INTERNATIONAL STANDARD

ISO/IEC 10918-4

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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)

Technologies de l'information — Compression numérique et codage des images fixes de nature photographique: Enregistrement des profils JPEG, profils SPIFF, «SPIFF tags», espaces de couleur SPIFF, marqueurs APPn, types de compression SPIFF et autorités d'enregistrement (REGAUT)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO/IEC 10918 may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 10918-4 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 Recommendation T.86.

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 of JPEG profiles, SPIFF profiles, SPIFF tags, SPIFF colour spaces, APPn markers, SPIFF compression types and Registration Authorities (REGAUT)*

— *Part 5: MHEG subset for base level implementation*

Annexes A to C of this part of ISO/IEC 10918 are for information only.

Please note that the following definitions were omitted in subclause 3.2 “Abbreviations and Acronyms”:

JBIG	Joint Bi-level Image experts Group
JPEG	Joint Photographic Experts Group
PTSMCR	Profiles, Tags, colour Spaces, Markers, Compression type and REGAUT
REGAUT	REGistration AUThority
SPIFF	Still Picture Interchange File Format

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

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)

1 Scope

This Recommendation | International Standard provides for the unique registration of JPEG and SPIFF Profiles, SPIFF Tags, SPIFF colour Spaces, application specific Markers, SPIFF Compression types and images Registration authorities as defined in the CCITT Rec. T.81 | ISO/IEC 10918-1 and ITU-T Rec. T.84 | ISO/IEC 10918-3. Unless otherwise specified, (P)rofiles, (T)ags, colour (S)paces, (M)arkers, (C)ompression types and image (R)egistration authorities will be referred to as PTSMCR items. ISO/IEC JTC 1 SC 29 will delegate to a designated Authority the role to collect, study, approve, register and disseminate the relevant information to allow for the customization of JPEG standard.

The following table gives an overview of the main issues about registration of PTSMCR items.

	Designation	Origin of requests	Qty range	Notes
P	Profile	std. implementers	units	fundamental issue
T	index Tag	application field	tens	various contents (Note 1)
S	colour Space	std implementers	units	technical issue
M	Marker	std implementers	units	restricted use
C	Compression	conceptor	units	standards use
R	REGAUT	institutions	thousands	through National Bodies (Note 2)

NOTE 1 – Tags can create a language problem, and this Recommendation | International Standard stipulates that only the English version of the content can be registered to avoid misunderstanding. The National Bodies should provide translation facilities for registrants in their countries.

NOTE 2 – Due to the large number of potential applicants, the PTSMCR Authority delegates the National Bodies to register new REGAUTs. This disposition solves the language and the legal problems raised from different countries.

2 Normative references

The following Recommendations and International Standards contain provisions which, through references 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.

2.1 Identical ITU-T Recommendations | International Standards

– CCITT Recommendation T.81 (1992) | ISO/IEC 10918-1:1994, *Information technology – Digital compression and coding of continuous-tone still images: Requirements and guidelines*.

– ITU-T Recommendation T.82 (1993) | ISO/IEC 11544:1993, *Information technology – Coded representation of picture and audio information – Progressive bi-level image compression [plus Technical Corrigendum 1 (1995)]*.

- ITU-T Recommendation T.83 (1994) | ISO/IEC 10918-2:1995, *Information technology – Digital compression and coding of continuous-tone still images: Compliance testing*.
- ITU-T Recommendation T.84 (1996) | ISO/IEC 10918-3:1997, *Information technology – Digital compression and coding of continuous-tone still images: Extensions*.

2.2 Additional references

- ITU-T Recommendation T.85 (1995), *Application profile for Recommendation T.82 – Progressive bi-level image compression (JBIG coding scheme) for facsimile apparatus*.
- ITU-T Recommendation T.87 (1998) | ISO/IEC 14495-1: 1998, *Information technology – Lossless and near-lossless compression of continuous-tone still images – Baseline*.
- ISO 3166-1:1997, *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes*.
- ISO 8601:1988, *Data elements and interchange formats – Information interchange – Representation of dates and times*.
- ISO 8859-1:1987, *Information processing – 8-bit single-byte coded graphic character sets – Part 1: Latin alphabet No. 1*.
- ISO 8859-2:1987, *Information processing – 8-bit single-byte coded graphic character sets – Part 2: Latin alphabet No. 2*.
- ISO 8859-3:1988, *Information processing – 8-bit single-byte coded graphic character sets – Part 3: Latin alphabet No. 3*.
- ISO 8859-4:1988, *Information processing – 8-bit single-byte coded graphic character sets – Part 4: Latin alphabet No. 4*.
- ISO 8859-5:1988, *Information processing – 8-bit single-byte coded graphic character sets – Part 5: Latin/Cyrillic alphabet*.
- ISO 8859-6:1987, *Information processing – 8-bit single-byte coded graphic character sets – Part 6: Latin/Arabic alphabet*.
- ISO 8859-7:1987, *Information processing – 8-bit single-byte coded graphic character sets – Part 7: Latin/Greek alphabet*.
- ISO 8859-8:1988, *Information processing – 8-bit single-byte coded graphic character sets – Part 8: Latin/Hebrew alphabet*.
- ISO/IEC 8859-9:1989, *Information processing – 8-bit single-byte coded graphic character sets – Part 9: Latin alphabet No. 5*.
- ISO/IEC 8859-10:1992, *Information technology – 8-bit single-byte coded graphic character sets – Part 10: Latin alphabet No. 6*.
- ISO/IEC 10646-1:1993, *Information technology – Universal Multiple-Octet Coded Character Set (UCS) – Part 1: Architecture and Basic Multilingual Plane*.
- CIE 1976 (L* a* b*) space, *CIE Publication No. 15.2, Colorimetry, 2nd Ed. (1986)*.