



Information technology — MPEG systems technologies —

Part 8: Coding-independent code points

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Technologies des systèmes MPEG —

Partie 8: Points de code indépendants du codage

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 23001-8:2013 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

Replace 7.2 (Transfer characteristics) with the following:

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7.2 Transfer characteristics

Type: Unsigned integer, enumeration

Range: 0 – 255

TransferCharacteristics indicates the opto-electronic transfer characteristic of the source picture as specified in Table 3 as a function of a linear optical intensity input L_c with a nominal real-valued range of 0 to 1. For interpretation of entries in Table 3 that are expressed in terms of multiple curve segments parameterized by the variable α over a region bounded by the variable β or by the variables β and γ , the values of α and β are defined to be the positive constants necessary for the curve segments that meet at the value β to have continuity of value and continuity of slope at the the value β , and the value of γ , when applicable, is defined to be the positive constant necessary for the associated curve segments to meet at the

value γ . For example, for transfer_characteristics equal to 1, 6, 14, or 15, α has the value $1 + 5.5 * \beta = 1.099\ 296\ 826\ 809\ 442\dots$ and β has the value $0.018\ 053\ 968\ 510\ 807\dots$

An 8-bit field should be adequate for representation of the **TransferCharacteristics** code point.

Table 3 — Interpretation of Transfer characteristics (TransferCharacteristics) value

Value	Transfer Characteristics	Informative Remarks
0	Reserved	For future use by ISO/IEC
1	$V = \alpha * L_c^{0.45} - (\alpha - 1) \quad \text{for } 1 \geq L_c \geq \beta$ $V = 4.500 * L_c \quad \text{for } \beta > L_c \geq 0$	Rec. ITU-R BT.709-5 Rec. ITU-R BT.1361 conventional colour gamut system (functionally the same as values 6, 14, and 15; the value 1 is preferred)
2	Unspecified	Image characteristics are unknown or are determined by the application.
3	Reserved	For future use by ISO/IEC
4	Assumed display gamma 2.2	Rec. ITU-R BT.470-6 System M (historical) United States National Television System Committee 1953 Recommendation for transmission standards for colour television United States Federal Communications Commission Title 47 Code of Federal Regulations (2003) 73.682 (a) (20) Rec. ITU-R BT.1700 (2007 revision) 625 PAL and 625 SECAM
5	Assumed display gamma 2.8	Rec. ITU-R BT.470-6 System B, G (historical)
6	$V = \alpha * L_c^{0.45} - (\alpha - 1) \quad \text{for } 1 \geq L_c \geq \beta$ $V = 4.500 * L_c \quad \text{for } \beta > L_c \geq 0$	Rec. ITU-R BT.601-6 525 or 625 Rec. ITU-R BT.1358 525 or 625 Rec. ITU-R BT.1700 NTSC Society of Motion Picture and Television Engineers 170M (2004) (functionally the same as values 1, 14, and 15; the value 1 is preferred)
7	$V = \alpha * L_c^{0.45} - (\alpha - 1) \quad \text{for } 1 \geq L_c \geq \beta$ $V = 4.0 * L_c \quad \text{for } \beta > L_c \geq 0$	Society of Motion Picture and Television Engineers 240M (1999)
8	$V = L_c \quad \text{for } 1 > L_c \geq 0$	Linear transfer characteristics