**ISO/IEC JTC 1/SC 2/WG 3**
**7-bit and 8-bit codes and their extension**
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## Contents

## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. 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 JTC1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

This Part 7 of International Standard ISO/IEC 8859 was prepared by Joint Technical Committee ISO/IEC JTC 1, Information Technology, Sub-Committee SC2, Character sets and information coding.

ISO/IEC 8859 consists of the following parts, under the general title Information technology – 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
- Part 10 : Latin alphabet No.6

Annexes A to C of this part of ISO/IEC 8859 are for information only.

## Introduction

ISO/IEC 8859 consists of several parts. Each part specifies a set of up to 191 graphic characters and the coded representation of these characters by means of a single 8-bit byte. Each set is intended for use for a particular group of languages.

# Information technology – 8-bit single-byte coded graphic character sets
# Part 7 : Latin/Greek alphabet

## 1. Scope

This part of ISO/IEC 8859 specifies a set of 185 coded graphic characters identified as Latin/Greek alphabet.

This set of coded graphic characters is intended for use in data and text processing applications and also for information interchange.

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

Greek.

This set of coded graphic characters may be regarded as a version of an 8-bit code according to ISO/IEC 2022 or ISO/IEC 4873 at level 1.

This part of ISO/IEC 8859 may not be used in conjunction with any other parts of ISO/IEC 8859. If coded characters from more than one part are to be used together, by means of code extension techniques, the equivalent coded character sets from ISO/IEC 10367 should be used instead within a version of ISO/IEC 4873 at level 2 or level 3.

The coded characters in this set may be used in conjunction with coded control functions selected from ISO/IEC 6429. However, control functions are not used to create composite graphic symbols from two or more graphic characters (see clause 6)

NOTE – ISO/IEC 8859 is not intended for use with Telematic services defined by ITU-T. If information coded according to ISO/IEC 8859 is to be transferred to such services, it will have to conform to the requirements of those services at the access-point.

## 2. Conformance

### 2.1 Conformance of information interchange

A coded-character-data-element (CC-data-element) within coded information for interchange is in conformance with this part of this International Standard if all the coded representations of graphic characters within that CC-data-element conform to the requirements of clause 6.

### 2.2 Conformance of devices

A device is in conformance with this International Standard if it conforms to the requirements of 2.2.21, and either or both or 2.2.2. and 2.2.3. A claim of conformance shall identify the document which contains the description specified in 2.2.1.

#### 2.2.1 Device description

A device that conforms to this International Standard shall be the subject of a description that identifies the means by which the user may supply characters to the device, or may recognize them when they are made available to him, as specified respectively in 2.2.2 and 2.2.3.

#### 2.2.2 Originating devices

An originating device shall allow its user to supply any sequence of characters from those specified in clause 6, and shall be capable of transmitting their coded representations within a CC-data-element.

#### 2.2.3 Receiving devices

A receiving device shall be capable of receiving and interpreting any coded representations of characters that are within a CC-data-element, and that conform to clause 6, and shall make the corresponding characters available to its user in such a way that the user can identify them from among those specified there, and can distinguish them from each other.

## *3.* Normative references

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

ISO/IEC 2022:1994, *Information technology – Character code structure and extension techniques.*

ISO/IEC 4873:1991, *Information technology – ISO 8-bit code for information interchange – Structure and rules for implementation.*

ISO/IEC 8824:1995, *Information technology – Open systems interconnection – Abstract Syntax Notation One (ASN.1).*

## *4.* Definitions

For the purposes of this International Standard, the following definitions apply :

**4.1 bit combination** : An ordered set of bits used for the representation of characters.

**4.2 byte** : A bit string that is operated upon as a unit.

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

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

**4.5 coded-character-data-element (CC-data-element)** : An element of interchanged information that is specified to consist of a sequence of coded representations of characters, in accordance with one or more identified standards for coded character sets.

