



**ISO/IEC JTC 1/SC 2/WG 3**  
**7-bit and 8-bit codes and their extension**  
**SECRETARIAT : ELOT**

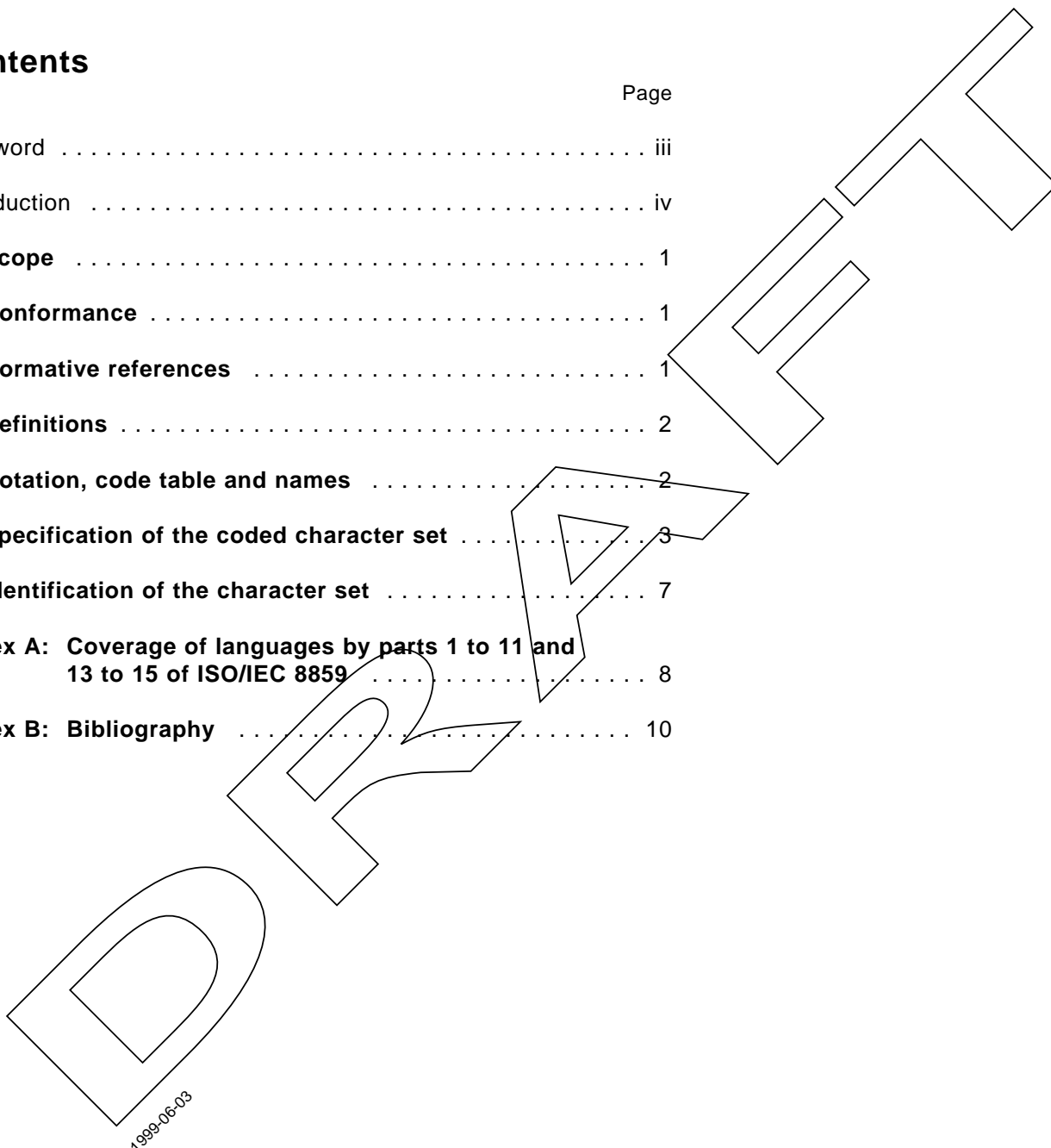
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## Foreword

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 nongovernmental, in liaison with ISO and IEC, also take part in the work.

