

Second edition
2012-03-15

AMENDMENT 1
2015-11-15

**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*

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC 29199-5:2012/Amd 1:2015

Reference number
ISO/IEC 29199-5:2012/Amd.1:2015(E)



 **COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document 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 document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.