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## Information processing — 8-bit single-byte coded graphic character sets

### Part 3: Latin alphabet No. 3

*Traitement de l'information — Jeux de caractères graphiques codés sur un seul octet —*

*Partie 3: Alphabet latin n° 3*

[ISO 8859-3:1988](#)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborate closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8859-3 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

ISO 8859 consists of the following parts, under the general title *Information processing — 8-bit single-byte coded graphic character sets*:

- Part 1: Latin alphabet No. 1
- Part 2: Latin alphabet No. 2
- Part 3: Latin alphabet No. 3
- Part 4: Latin alphabet No. 4
- Part 5: Latin/Cyrillic alphabet
- Part 6: Latin/Arabic alphabet
- Part 7: Latin/Greek alphabet
- Part 8: Latin/Hebrew alphabet

## Introduction

ISO 8859 consists of several parts. Each part specifies a set of up to 191 graphic characters and the coded representation of each of these characters by means of a single 8-bit byte. The use of control functions for the coded representation of composite characters is prohibited by ISO 8859. Each set is intended for use for a group of languages.

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# Information processing — 8-bit single-byte coded graphic character sets —

## Part 3: Latin alphabet No. 3

### 1 Scope

This part of ISO 8859 specifies a set of 184 graphic characters identified as Latin alphabet No. 3.

This set of graphic characters, the Latin alphabet No. 3, is intended for use in data processing and text applications and may also be used for information interchange.

The set contains graphic characters used for general purpose applications in typical office environments in the following languages:

Afrikaans, Catalan, Dutch, English, Esperanto, German, Italian, Maltese, Spanish and Turkish.

This set of graphic characters is suitable for use in a version of an 8-bit code according to ISO 2022 or ISO 4873.

NOTE — ISO 8859 is not intended for use with CCITT-defined Telematic services. If information coded according to ISO 8859 is to be transferred to such services, it will have to conform at the coding interface to their requirements.

### 2 Conformance

A set of graphic characters is in conformance with this part of ISO 8859 if it comprises all graphic characters specified herein to the exclusion of any other and if their coded representations are those specified by this part of ISO 8859.

Equipment claimed to implement this part of ISO 8859 shall implement all 184 characters.

### 3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8859. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8859 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 646 : 1983, *Information processing — ISO 7-bit coded character set for information interchange.*

ISO 2022 : 1986, *Information processing — ISO 7-bit and 8-bit coded character sets — Code extension techniques.*

ISO 4873 : 1986, *Information processing — ISO 8-bit code for information interchange — Structure and rules for implementation.*

ISO 6429 : 1988, *Information processing — ISO 7-bit and 8-bit coded character sets — Control functions for coded character sets.*

### 4 Definitions

For the purpose of this part of ISO 8859 the following definitions apply:

**4.1 bit combination; byte:** An ordered set of bits that represents a character or is used as a part of the representation of a character.

**4.2 character:** A member of a set of elements used for the organization, control or representation of data.

**4.3 coded character set; code:** A set of unambiguous rules that establishes a character set and the one-to-one relationship between each character of the set and its coded representation.

**4.4 code table:** A table showing the character allocated to each bit combination in a code.

**4.5 graphic character:** A character, other than a control function, that has a visual representation normally handwritten, printed or displayed, and that has a coded representation consisting of one or more bit combinations.

NOTE — In ISO 8859 a single bit combination is used to represent each character.

**4.6 graphic symbol:** A visual representation of a graphic character.

**4.7 position:** That part of a code table identified by its column and row co-ordinates.

## 5 Notation, code table and names

### 5.1 Notation

The bits of the bit combinations of the 8-bit code are identified by  $b_8, b_7, b_6, b_5, b_4, b_3, b_2$  and  $b_1$ , where  $b_8$  is the highest-order, or most-significant bit and  $b_1$  is the lowest-order, or least-significant bit.

