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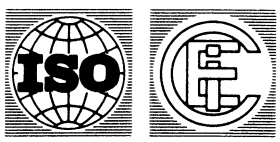
Information processing — 8-bit single-byte coded graphic character sets —

Part 9 :
Latin alphabet No. 5

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

Partie 9 : Alphabet Latin n° 5



Reference number
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Contents

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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. Draft International Standards adopted by the joint technical committee are circulated to national bodies for approval before their acceptance as International Standards. They are approved in accordance with procedures requiring at least 75 % approval by the national bodies voting.

International Standard ISO/IEC 8859 was prepared by the European Computer Manufacturers Association (as ECMA-128) and was adopted, under a special "fast-track procedure", by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

ISO/IEC 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*
- *Part 9: Latin alphabet No. 5*

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

Part 9 : Latin alphabet No. 5

1 Scope

This part of ISO/IEC 8859 specifies a set of 191 graphic characters identified as Latin alphabet No. 5, and specifies the coded representation of each of these characters by means of an 8-bit single byte. None of these characters is "non-spacing".

The use of control functions, such as BACKSPACE or CARRIAGE RETURN for the coded representation of composite characters is prohibited by this part of ISO/IEC 8859.

This set of graphic characters, the Latin alphabet No. 5, is intended for use in data and text processing applications and may also be used for information interchange.

This set is suited for multiple-language applications, involving Danish, Dutch, English, Finnish, French, German, Irish, Italian, Norwegian, Portuguese, Spanish, Swedish 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.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 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/IEC 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 2022 : 1986, *Information processing — ISO 7-bit and 8-bit coded chracter sets — Code extension techniques.*

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

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

ISO 8859-1 : 1987, *Information processing — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1.*

ISO 8859-2 : 1987, *Information processing — 8 bit single-byte coded graphic character sets — Part 2: Latin alphabet No. 2.*

ISO 8859-3 : 1988, *Information processing — 8 bit single-byte coded graphic character sets — Part 3: Latin alphabet No. 3.*

ISO 8859-4 : 1988, *Information processing — 8 bit single-byte coded graphic character sets — Part 4: Latin alphabet No. 4.*

ISO 8859-5 : 1988, *Information processing — 8 bit single-byte coded graphic character sets — Part 5: Latin/Cyrillic alphabet.*

ISO 8859-6 : 1987, *Information processing — 8 bit single-byte coded graphic character sets — Part 6: Latin/Arabic alphabet.*

ISO 8859-7 : 1987, *Information processing — 8 bit single-byte coded graphic character sets — Part 7: Latin/Greek alphabet.*

ISO 8859-8 : 1988, *Information processing — 8 bit single-byte coded graphic character sets — Part 8: Latin/Hebrew alphabet.*

3 Conformance

A set of graphic characters is in conformance with this part of ISO/IEC 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/IEC 8859.

4 Definitions

For the purposes of this part of ISO/IEC 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 this part of ISO/IEC 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/IEC 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/IEC 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/IEC 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, as 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 is permitted in the text as presented.

6 Specification of the coded character set

This part of ISO/IEC 8859 specifies 191 characters allocated to the bit combinations of the code table (see table 1).

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

Table 1 — (*continued*)

Bit combination	Name
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
03/00	DIGIT ZERO
03/01	DIGIT ONE
03/02	DIGIT TWO
03/03	DIGIT THREE
03/04	DIGIT FOUR
03/05	DIGIT FIVE
03/06	DIGIT SIX
03/07	DIGIT SEVEN
03/08	DIGIT EIGHT
03/09	DIGIT NINE
03/10	COLON
03/11	SEMICOLON
03/12	LESS-THAN SIGN
03/13	EQUALS SIGN
03/14	GREATER-THAN SIGN
03/15	QUESTION MARK
04/00	COMMERCIAL AT
04/01	CAPITAL LETTER A
04/02	CAPITAL LETTER B
04/03	CAPITAL LETTER C
04/04	CAPITAL LETTER D
04/05	CAPITAL LETTER E
04/06	CAPITAL LETTER F
04/07	CAPITAL LETTER G
04/08	CAPITAL LETTER H
04/09	CAPITAL LETTER I
04/10	CAPITAL LETTER J
04/11	CAPITAL LETTER K
04/12	CAPITAL LETTER L
04/13	CAPITAL LETTER M
04/14	CAPITAL LETTER N
04/15	CAPITAL LETTER O
05/00	CAPITAL LETTER P
05/01	CAPITAL LETTER Q
05/02	CAPITAL LETTER R
05/03	CAPITAL LETTER S
05/04	CAPITAL LETTER T
05/05	CAPITAL LETTER U
05/06	CAPITAL LETTER V
05/07	CAPITAL LETTER W
05/08	CAPITAL LETTER X
05/09	CAPITAL LETTER Y
05/10	CAPITAL LETTER Z
05/11	LEFT SQUARE BRACKET
05/12	REVERSE SOLIDUS
05/13	RIGHT SQUARE BRACKET
05/14	CIRCUMFLEX ACCENT
05/15	LOW LINE
06/00	GRAVE ACCENT
06/01	SMALL LETTER a
06/02	SMALL LETTER b
06/03	SMALL LETTER c

