

ISO/IEC 23002-7:2021 (E)

Information technology — MPEG video technologies — Part 7: Versatile supplemental enhancement information messages for coded video bitstreams

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Abbreviated terms
5	Conventions
5.1	General
5.2	Arithmetic operators
5.3	Logical operators
5.4	Relational operators
5.5	Bit-wise operators
5.6	Assignment operators
5.7	Range notation
5.8	Mathematical functions
5.9	Order of operation precedence
5.10	Variables, syntax elements and tables
5.11	Text description of logical operations
5.12	Processes
6	Syntax and semantics
6.1	General
6.2	Method of specifying syntax in tabular form
6.3	Specification of syntax functions and descriptors
7	Video usability information parameters
7.1	General
7.2	VUI parameters syntax
7.3	VUI parameters semantics
8	SEI messages
8.1	General
8.2	Filler payload SEI message
8.2.1	Filler payload SEI message syntax
8.2.2	Filler payload SEI message semantics
8.3	User data registered by Recommendation ITU-T T.35 SEI message
8.3.1	User data registered by Recommendation ITU-T T.35 SEI message syntax
8.3.2	User data registered by Recommendation ITU-T T.35 SEI message semantics
8.4	User data unregistered SEI message
8.4.1	User data unregistered SEI message syntax
8.4.2	User data unregistered SEI message semantics
8.5	Film grain characteristics SEI message
8.5.1	Film grain characteristics SEI message syntax
8.5.2	Film grain characteristics SEI message semantics
8.6	Frame packing arrangement SEI message
8.6.1	Frame packing arrangement SEI message syntax
8.6.2	Frame packing arrangement SEI message semantics

- 8.7 Parameter sets inclusion indication SEI message
- 8.7.1 Parameter sets inclusion indication SEI message syntax
- 8.7.2 Parameter sets inclusion indication SEI message semantics
- 8.8 Decoded picture hash SEI message
- 8.8.1 Decoded picture hash SEI message syntax
- 8.8.2 Decoded picture hash SEI message semantics
- 8.9 Mastering display colour volume SEI message
- 8.9.1 Mastering display colour volume SEI message syntax
- 8.9.2 Mastering display colour volume SEI message semantics
- 8.10 Content light level information SEI message
- 8.10.1 Content light level information SEI message syntax
- 8.10.2 Content light level information SEI message semantics
- 8.11 Dependent random access point indication SEI message
- 8.11.1 Dependent random access point indication SEI message syntax
- 8.11.2 Dependent random access point indication SEI message semantics
- 8.12 Alternative transfer characteristics information SEI message
- 8.12.1 Alternative transfer characteristics information SEI message syntax
- 8.12.2 Alternative transfer characteristics SEI message semantics
- 8.13 Ambient viewing environment SEI message
- 8.13.1 Ambient viewing environment SEI message syntax
- 8.13.2 Ambient viewing environment SEI message semantics
- 8.14 Content colour volume SEI message
- 8.14.1 Content colour volume SEI message syntax
- 8.14.2 Content colour volume SEI message semantics
- 8.15 Omnidirectional video specific SEI messages
- 8.15.1 Sample location remapping process
- 8.15.1.1 General
- 8.15.1.2 Projection for one sample location
- 8.15.1.3 Conversion from the local coordinate axes to the global coordinate axes
- 8.15.1.4 Conversion of sample locations for rectangular region-wise packing
- 8.15.1.5 Mapping of luma sample locations within a cropped decoded picture to sphere coordinates relative to the global coordinate axes
- 8.15.1.6 Conversion from a sample location in a projected picture to sphere coordinates relative to the global coordinate axes
- 8.15.1.7 Calculation of the cubemap face size for a projected picture
- 8.15.1.8 Conversion from a sample location in a projected picture to a sample location in a projected cubemap face
- 8.15.1.9 Rotation of sample locations for a projected cubemap face
- 8.15.1.10 Adjustment of a sample location for hemisphere cubemap projection
- 8.15.2 Equirectangular projection SEI message
- 8.15.2.1 Equirectangular projection SEI message syntax
- 8.15.2.2 Equirectangular projection SEI message semantics
- 8.15.3 Generalized cubemap projection SEI message
- 8.15.3.1 Generalized cubemap projection SEI message syntax
- 8.15.3.2 Generalized cubemap projection SEI message semantics
- 8.15.4 Sphere rotation SEI message
- 8.15.4.1 Sphere rotation SEI message syntax
- 8.15.4.2 Sphere rotation SEI message semantics
- 8.15.5 Region-wise packing SEI message
- 8.15.5.1 Region-wise packing SEI message syntax
- 8.15.5.2 Region-wise packing SEI message semantics
- 8.15.6 Omnidirectional viewport SEI message
- 8.15.6.1 Omnidirectional viewport SEI message syntax
- 8.15.6.2 Omnidirectional viewport SEI message semantics
- 8.16 Frame-field information SEI message
- 8.16.1 Frame-field information SEI message syntax
- 8.16.2 Frame-field information SEI message semantics
- 8.17 Sample aspect ratio information SEI message
- 8.17.1 Sample aspect ratio information SEI message syntax
- 8.17.2 Sample aspect ratio information SEI message semantics
- 8.18 Reserved SEI message
- 8.18.1 Reserved SEI message syntax
- 8.18.2 Reserved SEI message semantics

- 9** **Parsing process for k-th order Exp-Golomb codes**
- 9.1** **General**
- 9.2** **Mapping process for signed Exp-Golomb codes**

Page count: 94