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Information technology — Digital compression and coding of continuous-tone still images: Extensions

*Technologies de l'information — Compression numérique et codage des
images fixes de nature photographique: Extensions*



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Contents

	<i>Page</i>
1 Scope	1
2 Normative references	1
3 Definitions, abbreviations, symbols and conventions	2
4 General	6
5 Compressed data format requirements	10
6 Encoder requirements	10
7 Decoder requirements	11
Annex A – Mathematical definitions	12
Annex B – Compressed data formats	14
Annex C – Variable quantization	28
Annex D – Selective refinement	31
Annex E – Tiling	34
Annex F – Still Picture Interchange File Format (SPIFF)	39
Annex G – Compliance testing	57
Annex H – Examples and guidelines	72
Annex I – Bibliography	80

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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.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. 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.

International Standard ISO/IEC 10918-3 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.84.

ISO/IEC 10918 consists of the following parts, under the general title *Information technology — Digital compression and coding of continuous-tone still images*:

- *Part 1: Requirements and guidelines*
- *Part 2: Compliance testing*
- *Part 3: Extensions*
- *Part 4: Registration procedures for JPEG profile, APPn marker and SPIFF profile ID marker*
- *Part 5: MHEG subset for base level implementation*

Annexes A to G form an integral part of this part of ISO/IEC 10918. Annexes H and I are for information only.

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Introduction

This Recommendation | International Standard, Digital compression and coding of continuous-tone still images, is published as three parts:

- CCITT Rec. T.81 | ISO/IEC 10918-1: Requirements and guidelines;
- ITU-T Rec. T.83 | ISO/IEC 10918-2: Compliance testing;
- ITU-T Rec. T.84 | ISO/IEC 10918-3: Extensions.

This Recommendation | International Standard sets out requirements and guidelines for encoding and decoding extensions to the processes defined by CCITT Rec. T.81 | ISO/IEC 10918-1, and for the coded representation of compressed image data of these extensions. This Recommendation | International Standard also defines tests for determining whether implementations comply with the requirements for the various encoding and decoding extensions.

This Recommendation | International Standard:

- defines extensions [including variable quantization, selective refinement, composite tiling, and a Still Picture Interchange File Format (SPIFF)] to processes for converting source image data to compressed image data;
- defines extensions to processes for converting compressed image data to reconstructed image data;
- defines coded representations for compressed image data;
- gives guidance and examples on how to implement these extensions in practice;
- describes compliance tests for these extensions.