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Information technology — JPEG XR image coding system —

Part 5: Reference software

AMENDMENT 1: Extension of the Reference Software: Support for the Boxed Based File Format

Technologies de l'information — Système de codage d'image JPEG XR —

Partie 5: Logiciel de référence

AMENDEMENT 1: Extension du logiciel de référence: Support pour le format des fichiers basé sur les boîtes

Reference number
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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

Amendment 1 to ISO/IEC 29199-5:2012 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.

This part of ISO/IEC 29199 is technically aligned with ITU-T Rec. T.835 but is not published as identical text.

Introduction

This Amendment updates the reference software to release 1.41 and addresses the following issues in the software:

— The pixel formats with 555/565/101010 bit red/green/blue bits for the red/green/blue channel cannot be decoded into the ppm file format. Attempting to do so with earlier releases of the reference software caused a crash. The 1.41 fails gracefully if attempting to do so.

— The 1.32 release of the reference software, previously published as Rec. ITU-T T.835 | ISO/IEC 29199-5:2012, crashed if attempted to reconstruct an n-channel pixel format codestream with an interleaved alpha channel. This defect has been fixed with the 1.41 release of the software which reconstructs these files correctly.

— Release 1.32 of the software always encodes codestreams with the 555/565/101010 pixel format with the "red-blue-not-swapped" flag set, thus using the correct order of the components as required in earlier releases of Rec. ITU-T T.832 | ISO/IEC 29199-2. However, legacy encoders wrote red and blue in swapped order, with the "red-blue-not-swapped" flag cleared. It should be appreciated that some legacy applications cannot honour this flag correctly. The release 1.41 of the software again allows to write the red and blue channel in legacy order by including the command line option "-g".

— Release 1.41 of the reference software adds support for the box-based format of JPEG XR which is specified in Rec. ITU-T T.801 | ISO/IEC 15444-2 (JPEG 2000 part 2) and thus supports two file formats, the tag-based format specified in Rec. ITU-T T.832 | ISO/IEC 29199-2, and the box-based format in Rec. ITU-T T.801 | ISO/IEC 15444-2. AMD 3 of Rec. ITU-T T.801 | ISO/IEC 15444-2 defined a boxed-based file format for JPEG XR that is able to replace and extend the tag-based file format currently defined in Rec. ITU-T T.832 | ISO/IEC 29199-2: JPEG XR Image Coding System. This enhancement of the reference software will include support for the box-based file format and will thus support interested parties to implement new file format for JPEG XR by testing against the reference software.

The updated reference software release 1.41 is available in the directory "`Software`" within this distribution as an electronic attachment.

