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Part 14: MP4 file format

*Technologies de l'information — Codage des objets audiovisuels —
Partie 14: Format de fichier MP4*



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Storage of MPEG-4	1
4.1 Elementary stream tracks.....	1
4.1.1 Elementary stream data.....	1
4.1.2 Elementary stream descriptors.....	2
4.1.3 Object descriptors.....	2
4.2 Track identifiers.....	3
4.3 Synchronization of streams.....	4
4.4 Composition.....	5
4.5 Handling of M4Mux.....	5
5 File identification	6
6 Additions to the Base Media Format	6
6.1 General.....	6
6.2 Object Descriptor Box.....	7
6.2.1 Description.....	7
6.2.2 Syntax.....	7
6.2.3 Semantics.....	7
6.3 Track reference types.....	7
6.4 Track header box.....	8
6.5 Handler reference types.....	8
6.6 MPEG-4 media header boxes.....	8
6.6.1 General.....	8
6.6.2 Syntax.....	8
6.6.3 Semantics.....	8
6.7 Sample description boxes.....	9
6.7.1 Description.....	9
6.7.2 Syntax.....	10
6.7.3 Semantics.....	10
6.8 Degradation priority values.....	10
7 Template fields used	11
Annex A (informative) Handling of audio timestamps and profile/level indication	12
Bibliography	13

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.

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This third edition cancels and replaces the second edition (ISO/IEC 14496-14:2018), of which it constitutes a minor revision. The changes compared to the previous edition are contained in Annex A and the Bibliography.

A list of all parts in the ISO/IEC 14496 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document defines MP4 as an instance of the ISO Media File format (ISO/IEC 14496-12).

The general nature of the ISO Media File format is fully exercised by MP4. MPEG-4 presentations can be highly dynamic, and there is an infrastructure — the Object Descriptor Framework —, which serves to manage the objects and streams in a presentation. An Initial Object Descriptor serves as the starting point for this framework. In the usage modes documented in the ISO Media File, an Initial Object Descriptor would normally be present, as shown in [Figures 1](#) to [3](#).

[Figure 1](#) gives an example of a simple interchange file, containing two streams.

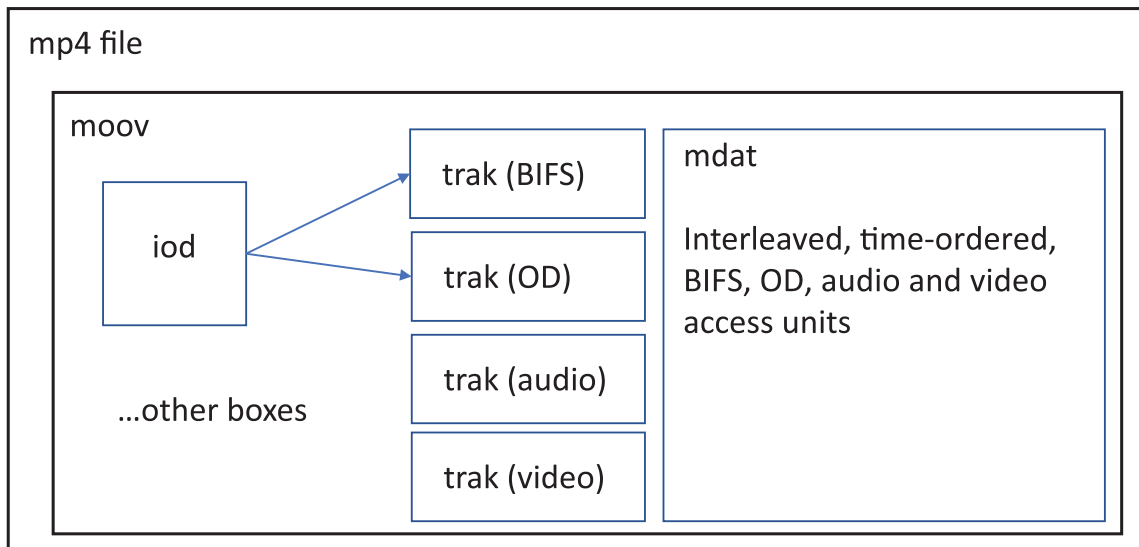


Figure 1 — Simple interchange file

In [Figure 2](#), a set of files being used in the process of content creation is shown.

