



**International  
Standard**

**ISO/IEC 18181-2**

**Information technology — JPEG XL  
image coding system —**

**Part 2:  
File format**

*Technologies de l'information — Système de codage d'images  
JPEG XL —*

*Partie 2: Format de fichiers*

**Third edition  
2026-04**



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Published in Switzerland

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## 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.

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](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

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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 third edition cancels and replaces the second edition (ISO/IEC 18181-2:2024), which has been technically revised.

The main changes are as follows:

- [9.11](#) was added, specifying a new HDR gain map box;
- an informative note was added related to the combination of JUMBF and Brotli compression;
- clarifications were added to [Annex A](#) (JPEG bitstream reconstruction procedure).

A list of all parts in the ISO/IEC 18181 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](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

# Information technology — JPEG XL image coding system —

## Part 2: File format

### 1 Scope

This document specifies the transport and container formats for JPEG XL codestreams as specified in ISO/IEC 18181-1. This document specifies how to add metadata and extensions to JPEG XL codestreams. A file as described by this document is called a JPEG XL file.

### 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 18181-1:2024, *Information technology — JPEG XL image coding system — Part 1: Core coding system*

ISO/IEC 10918-1:1994, *Information technology — Digital compression and coding of continuous-tone still images: Requirements and guidelines*

ISO/IEC 19566-5, *Information technologies — JPEG systems — Part 5: JPEG universal metadata box format (JUMBF)*

IETF RFC 7932, J. ALAKUIJALA, & Z. SZABADKA. *Brotli Compressed Data Format. RFC Series. Available from*<sup>1)</sup>

ISO 21496-1, *Digital photography — Gain map metadata for image conversion — Part 1: Dynamic range conversion*

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- [2] ISO/IEC 15444-2:2023, *Information technology — JPEG 2000 image coding system — Part 2: Extensions*
- [3] ISO/IEC 21122-3, *Information technology — JPEG XS low-latency lightweight image coding system — Part 3: Transport and container formats*
- [4] ISO/IEC 23008-12:2025, *Information technology — High efficiency coding and media delivery in heterogeneous environments — Part 12: Image File Format*
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- [7] IETF RFC 6838, N. FREED, J. KLENSIN, & T. HANSEN. *Media Type Specifications and Registration Procedures. RFC Series. Available from*<sup>2)</sup>
- [8] W3C REC-xml-20081126, EVE MALER, FRANÇOIS YERGEAU, JEAN PAOLI, MICHAEL SPERBERG-MCQUEEN, & TIM BRAY. *Extensible Markup Language (XML) 1.0 (Fifth Edition)*. Recommendation. World Wide Web Consortium. Available from: <https://www.w3.org/TR/2008/REC-xml-20081126/>.

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2) <https://www.rfc-editor.org/info/rfc6838>.