part 1 systems	Identical
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The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

<b>International Standards</b>	<b>Title</b>
ISO 639-2,	Codes for the representation of names of languages — Part 2: Alpha-3 code
ITU-T X.667   ISO/IEC 9834-8,	Information technology – Procedures for the operation of object identifier registration authorities – Part 8: Generation of universally unique identifiers (UUIDs) and their use in object identifiers
ISO/IEC 10646	Information technology — Universal coded character set (UCS)
ISO/IEC 13818-2:2013	Information technology — Generic coding of moving pictures and associated audio information — Part 2: Video
ISO 15076-1	Image technology colour management — Architecture, profile format and data structure — Part 1: Based on ICC.1:2010
ISO/IEC 23001-1	Information technology — MPEG systems technologies — Part 1: Binary MPEG format for XML
ISO/IEC 23002-3	Information technology — MPEG video technologies — Part 3: Representation of auxiliary video and supplemental information
ISO/IEC 23003-4	Information technology — MPEG audio technologies — Part 4: Dynamic range control
ITU-T H.265   ISO/IEC 23008-2	Information technology — High efficiency coding and media delivery in heterogeneous environments — Part 2: High efficiency video coding
ISO/IEC 23091-2	Information technology — Coding-independent code points — Part 2: Video
ISO/IEC 23091-3	Information technology — Coding-independent code points — Part 3: Audio
IETF RFC 1951	DEFLATE Compressed Data Format Specification version 1.3
IETF RFC 2045	Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies

IETF RFC 2046	Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types
IETF RFC 3629	UTF-8, a transformation format of ISO 10646
IETF RFC 3711:2004,	The Secure Real-time Transport Protocol (SRTP)
IETF RFC 5052	Forward Error Correction (FEC) Building Block
IETF RFC 5905	Network Time Protocol Version 4: Protocol and Algorithms Specification
ITU-R TF.460-6:2002,	Standard-frequency and time-signal emissions
ITU-R BS.1770-4	Algorithms to measure audio programme loudness and true-peak audio level
IETF BCP 47	Tags for Identifying Languages
IETF RFC 4122	A Universally Unique IDentifier (UUID) URN Namespace
IETF RFC 3061	A URN Namespace of Object Identifiers

**Scope of ISO/IEC 14496-12: 2022 is as follows:**

This document specifies the ISO base media file format, which a general format is forming the basis for a number of other more specific file formats. This format contains the timing, structure, and media information for timed sequences of media data, such as audio-visual presentations.

**Note:** - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO/IEC Standard. For details please refer to ISO/IEC 14496-12: 2022 or kindly contact.

**Head,**

Electronics & IT Department

Bureau of Indian Standards

9, B.S. Zafar Marg,

New Delhi-110002

Email: [litd@bis.gov.in](mailto:litd@bis.gov.in), [litd23@bis.gov.in](mailto:litd23@bis.gov.in)