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Information technology — Multimedia application format (MPEG-A) —

Part 19:

Common media application format (CMAF) for segmented media

*Technologies de l'information — Format pour application multimédia
(MPEG-A) —*

*Partie 19: Format CMAF (Common Media Application Format) pour
médias segmentés*



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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.

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

This second edition cancels and replaces the first edition (ISO/IEC 23000-19:2018), which has been technically revised. It also incorporates the Amendments ISO/IEC 23000-19:2018/Amd.1:2018 and ISO/IEC 23000-19:2018/Amd.2:2019.

The main changes compared to the previous edition are as follows:

- addition of supplemental data brands;
- modification to the structural brand *cmfc* for compatibility with DASH segments;
- definition of a stricter brand '*cmf2*' for legacy devices;
- refinements and updates to HEVC media profiles for SDR and HDR;
- definition of the scalable HEVC media profile;
- definition of AAC multichannel media profiles;
- definition of MPEG-H 3D audio track format and CMAF media profile;
- definition of MPEG-D USAC track format and CMAF media profile;
- definition of IMSC1.1 media profile.

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Introduction

Common media application format (CMAF) combines and constrains several MPEG specifications to define a multimedia format that is optimized for delivery of a single adaptive multimedia presentation to a variety of devices, using a variety of adaptive streaming, broadcast, download and storage methods.

Several MPEG specifications have been adopted for much of the video delivered over the internet and other IP networks (cellular, cable, broadcast, etc.). Various organizations have taken MPEG's core coding, file format and system standards and combined them into their own specifications for their specific application. While these specifications are similar, their differences result in unnecessary duplication of engineering effort and duplication of identical content in slightly different formats, which results in increased storage and delivery costs.

CMAF provides a common media specification that application specifications, such as MPEG dynamic adaptive streaming over HTTP (DASH), can reference and a common media format that allows a single encoded multimedia presentation to be used by many applications.