The bit combinations may be interpreted to represent numbers in binary notation by attributing the following weights to the individual bits:

|        |       |       |       |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Bit    | $b_8$ | $b_7$ | $b_6$ | $b_5$ | $b_4$ | $b_3$ | $b_2$ | $b_1$ |
| Weight | 128   | 64    | 32    | 16    | 8     | 4     | 2     | 1     |

Using these weights, the bit combinations of the 8-bit code represent numbers in the range 0 to 255.

In this part of ISO 8859 the bit combinations are identified by notations of the form  $xx/yy$ , where  $xx$  and  $yy$  are numbers in the range 00 to 15. The correspondence between the notations of the form  $xx/yy$  and the bit combinations consisting of the bits  $b_8$  to  $b_1$ , is as follows:

- $xx$  is the number represented by  $b_8, b_7, b_6$  and  $b_5$  where these bits are given the weights 8, 4, 2 and 1 respectively;
- $yy$  is the number represented by  $b_4, b_3, b_2$  and  $b_1$  where these bits are given the weights 8, 4, 2 and 1 respectively.

### 5.2 Layout of the code table

An 8-bit code table consists of 256 positions arranged in 16 columns and 16 rows. The columns and the rows are numbered 00 to 15.

The code table positions are identified by notations of the form  $xx/yy$ , where  $xx$  is the column number and  $yy$  is the row number.

The positions of the code table are in one-to-one correspondence with the bit combinations of the code. The notation of a code table position, of the form  $xx/yy$ , is the same as that of the corresponding bit combination.

### 5.3 Names and meanings

This part of ISO 8859 assigns at least one name to each character. In addition, it specifies a graphic symbol for each graphic character. By convention only capital letters, the graphic symbols of small letters and hyphens are used for writing the names of the characters.

The names chosen to denote graphic characters are intended to reflect their customary meaning. However, except for SPACE (SP), NO-BREAK SPACE (NBSP) and SOFT HYPHEN (SHY), this part of ISO 8859 does not define and does not restrict the meanings of graphic characters. Neither does it specify a particular style or font design for imaging graphic characters.

#### 5.3.1 SPACE (SP)

This character may be interpreted as a graphic character, a control character or as both. As a graphic character it has the visual representation consisting of the absence of a graphic symbol.

#### 5.3.2 NO-BREAK SPACE (NBSP)

A graphic character the visual representation of which consists of the absence of a graphic symbol, for use when a line break is to be prevented in the text as presented.

#### 5.3.3 SOFT HYPHEN (SHY)

A graphic character that is imaged by a graphic symbol identical with, or similar to, that representing HYPHEN, for use when a line break has been established within a word.

## 6 Specification of the coded character set

This part of ISO 8859 specifies 184 characters allocated to the bit combinations of the Code Table. None of these characters are "non-spacing".

The use of control functions, such as BACKSPACE or CARRIAGE RETURN for the coded representation of composite characters is prohibited by this International Standard.

### 6.1 Characters of the set and their coded representation

Table 1 — Character set — Coded representation

| Bit combination | Name               |
|-----------------|--------------------|
| 02/00           | SPACE              |
| 02/01           | EXCLAMATION MARK   |
| 02/02           | QUOTATION MARK     |
| 02/03           | NUMBER SIGN        |
| 02/04           | DOLLAR SIGN        |
| 02/05           | PERCENT SIGN       |
| 02/06           | AMPERSAND          |
| 02/07           | APOSTROPHE         |
| 02/08           | LEFT PARENTHESIS   |
| 02/09           | RIGHT PARENTHESIS  |
| 02/10           | ASTERISK           |
| 02/11           | PLUS SIGN          |
| 02/12           | COMMA              |
| 02/13           | HYPHEN, MINUS SIGN |
| 02/14           | FULL STOP          |
| 02/15           | SOLIDUS            |

