
**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**

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**AMENDMENT 2: Support for additional
brands**

ISO/IEC 14496-15:2017/Amd 2:2019

<https://standards.iteh.ai/standards/iso-iec-14496-15/iso-iec-14496-15:2017-51c0-457-8745-b2c50a956c03/iso-iec-14496-15-2017-amd-2-2019>
*Technologies de l'information — Codage des objets audiovisuels —
Partie 15: Transport de vidéo structuré en unités NAL au format ISO
de base pour les fichiers médias*

AMENDEMENT 2: .



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ISO/IEC 14496-15:2017/Amd 2:2019
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CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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*.

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Annex D.4

Add the following new subclauses:

D.4.3 HEVC tile track brand

The brand 'hvti' may be present among the `compatible_brands` of the `FileTypeBox`. It is intended for use cases where HEVC tile tracks are needed without having to support other L-HEVC file format tools. File readers conforming to the 'hvti' brand shall support HEVC tile storage tools specified in Clause 10.

Files conformant to this brand shall obey the following constraints:

- There shall be at least one track with 'hvt1' sample entry or an HEVC tile base track with 'hvc2' or 'hev2' sample entry, as specified in 10.5.
- Extractors or aggregators shall not be present in any 'hvc2' or 'hev2' track.
- There shall be no 'lhv1' or 'lhe1' tracks in the file.
- There shall not be any L-HEVC NAL units (with `nuh_layer_id` greater than 0) in the file.

D.4.4 L-HEVC tile track implicit brand

The brand 'lhti' may be present among the `compatible_brands` of the `FileTypeBox`. It is intended for use cases where tile tracks are needed together with the implicit bitstream reconstruction tools of L-HEVC file format. File readers conforming to the 'lhti' brand shall support the L-HEVC file format tools specified in Clause 9 and the HEVC and L-HEVC tile storage tools specified in clause 10 with the following constraints applied:

- Extractors or aggregators shall not be present in any 'hvc2' or 'hev2' track.
- Each track of type 'hvc1', 'hev1', 'hvc2', 'hev2', 'lhv1', or 'lhe1' shall not contain NAL units from more than one layer.

D.4.5 L-HEVC tile track explicit brand

The brand 'lhte' may be present among the `compatible_brands` of the `FileTypeBox`. It is intended for use cases where tile tracks are needed together with the extractor tools of L-HEVC file format. File readers confirming to the 'lhte' brand shall support L-HEVC file format tools specified

in Clause 9 and the HEVC and L-HEVC tile storage tools specified in Clause 10 with the following constraints applied:

- Extractors or aggregators may be present in 'hvc2' or 'hev2' track, except when forbidden by the specification (i.e. not present in tile tracks).
- Each 'hvc2' and 'hev2' track shall represent a valid HEVC sub-bitstream, and may contain aggregators, when allowed. The sub-bitstream shall be contained:
 - natively,
 - through extractors,
 - or through tile track reconstruction mechanism as defined in 10.5.4.

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