**4.6 coded character set; code**: A set of unambiguous rules that establishes a character set and the one-to-one relationship between the characters of the set and their bit combinations.

**4.7 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/IEC 8859 a single bit combination is used to represent each character.

**4.8 graphic symbol** : A visual representation of a graphic character or of a control function.

**4.9 position** : That part of a code table identified by its column and row coordinates.

# 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 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 a unique name to each graphic character. These names have been taken from ISO/IEC 10646-1 (E). It also specifies an acronym for each of the characters SPACE, NO-BREAK SPACE and SOFT HYPHEN. For acronyms only Latin capital letters A to Z are used. It is intended that the acronyms be retained in all translations of the text.

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.

This part of ISO/IEC 8859 specifies a graphic symbol for each graphic character. This symbol is shown in the corresponding position of the code table. However, this part, or any other part, of ISO/IEC 8859 does not specify a particular style or font design for imaging graphic characters. Annex B of ISO/IEC 10367 gives further information on this subject.

### 5.3.1 SPACE (SP)

A graphic character the visual representation of which consists 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/IEC 8859 specifies 185 characters allocated to the bit combinations of the code table (table 2).

Control functions, such as BACKSPACE or CARRIAGE RETURN, shall not be used to create composite graphic symbols, which are made up from the graphic representations of two or more characters.

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

See table 1.

*Table 1 – Character set, coded representation*

| Bit combination | Name |
|---|---|
| 2/00 | SPACE |
| 2/01 | EXCLAMATION MARK |
| 2/02 | QUOTATION MARK |
| 2/03 | NUMBER SIGN |
| 2/04 | DOLLAR SIGN |
| 2/05 | PERCENT SIGN |
| 2/06 | AMPERSAND |
| 2/07 | APOSTROPHE |
| 2/08 | LEFT PARENTHESIS |
| 2/09 | RIGHT PARENTHESIS |
| 2/10 | ASTERISK |
| 2/11 | PLUS SIGN |
| 2/12 | COMMA |
| 2/13 | HYPHEN-MINUS |
| 2/14 | FULL STOP |
| 2/15 | SOLIDUS |
| 3/00 | DIGIT ZERO |
| 3/01 | DIGIT ONE |
| 3/02 | DIGIT TWO |
| 3/03 | DIGIT THREE |
| 3/04 | DIGIT FOUR |
| 3/05 | DIGIT FIVE |
| 3/06 | DIGIT SIX |
| 3/07 | DIGIT SEVEN |
| 3/08 | DIGIT EIGHT |
| 3/09 | DIGIT NINE |

