
**Information technology — JPEG XS
low-latency lightweight image coding
system —**

**Part 5:
Reference software**

*Technologies de l'information — Système de codage d'images léger à
faible latence JPEG XS —*

Partie 5: Logiciel de référence





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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Reference software	1
4.1 General.....	1
4.2 Purpose.....	1
4.3 Examples of use.....	2
5 Copyright, licensing and intellectual property	2
Annex A (informative) Building the reference software	3
Annex B (informative) Image file formats read and written by the reference software	4
Annex C (informative) Using the reference software	8
Bibliography	13

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.

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This second edition cancels and replaces the first edition (ISO/IEC 21122-5:2020), which has been technically revised.

The main changes are as follows:

- Updated reference software.

A list of all parts in the ISO/IEC 21122 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

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Introduction

This document is part of a series of standards for a low-latency lightweight image coding system, denoted JPEG XS.

It provides the software reference implementation of the ISO/IEC 21122-1 and ISO/IEC 21122-2 standards. It has been successfully compiled and tested on various operating systems at the time of writing. It is important to note that this reference software implementation represents just one way of implementing JPEG XS. This implementation can serve as a validation anchor to other implementations.

No guarantee of the quality that will be achieved by an encoder is provided by its conformance to ISO/IEC 21122-1 and ISO/IEC 21122-2, as the conformance is only defined in terms of specific constraints imposed on the syntax of the generated codestream. In particular, while sample encoder software implementations may suffice to provide some illustrative examples of which quality can be achieved within the ISO/IEC 21122 series, they provide neither an assurance of minimum guaranteed image encoding quality nor maximum achievable image encoding quality.

Similarly, the computation resource characteristics in terms of program or data memory usage, execution speed, etc. of sample software encoder or decoder implementations should not be construed as a representative of the typical, minimal or maximal computational resource characteristics to be exhibited by implementations of the ISO/IEC 21122 series.

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Information technology — JPEG XS low-latency lightweight image coding system —

Part 5: Reference software

1 Scope

This document contains the reference software of the ISO/IEC 21122 series. It acts as a guideline for implementation and as a reference for conformance testing.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 21122-1, *Information technology — JPEG XS low-latency lightweight image coding system — Part 1: Core coding system*

ISO/IEC 21122-2, *Information technology — JPEG XS low-latency lightweight image coding system — Part 2: Profiles and buffer models*