

ISO/IEC 23002-7**Information technology — MPEG
video technologies —****Part 7:
Versatile supplemental
enhancement information messages
for coded video bitstreams**

Technologies de l'information — Technologies vidéo MPEG —

*Partie 7: Messages d'améliorations complémentaires polyvalents
pour les flux binaires vidéo codés*

**Fourth edition
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The procedures used to develop this Specification 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 Specification was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This Specification was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*, in collaboration with ITU-T (as Rec. ITU-T H.274).

This fourth edition cancels and replaces the third edition (ISO/IEC 23002-7:2024), which has been technically revised.

The main changes are as follows:

- extensions to the film grain characteristics SEI message, the neural-network post-filter characteristics SEI message, and the neural-network post-filter activation SEI message,
- the addition of the SEI processing order SEI message and the processing order nesting SEI message,
- the addition of the encoder optimization information SEI message,
- the addition of the source picture timing information SEI message,
- the addition of the object mask information SEI message,
- the addition of the modality information SEI message,
- the addition of the text description information SEI message,
- the addition of the generative face video SEI message and the generative enhancement face video message,
- the addition of the digitally signed content initialization SEI message, the digitally signed content selection SEI message, and the digitally signed content verification SEI message,
- the addition of the AI usage restrictions request SEI message,
- the addition of the packed regions information SEI message, and

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Versions of this Specification

Rec. ITU-T H.274 | ISO/IEC 23002-7 version 1 refers to the first approved version of this Specification. The first edition published by ITU-T as Rec. ITU-T H.274 (08/2020) and by ISO/IEC as ISO/IEC 23002-7:2021 corresponded to the first version.

Rec. ITU-T H.274 | ISO/IEC 23002-7 version 2 refers to the integrated text containing nine additional SEI messages, namely the annotated regions SEI message, the alpha channel information SEI message, the depth representation information SEI message, the multiview acquisition information SEI message, the multiview view position SEI message, the scalability dimension information SEI message, the extended dependent random access point indication SEI message, the display orientation SEI message, and the colour transform information SEI message. Besides these additional SEI messages, this version also contains corrections to various minor defects in the prior content of the specification. The second edition published by ITU-T as Rec. ITU-T H.274 (05/2022) and by ISO/IEC as ISO/IEC 23002-7:2022 corresponds to the second version.

Rec. ITU-T H.274 | ISO/IEC 23002-7 version 3 refers to the integrated text containing four additional SEI messages, namely the shutter interval information SEI message, the neural-network post-filter characteristics SEI message, the neural-network post-filter activation SEI message, and the phase indication SEI message. Besides these additional SEI messages, this version also contains corrections to various minor defects in the prior content of the specification. The third edition published by ISO/IEC as ISO/IEC 23002-7:2024 corresponds to the third version. This third edition of ISO/IEC 23002-7 corresponds to the third edition published by ITU-T as Rec. ITU-T H.274 (09/2023).

Rec. ITU-T H.274 | ISO/IEC 23002-7 version 4 (the current version) refers to the integrated text additionally containing extensions to the film grain characteristics SEI message, the neural-network post-filter characteristics SEI message, the neural-network post-filter activation SEI message, and 15 additional SEI messages, namely the SEI processing order SEI message, the processing order nesting SEI message, the encoder optimization information SEI message, the source picture timing information SEI message, the object mask information SEI message, the modality information SEI message, the text description information SEI message, the generative face video SEI message, the generative enhancement face video message, the digitally signed content initialization SEI message, the digitally signed content selection SEI message, digitally signed content verification SEI message, the AI usage restrictions request SEI message, the packed regions information SEI message, and the image format metadata SEI message. Additionally, the version 4 integrated text also contains corrections to various minor defects in the prior content of the Specification. The fourth edition published by ITU-T as Rec. ITU-T H.274 (XX/2026) corresponds to the fourth version.

Conventions

The term "this Specification" is used to refer to this Recommendation | International Standard.

In this Specification, the following verbal forms are used:

- “shall” indicates a requirement. When used to express a mandatory constraint on the values of syntax elements or the values of variables derived from these syntax elements, it is the responsibility of the encoder to ensure that the constraint is fulfilled.
- “should” indicates a recommendation. It is used to refer to behaviour of an implementation that is encouraged to be followed under anticipated ordinary circumstances, but is not a requirement for conformance to this Specification.
- “may” indicates a permission.
- “can” indicates a possibility or a capability.

Information marked as “NOTE” is intended to assist the understanding or use of the document. “Notes to entry” used in [Clause 3](#) provide additional information that supplements the terminological data and can contain provisions relating to the use of a term.