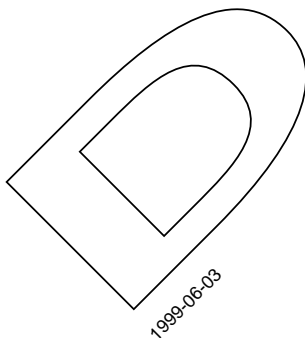
In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 8859-11 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 2, *Coded character sets*.

ISO/IEC 8859 consists of the following parts, under the general title *Information technology – 8-bit single-byte coded graphic character sets*:

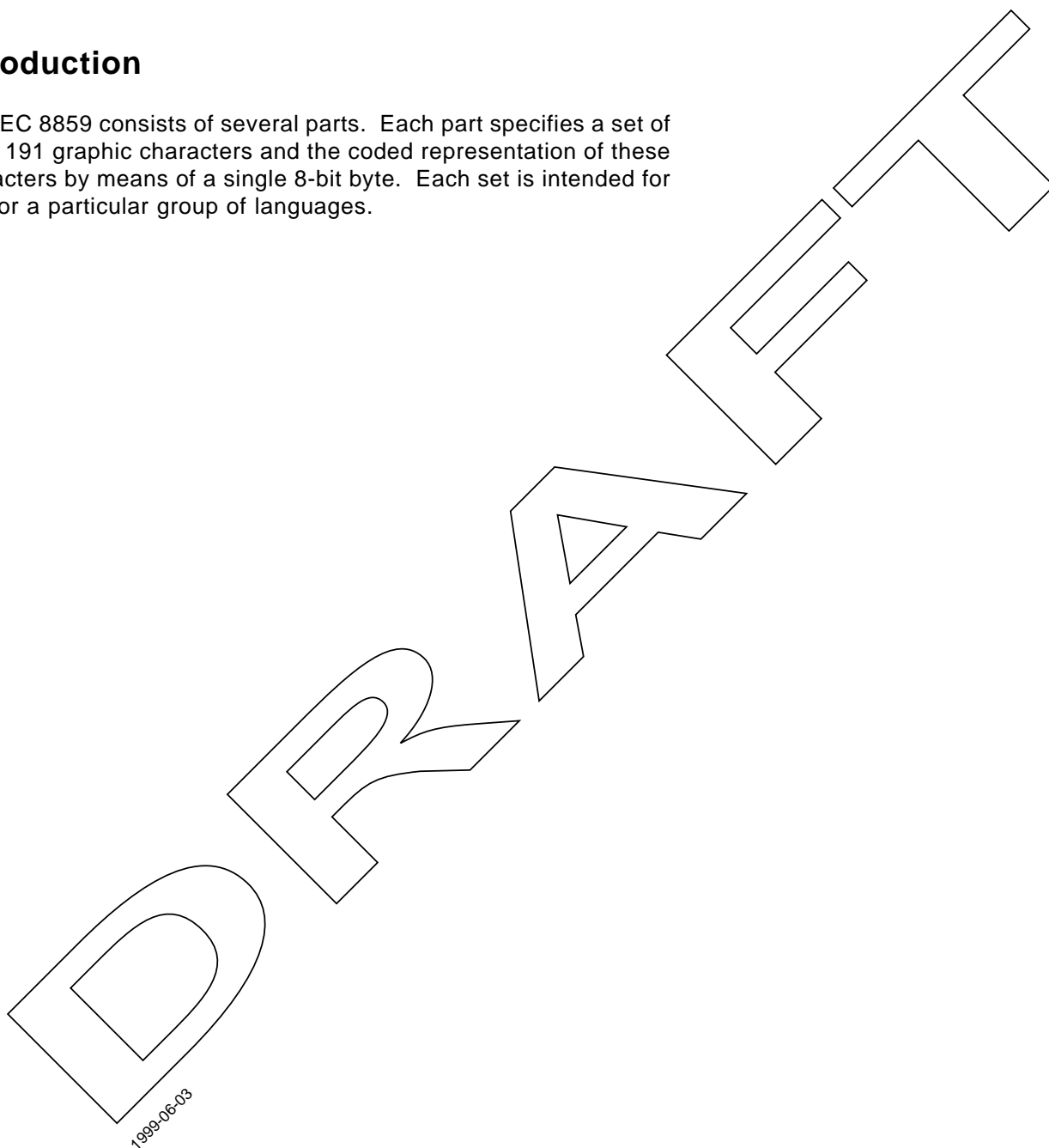
- Part 1: *Latin alphabet No. 1*
- Part 2: *Latin alphabet No. 2*
- Part 3: *Latin alphabet No. 3*
- Part 4: *Latin alphabet No. 4*
- Part 5: *Latin/Cyrillic alphabet*
- Part 6: *Latin/Arabic alphabet*
- Part 7: *Latin/Greek alphabet*
- Part 8: *Latin/Hebrew alphabet*
- Part 9: *Latin alphabet No. 5*
- Part 10: *Latin alphabet No. 6*
- Part 11: *Latin/Thai alphabet*
- Part 13: *Latin alphabet No. 7*
- Part 14: *Latin alphabet No. 8*
- Part 15: *Latin alphabet No. 9*

