
**Information technology — JPEG 2000
image coding system: Extensions for
three-dimensional data**

*Technologies de l'information — Système de codage d'images
JPEG 2000: Extensions pour données tridimensionnelles*



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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 15444-10 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. The identical text is published as ITU-T Rec. T.809.

This second edition cancels and replaces the first edition (ISO 15444-8:2008), which has been technically revised.

ISO/IEC 15444 consists of the following parts, under the general title *Information technology — JPEG 2000 image coding system*:

- *Part 1: Core coding system*
- *Part 2: Extensions*
- *Part 3: Motion JPEG 2000*
- *Part 4: Conformance testing*
- *Part 5: Reference software*
- *Part 6: Compound image file format*
- *Part 8: Secure JPEG 2000*
- *Part 9: Interactivity tools, APIs and protocols*
- *Part 10: Extensions for three-dimensional data*
- *Part 11: Wireless*
- *Part 12: ISO base media file format*
- *Part 13: An entry level JPEG 2000 encoder*

**INTERNATIONAL STANDARD
RECOMMENDATION ITU-T****Information technology – JPEG 2000 image coding system:
Extensions for three-dimensional data****1 Scope**

This Recommendation | International Standard is a work item subdivision of ISO/IEC 15444 that provides extensions of Rec. ITU-T T.800 | ISO/IEC 15444-1 and Rec. ITU-T T.801 | ISO/IEC 15444-2 for logically cuboidal data sets. In particular, it respects all existing capabilities and syntax of Rec. ITU-T T.800 | ISO/IEC 15444-1 and part of the existing capabilities of Rec. ITU-T T.801 | ISO/IEC 15444-2 for multi-component images, while providing alternatives and extensions to some of those capabilities. Within these constraints, it provides an isotropic specification for three-dimensional data sets, i.e., the project provides identical processing capabilities in all three dimensions even though Rec. ITU-T T.800 | ISO/IEC 15444-1 and Rec. ITU-T T.801 | ISO/IEC 15444-2 codestream syntax differentiates between the two spatial axes and the cross-component axis. The context models currently used in this Recommendation | International Standard are as in Rec. ITU-T T.800 | ISO/IEC 15444-1 and Rec. ITU-T T.801 | ISO/IEC 15444-2. Improved context models will be introduced through an amendment.

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

- Recommendation ITU-T T.800 (2002) | ISO/IEC 15444-1:2004, *Information technology – JPEG 2000 image coding system: Core coding system*.
- Recommendation ITU-T T.801 (2002) | ISO/IEC 15444-2:2004, *Information technology – JPEG 2000 image coding system: Extensions*.