

Fifth edition
2019-09

Information technology — Coding of audio-visual objects —

Part 15:

Carriage of network abstraction layer (NAL) unit structured video in the ISO base media file format

Technologies de l'information — Codage des objets audiovisuels —

*Partie 15: Transport de vidéo structurée en unités NAL sur la couche
réseau au format ISO de base pour les fichiers médias*



Reference number
ISO/IEC 14496-15:2019(E)

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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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 fifth edition cancels and replaces the fourth edition (ISO/IEC 14496-15:2017), which has been technically revised. It also incorporates Amendments ISO/IEC 14496-15:2017/Amd.1:2018 and ISO/IEC 14496-15:2017/Amd.2:2019.

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

- additional content incorporated as subclauses [4.11](#), [4.12](#), [9.6.4](#), [D.4.3](#), [D.4.4](#) and [D.4.5](#) and [Annex F](#);
- corrections in [Tables 2](#), [3](#) and [6](#) and subclause [A.1](#);
- deletion of subclause 5.4.10;
- minor editorial changes to align the document with the drafting rules in ISO/IEC Directives Part 2.

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 a storage format based on, and compatible with, the ISO base media file format (ISO/IEC 14496-12), which is used by the MP4 file format (ISO/IEC 14496-14) and the motion JPEG 2000 file format (ISO/IEC 15444-3) among others. This document enables video streams formatted as network adaptation layer units (NAL units) to

- a) be used in conjunction with other media streams, such as audio,
- b) be used in an MPEG-4 systems environment, if desired,
- c) be formatted for delivery by a streaming server, using hint tracks, and
- d) inherit all the use cases and features of the ISO base media file format on which MP4 and MJ2 are based.

This document can be used as a standalone specification; it specifies how NAL unit structured video content is stored in an ISO base media file format compliant format. However, it is normally used in the context of a specification, such as the MP4 file format, derived from the ISO base media file format, that permits the use of NAL unit structured video such as AVC (ISO/IEC 14496-10) video and high efficiency video coding (HEVC, ISO/IEC 23008-2) video.

The ISO base media file format is becoming increasingly common as a general-purpose media container format for the exchange of digital media, and its use in this context should accelerate both adoption and interoperability.

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