| | |
|---|---|
| 3/10 | COLON |
| 3/11 | SEMICOLON |
| 3/12 | LESS-THAN SIGN |
| 3/13 | EQUALS SIGN |
| 3/14 | GREATER-THAN SIGN |
| 3/15 | QUESTION MARK |
| 4/00 | COMMERCIAL AT |
| 4/01 | LATIN CAPITAL LETTER A |
| 4/02 | LATIN CAPITAL LETTER B |
| 4/03 | LATIN CAPITAL LETTER C |
| 4/04 | LATIN CAPITAL LETTER D |
| 4/05 | LATIN CAPITAL LETTER E |
| 4/06 | LATIN CAPITAL LETTER F |
| 4/07 | LATIN CAPITAL LETTER G |
| 4/08 | LATIN CAPITAL LETTER H |
| 4/09 | LATIN CAPITAL LETTER I |
| 4/10 | LATIN CAPITAL LETTER J |
| 4/11 | LATIN CAPITAL LETTER K |
| 4/12 | LATIN CAPITAL LETTER L |
| 4/13 | LATIN CAPITAL LETTER M |
| 4/14 | LATIN CAPITAL LETTER N |
| 4/15 | LATIN CAPITAL LETTER O |
| 5/00 | LATIN CAPITAL LETTER P |
| 5/01 | LATIN CAPITAL LETTER Q |
| 5/02 | LATIN CAPITAL LETTER R |
| 5/03 | LATIN CAPITAL LETTER S |
| 5/04 | LATIN CAPITAL LETTER T |
| 5/05 | LATIN CAPITAL LETTER U |
| 5/06 | LATIN CAPITAL LETTER V |
| 5/07 | LATIN CAPITAL LETTER W |
| 5/08 | LATIN CAPITAL LETTER X |
| 5/09 | LATIN CAPITAL LETTER Y |
| 5/10 | LATIN CAPITAL LETTER Z |
| 5/11 | LEFT SQUARE BRACKET |
| 5/12 | REVERSE SOLIDUS |
| 5/13 | RIGHT SQUARE BRACKET |
| 5/14 | CIRCUMFLEX ACCENT |
| 5/15 | LOW LINE |
| 6/00 | GRAVE ACCENT |
| 6/01 | LATIN SMALL LETTER A |
| 6/02 | LATIN SMALL LETTER B |
| 6/03 | LATIN SMALL LETTER C |
| 6/04 | LATIN SMALL LETTER D |
| 6/05 | LATIN SMALL LETTER E |
| 6/06 | LATIN SMALL LETTER F |
| 6/07 | LATIN SMALL LETTER G |
| 6/08 | LATIN SMALL LETTER H |
| 6/09 | LATIN SMALL LETTER I |
| 6/10 | LATIN SMALL LETTER J |
| 6/11 | LATIN SMALL LETTER K |
| 6/12 | LATIN SMALL LETTER L |
| 6/13 | LATIN SMALL LETTER M |
| 6/14 | LATIN SMALL LETTER N |
| 6/15 | LATIN SMALL LETTER O |
| 7/00 | LATIN SMALL LETTER P |
| 7/01 | LATIN SMALL LETTER Q |
| 7/02 | LATIN SMALL LETTER R |
| 7/03 | LATIN SMALL LETTER S |
| 7/04 | LATIN SMALL LETTER T |
| 7/05 | LATIN SMALL LETTER U |
| 7/06 | LATIN SMALL LETTER V |
| 7/07 | LATIN SMALL LETTER W |

| | |
|---|---|
| 7/08 | LATIN SMALL LETTER X |
| 7/09 | LATIN SMALL LETTER Y |
| 7/10 | LATIN SMALL LETTER Z |
| 7/11 | LEFT CURLY BRACKET |
| 7/12 | VERTICAL LINE |
| 7/13 | RIGHT CURLY BRACKET |
| 7/14 | TILDE |
| 10/00 | NO-BREAK SPACE |
| 10/01 | LEFT SINGLE QUOTATION MARK |
| 10/02 | RIGHT SINGLE QUOTATION MARK |
| 10/03 | POUND SIGN |
| 10/04 | (This position shall not be used) |
| 10/05 | (This position shall not be used) |
| 10/06 | BROKEN BAR |
| 10/07 | SECTION SIGN |
| 10/08 | DIAERESIS (Dialytika) |
| 10/09 | COPYRIGHT SIGN |
| 10/10 | (This position shall not be used) |
| 10/11 | LEFT-POINTING DOUBLE ANGLE QUOTATION MARK |
| 10/12 | NOT SIGN |
| 10/13 | SOFT HYPHEN |
| 10/14 | (This position shall not be used) |
| 10/15 | HORIZONTAL BARY (Parenthetiki pavla) |
| 11/00 | DEGREE SIGN |
| 11/01 | PLUS-MINUS SIGN |
| 11/02 | SUPERSCRIPT TWO |
| 11/03 | SUPERSCRIPT THREE |
| 11/04 | GREEK TONOS |
| 11/05 | GREEK DIALYTIKA TONOS |
| 11/06 | GREEK CAPITAL LETTER ALPHA WITH TONOS |
| 11/07 | GREEK ANO TELEIA |
| 11/08 | GREEK CAPITAL LETTER EPSILON WITH TONOS |
| 11/09 | GREEK CAPITAL LETTER ETA WITH TONOS |
| 11/10 | GREEK CAPITAL LETTER IOTA WITH TONOS |
| 11/11 | RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK |
| 11/12 | GREEK CAPITAL LETTER OMICRON WITH TONOS |
| 11/13 | VULGAR FRACTION ONE HALF |
| 11/14 | GREEK CAPITAL LETTER UPSILON WITH TONOS |
| 11/15 | GREEK CAPITAL LETTER OMEGA WITH TONOS |
| 12/00 | GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS |
| 12/01 | GREEK CAPITAL LETTER ALPHA |
| 12/02 | GREEK CAPITAL LETTER BETA |
| 12/03 | GREEK CAPITAL LETTER GAMMA |
| 12/04 | GREEK CAPITAL LETTER DELTA |
| 12/05 | GREEK CAPITAL LETTER EPSILON |
| 12/06 | GREEK CAPITAL LETTER ZETA |
| 12/07 | GREEK CAPITAL LETTER ETA |
| 12/08 | GREEK CAPITAL LETTER THETA |
| 12/09 | GREEK CAPITAL LETTER IOTA |
| 12/10 | GREEK CAPITAL LETTER KAPPA |
| 12/11 | GREEK CAPITAL LETTER LAMDA |
| 12/12 | GREEK CAPITAL LETTER MU |
| 12/13 | GREEK CAPITAL LETTER NU |
| 12/14 | GREEK CAPITAL LETTER XI |
| 12/15 | GREEK CAPITAL LETTER OMICRON |
| 13/00 | GREEK CAPITAL LETTER PI |
| 13/01 | GREEK CAPITAL LETTER RHO |
| 13/02 | (This position shall not be used) |
| 13/03 | GREEK CAPITAL LETTER SIGMA |
| 13/04 | GREEK CAPITAL LETTER TAU |