Annexes A and B 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 6: Latin/Thai alphabet

## 1 Scope

This part of ISO/IEC 8859 specifies a set of 183 coded graphic characters identified as Latin/Thai 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:

Thai, English and Latin.

Some of the characters in this set are combining characters (see clause 6).

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 ISO/IEC 8859 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 part of ISO/IEC 8859 if it conforms to the requirements of 2.2.1, and either or both of 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 part of ISO/IEC 8859 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 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 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 8824-1:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation*.

## 4 Definitions

For the purposes of this part of ISO/IEC 8859 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 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.

**4.6 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.

**4.7 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.

The bit combinations are also identified by notations of the form  $hk$ , where  $h$  and  $k$  are numbers in the range 0 to F in hexadecimal notation. The number  $h$  is the same as the number  $xx$  described above, and the number  $k$  the same as the number  $yy$  described above.

### 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. In hexadecimal notation the columns and the rows are numbered 0 to F.

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 column and row numbers are shown at the top and left edges of the table respectively. The code table positions are also identified by notations of the form  $hk$ , where  $h$  is the column number and  $k$  is the row number in hexadecimal notation. The column and row numbers are shown at the bottom and right edges of the table respectively.

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  $xx/yy$ , or of the form  $hk$ , 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 and a unique identifier to each graphic character. These names and identifiers have been taken from ISO/IEC 10646-1 (E). This part of ISO/IEC 8859

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)**

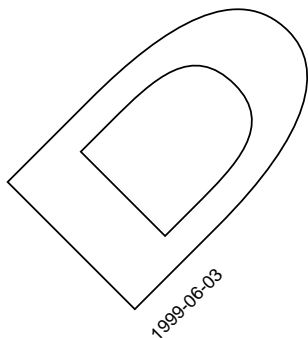
A graphic character the visual representation of which consists of the absence of a graphic symbol.

**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 183 characters allocated to the bit combinations of the code table (table 2).

Some of these characters are combining characters. They are identified in table 1 as such.

**NOTE** – Combining characters are described in ISO/IEC 2022:1994 subclause 6.3.3.

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*[Text in 8859-6: The coded representation of a combining character shall follow that of the base character with which it is associated. Any combining character may be associated with any non-combining character in the ranges 12/01 to 13/10 and 14/01 to 14/10 (hexadecimal C1 to DA and E1 to EA).]*

