
**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**

**AMENDMENT 1: Handling of unspecified
NAL unit types and other improvements**

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 1: Traitement des types d'unités NAL non spécifiés et
autres améliorations*



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

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

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5.2, Table 2

Change the first and last rows of Table 2 as follows (all other rows remain unchanged):

Value of nal_unit_type	Description	Video elementary stream (sample entry 'avc1' or 'avc2')	Video elementary stream (sample entry 'avc3' or 'avc4')	Parameter set elementary stream
0	Unspecified	See Annex F	See Annex F	See Annex F
24-31	Unspecified	See Annex F	See Annex F	See Annex F

Clause 4

Add the following new subclauses as 4.11 and 4.12: [17/Amd 1:2018](https://standards.iteh.ai/catalog/standards/iso/48c59440-8965-40c4-9f25-3ffc4830cec4/iso-iec-14496-15-2017-amd-1-2018)

4.11 SEI information box

4.11.1 Definition

Box Type: 'seii'

Container: Scheme Information box ('schi') or VisualSampleEntry

Mandatory: Yes (in the SchemeInformationBox), No (in a VisualSampleEntry)

Quantity: One (in the SchemeInformationBox), Zero or one (in a VisualSampleEntry)

The SEI Information box documents the SEIs in a stream. When contained in a VisualSampleEntry numRequiredSEIs shall be 0. By inspecting the SEI Information box a player will know which SEI messages it can assume to be present, and which are deemed necessary by the file author for correct playback. There might be other SEIs present in the bitstream that are not documented by this box.

4.11.2 Syntax

```
aligned(8) class SeiInformationBox extends Box('sei') {
    unsigned int(16) numRequiredSEIs;
    for (i = 0; i < numRequiredSEIs; i++) {
        unsigned int(16) requiredSEI_ID;
    }
    unsigned int(16) numNotRequiredSEIs;
    for (i = 0; i < numNotRequiredSEIs; i++) {
        unsigned int(16) notrequiredSEI_ID;
    }
}
```

4.11.3 Semantics

`requiredSEI_ID` takes on the value “payloadType” of an SEI message present in the bitstream that is deemed necessary by the file author for correct playback.

`notrequiredSEI_ID` takes on the value “payloadType” of an SEI message present in the bitstream that is not deemed necessary by the file author for correct playback.

4.12 Post-decoder requirements scheme for signalling of SEI

4.12.1 General

In order to handle situations where the file author requires certain actions on the player or renderer, the ISO base media file format specifies the restricted-video mechanism where sample entries are hidden behind the generic sample entry 'resv'. The mechanism applies to all coding systems identified by chapters in this document. For the case of signalling of SEI, a file author can list occurring SEI message IDs (ISO/IEC 14496-10, ISO/IEC 23008-2) and classify them into two categories: those that are deemed required by the file author for correct playback, and others. The occurrence of either type of SEI messages can be signalled in the SEI Information box.

4.12.2 Definition

The scheme for signalling of SEI is defined here.

The SchemeType 'aSEI' is used.

The SEI information box is mandatory in the SchemeInformationBox under the 'aSEI' scheme. In this case, it contains information about the SEI messages present in the bitstream. Although the SEI messages are not required for decoding, the file author may require certain actions for rendering or other purposes. The box distinguishes between an SEI that is required to be understood for correct playback and an SEI that is not required for correct playback (but may enhance playback).

The SEI messages listed here should be stored either in the bitstream or in the Configuration Record. The SEI Information box does not contain the actual SEI messages, it only lists those that occur in the bitstream.