| | |
|---|---|
| 13/05 | GREEK CAPITAL LETTER UPSILON |
| 13/06 | GREEK CAPITAL LETTER PHI |
| 13/07 | GREEK CAPITAL LETTER CHI |
| 13/08 | GREEK CAPITAL LETTER PSI |
| 13/09 | GREEK CAPITAL LETTER OMEGA |
| 13/10 | GREEK CAPITAL LETTER IOTA WITH DIALYTIKA |
| 13/11 | GREEK CAPITAL LETTER  UPSILON WITH DIALYTIKA |
| 13/12 | GREEK SMALL LETTER WITH TONOS |
| 13/13 | GREEK SMALL LETTER WITH TONOS |
| 13/14 | GREEK SMALL LETTER WITH TONOS |
| 13/15 | GREEK SMALL LETTER WITH TONOS |
| 14/00 | GREEK SMALL LETTER UPSILON WITH DIALYTIKA AND TONOS |
| 14/01 | GREEK SMALL LETTER ALPHA |
| 14/02 | GREEK SMALL LETTER BETA |
| 14/03 | GREEK SMALL LETTER GAMMA |
| 14/04 | GREEK SMALL LETTER DELTA |
| 14/05 | GREEK SMALL LETTER EPSILON |
| 14/06 | GREEK SMALL LETTER ZETA |
| 14/07 | GREEK SMALL LETTER ETA |
| 14/08 | GREEK SMALL LETTER THETA |
| 14/09 | GREEK SMALL LETTER IOTA |
| 14/10 | GREEK SMALL LETTER KAPPA |
| 14/11 | GREEK SMALL LETTER LAMDA |
| 14/12 | GREEK SMALL LETTER MU |
| 14/13 | GREEK SMALL LETTER NU |
| 14/14 | GREEK SMALL LETTER XI |
| 14/15 | GREEK SMALL LETTER OMICRON |
| 15/00 | GREEK SMALL LETTER PI |
| 15/01 | GREEK SMALL LETTER RHO |
| 15/02 | GREEK SMALL LETTER FINAL SIGMA |
| 15/03 | GREEK SMALL LETTER SIGMA |
| 15/04 | GREEK SMALL LETTER TAU |
| 15/05 | GREEK SMALL LETTER UPSILON |
| 15/06 | GREEK SMALL LETTER PHI |
| 15/07 | GREEK SMALL LETTER CHI |
| 15/08 | GREEK SMALL LETTER PSI |
| 15/09 | GREEK SMALL LETTER OMEGA |
| 15/10 | GREEK SMALL LETTER IOTA WITH DIALYTIKA |
| 15/11 | GREEK SMALL LETTER  UPSILON WITH DIALYTIKA |
| 15/12 | GREEK SMALL LETTER OMICRON WITH TONOS |
| 15/13 | GREEK SMALL LETTER UPSILON WITH TONOS |
| 15/14 | GREEK SMALL LETTER OMEGA WITH TONOS |
| 15/15 | (This position shall not be used) |

