

JIS

JAPANESE INDUSTRIAL STANDARD

**File Specification for Japanese
Documents Interchange
(Basic Type)**

JIS X 4001—1989

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In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

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J I S

File Specification for Japanese Documents
Interchange
(Basic Type)

X 4001-1989

1. Scope

This Japanese Industrial Standard specifies the specifications of the document files to be used in the case where interchange of Japanese documents primarily made up of characters is carried out by means of flexible disk cartridges between Japanese word processors or information processing machines having equal capability.

This Standard covers the following contents.

- (1) Configuration of document files
- (2) Classes and types of information constituting document files
- (3) Classes and functions of character codes (graphic characters and control characters) to be used

2. Definitions

For the main terms used in this Standard the definitions in the Japanese Industrial Standards dealing with information processing terms apply, and the rest of the terms shall be as follows.

- (1) document A piece of information which is expressed in a two-dimensional form for human understanding and indicated, for example, in print on paper or on screens. In this Standard, a document consists of one or more pages and has a document format information which defines the initial value of the format at time of creation of the document.
- (2) document file A file which consists of one or more documents as the object of interchange of Japanese documents. Further, a document file consists of a document header and a document data part. A document is contained in a medium as a pair of document header information in the document header and a document body in the document data part.

- (3) file A string of related records to be treated as one unit. A file can be contained in the whole body or a part of one volume.
- (4) volume A physical unit of data medium which is mountable and dismountable. In this Standard, a flexible disk cartridge corresponds to this. In a volume, either a whole body or a part of a file, or two or more files can be contained.
- (5) record A set of continuous data forming a unit for containing and reading on a medium. In this Standard, it is the length of 256 bytes.
- (6) extent A string of records having the address of continuous rising order.
- (7) system label An assembly of the volume header label, file header label and the like specified in JIS X 0603.
- (8) document header information A piece of information which is placed before the document body to be contained in a document file and which identifies each document and indicates its place of storage, attribute of document, etc.
- (9) documents interchange level The level of documents classified according to the classes of coded representation of characters handled in the documents to be interchanged, controlling functions, etc.
- (10) documents format information Information which determines the dimensions of paper on which documents are printed, physical arrangement of characters on paper, physical representation method of individual characters, etc. In this Standard, it is used for signifying the initial value of the format of the interchanged documents.
- (11) control function A control string which starts with a control character or a special function expressed by it.
- (12) graphic characters Characters other than the control function suited for visual representations of print and display.
- (13) text One or more pages of graphic characters and strings of control functions in a document.
- (14) page A text divided due to physical restriction of paper or style of document.
- (15) line The one-dimensional arrangement of characters on a page, which is a unit for dividing a page in the character direction.
- (16) character pitch The distance between characters in arranging characters in a line.
- (17) line pitch The distance between the lines arranged.
- (18) character direction The reading direction of characters.
- (19) line direction The direction at right angles to the reading direction of characters.

- (20) vertical writing Such an arrangement of characters that the characters in each line are read vertically from top to bottom.
- (21) horizontal writing Such an arrangement of characters that the characters in each line are read horizontally from the left to the right.
- (22) active position The position of the character which is intended to be treated next. After treatment, the active position usually advances by one character.
- (23) line home position A position where the first character of line starts. This is the starting position of the left end character in the case of horizontal writing, and that of the upper end character in the case of vertical writing, and is the character position next to the margin corresponding to the number of characters present in the margin column of document format information in the character direction.
- (24) end position of line The position of the last character in a line. This is the right end in the case of horizontal writing and the terminating position of the lowermost character in the case of vertical writing, and is the character position corresponding to the sum of the number of characters in the margin column in the character direction of document format information and the number of characters per line in the character number column.
- (25) full size The usual size of a character in the character direction.
- (26) half size The size of a character in the character direction which is 50 % of the full size.
- (27) double size The size of a character in the character direction which is 200 % of the full size.

