AS 1068—1980
UDC 681.327.64

Australian Standard 1068—1980

1987

INFORMATION PROCESSING— MAGNETIC TAPE LABELLING AND FILE STRUCTURE FOR INFORMATION INTERCHANGE

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Banks Payment Systems 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

Telecom Australia

Universities and Colleges

This standard, prepared by Committee MS/20, Computers and Information Processing, was approved on behalf of the Council of the Standards Association of Australia on 10 October 1980 and was published on 31 December 1980.

AUSTRALIAN STANDARD

MAGNETIC TAPE LABELLING AND FILE STRUCTURE FOR INFORMATION INTERCHANGE

AS 1068—1980

First published 1971
Second edition 1980

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR STREET, NORTH SYDNEY, N.S.W.

ISBN 0 7262 2079 5

PREFACE

This standard was prepared under the authority of the Association's Committee on Computers and Information Processing. It supersedes the first (1971) edition of this standard, and is identical with and has been reproduced from International Standard ISO 1001—1979 drawn up by ISO/TC 97, Computers and Information Processing.

The standard specifies an operating system for labelling magnetic tapes to provide protection from errors in handling data from magnetic tape.

This edition differs technically from the previous edition particularly in the introduction of the concept of levels of labelling, a different treatment of the user labels, and the deletion of the block sequence indication feature.

For the purpose of this Australian standard, the text of ISO 1001 given 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 962, 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	AS 2356, Part 2, Representation of the 7-bit coded character set on punched tape
ISO/R 1001, Magnetic tape labelling and file structure for information interchange	AS 1068, Magnetic tape labelling and file structure for information interchange (1971 edition)
ISO 1861, Information processing—7-track, 12,7 mm (0.5 in) wide magnetic tape for information interchange recorded at 8 rpmm (200 rpi)	AS 1007, 7-track 8 RPmm (200 RPI) magnetic tape for information interchange
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 8 RPmm (800 RPI) magnetic tape for information interchange
ISO 1864, Information processing—Unrecorded 12,7 mm (0.5 in) wide magnetic tape for information interchange—8 and 32 rpmm (200 and 800 rpi), NRZI, and 63 rpmm (1 600 rpi), phase encoded	AS 1011, Unrecorded magnetic tape for information interchange—8 and 32 RPmm NRZI and 63 RPmm phase encoded
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, 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

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0 INTRODUCTION

The aim of this International Standard is to facilitate the interchange of information recorded on magnetic tapes between different users and different computers.

This is accomplished by means of magnetically recorded labels to identify and structure files, and by providing a means of describing the basic characteristics of the blocks containing the records that constitute a file.

The features provided by this International Standard allow the user to consider only the logical structure of his files.

This International Standard contains specifications for four levels of labelling. This provides a fully compatible, well-nested system of labels for use of smallest and simplest to largest and most sophisticated computing systems, and ensures the capability for interchange among the with fewest restrictions.

In most implementations of this International Standard a general purpose operating system will be in use, but in other cases there may only be installation or user written input/output routines which may form part of a special purpose operating system. This has been allowed for in this International Standard by avoiding the term "operating system" and using instead "label handling routines".

However, for proper implementation of this International Standard the installation or user written input/output routines are expected to provide the same minimum facilities as a general purpose operating system within the area defined by this International Standard.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the file structure for information interchange, and specifies magnetically recorded labels to identify the files, the file sections and the reels of tape.

This International Standard establishes four levels of label formats, blocking structures and tape-mark relationships on magnetically recorded tapes so that these volumes can be used for information interchange.

A recorded magnetic tape intended to be interchanged between systems of potentially different architecture is expected to correspond to one of these four levels. The constraints of this standard may not be needed to apply to data not intended for interchange between systems of potentially different architecture.

It is the intention of this International Standard, not that every instance of its implementation should necessarily include all of its provisions, but that each implementation be able to produce and accept volumes that correspond to a level selected by the implementors.

Failure to conform to this International Standard may result in loss of the ability to interchange data effectively.

2 REFERENCES

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

ISO 962, *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.*

ISO/R 1001, *Magnetic tape labelling and file structure for information interchange.*

ISO 1861, *Information processing — 7-track,* 12,7 mm (0.5 in) *wide magnetic tape for information interchange recorded at* 8 rpmm (200 rpi).

ISO 1862, *Information processing — 9-track,* 12,7 mm (0.5 in) *wide magnetic tape for information interchange recorded at 8 rpmm (200 rpi).*

ISO 1863, *Information processing — 9-track* 12,7 mm (0.5 in) *wide magnetic tape for information interchange recorded at* 32 rpmm (800 rpi).