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Information technology — ISO 7-bit coded character set for information interchange

*Technologies de l'information — Jeu ISO de caractères codés à 7
éléments pour l'échange d'informations*



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

This third edition cancels and replaces the second edition (ISO 646 : 1983) which has been technically revised.

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

Information technology — ISO 7-bit coded character set for information interchange

1 Scope

This International Standard specifies a set of 128 characters, (control characters and graphic characters such as letters, digits and symbols) with their coded representation. Most of these characters are mandatory and unchangeable, but provision is made for some flexibility to accommodate national and other requirements.

This International Standard specifies a 7-bit coded character set with a number of options. It also provides guidance on how to exercise the options to define specific national versions and application-oriented versions. Furthermore it specifies the International Reference Version (IRV) in which such options have been exercised.

This character set is primarily intended for the interchange of information 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 in determining this character set.

This character set is applicable to alphabets of the Latin script.

This character set allows the use of control characters for code extension where its character set is insufficient for particular applications. Procedures for the use of these control characters are specified in ISO 2022.

The definitions of the control characters mentioned in this International Standard are specified in ISO 6429. It is assumed that data associated with them are to be processed serially in a forward direction. When they are included in strings of data which are processed other than serially in a forward direction or when they are included in data formatted for fixed-record processing they may have undesirable effects or may require additional special treatment to ensure that they result in their desired function.

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 this International Standard if all the coded representations of characters within that CC-data-element conform to the requirements of 8.1 of this International Standard.

A claim of conformance shall identify the version adopted in accordance with 8.2 to 8.4.

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 below. A claim of conformance shall identify the version adopted.