| Bit combination | Name                 | Bit combination | Name                                    |
|-----------------|----------------------|-----------------|---|
| 03/00           | DIGIT ZERO           | 07/05           | SMALL LETTER u                          |
| 03/01           | DIGIT ONE            | 07/06           | SMALL LETTER v                          |
| 03/02           | DIGIT TWO            | 07/07           | SMALL LETTER w                          |
| 03/03           | DIGIT THREE          | 07/08           | SMALL LETTER x                          |
| 03/04           | DIGIT FOUR           | 07/09           | SMALL LETTER y                          |
| 03/05           | DIGIT FIVE           | 07/10           | SMALL LETTER z                          |
| 03/06           | DIGIT SIX            | 07/11           | LEFT CURLY BRACKET                      |
| 03/07           | DIGIT SEVEN          | 07/12           | VERTICAL LINE                           |
| 03/08           | DIGIT EIGHT          | 07/13           | RIGHT CURLY BRACKET                     |
| 03/09           | DIGIT NINE           | 07/14           | TILDE                                   |
| 03/10           | COLON                | 10/00           | NO-BREAK SPACE                          |
| 03/11           | SEMICOLON            | 10/01           | CAPITAL LETTER H WITH STROKE            |
| 03/12           | LESS-THAN SIGN       | 10/02           | BREVE                                   |
| 03/13           | EQUALS SIGN          | 10/03           | POUND SIGN                              |
| 03/14           | GREATER-THAN SIGN    | 10/04           | CURRENCY SIGN                           |
| 03/15           | QUESTION MARK        | 10/05           | This position shall not be used         |
| 04/00           | COMMERCIAL AT        | 10/06           | CAPITAL LETTER H WITH CIRCUMFLEX ACCENT |
| 04/01           | CAPITAL LETTER A     | 10/07           | PARAGRAPH SIGN                          |
| 04/02           | CAPITAL LETTER B     | 10/08           | DIAERESIS                               |
| 04/03           | CAPITAL LETTER C     | 10/09           | CAPITAL LETTER I WITH DOT ABOVE         |
| 04/04           | CAPITAL LETTER D     | 10/10           | CAPITAL LETTER S WITH CEDILLA           |
| 04/05           | CAPITAL LETTER E     | 10/11           | CAPITAL LETTER G WITH BREVE             |
| 04/06           | CAPITAL LETTER F     | 10/12           | CAPITAL LETTER J WITH CIRCUMFLEX ACCENT |
| 04/07           | CAPITAL LETTER G     | 10/13           | SOFT HYPHEN                             |
| 04/08           | CAPITAL LETTER H     | 10/14           | This position shall not be used         |
| 04/09           | CAPITAL LETTER I     | 10/15           | CAPITAL LETTER Z WITH DOT ABOVE         |
| 04/10           | CAPITAL LETTER J     | 11/00           | DEGREE SIGN, RING ABOVE                 |
| 04/11           | CAPITAL LETTER K     | 11/01           | SMALL LETTER h WITH STROKE              |
| 04/12           | CAPITAL LETTER L     | 11/02           | SUPERSCRIP TWO                          |
| 04/13           | CAPITAL LETTER M     | 11/03           | SUPERSCRIP THREE                        |
| 04/14           | CAPITAL LETTER N     | 11/04           | ACUTE ACCENT                            |
| 04/15           | CAPITAL LETTER O     | 11/05           | MICRO SIGN                              |
