

KOREAN INDUSTRIAL STANDARD

Handprinted Symbols for Optical Character Recognition

1. Scope

This Korean Industrial Standard specifies the shape and the size of handprinted symbols for optical character recognition (hereinafter referred as "OCR") as used for optical character recognition.

2. Definitions

The main terms used in this standard shall be defined as follows.

(1) Symbol

Symbols shall be 36 characters of the following:

V + - . / ! ? " ' , . : ; = > @ W \$ ¥ # % & () { } [] ^ _ ` ~ * + =

(2) Character

Figure to express the information.

(3) Shape of Character

Shape of each character.

(4) Form of Character

A set of shapes of characters specified uniformly for a group of characters.

(5) Line Element

Segment of line having the width to compose each shape of character.

(6) Line Width

Width of line element forming the shape of character.

(7) Line Gap

Intentional gap between the line elements for the purpose of preserving character shape.

Remark Examples are = @ ? and % , etc.

(8) Line projection

Line element crossing shortly and almost vertically to the line element.

Remark Examples are + \$, etc.

(9) Line Edge

Short line element attached almost perpendicularly to the start or end point of the line element.

(10) Point

Line element forming outline.

Remark Examples are ? ! . , etc.

(11) Concave Depth

Horizontally or vertically measured depth of concave portions of symbols. (Refer to Figure 1).

(12) Base Side

Side forming the base for recognition by a machine (Refer to Figure 2).

(13) Printing Frame

Rectangle having sides parallel and perpendicular to the side, the inside of which represents the space for the printing of one character (Refer to Figure 2).

(14) Width of Printing Frame

Horizontal inside dimension of a printing frame (Refer to Figure 2).

(15) Height of Printing Frame

Vertical inside dimension of a printing frame (Refer to Figure 2).

(16) Printing Area

Minimum rectangular area of a group of continuous printing frames in one line (Refer to Figure 2).

(17) Pitch between Printing Frames

Horizontal distance center to center of two adjacent printing frames in a printing area (Refer to Figure 2).

(18) Row Spacing

Vertical distance center to center of two adjacent printing frames in a column (Refer to Figure 2).

(19) Space between Printing Frames

Horizontal distance between two adjacent printing frames in a printing area(Refer to Figure 2).

(20) Character Boundary

Minimum rectangular area having sides parallel and perpendicular to the base side and including all the line elements of one shape of character (Refer to Figure 2).

(21) Line Element Boundary

Character boundary which is formed when one of the line elements forming a character is regarded as a shape of character.

(22) Slope of Vertical Line Element

Ratio of horizontal side to vertical side in line element boundary of a vertical line element forming a shape of character(Refer to Figure 4).

(23) Slope of Horizontal Line Element

Ratio of vertical side to horizontal side in a line element boundary of a horizontal line element forming a shape of character(Refer to Figure 4).

(24) Decision Area

Rectangular area parallel and perpendicular to a base side which includes one printing area and the space around it (Refer to Figure 3).

(25) Indiscernible Color

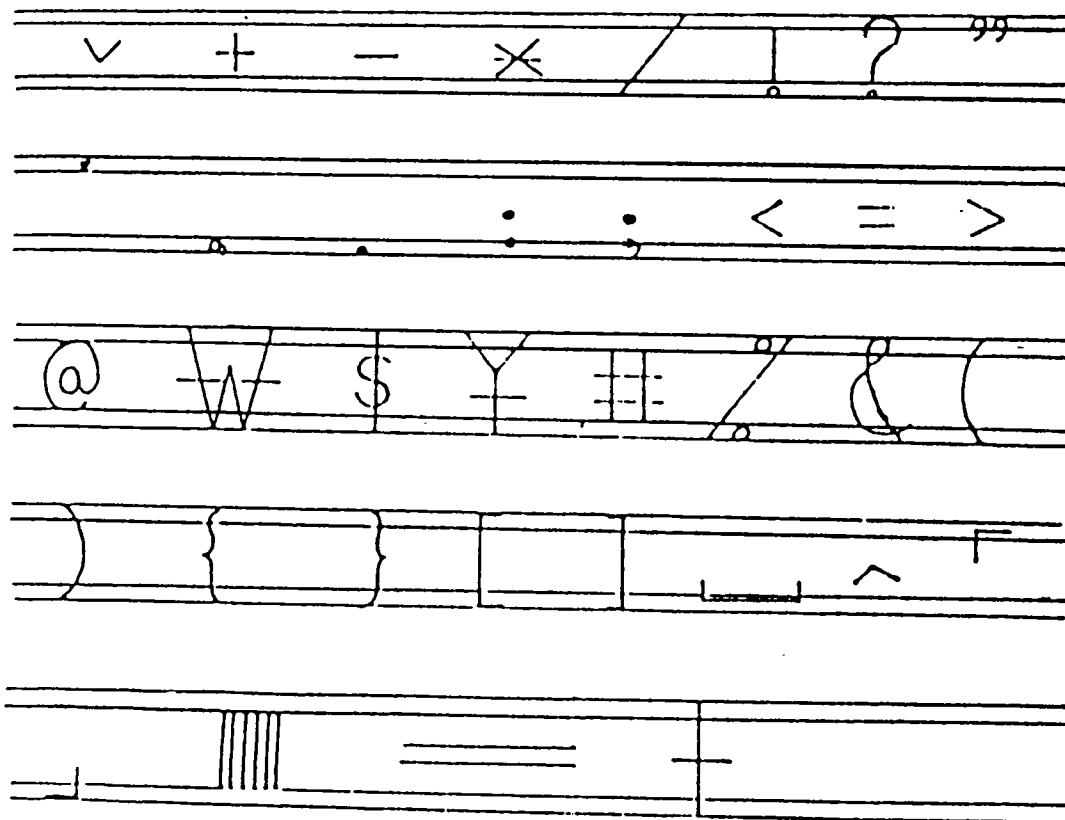
Color having hue and darkness indiscernible with OCR equipment but distinguished from environmental space by human eye.

3. Type and Designation of Character Form

There shall be only one type of character form and its designation shall be OCR—HS.

4. Shapes of Characters

The shapes of characters shall be as follows.



5. Name of Symbol

Name of symbol shall comply with Appendix 1.

6. Frequency of Use of Symbol

Symbols shall be organized into groups together with the alphabet and the figures according to the frequency in use in OCR. Four frequencies shall be defined as follows:

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Common      :      III =
First frequency :      + - . # * / W
Second frequency :      , : ; = @ " $ ' & ( ) % ¥
Third frequency :      _ ! + ^ ? { } [ ] \ ^ _
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