
**Information technology — File structure
and labelling of magnetic tapes for
information interchange**

*Technologies de l'information — Structure des fichiers et étiquetage des
bandes magnétiques pour l'échange d'information*



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Contents

Page

Foreword	v
1 Scope	1
2 Conformance	1
2.1 Conformance of a magnetic tape volume set	1
2.2 Conformance of an information processing system	1
3 Normative references	2
4 Terms and definitions	2
5 Notation	4
6 Arrangement of labels and files	4
6.1 Arrangement of data on a volume	4
6.2 Arrangement of label groups	4
6.2.1 Labels	4
6.2.2 Label sets	5
6.2.3 Label groups	5
6.3 Arrangement of file sections	5
6.3.1 File section	5
6.3.2 Labelled-Sequence	5
6.4 Relationship of file sections to a volume	6
6.5 Arrangement of files and file sets	6
6.5.1 Files	6
6.5.2 File sets	6
6.6 Structure of a volume set	7
7 File structure for data interchange	7
7.1 File structure for data interchange for a-characters	7
7.1.1 Blocks	7
7.1.2 Records	8
7.1.3 Files	9
7.2 File structure for data interchange for e-characters	10
7.2.1 Blocks	10
7.2.2 Records	10
7.2.3 Files	11
8 Format and contents of the labels and label sets	11
8.1 Format and contents of the labels and label sets for a-characters	11
8.1.1 Character set and coding	11
8.1.2 Justification of characters	12
8.1.3 Volume Header Label Set (VOL1 to VOL9)	12
8.1.4 Installation Volume Label Set (UVL1 to UVL9)	14
8.1.5 File Header Label Set (HDR1 to HDR9)	15
8.1.6 User File Header Label Set (UHL)	20
8.1.7 End of Volume Label Set (EOV1 to EOV9)	20
8.1.8 End of File Label Set (EOF1 to EOF9)	23
8.1.9 User File Trailer Label Set (UTL)	25
8.2 Format and contents of the labels and label sets for e-characters	26
8.2.1 Character set and coding	26
8.2.2 Justification of characters	26
8.2.3 Volume Header Label Set (VOL1)	26
8.2.4 File Header Label Set (HDR1 to HDR2)	28
8.2.5 User File Header Label Set (UHL1 to UHL8)	31

8.2.6	End of Volume Label Set (EOV1 to EOV2)	32
8.2.7	End of File Label Set (EOF1 to EOF2).....	33
8.2.8	User File Trailer Label Set (UTL1 to UTL8).....	35
9	Levels of interchange (only a-characters)	36
9.1	Level 1	36
9.2	Level 2	36
9.3	Level 3	36
9.4	Level 4	36
10	Requirements for the description of systems	36
11	Requirements for an originating system.....	37
11.1	Requirements for an originating system for a-characters	37
11.1.1	General.....	37
11.1.2	Files	37
11.1.3	Labels.....	37
11.1.4	Restrictions	39
11.2	Requirements for an originating system for e-characters	39
11.2.1	General.....	39
11.2.2	Files	39
11.2.3	Labels.....	39
12	Requirements for a receiving system.....	40
12.1	Requirements for a receiving system for a-characters	40
12.1.1	General.....	40
12.1.2	Files	41
12.1.3	Labels.....	41
12.1.4	Restrictions	42
12.2	Requirements for a receiving system for e-characters	42
12.2.1	General.....	42
12.2.2	Files	43
12.2.3	Labels.....	43
Annex A	(informative) Code tables for a-characters	45
A.1	a-characters.....	45
Annex B	(normative) Code Tables for e-characters	46
B.1	e-characters.....	46
Annex C	(informative) Initialized volumes	47
C.1	Purpose.....	47
C.2	Specification.....	47

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 1001 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 23, *Digitally Recorded Media for Information Interchange and Storage*.

This first edition of ISO/IEC 1001 cancels and replaces the second edition of ISO 1001:1986, which has been technically revised.

Information technology — File structure and labelling of magnetic tapes for information interchange

1 Scope

This International Standard specifies the file structure and the labelling of magnetic tapes for the interchange of information between users of information processing systems.

This International Standard also specifies

- volume and file structure;
- basic characteristics of the blocks containing the records constituting the file;
- recorded labels for identifying files, file sections and volumes of magnetic tapes;
- four nested levels of interchange.

Furthermore, this International Standard specifies requirements for the processes which are provided within information processing systems, to enable information to be interchanged between different systems, utilizing recorded magnetic tape as the medium of interchange. For this purpose it specifies the functions to be provided within systems which are intended to originate or receive magnetic tape volumes which conform to this International Standard.

2 Conformance

2.1 Conformance of a magnetic tape volume set

A magnetic tape volume set conforms to this International Standard when all information recorded on it conforms to the specifications of this International Standard. A Statement of conformance shall identify the lowest level of interchange to which the contents of the magnetic tapes conform.

A prerequisite to such conformance is conformance of each volume of the volume set to the same International Standard for information interchange on magnetic tapes.

2.2 Conformance of an information processing system

An information processing system conforms to this International Standard if it meets all the requirements specified in this International Standard either for an originating system, or for a receiving system, or for both types of system. A statement of conformance shall identify which of these sets of requirements can be met by the system.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 646, *Information technology — ISO 7-bit coded character set for information interchange*

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1 application program
program that processes the contents of records belonging to a file, and may also process selected attribute data relating to the file or to the volume(s) on which it is recorded

NOTE An application program is a specific class of user as defined in this International Standard.

4.2 block
group of bytes recorded on a magnetic tape as a unit

4.3 blocked
attribute of records that indicates that they may begin at a byte that is not the first byte of a block

4.4 byte
string of eight binary digits operated upon as a unit

4.5 file
named collection of information consisting of zero or more records

4.6 file section
part of a file that is recorded on any one volume

4.7 file set
collection of one or more files recorded consecutively on a set of volumes

4.8 fixed-length record
record contained in a file in which all records must have the same length

4.9 implementation
set of processes within an information processing system which enable that system to behave as an originating system, or as a receiving system, or as both types of system

4.10 Initialized volumes
magnetic tape already recorded in the first label group on the volume although no valid file sections are recorded (See Annex C)