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	Hex	Identifier	Name
02/00	20	U+0020	SPACE
02/01	21	U+0021	EXCLAMATION MARK
02/02	22	U+0022	QUOTATION MARK
02/03	23	U+0023	NUMBER SIGN
02/04	24	U+0024	DOLLAR SIGN
02/05	25	U+0025	PERCENT SIGN
02/06	26	U+0026	AMPERSAND
02/07	27	U+0027	APOSTROPHE
02/08	28	U+0028	LEFT PARENTHESIS
02/09	29	U+0029	RIGHT PARENTHESIS
02/10	2A	U+002A	ASTERISK
02/11	2B	U+002B	PLUS SIGN
02/12	2C	U+002C	COMMA
02/13	2D	U+002D	HYPHEN-MINUS
02/14	2E	U+002E	FULL STOP
02/15	2F	U+002F	SOLIDUS
03/00	30	U+0030	DIGIT ZERO
03/01	31	U+0031	DIGIT ONE
03/02	32	U+0032	DIGIT TWO
03/03	33	U+0033	DIGIT THREE
03/04	34	U+0034	DIGIT FOUR
03/05	35	U+0035	DIGIT FIVE
03/06	36	U+0036	DIGIT SIX
03/07	37	U+0037	DIGIT SEVEN
03/08	38	U+0038	DIGIT EIGHT
03/09	39	U+0039	DIGIT NINE
03/10	3A	U+003A	COLON
03/11	3B	U+003B	SEMICOLON
03/12	3C	U+003C	LESS-THAN SIGN
03/13	3D	U+003D	EQUALS SIGN
03/14	3E	U+003E	GREATER-THAN SIGN
03/15	3F	U+003F	QUESTION MARK
04/00	40	U+0040	COMMERCIAL AT
04/01	41	U+0041	LATIN CAPITAL LETTER A
04/02	42	U+0042	LATIN CAPITAL LETTER B
04/03	43	U+0043	LATIN CAPITAL LETTER C
04/04	44	U+0044	LATIN CAPITAL LETTER D
04/05	45	U+0045	LATIN CAPITAL LETTER E
04/06	46	U+0046	LATIN CAPITAL LETTER F
04/07	47	U+0047	LATIN CAPITAL LETTER G
04/08	48	U+0048	LATIN CAPITAL LETTER H
04/09	49	U+0049	LATIN CAPITAL LETTER I
04/10	4A	U+004A	LATIN CAPITAL LETTER J
04/11	4B	U+004B	LATIN CAPITAL LETTER K
04/12	4C	U+004C	LATIN CAPITAL LETTER L
04/13	4D	U+004D	LATIN CAPITAL LETTER M
04/14	4E	U+004E	LATIN CAPITAL LETTER N
04/15	4F	U+004F	LATIN CAPITAL LETTER O

**Table 1 (continued)**

Bit combination	Hex	Identifier	Name
05/00	50	U+0050	LATIN CAPITAL LETTER P
05/01	51	U+0051	LATIN CAPITAL LETTER Q
05/02	52	U+0052	LATIN CAPITAL LETTER R
05/03	53	U+0053	LATIN CAPITAL LETTER S
05/04	54	U+0054	LATIN CAPITAL LETTER T
05/05	55	U+0055	LATIN CAPITAL LETTER U
05/06	56	U+0056	LATIN CAPITAL LETTER V
05/07	57	U+0057	LATIN CAPITAL LETTER W
05/08	58	U+0058	LATIN CAPITAL LETTER X
05/09	59	U+0059	LATIN CAPITAL LETTER Y
05/10	5A	U+005A	LATIN CAPITAL LETTER Z
05/11	5B	U+005B	LEFT SQUARE BRACKET
05/12	5C	U+005C	REVERSE SOLIDUS
05/13	5D	U+005D	RIGHT SQUARE BRACKET
05/14	5E	U+005E	CIRCUMFLEX ACCENT
05/15	5F	U+005F	LOW LINE
06/00	60	U+0060	GRAVE ACCENT
06/01	61	U+0061	LATIN SMALL LETTER A
06/02	62	U+0062	LATIN SMALL LETTER B
06/03	63	U+0063	LATIN SMALL LETTER C
06/04	64	U+0064	LATIN SMALL LETTER D
06/05	65	U+0065	LATIN SMALL LETTER E
06/06	66	U+0066	LATIN SMALL LETTER F
06/07	67	U+0067	LATIN SMALL LETTER G
06/08	68	U+0068	LATIN SMALL LETTER H
06/09	69	U+0069	LATIN SMALL LETTER I
06/10	6A	U+006A	LATIN SMALL LETTER J
06/11	6B	U+006B	LATIN SMALL LETTER K
06/12	6C	U+006C	LATIN SMALL LETTER L
06/13	6D	U+006D	LATIN SMALL LETTER M
06/14	6E	U+006E	LATIN SMALL LETTER N
06/15	6F	U+006F	LATIN SMALL LETTER O
07/00	70	U+0070	LATIN SMALL LETTER P
07/01	71	U+0071	LATIN SMALL LETTER Q
07/02	72	U+0072	LATIN SMALL LETTER R
07/03	73	U+0073	LATIN SMALL LETTER S
07/04	74	U+0074	LATIN SMALL LETTER T
07/05	75	U+0075	LATIN SMALL LETTER U
07/06	76	U+0076	LATIN SMALL LETTER V
07/07	77	U+0077	LATIN SMALL LETTER W
07/08	78	U+0078	LATIN SMALL LETTER X
07/09	79	U+0079	LATIN SMALL LETTER Y
07/10	7A	U+007A	LATIN SMALL LETTER Z
07/11	7B	U+007B	LEFT CURLY BRACKET
07/12	7C	U+007C	VERTICAL LINE
07/13	7D	U+007D	RIGHT CURLY BRACKET
07/14	7E	U+007E	TILDE



