International Standard

ISO/IEC 10918-4

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

Part 4:
APPn markers

Technologies de l'information — Compression numérique et codage des images fixes à modelé continu —

Partie 4: Marqueurs APPn

Second edition
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This document was prepared by ITU-T (as ITU-T Rec T.86) and drafted in accordance with its editorial rules, in collaboration with Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This second edition cancels and replaces the first edition (ISO/IEC 10918-4:1999), which has been technically revised. It also incorporates the Amendment ISO/IEC 10918-4:1999/Amd 1:2013.

The main changes are as follows:

— cancels the provisions concerning the registration authority processes originally defined in the first edition.

A list of all parts in the ISO/IEC 10918 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 and www.iec.ch/national-committees.

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Rec. ITU-T T.86 (V2) (02/2024)

INTERNATIONAL STANDARD
ITU-T RECOMMENDATION

Information technology – Digital compression and coding of continuous-tone still images: APPn markers

1   Scope

This Recommendation | International Standard provides definitions for JPEG application specific markers found in Rec. ITU-T T.81 | ISO/IEC 10918-1 and Rec. ITU-T T.84 | ISO/IEC 10918-3.

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

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

–   Recommendation ITU-T T.84 | ISO/IEC 10918-3, *Information technology – Digital compression and coding of continuous-tone still images: Extensions*.

3   Definitions

The definitions used in Rec. ITU-T T.81 | ISO/IEC 10918-1, Rec. ITU-T T.84 | ISO/IEC 10918-3 and the following apply.

3.1   **identifier string**: The first m bytes of the application data APi (for $i = 1$ to m) of an application marker (APPn) segment containing a zero-terminated or multi-glyph character string, generally intended to serve as a unique identifier for the APPn marker segment.

4   Abbreviations and symbols

For the purposes of this Recommendation | International Standard, the symbols described in Rec. ITU-T T.81 | ISO/IEC 10918-1, Rec. ITU-T T.84 | ISO/IEC 10918-3 and the following abbreviation apply:

APPn   Application specific marker segment of type n

5   Conventions

None.

6   General

Annex A of this Recommendation | International Standard contains a list of known application markers (APPn) along with identifier strings. APPn markers are reserved by Rec. ITU-T T.81 | ISO/IEC 10918-1 for "application use". While Rec. ITU-T T.81 | ISO/IEC 10918-1 recommends (but does not require) that these markers be removed for interchange between different application domains, readers should be aware that the markers documented in this Recommendation | International Standard are all part of the same application domain, and their removal within this domain is discouraged. Application marker segments based on the same application marker (APPn) can be disambiguated by their identifier string. During parsing, applications should skip over application marker segments they do not understand or do not plan to interpret and should preserve them when updating information.

The intended use of the APPn marker list in Annex A is to identify those pairs of application markers and identifier strings that are reserved, to avoid conflicts when allocating application markers and to serve as a reference for implementations of Rec. ITU-T T.81 | ISO/IEC 10918-1.

7   Purpose of an APPn marker

To make codestreams defined in Rec. ITU-T T.81 | ISO/IEC 10918-1 as flexible as possible, a provision has been made that allows applications to usefully add information to an application marker. It should be noted, however, that such use is application specific and other applications may not recognize these markers. APPn markers can be used to signal anything an application requires. They allow enhanced or expanded capabilities to be implemented.

More precisely, the use of an APPn marker shall not prevent the expansion of the coded image when the marker is not recognized by a given implementation. The utility of the resulting image, however, can be limited by failure to recognize an APPn marker.

NOTE – Some APPn markers have been reserved by ITU | ISO/IEC in additional Recommendations | International standards, and their use can be normatively defined there. Annex A lists some of such markers, along with their origin.

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