## 6.2 Code table

For each character in the set the code table (table2) shows a graphic symbol at the position in the code table corresponding to the bit combination specified in table 1.

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

The positions in the code table marked by crossing diagonal lines shall not be used.

*Table 2 – Code table of Latin alphabet No. 1*

| | | | $b_8$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $b_7$ | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | $b_6$ | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | | | $b_5$ | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| $b_4$ | $b_3$ | $b_2$ | $b_1$ | | **00** | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** | |
| 0 | 0 | 0 | 0 | **00** | | | SP | 0 | @ | P | ` | p | | | NBSP | ° | ΐ | Π | ΰ | π | **0** |
| 0 | 0 | 0 | 1 | **01** | | | ! | 1 | A | Q | a | q | | | ‘ | ± | A | P | α | ρ | **1** |
| 0 | 0 | 1 | 0 | **02** | | | ¨ | 2 | B | R | b | r | | | ’ | 2 | B | | β | ς | **2** |
| 0 | 0 | 1 | 1 | **03** | | | # | 3 | C | S | c | s | | | £ | 3 | Γ | Σ | γ | σ | **3** |
| 0 | 1 | 0 | 0 | **04** | | | $ | 4 | D | T | d | t | | | 7. € | ΄ | Δ | T | δ | τ | **4** |
| 0 | 1 | 0 | 1 | **05** | | | % | 5 | E | U | e | u | | | ₯ | ΅ | E | Y | ε | υ | **5** |
| 0 | 1 | 1 | 0 | **06** | | | & | 6 | F | V | f | v | | | ¦ | Ά | Z | Φ | ζ | φ | **6** |
| 0 | 1 | 1 | 1 | **07** | | | ' | 7 | G | W | g | w | | | § | · | H | X | η | χ | **7** |
| 1 | 0 | 0 | 0 | **08** | | | ( | 8 | H | X | h | x | | | ¨ | Έ | Θ | Ψ | θ | ψ | **8** |
| 1 | 0 | 0 | 1 | **09** | | | ) | 9 | I | Y | i | y | | | © | Ή | I | Ω | ι | ω | **9** |
| 1 | 0 | 1 | 0 | **10** | | | * | : | J | Z | j | z | | | ι | Ί | K | Ϊ | κ | ϊ | **A** |
| 1 | 0 | 1 | 1 | **11** | | | + | ; | K | [ | k | { | | | « | » | Λ | Ÿ | λ | ϋ | **B** |
| 1 | 1 | 0 | 0 | **12** | | | , | < | L | \ | l | \| | | | ¬ | Ό | M | ά | μ | ό | **C** |
| 1 | 1 | 0 | 1 | **13** | | | - | = | M | ] | m | } | | | SHY | ½ | N | έ | ν | ύ | **D** |
| 1 | 1 | 1 | 0 | **14** | | | - | > | N | ^ | n | ~ | | | ; | Ύ | Ξ | ή | ξ | ώ | **E** |
| 1 | 1 | 1 | 1 | **15** | | | / | ? | O | _ | o | | | | - | Ώ | O | ί | ο | | **F** |
| | | | | | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **A** | **B** | **C** | **D** | **E** | **F** | |

