AS 3716—1989

ISO 4873-1986

Australian Standard®

Character sets and information coding—ISO 8-bit code for information interchange—Structure and rules for implementation

(ISO Title: Information processing—ISO 8-bit code for information interchange—Structure and rules for implementation)

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Australian Information Industries Association
CSIRO, Division of Information Technology
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Data media manufacturers
Interface developers

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PREFACE

This Standard was prepared by Standards Australia's Committee on Information Systems—Equipment. It is identical with, and has been reproduced from International Standard ISO 4873:1986, *Information processing—ISO 8-bit code for information interchange—Structure and rules for implementation.*

For the purpose of this Australian Standard, the text of the ISO Standard should be modified as follows:

(a) *Terminology.* The words 'Australian Standard' should replace the words 'International Standard' wherever they apply.

(b) *References.* The references to International Standards should be replaced by references to Australian Standards as follows:

International Standard		*Australian Standard*	
ISO		AS	
646	Information processing—ISO 7-bit coded character set for information interchange	1776	Information processing—ISO 7-bit coded character set for information interchange
2022	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques	1953	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques
6429	Information processing—Additional control functions for character-imaging devices	2761	Information processing—Additional control functions for character-imaging devices

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Character sets and information coding—ISO 8-bit code for information interchange—Structure and rules for implementation

1 Scope and field of application

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

This character set includes 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 References

ISO 646, *Information processing — ISO 7-bit coded character set for information interchange.*

ISO 1177, *Information processing — Character structure for start/stop and synchronous character-oriented transmission.*

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

ISO 6429, *Information processing — Additional control functions for character-imaging devices.*

ISO 6937/2, *Information processing — Coded character sets for text communication — Part 2: Latin alphabetic and non-alphabetic graphic characters.*

3 Conformance and implementation

3.1 Conformance

An 8-bit code is in conformance with this International Standard if it is a version in accordance with clause 8. Equipment claimed to implement this International Standard shall be able to interchange information by means of a version of the 8-bit code at a specified level according to clauses 8 and 9; this version and level shall be identified in any such claim.

3.2 Implementation

The use of this code requires definitions of its implementation in various media. For example, these could include 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 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.

4 Definitions

For the purpose of this International Standard the following definitions apply.

4.1 bit combination: An ordered set of bits that represents a character or is used as part of the representation of a character.

4.2 character: A member of a set of elements used for the organization, control or representation of data.

4.3 coded character set; code: A set of unambiguous rules that establishes a character set and the one-to-one relationship between each character of the set and its coded representation by one or more bit combinations.

4.4 code extension: The techniques for the encoding of characters that are not included in the character set of a given code.

4.5 code table: A table showing the character allocated to each bit combination in a code.

4.6 control character: A control function the coded representation of which consists of a single bit combination.

4.7 control function: An action that affects the recording, processing, transmission or interpretation of data, and that has a coded representation consisting of one or more bit combinations.