Table 1 — (*continued*)

Bit combination	Name
06/04	SMALL LETTER d
06/05	SMALL LETTER e
06/06	SMALL LETTER f
06/07	SMALL LETTER g
06/08	SMALL LETTER h
06/09	SMALL LETTER i
06/10	SMALL LETTER j
06/11	SMALL LETTER k
06/12	SMALL LETTER l
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
07/05	SMALL LETTER u
07/06	SMALL LETTER v
07/07	SMALL LETTER w
07/08	SMALL LETTER x
07/09	SMALL LETTER y
07/10	SMALL LETTER z
07/11	LEFT CURLY BRACKET
07/12	VERTICAL LINE
07/13	RIGHT CURLY BRACKET
07/14	TILDE
10/00	NO-BREAK SPACE
10/01	INVERTED EXCLAMATION MARK
10/02	CENT SIGN
10/03	POUND SIGN
10/04	CURRENCY SIGN
10/05	YEN SIGN
10/06	BROKEN BAR
10/07	PARAGRAPH SIGN
10/08	DIAERESIS
10/09	COPYRIGHT SIGN
10/10	FEMININE ORDINAL INDICATOR
10/11	LEFT ANGLE QUOTATION MARK
10/12	NOT SIGN
10/13	SOFT HYPHEN
10/14	REGISTERED TRADE MARK SIGN
10/15	MACRON
11/00	RING ABOVE, DEGREE SIGN
11/01	PLUS-MINUS SIGN
11/02	SUPERSCRIPT TWO
11/03	SUPERSCRIPT THREE
11/04	ACUTE ACCENT
11/05	MICRO SIGN
11/06	PILCROW SIGN
11/07	MIDDLE DOT
11/08	CEDILLA
11/09	SUPERSCRIPT ONE
11/10	MASCULINE ORDINAL INDICATOR
11/11	RIGHT ANGLE QUOTATION MARK
11/12	VULGAR FRACTION ONE QUARTER
11/13	VULGAR FRACTION ONE HALF
11/14	VULGAR FRACTION THREE QUARTERS
11/15	INVERTED QUESTION MARK
12/00	CAPITAL LETTER A WITH GRAVE ACCENT
12/01	CAPITAL LETTER A WITH ACUTE ACCENT

Table 1 — (*continued*)

Bit combination	Name
12/02	CAPITAL LETTER A WITH CIRCUMFLEX ACCENT
12/03	CAPITAL LETTER A WITH TILDE
12/04	CAPITAL LETTER A WITH DIAERESIS
12/05	CAPITAL LETTER A WITH RING ABOVE
12/06	CAPITAL DIPHTHONG A WITH E
12/07	CAPITAL LETTER C WITH CEDILLA
12/08	CAPITAL LETTER E WITH GRAVE ACCENT
12/09	CAPITAL LETTER E WITH ACUTE ACCENT
12/10	CAPITAL LETTER E WITH CIRCUMFLEX ACCENT
12/11	CAPITAL LETTER E WITH DIAERESIS
12/12	CAPITAL LETTER I WITH GRAVE ACCENT
12/13	CAPITAL LETTER I WITH ACUTE ACCENT
12/14	CAPITAL LETTER I WITH CIRCUMFLEX ACCENT
12/15	CAPITAL LETTER I WITH DIAERESIS
13/00	CAPITAL LETTER G WITH BREVE
13/01	CAPITAL LETTER N WITH TILDE
13/02	CAPITAL LETTER O WITH GRAVE ACCENT
13/03	CAPITAL LETTER O WITH ACUTE ACCENT
13/04	CAPITAL LETTER O WITH CIRCUMFLEX ACCENT
13/05	CAPITAL LETTER O WITH TILDE
13/06	CAPITAL LETTER O WITH DIAERESIS
13/07	MULTIPLICATION SIGN
13/08	CAPITAL LETTER O WITH OBLIQUE STROKE
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 I WITH DOT ABOVE
13/14	CAPITAL LETTER S WITH CEDILLA
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	SMALL LETTER a WITH TILDE
14/04	SMALL LETTER a WITH DIAERESIS
14/05	SMALL LETTER a WITH RING ABOVE
14/06	SMALL DIPHTHONG a WITH e
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	SMALL LETTER g WITH BREVE
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 o WITH TILDE
15/06	SMALL LETTER o WITH DIAERESIS
15/07	DIVISION SIGN
15/08	SMALL LETTER o WITH OBLIQUE STROKE
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 i WITHOUT DOT
15/14	SMALL LETTER s WITH CEDILLA
15/15	SMALL LETTER y WITH DIAERESIS

Table 1 — (*concluded*)

6.2 Code table

The code table (see 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 this part of ISO/IEC 8859; it is specified in other standards, e.g. ISO 4873 and ISO 6429.

7 Designation of the character set

The graphic characters of this part of ISO/IEC 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/IEC 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 combinations 10/00 to 15/15.

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

ESC 02/08 04/02

ESC 02/13 04/13

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

Table 2 — Code table of Latin alphabet No. 5