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Information technology — ISO 8-bit code for information interchange — Structure and rules for implementation

Technologies de l'information — Code ISO à 8 éléments pour l'échange d'informations — Structure et règles de matérialisation

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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 4873 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This third edition cancels and replaces the second edition (ISO 4873 : 1986), which has been technically revised.

Annex A forms an integral part of this International Standard. Annexes B, C, D and E are for information only.

Information technology — ISO 8-bit code for information interchange — Structure and rules for implementation

1 Scope

This International Standard specifies an 8-bit code derived from, and compatible with, the 7-bit coded character set specified in ISO/IEC 646.

The characteristics of this code are also in conformance with the code extension techniques specified in ISO 2022.

This International Standard specifies an 8-bit code with a number of options. It also provides guidance on how to exercise the options to define specific versions.

This code is primarily intended for general information interchange within an 8-bit environment among data processing systems and associated equipment, and within data communication systems. The need for graphic characters and control functions in data processing has also been taken into account.

The code includes the 10 digits as well as the 52 small and capital letters of the basic Latin alphabet and may include accented letters, special Latin letters and/or the letters of one or several non-Latin alphabet(s).

2 Conformance and implementation

2.1 Conformance

2.1.1 Conformance of information interchange

A coded-character-data-element (CC-data-element) within coded information for interchange is in conformance with a version of this International Standard if all the coded representations of characters within that CC-data-element conform to the requirements of clause 9.

A claim of conformance shall identify the version adopted.

2.1.2 Conformance of devices

A device is in conformance with this International Standard if it conforms to the requirements of 2.1.2.1, and either or both of 2.1.2.2 and 2.1.2.3. A claim of conformance shall identify the document which contains the description specified in 2.1.2.1, and shall identify the version adopted.

2.1.2.1 Device description

A device that conforms to this International Standard shall be the subject of a description that identifies the means by which the user may supply characters to the device, or may recognize them when they are made available to him, as specified respectively in 2.1.2.2 and 2.1.2.3.

2.1.2.2 Originating devices

An originating device shall allow its user to supply any sequence of characters from the version adopted, and shall be capable of transmitting their coded representations within a CC-data-element.

2.1.2.3 Receiving devices

A receiving device shall be capable of receiving and interpreting any coded representations of characters that are within a CC-data-element, and that conform to 2.1.1, and shall make the corresponding characters available to its user in such a way that the user can identify them from among those of the version adopted, and can distinguish them from each other.

2.2 Implementation

The use of this code requires definitions of its implementation in various media. For example, these could include punched tapes, punched cards, magnetic and optical media and transmission channels, thus permitting interchange of data to take place either indirectly by means of an intermediate recording in a physical medium, or by local connection of various units (such as input and output devices and computers) or by means of data transmission equipment.

The implementation of this code in physical media and for transmission, taking into account the need for error checking, is the subject of other International Standards.

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 646: 1991 *Information technology - ISO 7-bit coded character set for information interchange.*

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

ISO/IEC 6429:[1] *Information technology - Control functions for 7-bit and 8-bit coded character sets.*

ISO/IEC 10367: 1991 *Information technology - Standardized coded graphic character sets for use in 8-bit codes.*

ISO International Register of Coded Character Sets to be Used with Escape Sequences (ISO 2375).

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1) To be published.