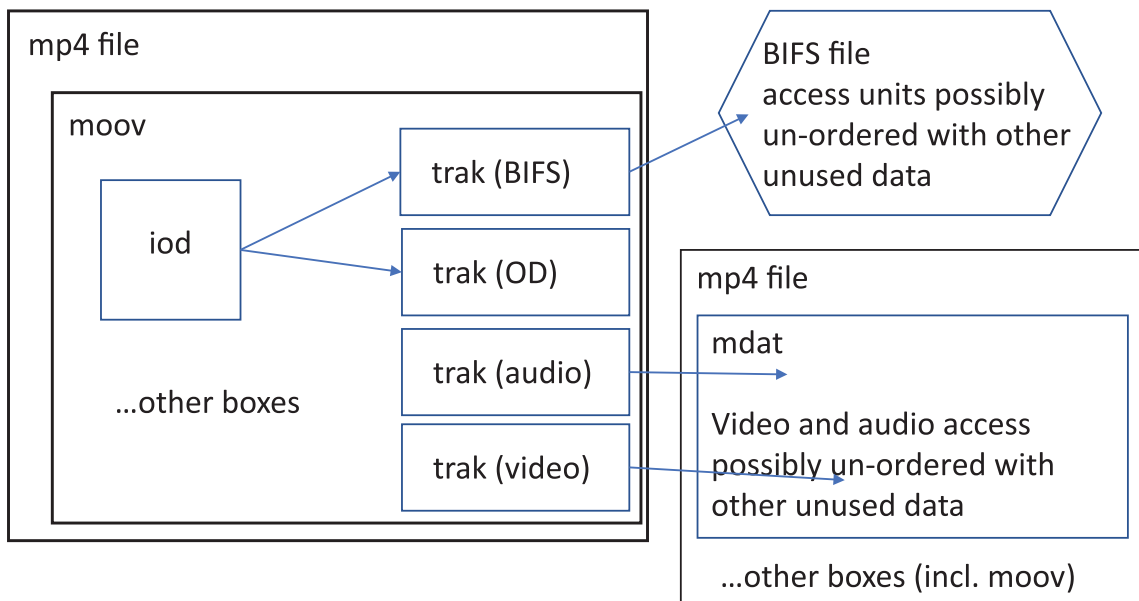


Figure 2 — Content creation file

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Figure 3 shows a presentation prepared for streaming over a multiplexing protocol, only one hint track is required.

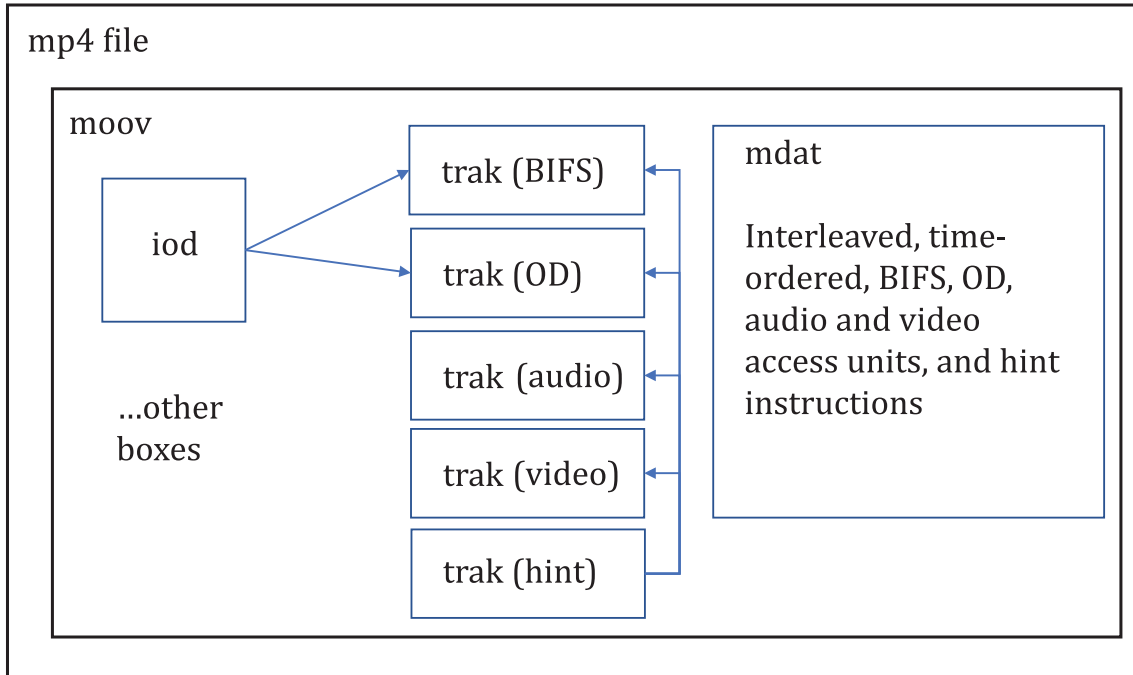


Figure 3 — Hinted presentation for streaming

Handling of audio timestamps and profile/level indication is covered in [Annex A](#).

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