| 05/00           | CAPITAL LETTER P     | 11/06           | SMALL LETTER h WITH CIRCUMFLEX ACCENT   |
| 05/01           | CAPITAL LETTER Q     | 11/07           | MIDDLE DOT                              |
| 05/02           | CAPITAL LETTER R     | 11/08           | CEDILLA                                 |
| 05/03           | CAPITAL LETTER S     | 11/09           | SMALL LETTER i WITHOUT DOT ABOVE        |
| 05/04           | CAPITAL LETTER T     | 11/10           | SMALL LETTER s WITH CEDILLA             |
| 05/05           | CAPITAL LETTER U     | 11/11           | SMALL LETTER g WITH BREVE               |
| 05/06           | CAPITAL LETTER V     | 11/12           | SMALL LETTER j WITH CIRCUMFLEX ACCENT   |
| 05/07           | CAPITAL LETTER W     | 11/13           | VULGAR FRACTION ONE HALF                |
| 05/08           | CAPITAL LETTER X     | 11/14           | This position shall not be used         |
| 05/09           | CAPITAL LETTER Y     | 11/15           | SMALL LETTER z WITH DOT ABOVE           |
| 05/10           | CAPITAL LETTER Z     | 12/00           | CAPITAL LETTER A WITH GRAVE ACCENT      |
| 05/11           | LEFT SQUARE BRACKET  | 12/01           | CAPITAL LETTER A WITH ACUTE ACCENT      |
| 05/12           | REVERSE SOLIDUS      | 12/02           | CAPITAL LETTER A WITH CIRCUMFLEX ACCENT |
| 05/13           | RIGHT SQUARE BRACKET | 12/03           | This position shall not be used         |
| 05/14           | CIRCUMFLEX ACCENT    | 12/04           | CAPITAL LETTER A WITH DIAERESIS         |
| 05/15           | LOW LINE             | 12/05           | CAPITAL LETTER C WITH DOT ABOVE         |
| 06/00           | GRAVE ACCENT         | 12/06           | CAPITAL LETTER C WITH CIRCUMFLEX ACCENT |
| 06/01           | SMALL LETTER a       | 12/07           | CAPITAL LETTER C WITH CEDILLA           |
| 06/02           | SMALL LETTER b       | 12/08           | CAPITAL LETTER E WITH GRAVE ACCENT      |
| 06/03           | SMALL LETTER c       | 12/09           | CAPITAL LETTER E WITH ACUTE ACCENT      |
| 06/04           | SMALL LETTER d       | 12/10           | CAPITAL LETTER E WITH CIRCUMFLEX ACCENT |
| 06/05           | SMALL LETTER e       | 12/11           | CAPITAL LETTER E WITH DIAERESIS         |
| 06/06           | SMALL LETTER f       | 12/12           | CAPITAL LETTER I WITH GRAVE ACCENT      |
| 06/07           | SMALL LETTER g       | 12/13           | CAPITAL LETTER I WITH ACUTE ACCENT      |
| 06/08           | SMALL LETTER h       | 12/14           | CAPITAL LETTER I WITH CIRCUMFLEX ACCENT |
| 06/09           | SMALL LETTER i       | 12/15           | CAPITAL LETTER I WITH DIAERESIS         |
| 06/10           | SMALL LETTER j       | 13/00           | This position shall not be used         |
| 06/11           | SMALL LETTER k       | 13/01           | CAPITAL LETTER N WITH TILDE             |
| 06/12           | SMALL LETTER l       | 13/02           | CAPITAL LETTER O WITH GRAVE ACCENT      |
| 06/13           | SMALL LETTER m       |                 |   |
| 06/14           | SMALL LETTER n       |                 |   |
| 06/15           | SMALL LETTER o       |                 |   |
| 07/00           | SMALL LETTER p       |                 |   |
| 07/01           | SMALL LETTER q       |                 |   |
| 07/02           | SMALL LETTER r       |                 |   |
| 07/03           | SMALL LETTER s       |                 |   |
| 07/04           | SMALL LETTER t       |                 |   |

