



INTERNATIONAL STANDARD ISO/IEC 13818-4:2004
TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
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Information technology — Generic coding of moving pictures and associated audio information —

Part 4: Conformance testing

TECHNICAL CORRIGENDUM 1

*Technologies de l'information — Codage générique des images animées et des informations sonores
associées —*

Partie 4: Essais de conformité

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 13818-4:2004 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

In clause 2, “Normative references”, remove the following:

IEEE Std 1180-1990, *IEEE Standard Specifications for the Implementations of 8 by 8 Inverse Discrete Cosine Transform*, December 6, 1990

In clause 2, “Normative references”, add the following:

ISO/IEC 23002-1:2006, *Information technology — MPEG video technologies — Part 1: Accuracy requirements for implementation of integer-output 8x8 inverse discrete cosine transform*

In clause 3, “Terms and definitions”, replace

3.209 reference IDCT [video]: Embodiment of the saturated mathematical integer-number IDCT specified in Annex A of ISO/IEC 13818-2:2000.

with:

3.209 reference IDCT [video]: The ideal integer-valued 8x8 IDCT specified in subclause 5.4 of ISO/IEC 23002-1:2006.

In subclause 6.2, “Procedure for testing bitstream compliance”, replace

A verifier which does perform the IDCT transform and calculates the reconstructed samples must comply with all the arithmetic precision requirements specified in ISO/IEC 13818-2. In addition, the IDCT of such a verifier shall be an embodiment of the saturated mathematical integer-number IDCT specified in Annex A of ISO/IEC 13818-2:2000 (a software implementation using 64-bit double-precision floating-point is sufficient).

with:

A verifier which does perform the IDCT transform and calculates the reconstructed samples must comply with all the arithmetic precision requirements specified in ISO/IEC 13818-2. In addition, the IDCT of such a verifier shall be an embodiment of the ideal integer-valued 8x8 IDCT specified in subclause 5.4 of ISO/IEC 23002-1:2006 (implementation using 64-bit double-precision floating-point is sufficient).

In subclause 6.3, “Definition of video decoder compliance”, replace

The reference decoder is a decoder that implements precisely the decoding process as specified in ISO/IEC 13818-2. The IDCT function that shall be used when running the reference decoder is the very accurate approximation of the mathematical saturated integer-number IDCT $f''(x, y)$ specified in Annex A of ISO/IEC 13818-2:2000 obtained by implementing $f''(x, y)$ with double-precision arithmetic.

Except for possible mismatches caused by ambiguous half-values rounding at the output of the IDCT function, the output of the reference decoder (reconstructed samples) is defined unambiguously by ISO/IEC 13818-2.

with:

The reference decoder is a decoder that implements precisely the decoding process as specified in ISO/IEC 13818-2. The IDCT function that shall be used when running the reference decoder is the very accurate approximation of the ideal integer-valued 8x8 IDCT specified in subclause 5.4 of ISO/IEC 23002-1:2006 (implementation using 64-bit double-precision floating-point is sufficient).

When using the reference IDCT, the output of the reference decoder (reconstructed samples) is defined unambiguously by ISO/IEC 13818-2 and subclause 5.4 of ISO/IEC 23002-1:2006.