## 7 Identification of the character set

### 7.1 Identification according to ISO/IEC 2022 and ISO/IEC 4873

The graphic characters of this part of ISO/IEC 8859 constitute a single coded character set. However in accordance with ISO/IEC 2022 and ISO/IEC 4873 the code table of this part of ISO/IEC 8859 may 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 combinations 02/01 to 07/14;
- A 96-character G1 graphic character set represented by bit combinations 10/00 to 15/15.

When the identification methods of ISO/IED 2022 or ISO/IEC 4873 are used this part of ISO/IEC 8859 shall be identified by the following pair of designation functions :

GZD4 04/02 (ESC 02/08 04/02)
G1D6 04/06 (ESC 02/13 04/06)

NOTE – The corresponding escape sequences are shown in parentheses.

### 7.2 Identification according to ISO/IEC 8824 (ASN.1)

In the terminology of ISO/IEC 8824 the character set of this part of ISO/IEC 8859 and the corresponding coded representations are distinct, and are known as the “character abstract syntax” and the “character transfer syntax” respectively.

When the identification methods of ISO/IEC 8824 are used this part of ISO/IEC 8859 shall be identified by the following object identifiers.

- character set
  {iso standard 8859 7 abstract-syntax (1)}

- coded representations
  {iso standard 8859 7 transfer-syntax (0)}

The corresponding object descriptors shall be :

- character set “ISO 8859 part 7 repertoire”

- coded representations “ISO 8859 part 7 code”

## 7.3 Identification using the ISO International register of coded character sets to be used with escape sequences

According to 7.1 above the character set of this part of ISO/IEC 8859 may be considered to consist of the character SPACE, a 94-character G0 graphic character set, and a 96-character G1 graphic character set. The G0 and G1 graphic character sets may be identified by the use of the Registration Numbers from the ISO International register of coded character sets to be used with escape sequences.

When these registration numbers are used this part of ISO/IEC 8859 shall be identified by the following pair of registration numbers :

- G0 graphic character set ISO-IR 6

- G1 graphic character set ISO-IR 126

**ANNEX A**
(Informative)

Coverage of languages by parts 1 to 10 of ISO/IEC 8859

## A.1 Languages of European origin written in Latin script

The following parts of ISO/IEC 8859 specify coded character sets which comprise various different selections of characters based on the Latin alphabet. These sets are identified by the numbers 1 to 6 shown :

NOTES

1. The list of languages in Table A.1 is not exhaustive. It shows the languages that are included in the Scope clause of each Part of ISO/IEC 8859.
2. For writing French three characters, not covered in parts 1, 3 and 5 (or in other parts of ISO/IEC 8859), are considered at present as being needed as well.
3. The Welsh language is covered by ISO-IR 182, but not by any part of ISO/IEC 8859.
4. The various Sami languages use partly differing orthographies. The character sets in parts 4 and 10 cover the requirements of the Sami languages most commonly used in Finland, Norway and Sweden. For the Skolt Sami language used in Finland and Norway additional characters are needed. These are included in ISO-IR 158 and 197.
5. There are several official written languages outside Europe that are covered by Latin alphabet No.1 Examples are Indonesian/Malay, Tagalog (Philippines), Swahili, Afrikaans.
6. Use of Latin alphabet No.3 for Turkish is deprecated.

| | |
|---|---|
| ISO/IEC 8859-1 | Latin alphabet No. 1 |
| ISO/IEC 8859-2 | Latin alphabet No. 2 |
| ISO/IEC 8859-3 | Latin alphabet No. 3 |
| ISO/IEC 8859-4 | Latin alphabet No. 4 |
| ISO/IEC 8859-9 | Latin alphabet No. 5 |
| ISO/IEC 8859-10 | Latin alphabet No. 6 |