| Bit combination | Name                                    |
|-----------------|---|
| 13/03           | CAPITAL LETTER O WITH ACUTE ACCENT      |
| 13/04           | CAPITAL LETTER O WITH CIRCUMFLEX ACCENT |
| 13/05           | CAPITAL LETTER G WITH DOT ABOVE         |
| 13/06           | CAPITAL LETTER O WITH DIAERESIS         |
| 13/07           | MULTIPLICATION SIGN                     |
| 13/08           | CAPITAL LETTER G WITH CIRCUMFLEX ACCENT |
| 13/09           | CAPITAL LETTER U WITH GRAVE ACCENT      |
| 13/10           | CAPITAL LETTER U WITH ACUTE ACCENT      |
| 13/11           | CAPITAL LETTER U WITH CIRCUMFLEX ACCENT |
| 13/12           | CAPITAL LETTER U WITH DIAERESIS         |
| 13/13           | CAPITAL LETTER U WITH BREVE             |
| 13/14           | CAPITAL LETTER S WITH CIRCUMFLEX ACCENT |
| 13/15           | SMALL GERMAN LETTER SHARP s             |
| 14/00           | SMALL LETTER a WITH GRAVE ACCENT        |
| 14/01           | SMALL LETTER a WITH ACUTE ACCENT        |
| 14/02           | SMALL LETTER a WITH CIRCUMFLEX ACCENT   |
| 14/03           | This position shall not be used         |
| 14/04           | SMALL LETTER a WITH DIAERESIS           |
| 14/05           | SMALL LETTER c WITH DOT ABOVE           |
| 14/06           | SMALL LETTER c WITH CIRCUMFLEX ACCENT   |
| 14/07           | SMALL LETTER c WITH CEDILLA             |
| 14/08           | SMALL LETTER e WITH GRAVE ACCENT        |
| 14/09           | SMALL LETTER e WITH ACUTE ACCENT        |
| 14/10           | SMALL LETTER e WITH CIRCUMFLEX ACCENT   |
| 14/11           | SMALL LETTER e WITH DIAERESIS           |
| 14/12           | SMALL LETTER i WITH GRAVE ACCENT        |
| 14/13           | SMALL LETTER i WITH ACUTE ACCENT        |
| 14/14           | SMALL LETTER i WITH CIRCUMFLEX ACCENT   |
| 14/15           | SMALL LETTER i WITH DIAERESIS           |
| 15/00           | This position shall not be used         |
| 15/01           | SMALL LETTER n WITH TILDE               |
| 15/02           | SMALL LETTER o WITH GRAVE ACCENT        |
| 15/03           | SMALL LETTER o WITH ACUTE ACCENT        |
| 15/04           | SMALL LETTER o WITH CIRCUMFLEX ACCENT   |
| 15/05           | SMALL LETTER g WITH DOT ABOVE           |
| 15/06           | SMALL LETTER o WITH DIAERESIS           |
| 15/07           | DIVISION SIGN                           |
| 15/08           | SMALL LETTER g WITH CIRCUMFLEX ACCENT   |
| 15/09           | SMALL LETTER u WITH GRAVE ACCENT        |
| 15/10           | SMALL LETTER u WITH ACUTE ACCENT        |
| 15/11           | SMALL LETTER u WITH CIRCUMFLEX ACCENT   |
| 15/12           | SMALL LETTER u WITH DIAERESIS           |
| 15/13           | SMALL LETTER u WITH BREVE               |
| 15/14           | SMALL LETTER s WITH CIRCUMFLEX ACCENT   |
| 15/15           | DOT ABOVE                               |

