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Electronic still-picture imaging — Removable memory —

Part 1: Basic removable-memory model

*Imagerie de prises de vue électroniques — Mémoire amovible —
Partie 1: Modèle de mémoire amovible de base*



Reference number
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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Reference model	2
4.1 General considerations	2
4.2 Image storage application profiles (ISAP)	3
4.3 Image data format	3
4.4 File system	3
4.5 Media profiles	4
5 Required characteristics for image storage application profiles	4
5.1 General	4
5.2 Interoperability	4
5.3 Flexibility	4
5.4 Extensibility	4
5.5 Ease of implementation	4
5.6 Platform independence	5
5.7 Multiple physical media types	5
5.8 Elimination of redundancy	5
6 Image data format specification	5
6.1 General considerations	5
6.2 Application layer for image data	5
6.3 Presentation layer	5
6.4 Image data formats	5
6.5 Application layer for sound data	21
6.6 Guidance for persisting metadata	21
7 File system requirements	25
7.1 General considerations	25
7.2 Directory structure and name	25
7.3 Object	26
7.4 Interoperability	26
7.5 Device requirement level	27
Annex A (normative) TIFF/EP image data format	28
Annex B (normative) Exif image data format	29
Annex C (normative) Image data format — JPEG 2000, Part 1 and 2	30
Annex D (informative) DCF file system	31
Bibliography	33

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

ISO 12234-1 was prepared by Technical Committee ISO/TC 42, *Photography*.

This third edition cancels and replaces the second edition (ISO 12234-1:2007), which has been technically revised.

ISO 12234 consists of the following parts, under the general title *Electronic still-picture imaging — Removable memory*:

- *Part 1: Basic removable-memory model*
- *Part 2: TIFF/EP image data format*

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Introduction

ISO 12234 addresses removable memory requirements for electronic still-picture cameras. Unlike a traditional photographic system, an electronic photography system divides the imaging chain into discrete components separately devoted to image acquisition, storage, transmission, processing and display. Since the components can be made by different manufacturers, there is a need to specify a standard format for data interchange among the various components of an electronic imaging system.

This part of ISO 12234 describes data interchange using removable storage media. The purpose of removable storage media is the storage of digitized images on media that is compact, is mechanically rugged, and has low power requirements. The removable storage media is used to transport the digitized image data to other components in the imaging chain.

This part of ISO 12234 further specifies the required information content for a removable memory data format. The information content includes both the image data and data items describing the image. Normative annexes A, B and C describe various conforming formats. The data features supported by each of these formats are also described in Clause 6. The information content further includes a description of the file system which organizes the files containing digitized image data. Informative Annex D describes a conforming file system. The file system features are described in Clause 7.

An implementation is said to be in compliance if, at a minimum, all mandatory elements are present. Recommended features are not required, but will substantially enhance interoperability, performance and/or robustness.

In developing this part of ISO 12234, a structured methodology was followed. A reference model describes the environment as well as the overall architecture in which this part of ISO 12234 is applicable. The architecture separates the software layers (termed the "image data format" and the "file system") from the hardware technology-dependent layer (termed the "media profile"). An image data format is media independent and contains the image data, image-related data and a means for structuring these data elements. A file system defines the data organization on the storage media used, but it is independent of the media.

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