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Australian Standard™

**Information technology—JPEG 2000
image coding system**

Part 1: Core coding system

This Australian Standard was prepared by Committee IT-029, Coded Representation of Picture, Audio and Multimedia/Hypermedia Information. It was approved on behalf of the Council of Standards Australia on 14 May 2004.
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OF

AS ISO/IEC 15444.1—2004

Information technology—JPEG 2000 image coding system
Part 1: Core coding system

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PREFACE

This Standard was prepared by the Standards Australia Committee IT-029, Coded Representation of Picture, Audio and Multimedia/Hypermedia Information.

This Standard is identical with, and has been reproduced from ISO/IEC 15444-1:2000, *Information technology—JPEG 2000 image coding system—Part 1: Core coding system* and its Amendment 1:2002, Technical Corrigendum 1:2002, Technical Corrigendum 2:2002 and Technical Corrigendum 3:2002 which are bound at the back of this Standard.

The objective of this Standard is to define a set of lossless (bit-preserving) and lossy compression methods for coding bi-level, continuous-tone grey-scale, palletised colour, or continuous-tone colour digital still images.

This Standard is Part 1 of AS ISO/IEC 15444, *Information technology—JPEG 2000 image coding system*, which when published will be available in parts as follows:

- Part 1: Core coding system (this Standard)
- Part 4: Conformance testing
- Part 6: Compound image file format
- Part 12: ISO base media file format

At the time of publication, Parts 2, 8, 18 and 19 were under development and had not been published by ISO/IEC.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO/IEC		AS	
10918	Information technology—Digital compression and coding of continuous tone still images	4473	Information technology—Digital compression and coding of continuous tone still images
10918-1	Part 1: Requirements and guidelines	4473.1	Part 1: Requirements and guidelines

Only referenced documents that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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AUSTRALIAN STANDARD

**INFORMATION TECHNOLOGY –
JPEG 2000 IMAGE CODING SYSTEM –
PART 1: CORE CODING SYSTEM****1 Scope**

This Recommendation | International Standard defines a set of lossless (bit-preserving) and lossy compression methods for coding bi-level, continuous-tone grey-scale, palletized color, or continuous-tone colour digital still images.

This Recommendation | International Standard

- specifies decoding processes for converting compressed image data to reconstructed image data
- specifies a codestream syntax containing information for interpreting the compressed image data
- specifies a file format
- provides guidance on encoding processes for converting source image data to compressed image data
- provides guidance on how to implement these processes in practice

2 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.

- ITU-T Recommendation T.81 | ISO/IEC 10918-1:1994, *Information technology — Digital compression and coding of continuous-tone still images: Requirements and guidelines.*
- ITU-T Recommendation T.88 | ISO/IEC 14492, *Information technology — Lossy/lossless coding of bi-level images.*
- ISO/IEC 646:1991, *Information technology — ISO 7-bit coded character set for information interchange.*
- ISO/IEC 8859-15:1999, *Information technology — 8-bit single-byte coded graphic character sets — Part 15: Latin alphabet No. 9.*
- ITU-T Recommendation T.84 | ISO/IEC 10918-3:1997, *Information technology — Digital compression and coding of continuous-tone still images: Extensions.*
- ITU-T Recommendation T.84 | ISO/IEC 10918-3:1997/Amd.1:1999, *Information technology — Digital compression and coding of continuous-tone still images: Extensions — Amendment 1: Provisions to allow registration of new compression types and versions in the SPIFF header.*
- ITU-T Recommendation T.86 | ISO/IEC 10918-4, *Information technology — Digital compression and coding of continuous-tone still images: Registration of JPEG profiles, SPIFF profiles, SPIFF tags, SPIFF colour spaces, APPn markers, SPIFF compression types and Registration Authorities (REGAUT).*