Australian Standard®

INFORMATION PROCESSING IMPLEMENTATION OF THE 7-BIT CODED CHARACTER SET AND ITS EXTENSIONS

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Banks Automation Committee
Australian Bureau of Statistics
Australian Computer Users Association
Australian Public Service Board
CSIRO, Division of Computing Research
Department of Defence
Life Insurance Federation of Australia
Manufacturers of data processing equipment
National Library of Australia
Office Equipment Industry Association of Australia
Public Service Board, New South Wales
Qantas Airways Limited
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IMPLEMENTATION OF THE 7-BIT CODED CHARACTER SET AND ITS EXTENSIONS

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PREFACE

This standard was prepared by the Association's Committee on Computers and Information Processing. It is identical with and has been reproduced from International standards ISO 962, 1113, 1679 and 3275, drawn up by ISO/TC 97, Computers and Information Processing. Parts 1, 2 and 3 constitute revisions of AS 1061, 1062 and 1063 respectively, and accordingly supersede those standards. The revisions take account of corresponding revisions of the International standards. Part 4 is a new standard and is identical with ISO 3275. AS 1060, which was grouped with AS 1061-1063, is concurrently withdrawn.

The purpose of this standard is to specify methods of implementation of the Australian standard 7-bit coded character set defined in AS 1776, on various recording media such as punched tape, magnetic tape, punched cards and magnetic tape cassettes.

Initially, four parts are included. It is intended that further parts will be issued in the future covering other recording media.

Numeric values in the SI system in this standard may have been rounded during conversion from imperial measurements, and are therefore consistent with, but not exactly equal to, the values in the original design which were given using the imperial system. In use, the two should be neither intermixed nor reconverted. However, following the practice in the International standard, imperial values have been given in parentheses.

For the purpose of this Australian standard, the text of the ISO standards used herein should be modified as follows:

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

(b) *Decimal comma:* The decimal point should replace the decimal comma wherever it appears.

(c) *Cross-references:* The references to International Standards should be replaced by references to Australian standards as follows:

Reference to International Standard	*Appropriate Australian Standard*
ISO 646, 7-bit coded character set for information processing interchange	AS 1776, Information processing—7-bit coded character set for information interchange
ISO 1001, Magnetic tape labelling and file structure for information interchange	AS 1068, Magnetic tape labelling and file structure for information interchange
ISO 1154, Information processing—Punched paper tape—Dimensions and location of feed holes and code holes	AS 1069, Dimensions for punched paper tape for data interchange
ISO 1681, Information processing—Unpunched paper cards—Specification	AS 1244, Unpunched paper cards for information interchange
ISO 1682, Information processing—80 columns punched paper cards—Dimensions and location of rectangular punched holes	AS 1245, Dimensions and location of rectangular punched holes in 80 columns punched paper cards
ISO 1729, Information processing—Unpunched paper tape—Specification	AS 1341, Information processing—Unpunched paper tape
ISO 1862, Information processing—9-track 12.7 mm (0.5 in) wide magnetic tape for information interchange recorded at 8 rpmm (200 rpi)	AS 1008, 9-track 8 rpmm (200 rpi) magnetic tape for information interchange
ISO 1863, Information processing—9-track 12.7 mm (0.5 in) wide magnetic tape for information interchange recorded at 32 rpmm (800 rpi)	AS 1009, 9-track 32 rpmm (800 rpi) magnetic tape for information interchange
ISO 2022, Code extension techniques for use with ISO 7-bit coded character set	AS 1953, Code extension techniques for use with standard 7-bit coded character set
ISO 3407, Information processing—3.81 mm (0.50 in) magnetic tape cassette for information interchange, 32 bpmm (800 bpi), phase encoded	AS . . . .*
ISO 3788, Information processing—9-track 12.7 mm (0.5 in) wide magnetic tape for information interchange recorded at 63 rpmm (1 600 rpi) phase encoded.	AS 2241, 9-track, 12.7 mm (0.5 in) wide magnetic tape for information interchange recorded at 63 rpmm (1 600 rpi) phase encoded

* An Australian standard is in the course of preparation.

CONTENTS

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Information processing—Implementation of the 7-bit coded character set and its 7-bit and 8-bit extensions on 9-track 12,7 mm (0.5 in) magnetic tape

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the implementation of the 7-bit coded character set and its 7-bit and 8-bit extensions on 9-track 12,7 mm (0.5 in) magnetic tape.

2 REFERENCES

2.1 This International Standard refers to the 7-bit coded character set which is the subject of ISO 646, *7-bit coded character set for information processing interchange*, and ISO 2022, *Code extension techniques for use with the ISO 7-bit coded character set*.

2.2 The magnetic tape on which this character set is implemented is specified in the following ISO publications:

ISO/R 1862, *9-track 8 rpmm (200 rpi) magnetic tape for information interchange;*

ISO/R 1863, *9-track 32 rpmm (800 rpi) magnetic tape for information interchange;*

ISO 3788, *9-track 63 rpmm (1 600 rpi) phase-encoded magnetic tape for information interchange.*

2.3 The magnetic labelling is the subject of ISO 1001, *Magnetic tape labelling and file structure for information interchange.*

3 DEFINITIONS

(The figure on page 7 illustrates the following definitions.)

3.1 magnetic tape: A tape which will accept and retain magnetic signals intended for input, output and storage purposes on computers and associated equipment. [1)]

3.2 track: A longitudinal area on the tape along which a series of magnetic signals may be recorded. [1)]

3.3 reference edge: The edge farthest from an observer, or nearest the top of the page, when a tape is lying flat with the oxide side uppermost and the direction of movement for recording from left to right. [1)] (See figure.)

3.4 row: A transverse area on the tape along which magnetic signals of tracks are recorded.

3.5 block: A series of rows, limited by suitable marks, to be recorded and read as a group.

3.6 gap: A space left unused between blocks.

3.7 8 position environment: A set of eight positions, each available to record one bit.

4 SPECIFICATIONS

4.1 Track identification

There shall be 9 tracks on the tape and they shall be numbered consecutively from 1 to 9, with track 1 adjacent to the reference edge (see figure).

4.2 Data content

Each row contains one character only, with its parity check bit.

1) Definitions in accordance with ISO/R 1864, *Unrecorded magnetic tape for information interchange — 8 and 32 rpmm (200 and 800 rpi), NRZI, and 63 rpmm (1 600 rpi), phase-encoded.*