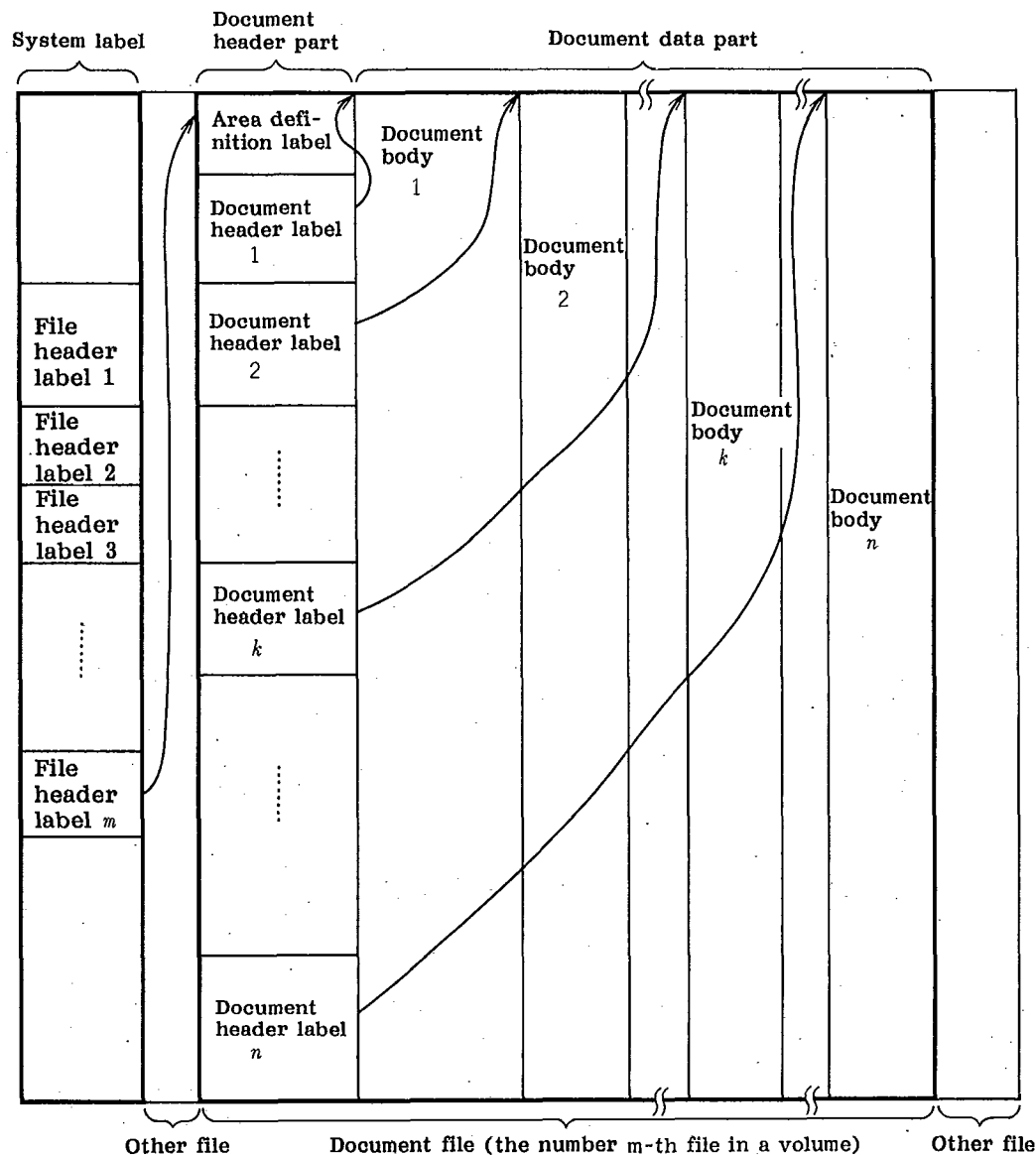
3. Configuration of File for Japanese Document Interchange (Basic Type)

3.1 Document File The document file shall be a file constituted on a flexible disk cartridge in accordance with JIS X 0603, and shall be of the non-blocking type of 256 bytes per sector.

The document file shall be composed of the document header part and the document data part.

The document treated in this Standard shall be composed of the document header label and the document body. The document header label and the document body shall be represented in the document header and the document data part on the document file in correspondence to each other, respectively. The positioning and configuration of the document file shall be as given in Fig. 1.

Fig. 1. Positioning and Configuration of Document File



- Remarks 1. The document k shall be comprised of the document header label k and the document body k ($k: 1$ to n).
2. The area definition label shall be in accordance with 4.2.

3.2 Document Header The document header shall be positioned at the top of the document file and comprised of one area definition label and one or more document header labels. The area definition label shall be the area definition information which designates the area of the document header, and its contents shall be in accordance with 4.2.

The document header labels shall be the document header information which designates the containing place and the like of documents in a file, and their contents shall be in accordance with 4.3.

