INTERNATIONAL STANDARD ISO 3275

Information processing — Implementation of the 7-bit coded character set and its 7-bit and 8-bit extensions on 3,81 mm magnetic tape cassette for data interchange

Traitement de l'information — Matérialisation du jeu de caractères à 7 éléments et de ses extensions à 7 et 8 éléments pour l'échange d'information sur cassette de bande magnétique de 3,81 mm de large

First edition — 1974-11-01

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3275 was drawn up by Technical Committee ISO/TC 97, *Computers and information processing* and circulated to the Member Bodies in July 1973.

It has been approved by the Member Bodies of the following countries :

Australia	Ireland	Sweden
Belgium	Italy	Switzerland
Canada	Japan	Thailand
Czechoslovakia	Netherlands	Turkey
France	New Zealand	United Kingdom
Germany	Poland	U.S.A.
Hungary	Romania	U.S.S.R.

No Member Body expressed disapproval of the document.

Information processing — Implementation of the 7-bit coded character set and its 7-bit and 8-bit extensions on 3,81 mm magnetic tape cassette for data interchange

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the implementation of the 7-bit coded character set and of its 7-bit and 8-bit extensions for the interchange of data on 3,81 mm magnetic tape cassette.

2 REFERENCES

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

ISO 2022, *Code extension techniques for use with the 7-bit coded character set.*

ISO 3407, *Information processing — 3,81 mm (0.150 in) magnetic tape cassette for information interchange, 32 bp/mm (800 bpi), phase encoded.*[1]

3 DEFINITIONS

3.1 magnetic tape : Tape which will accept and retain magnetic signals intended for input, output and storage purposes on computers and associated equipment.

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

3.3 byte : A bit string that is operated upon as a unit, and whose size is independent of redundancy or framing techniques.

3.4 code; coded character set : A set of unambiguous rules that establishes a character set and the one-to-one relationship between the characters of the set and their bit combinations.

3.5 code extension : Techniques for the encoding of characters that are not included in the character set of a given code.
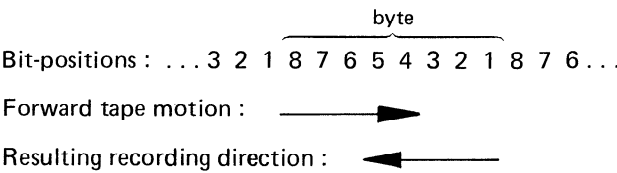
3.6 environment : The characteristic that identifies the number of bits used to represent a character in a data processing or data communication system or in part of such a system.

4 RECORDING FORMAT

According to ISO 3407, the data to be interchanged are recorded serially by bit and by character. Each character is located in a byte of eight bit-positions along the track. The bit-positions in a byte are numbered from 1 to 8 in order of recording.

The following diagram summarizes these concepts :

byte

Bit-positions : ...3 2 1 8 7 6 5 4 3 2 1 8 7 6 ...

Forward tape motion : ——————➤

Resulting recording direction : ◀——————

5 RECORDING OF 7-BIT CODED DATA

Each 7-bit coded character is recorded in bit-positions 1 to 7 of a byte; bit-position 8 is recorded with value ZERO.
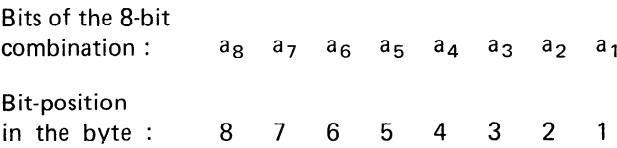
The relationship is as follows :

Bits of the 7-bit combination :	0	b_7	b_6	b_5	b_4	b_3	b_2	b_1
Bit-position in the byte :	8	7	6	5	4	3	2	1
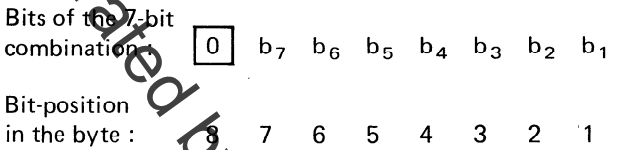
6 RECORDING OF 8-BIT CODED DATA

Each 8-bit coded character is recorded in bit-positions 1 to 8 of a byte.

The relationship is as follows :

Bits of the 8-bit combination :	a_8	a_7	a_6	a_5	a_4	a_3	a_2	a_1
Bit-position in the byte :	8	7	6	5	4	3	2	1

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1) At present at the stage of draft.