

# JIS

**JAPANESE INDUSTRIAL STANDARD**

**File Specification for Japanese  
Documents Interchange  
(Geometric Graphics)**

**JIS X 4003—1989**

**Translated and Published**

**by**

**Japanese Standards Association**

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

## Content

	Page
1. Scope .....	1
2. Definitions .....	1
3. Configuration of Extended File for Japanese Documents Interchange (Geometrical Graphics) .....	6
3.1 Document File .....	6
3.2 Document Header Part .....	7
3.3 Document Data Part .....	8
4. Document Header Part .....	10
4.1 Configuration of Document Header Part .....	10
4.2 Area Defining Label .....	10
4.3 Document Header Label .....	11
5. Document Data Part .....	15
5.1 Configuration of Document Data Part .....	15
5.2 Document Format Information .....	15
6. Text .....	18
6.1 Configuration of Text .....	18
6.2 Graphic Characters .....	18
6.3 Control Functions .....	18
6.3.1 Types and Representations of Control Functions .....	18
6.3.2 Functions of Control Functions .....	23
6.3.3 Representation of Control Functions .....	29
6.4 Fundamental Conditions of Control Functions .....	31
7. Block Data Part .....	31
7.1 Configuration of Block Data Part .....	31
7.2 Correlation with Block in Document .....	32
7.3 Positioning of Block and Text in Document .....	32
7.4 Block Format Information .....	33
8. Geometrical Graphic Data .....	34
8.1 Configuration of Geometrical Graphic Data .....	34
8.2 Geometrical Graphic Attributes .....	34
8.2.1 Format Attributes .....	34
8.2.2 Predetermined Value Attributes .....	38

	Page
8.3 Geometrical Graphic Data String .....	43
8.3.1 Configuration of Geometrical Graphic Data String .....	43
8.3.2 Operation Codes .....	44
8.3.3 Parameters .....	45
8.4 Representation of Geometrical Graphics .....	51
8.4.1 Display in Block Area .....	51
8.4.2 Graphical Primitive .....	51
8.4.3 Attribute Elements .....	56
8.4.4 Combination of Graphical Primitive with Attribute Element ..	65
Annex 1 System Label .....	69
Annex 2 Omission of Document Format Information .....	73
Annex 3 Page Format .....	74
Annex 4 Representation of Geometrical Graphics .....	76
1. Positioning of Geometrical Graphics .....	76
1.1 Geometrical Graphic Area .....	76
1.2 Mapping of Geometrical Graphics .....	77
2. Representation of Graphics .....	77
Annex 5 Description Rules of Geometrical Graphic Data .....	92
1. Geometrical Graphic Data String .....	92
2. Operation Code .....	92
3. Parameter String .....	92
4. Parameters .....	92
4.1 General Rules .....	92
4.2 Integer Values .....	93
4.3 Bit String .....	94
4.4 Real Number (R) .....	94
4.5 Coordinates (P) .....	95
4.6 Coordinate List (nP) .....	95
4.7 Color Index List (nCI) .....	95
4.7.1 General Rule .....	95
4.7.2 Usual Format .....	96
4.7.3 Compressed Format .....	96

	Page
4.7.4 Usual Repeated Format .....	97
4.7.5 Compressed and Repeated Format .....	97
4.8 Direct Color Designation Value List (nCD) .....	97
4.8.1 General Rule .....	97
4.8.2 Bit String of Direct Color Designation Values .....	98
4.8.3 Usual Format .....	99
4.8.4 Compressed Format .....	99
4.9 Text of Graphic (S) .....	99
4.10 Data Record (D) .....	100
Annex 6 Representation Format of Numerical Value Data .....	101
1. 1st Format of Representation of Numerical Values .....	101
1.1 General Format .....	101
1.2 Examples of Representation .....	101
1.3 Meanings .....	102
2. 2nd Format of Representation of Numerical Values .....	102
2.1 General Format .....	103
2.2 Examples of Representation .....	103
2.3 Meanings .....	104

File Specification for Japanese Documents Interchange X 4003-1989  
(Geometric Graphics)**1. Scope**

This Japanese Industrial Standard specifies the specifications of document files to be used in the case where the Japanese document interchanges based on characters and geometrical graphics are carried out, using flexible disk cartridges, between the Japanese word processors or between the information processing machines having functions equal to these.

This Standard specifies the following contents.

- (1) Configuration of the document file
- (2) Types and formats of information constituting the document file
- (3) Types and functions of character codes (graphic characters and control characters) to be used
- (4) Configuration of block data
- (5) Representation of geometrical graphics and storage formats of descriptive information

**2. Definitions**

For the purposes of this Standard, the following definitions apply, and the others are in accordance with the Japanese Industrial Standards related to information processing terms.

- (1) **document** Information represented in two-dimensional form so as to be comprehended by humans, for example, that which is printed on paper or displayed on screens. In this Standard, the document consists of not less than one page containing document format information which defines the initial value of the format at the time of the creation of the document.
- (2) **document file** A file consisting of one or more documents which are the objects of the interchange of Japanese documents. The document file consists of a document header part and a document data part. One document is stored on a medium in the form of a pair of the document header information in the document header part and the document substance in the document data part.