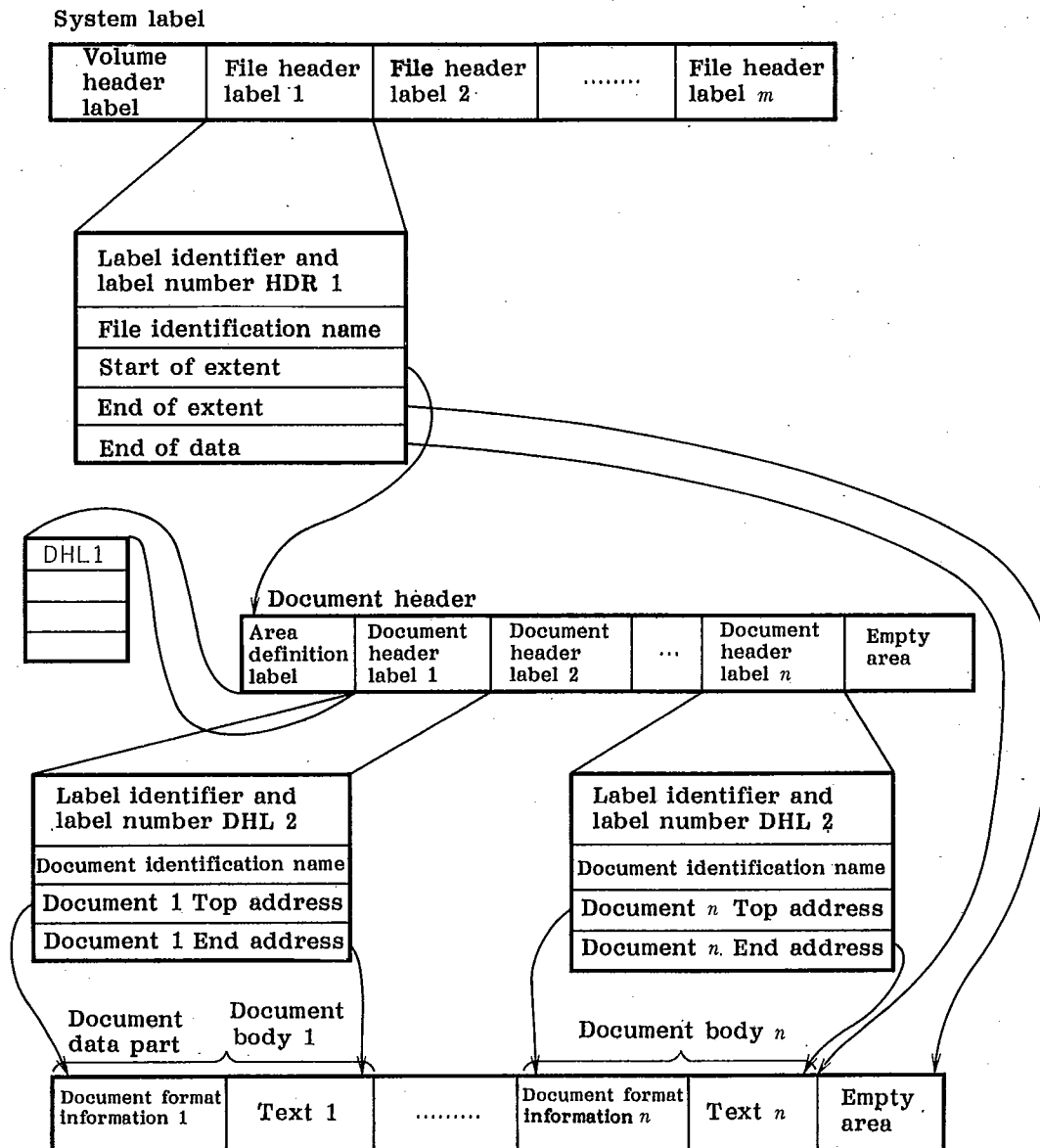
3.3 Document Data Part The document data part shall be comprised of one or more document bodies defined by the document header label in the document header. One document body shall be comprised of one document format information and one text. The document format information shall be contained at the top of the document body, and its contents shall be in accordance with 5.2. The text and the block data part shall be as given in (1) to (4), and their contents shall be in accordance with 6.

- (1) The text shall be contained in the whole body or a part of one volume.
- (2) The text shall be commenced immediately after the preceding document format information.
- (3) The whole body or a part of the text shall be contained in the continuous record in the volume.
- (4) All of the characters from the control function DT (document detachment) in each document text to the terminal end of the document body shall be ignored at the time of document interchange.

The positioning of the document header and document data part on the document file shall be as given in Fig. 2.

Further, the format of system label shall be in accordance with Appendix 1.

Fig. 2. Positioning of Document Header and Document Data Part on Document File



Remarks 1. The detail of the file header label shall be in accordance with Appendix 1 Table 2.

2. One document body consists of one document format information and one text.

4. Document Header

4.1 Configuration of Document Header The document header shall be positioned at the top part of the document file, and shall consist of one area definition label and one or more document header labels.

4.2 Area Definition Label The area definition label shall indicate the area to store the header label of the document to be contained in the document file. The contents of the area definition label shall be as given in Table 1. The details shall be as given in (1) to (5).

Table 1. Area Definition Label

Position in label	Name	Length (byte)	Content
1 to 3	Label identifier	3	Graphic characters "DHL"
4	Label number	1	Digit "1"
5 to 103	(To be secured for future standardization)	99	Space
104 to 108	Address of last header label of document header	5	Digit
109 to 113	Terminating end address of document header	5	Digit
114 to 256	(To be secured for future standardization)	143	Space

Remark: The codes of characters representing the contents shall be in accordance with JIS X 0201.