Table 1 (continued)

Bit combination	Hex	Identifier	Name
10/00	A0	U+00A0	NO-BREAK SPACE
10/01	A1	U+0E01	THAI CHARACTER KO KAI
10/02	A2	U+0E02	THAI CHARACTER KHO KHAI
10/03	A3	U+0E03	THAI CHARACTER KHO KHUAT
10/04	A4	U+0E04	THAI CHARACTER KHO KHWAI
10/05	A5	U+0E05	THAI CHARACTER KHO KHON
10/06	A6	U+0E06	THAI CHARACTER KHO RAKHANG
10/07	A7	U+0E07	THAI CHARACTER NGO NGU
10/08	A8	U+0E08	THAI CHARACTER CHO CHAN
10/09	A9	U+0E09	THAI CHARACTER CHO CHING
10/10	AA	U+0E0A	THAI CHARACTER CHO CHANG
10/11	AB	U+0E0B	THAI CHARACTER SO SO
10/12	AC	U+0E0C	THAI CHARACTER CHO CHOE
10/13	AD	U+0E0D	THAI CHARACTER YO YING
10/14	AE	U+0E0E	THAI CHARACTER DO CHADA
10/15	AF	U+0E0F	THAI CHARACTER TO PATAK
11/00	B0	U+0E10	THAI CHARACTER THO THAN
11/01	B1	U+0E11	THAI CHARACTER THO NANGMONTHO
11/02	B2	U+0E12	THAI CHARACTER THO PHUTHAO
11/03	B3	U+0E13	THAI CHARACTER NO NEN
11/04	B4	U+0E14	THAI CHARACTER DO DEK
11/05	B5	U+0E15	THAI CHARACTER TO TAO
11/06	B6	U+0E16	THAI CHARACTER THO THUNG
11/07	B7	U+0E17	THAI CHARACTER THO THAHAN
11/08	B8	U+0E18	THAI CHARACTER THO THONG
11/09	B9	U+0E19	THAI CHARACTER NO NU
11/10	BA	U+0E1A	THAI CHARACTER BO BAIMAI
11/11	BB	U+0E1B	THAI CHARACTER PO PLA
11/12	BC	U+0E1C	THAI CHARACTER PHO PHUNG
11/13	BD	U+0E1D	THAI CHARACTER FO FA
11/14	BE	U+0E1E	THAI CHARACTER PHO PHAN
11/15	BF	U+0E1F	THAI CHARACTER FO FAN
12/00	C0	U+0E20	THAI CHARACTER PHO SAMPHAO
12/01	C1	U+0E21	THAI CHARACTER MO MA
12/02	C2	U+0E22	THAI CHARACTER YO YAK
12/03	C3	U+0E23	THAI CHARACTER RO RUA
12/04	C4	U+0E24	THAI CHARACTER RU
12/05	C5	U+0E25	THAI CHARACTER LO LING
12/06	C6	U+0E26	THAI CHARACTER LU
12/07	C7	U+0E27	THAI CHARACTER WO WAEN
12/08	C8	U+0E28	THAI CHARACTER SO SALA
12/09	C9	U+0E29	THAI CHARACTER SO RUSI
12/10	CA	U+0E2A	THAI CHARACTER SO SUA
12/11	CB	U+0E2B	THAI CHARACTER HO HIP
12/12	CC	U+0E2C	THAI CHARACTER LO CHULA
12/13	CD	U+0E2D	THAI CHARACTER O ANG
12/14	CE	U+0E2E	THAI CHARACTER HO NOK HUK
12/15	CF	U+0E2F	THAI CHARACTER PAI YAN NOI

Table 1 (concluded)