The following official and regional languages written in Europe are covered by the Latin alphabets as indicated by number in Table A.1 :

*Table A.1 – Language coverage*

| Language | Covered by alphabet (s) | Language | Covered by alphabet (s) | Language | Covered by alphabet (s) |
|---|---|---|---|---|---|
| Albanian | 1 2 5 | Frisian | 1 5 | Norwegian | 1 4 5 6 |
| Basque | 1 5 | Gaelic | 1 5 | Polish | 2 |
| Breton | 1 5 | Galician | 1 5 | Portuguese | 1 3 5 |
| Catalan | 1 5 | German | 1 2 3 4 5 6 | Rhaeto-Romanic | 1 5 |
| Croat | 2 | Greenlandic | 1 4 5 6 | Romanian | |
| Czech | 2 | Hungarian | 2 | Sami | 2 |
| Danish | 1 4 5 6 | Icelandic | 1 6 | Slovak | 4 6 |
| Dutch | 1 5 | Irish | 1 5 6 | Slovene | 2 |
| English | 1 2 3 4 5 6 | Italian | 1 3 5 | Sorbian | 2 4 6 |
| Esperanto | 3 | Latin | 1 2 3 4 5 6 | Spanish | 2 |
| Estonian | 4 6 | Latvian | 4 | Swedish | 1 5 |
| Faroese | 1 6 | Lithuanian | 4 6 | Turkish | 1 4 5 6 |
| Finnish | 1 4 5 6 | Luxemburgish | 1 5 | | 3 5 |
| Frensh | 1 3 5 | Maltese | 3 | | |

## A.2 Languages written in non-Latin scripts

The following parts of ISO/IEC 8859 specify coded character sets which include graphic characters from alphabets other than the Latin alphabet :

| | |
|---|---|
| ISO/IEC 8859-5 | Latin/Cyrillic alphabet |
| ISO/IEC 8859-6 | Latin/Arabic alphabet |
| ISO/IEC 8859-7 | Latin/Greek alphabet |
| ISO/IEC 8859-8 | Latin/Hebrew alphabet |

The following official and regional languages are covered by these alphabets :

The Cyrillic characters included in Part 5 cover Bulgarian, Byelorussian, (Slavic) Macedonian, Russian, Serbian and Ukrainian (a written up to 1990, see also Scope of Part 5).

The Arabic characters included in Part 6 cover Arabic. The Greek characters included in Part 7 cover Greek (monotoniko writing). The Hebrew characters included in Part 8 cover Hebrew.

## Annex B
(Informative)

## Main differences between the First edition and this Second edition of this part of ISO/IEC 8859

**B.1** The names of the graphic characters have been amended where necessary to align them with the names of characters adopted for all standards on coded character sets developed under the responsibility of ISO/IEC JTC 1.

**B.2** The new style of conformance clause, adopted for all standards on coded character sets, has been introduced.

**B.3** Object identifiers conforming to Abstract Syntax Notation One (ASN.1, see ISO/IEC 8824) are specified in 7.2 for the character set, and the corresponding coded representations, of this part of ISO/IEC 8859.

Registration numbers from the International register of coded character sets to be used with escape sequences, have been included as an additional method of identifying the coded character set of this part of ISO/IEC 8859.

**B.4** A new Annex A has been added that identifies the coverage of languages by all parts of this International Standard.

**B.5** Various editorial adjustments and clarifications have been made to the text of the standard.

**B.6** Annex C. Bibliography, has been added.

**Annex C**
(Informative)

Bibliography

ISO/IEC 6429 : 1992, *Information technology – Control functions for coded character sets.*

ISO/IEC 10367 : 1991, *Information technology – Standardized coded graphic character sets for use in 8-bit codes.*

ISO/IEC 10646-1 : 1993, *Information technology – Universal Multiple-Octet Coded Character Set (UCS) Part 1 : Architecture and Multilingual Plane.*

ISO International register of coded character sets to be used with escape sequences.