- (1) Label Identifiers (Positions in label, 1 to 3) The columns for designating the label identifier, to be expressed by the graphic character "DHL".
- (2) Label Number (Position in label, 4) The column for designating the label number, to be expressed by the digit "1".
- (3) Addresses of Last Header Label of Document Header (Positions in label, 104 to 108) The columns for indicating the record numbers of last header label of document header. In this column, the corresponding record numbers counted from the top of a file shall be designated by the digit of 5 places, the number of the top record of the file being "00000".
- (4) Terminating end Addresses of Document Header (Positions in label, 109 to 113) The columns for indicating the record numbers of the terminating end of document header. In this column, the corresponding record numbers counted from the top of a file shall be designated by the digit of 5 places, the number of the top record of the file being "00000".
- (5) Columns to Be Secured for Future Standardization (Positions in label, 5 to 103, 114 to 256) The columns secured for future standardization to be filled with spaces.

4.3 Document Header Labels The document header labels shall be prepared for each document included in a document file, and it shall indicate the identification of document, designation of containing place in the file, document interchange level, etc.

The first document header label shall be recorded immediately after the area definition label, that is, in the record number "00001".

The succeeding document header labels shall be recorded immediately after the preceeding document header labels.

The contents of the document header labels shall be as given in Table 2. The details shall be as given in (1) to (15).

- (1) Label Identifiers (Positions in label, 1 to 3) The columns for indicating the label identifiers, to be expressed by the graphic characters "DHL".
- (2) Label Number (Position in label, 4) The column for indicating the label number, to be expressed by digit "2".
- (3) Document Identification Names (Positions in label, 6 to 65)
The columns for identifying documents, to be expressed by graphic characters. The document identification name shall be designated for the document by the writer of document at the time of creating it.
- (4) Names of Author (Positions in label, 66 to 85) The columns for indicating the authors of documents, to be expressed by graphic characters.
- (5) Number of Editions (Positions in label, 86 and 87) The columns for indicating the number of editions of the documents, to be expressed by digits.
- (6) Creation Date (Positions in label, 88 to 95) The columns for indicating the creation dates of documents, to be expressed by the digit of 6 places consisting of the lower 2 places of the year A.D., month of 2 places, and day of 2 places, with hyphens "-" between the year, the month and the day.
- (7) Number of Pages (Positions in label, 96 to 99) The columns for indicating the number of pages of document, to be expressed by digits.
- (8) Documents Interchange Levels (Positions in label, 101 and 102)
The columns for designating the documents interchange levels, and the classification made according to the coded representation of characters and control functions handled in the documents.

Digits "10": The coded representation of characters shall be graphic characters, and the control functions shall be 21 types given in Table 5.

Digits "11": The coded representation of characters shall be graphic characters, and the control functions shall be 16 types excluding CHT, HTSA, JFY, NUL and DT from Table 5.

- (9) Top Addresses of Document Body (Positions in label, 104 to 108)
The columns for indicating the top record numbers containing the document bodies, to be designated by the corresponding record numbers counted from the top of file by the digit of five places. The number of the top record of file shall be "00000".

- (10) Terminating End Addresses of Document Body (Positions in label, 109 to 113) The columns for indicating the final record numbers containing the document body, to be designated by the corresponding record numbers counted from the top of file by the digit of five places. The top record number of file shall be "00000".
- (11) Unused Byte Numbers of Final Record of Text (Position in label, 114 to 116) The byte numbers of the unused part in the record given in (10) shall be designated by the digit of three places.
- (12) Bypass Indicator (Position in label, 117) The column for indicating whether or not to ignore the particular document, to be designated by the following character.
- Space: do not ignore
- Graphic character "B": ignore
- (13) Passwords (Positions in label, 118 to 125) The columns for designating the passwords for documents, to be designated by the graphic characters of eight places. When a character string conforming to passwords has been given, the passwords are capable of reading the document. Only in the case where all of the graphic characters of eight places are spaces, no passwords shall be provided.
- (14) Document Memos (Positions in label, 197 to 256) In the case where it is required to furnish document memos, these are used for making entries.
- (15) Columns to Be Secured for Future Standardization (Positions in label, 5, 100, 103, 126 to 196) The columns secured for future standardization, to be filled with spaces.

Table 2. Document Header Labels

Positions in label	Name	Length (byte)	Content
1 to 3	Label identifier	3	Graphic characters "DHL"
4	Label number	1	Digit "2"
5	(To be secured for future standardization)	1	Space
6 to 65	Document identification name	60	Graphic characters (JIS X 0208)
66 to 85	Author's name	20	Graphic characters (JIS X 0208)
86 and 87	Edition number	2	Digit