Bit combination	Hex	Identifier	Name
13/00	D0	U+0E30	THAI CHARACTER SARA A
13/01	D1	U+0E31	THAI CHARACTER MAI HAN-AKAT
13/02	D2	U+0E32	THAI CHARACTER SARA AA
13/03	D3	U+0E33	THAI CHARACTER SARA AM
13/04	D4	U+0E34	THAI CHARACTER SARA I
13/05	D5	U+0E35	THAI CHARACTER SARA II
13/06	D6	U+0E36	THAI CHARACTER SARA UE
13/07	D7	U+0E37	THAI CHARACTER SARA UEE
13/08	D8	U+0E38	THAI CHARACTER SARA U
13/09	D9	U+0E39	THAI CHARACTER SARA UU
13/10	DA	U+0E3A	THAI CHARACTER PHINTHU
13/11	DB	U+0E3B	(This position shall not be used)
13/12	DC	U+0E3C	(This position shall not be used)
13/13	DD	U+0E3D	(This position shall not be used)
13/14	DE	U+0E3E	(This position shall not be used)
13/15	DF	U+0E3F	THAI CURRENCY SYMBOL BAHT
14/00	E0	U+0E40	THAI CHARACTER SARA E
14/01	E1	U+0E41	THAI CHARACTER SARA AE
14/02	E2	U+0E42	THAI CHARACTER SARA O
14/03	E3	U+0E43	THAI CHARACTER SARA AI MAI MUAN
14/04	E4	U+0E44	THAI CHARACTER SARA AI MAI MALAI
14/05	E5	U+0E45	THAI CHARACTER LAK KHANG YAO
14/06	E6	U+0E46	THAI CHARACTER MAI YAMOK
14/07	E7	U+0E47	THAI CHARACTER MAI TAI KHU
14/08	E8	U+0E48	THAI CHARACTER MAI EK
14/09	E9	U+0E49	THAI CHARACTER MAI THO
14/10	EA	U+0E4A	THAI CHARACTER MAI TRI
14/11	EB	U+0E4B	THAI CHARACTER MAI CHATTAWA
14/12	EC	U+0E4C	THAI CHARACTER THANTHAKHAT
14/13	ED	U+0E4D	THAI CHARACTER NIKHAHIT
14/14	EE	U+0E4E	THAI CHARACTER YAMAKKAN
14/15	EF	U+0E4F	THAI CHARACTER FONGMAN
15/00	F0	U+0E50	THAI DIGIT ZERO (Thai character LEK SUN)
15/01	F1	U+0E51	THAI DIGIT ONE (Thai character LEK NUNG)
15/02	F2	U+0E52	THAI DIGIT TWO (Thai character LEK SONG)
15/03	F3	U+0E53	THAI DIGIT THREE (Thai character LEK SAM)
15/04	F4	U+0E54	THAI DIGIT FOUR (Thai character LEK SI)
15/05	F5	U+0E55	THAI DIGIT FIVE (Thai character LEK HA)
15/06	F6	U+0E56	THAI DIGIT SIX (Thai character LEK HOK)
15/07	F7	U+0E57	THAI DIGIT SEVEN (Thai character LEK CHET)
15/08	F8	U+0E58	THAI DIGIT EIGHT (Thai character LEK PAET)
15/09	F9	U+0E59	THAI DIGIT NINE (Thai character LEK KAO)
15/10	FA	U+0E5A	THAI CHARACTER ANGHANKHU
15/11	FB	U+0E5B	THAI CHARACTER KHOMUT
15/12	FC	U+0E5C	(This position shall not be used)
15/13	FD	U+0E5D	(This position shall not be used)
15/14	FE	U+0E5E	(This position shall not be used)
15/15	FF	U+0E5F	(This position shall not be used)

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**6.2 Code table**

For each character in the set the code table (table 2) 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 that are shown with cross-hatching correspond to bit combinations in table 1 having the entry "This position shall not be used".

In the table the graphic symbol for each combining character is shown together with a dotted circle to indicate its position in relation to a base character.

**Table 2 – Code table of Latin/Thai alphabet**

				b <sub>8</sub>	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1		
				b <sub>7</sub>	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	
				b <sub>6</sub>	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	
				b <sub>5</sub>	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 <sub>4</sub>	b <sub>3</sub>	b <sub>2</sub>	b <sub>1</sub>																		
0	0	0	0	00			SP	0	à	P	`	p							0		
0	0	0	1	01			!	1	A	Q	a	q							1		
0	0	1	0	02			"	2	B	R	b	r							2		
0	0	1	1	03			#	3	C	S	c	s							3		
0	1	0	0	04			\$	4	D	T	d	t							4		
0	1	0	1	05			%	5	E	U	e	u							5		
0	1	1	0	06			&	6	F	V	f	v							6		
0	1	1	1	07			'	7	G	W	g	w							7		
1	0	0	0	08			(	8	H	X	h	x							8		
1	0	0	1	09			)	9	I	Y	i	y							9		
1	0	1	0	10			*	:	J	Z	j	z							A		
1	0	1	1	11			+	;	K	[	k	{							B		
1	1	0	0	12			,	<	L	\	l								C		
1	1	0	1	13			-	=	M	]	m	}							D		
1	1	1	0	14			.	>	N	^	n	~							E		
1	1	1	1	15			/	?	O	_	o								F		
					0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	hex