## 6.2 Code table

The code table (table 2) shows the characters listed at the position in the code table corresponding to the specified bit combination.

The shaded positions correspond to bit combinations that do not represent graphic characters. Their use is outside the scope of ISO 8859; it is specified in other International Standards, for example ISO 646 or ISO 6429.

## 7 Designation of the character set

The graphic characters of this part of ISO 8859 constitute a single coded character set. However, when this character set is implemented together with other coding standards such as ISO 2022 or ISO 4873, the code table of this part of ISO 8859 shall be considered to consist of the following components:

- The character SPACE represented by bit combination 02/00.
- A 94-character G0 graphic character set represented by bit combination 02/01 to 07/14.
- A 96-character G1 graphic character set represented by bit combination 10/00 to 15/15.

When required by other coding standards, for example ISO 2022 or ISO 4873, the following pair of escape sequences shall be used:

ESC 02/08 04/02

ESC 02/13 04/03

to designate the G0 and the G1 sets, respectively. According to ISO 2022, the character SPACE does not require designation.

## 8 Bit combinations not to be used

Bit combinations 10/05, 10/14, 11/14, 12/03, 13/00, 14/03 and 15/00 are reserved for future standardization and shall not be used. They are cross-hatched in the code table (table 2).

Any allocation of characters to these positions is incompatible with this part of ISO 8859.



Table 2 – Code table of Latin alphabet No. 3

|    |    |    |    | b. | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1    | 1  | 1  | 1  | 1  |   |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|----|----|----|----|---|
|    |    |    |    | b. | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 0  | 0  | 0    | 0  | 1  | 1  | 1  | 1 |
|    |    |    |    | b. | 0  | 0  | 1  | 1  | 0  | 0  | 1  | 1  | 0  | 0  | 1    | 1  | 0  | 0  | 1  | 1 |
|    |    |    |    | b. | 0  | 1  | 0  | 1  | 0  | 1  | 0  | 1  | 0  | 1  | 0    | 1  | 0  | 1  | 0  | 1 |
|    |    |    |    | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11   | 12 | 13 | 14 | 15 |   |
| b. | b. | b. | b. |    |    |    |    |    |    |    |    |    |    |    |      |    |    |    |    |   |
| 0  | 0  | 0  | 0  | 00 |    |    | SP | 0  | @  | P  | `  | p  |    |    | NBSP | °  | À  | à  |    |   |
| 0  | 0  | 0  | 1  | 01 |    |    | !  | 1  | A  | Q  | a  | q  |    |    | Ɔ    | ħ  | Á  | á  |    |   |
| 0  | 0  | 1  | 0  | 02 |    |    | "  | 2  | B  | R  | b  | r  |    |    | ˘    | ²  | Â  | â  |    |   |
| 0  | 0  | 1  | 1  | 03 |    |    | #  | 3  | C  | S  | c  | s  |    |    | £    | ³  | Ë  | ë  |    |   |
| 0  | 1  | 0  | 0  | 04 |    |    | \$ | 4  | D  | T  | d  | t  |    |    | ¤    | ´  | Ä  | ä  |    |   |
| 0  | 1  | 0  | 1  | 05 |    |    | %  | 5  | E  | U  | e  | u  |    |    | μ    | ˘  | Ë  | ë  |    |   |
| 0  | 1  | 1  | 0  | 06 |    |    | &  | 6  | F  | V  | f  | v  |    |    | ˆ    | ˆ  | Ë  | ë  |    |   |
| 0  | 1  | 1  | 1  | 07 |    |    | '  | 7  | G  | W  | g  | w  |    |    | ˘    | -  | Ç  | ç  |    |   |
| 1  | 0  | 0  | 0  | 08 |    |    | (  | 8  | H  | X  | h  | x  |    |    | "    | ,  | È  | è  |    |   |
| 1  | 0  | 0  | 1  | 09 |    |    | )  | 9  | I  | Y  | i  | y  |    |    | ˘    | ˘  | É  | é  |    |   |
| 1  | 0  | 1  | 0  | 10 |    |    | *  | :  | J  | Z  | j  | z  |    |    | §    | §  | Ê  | ê  |    |   |
| 1  | 0  | 1  | 1  | 11 |    |    | +  | ;  | K  | [  | k  | {  |    |    | ˘    | ˘  | Ë  | ë  |    |   |
| 1  | 1  | 0  | 0  | 12 |    |    | ,  | <  | L  | \  | l  |    |    |    | ˆ    | ˆ  | Ì  | ì  |    |   |
| 1  | 1  | 0  | 1  | 13 |    |    | -  | =  | M  | ]  | m  | }  |    |    | SHY  | ½  | Í  | í  |    |   |
| 1  | 1  | 1  | 0  | 14 |    |    | .  | >  | N  | ^  | n  | ~  |    |    | ˆ    | ˆ  | Î  | î  |    |   |
| 1  | 1  | 1  | 1  | 15 |    |    | /  | ?  | O  | _  | o  |    |    |    | ˘    | ˘  | Ï  | ï  |    |   |

