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Information technology — Picture coding methods —

Part 1: Identification

*Technologies de l'information — Méthodes de codage d'image —
Partie 1: Identification*



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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 9281-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 9281 consists of the following parts, under the general title *Information technology — Picture coding methods*:

- *Part 1: Identification*
- *Part 2: Procedure for registration*

Annexes A and B of this part of ISO/IEC 9281 are for information only.

Introduction

This part of ISO/IEC 9281 specifies the identification methods for coding of pictorial information in digital form where the information can be stored, processed or interchanged by telecommunications or by the exchange of physical storage media. Techniques are provided to switch between picture coding methods in the picture coding environment, as well as to switch between the picture coding environment and coding systems according to ISO 2022. Thus, this part of ISO/IEC 9281 is limited to coding and does not address functional aspects which are covered by other International Standards, e.g. ISO 8613.

ISO 2022 deals with byte-oriented coding and extension techniques for graphic characters and control functions, and assigns specific areas of the code table to graphic characters and to control functions. In picture coding this structure cannot be retained. Picture coding methods constitute, therefore, coding systems different from that of ISO 2022. Indeed, the control functions may take the form of operations (opcodes) and operands.

Because this part of ISO/IEC 9281 is intended to serve as a basis for a number of other standards for specific picture coding methods, an introduction to its basic concepts is included in annex B.

Information technology — Picture coding methods —

Part 1: Identification

1 Scope

This part of ISO/IEC 9281 specifies the identification methods for coding of pictorial information in digital form. It does not specify the contents of the data field of a picture entity. For instance, this field may also contain audio and/or animation data associated with the data specifying the picture(s).

This part of ISO/IEC 9281 serves as a basis for a number of standards. In combination with one or more of those, pictorial information in digital form, using one or more methods of coding, may be built up into a document for visual comprehension. Graphic characters coded in accordance with other standards can also be combined with the picture information. The coded information from such a document may be processed, and transmitted by telecommunications systems.

This part of ISO/IEC 9281 also specifies a technique for switching between character-coded information and digital pictorial information, and between different picture coding methods.

2 Conformance

A picture coding method is in conformance with this part of ISO/IEC 9281 if it satisfies the requirements of clause 5, clause 6 and clause 7.

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9281. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9281 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2022:1986, *Information processing — ISO 7-bit and 8-bit coded character sets — Code extension techniques*.

ISO 2375:1985, *Data processing — Procedure for the registration of escape sequences*.

ISO 6429:1988, *Information processing — Control functions for 7-bit and 8-bit coded character sets*.

ISO/IEC 9281-2:1990, *Information technology — Picture coding methods — Part 2: Procedure for registration*.

International Register of Coded Character Sets To Be Used with Escape Sequences.

4 Definitions

For the purposes of this part of ISO/IEC 9281, the following definitions apply.

4.1 picture: A bounded representation of visual information. It may comprise, for example, a photograph, a diagram or a chart with captions, or a combination of these. It may also comprise audio and/or animation data associated with the visual information.

4.2 picture coding: The representation in digital form of a picture, particularly for storage, interchange or processing.

4.3 graphic element: A constituent of an array from which a picture is constructed.

4.4 picture coding method: A specific way of coding a distinctive type of graphic element constituting a picture.