## 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/IEC 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 xx/xx (ESC 02/13 xx/xx)

**NOTE** – The corresponding escape sequences are shown in parentheses.

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

In the terminology of ISO/IEC 8824-1 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 8824-1 are used this part of ISO/IEC 8859 shall be identified by the following object identifiers:

- character set  
{ iso standard 8859 11 abstract-syntax (1) }
- coded representations  
{ iso standard 8859 11 transfer-syntax (0) }

The corresponding object descriptors shall be:

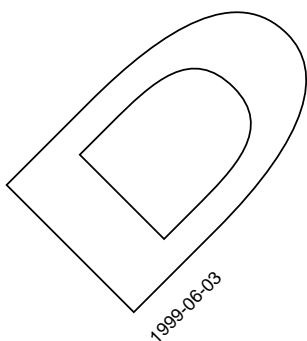
- character set "ISO 8859 part 11 repertoire"
- coded representations "ISO 8859 part 11 code"

### 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 xxx



## Annex A (informative)

### Coverage of languages by parts 1 to 11 and 13 to 15 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 as shown:

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
ISO/IEC 8859-13	Latin alphabet No. 7
ISO/IEC 8859-14	Latin alphabet No. 8
ISO/IEC 8859-15	Latin alphabet No. 9

The following official and regional languages written in Europe are covered by the Latin alphabets 1–6 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 8 9	Galician	1 5 8 9	Norwegian	1 4 5 6 7 8 9
Basque	1 5 8 9	German	1 2 3 4 5 6 7 8 9	Polish	2 7
Breton	1 5 8 9	Greenlandic	1 4 5 6 8 9	Portuguese	1 3 5 8 9
Catalan	1 5 8 9	Hungarian	2	Rhaeto-Romanic	1 5 8 9
Croat	2	Icelandic	1 6 8 9	Romanian	2
Czech	2	Irish Gaelic (new orthography)	1 5 6 8 9	Sámi	4 6
Danish	1 4 5 6 7 8 9	Irish Gaelic (old orthography)	8	Scottish Gaelic	1 5 8 9
Dutch	1 5 9	Italian	1 3 5 8 9	Slovak	2
English	1 2 3 4 5 6 7 8 9	Latin	1 2 3 4 5 6 7 8 9	Slovene	2 4 6 7
Esperanto	3	Latvian	4 7	Sorbian	2
Estonian	4 6 7 9	Lithuanian	4 6 7	Spanish	1 5 8 9
Faroese	1 6 9	Luxemburgish	1 5 8 9	Swedish	1 4 5 6 7 8 9
Finnish	(1) 4 (5) 6 7 (8) 9	Maltese	3	Turkish	(3) 5
French	(1) (3) (5) (8) 9			Welsh	8
Frisian	1 5 9				

#### 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 (œ, œ, ŷ) not specified in parts 1, 3, 9 and 14, are also needed. These are included in part 15.

3 The various Sámi languages use partly differing orthographies. The character sets in parts 4 and 10 cover the requirements of the Sámi languages most commonly used in Finland, Norway and Sweden. For the Skolt Sámi language used in Finland and Norway additional characters are needed. These are included in ISO-IR 158 and 197.

4 There are several official written languages outside Europe that are covered by Latin alphabet No. 1. Examples are Indonesian/Malay, Tagalog (Philippines), Swahili, Afrikaans.

5 Use of Latin alphabet No. 3 for Turkish is deprecated.

6 For writing Finnish four characters (Š, š, Ž, ž) not specified in parts 1, 9 and 14, are also needed. These are included in part 15. This need was not originally recognized, and therefore tables A.1 in parts 1–6, 8–10 and 13 do not reflect this condition.

## 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
ISO/IEC 8859-11	Latin/Thai 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 (as 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 (*monotonikó* orthography). The Hebrew characters included in part 8 cover Hebrew. The Thai characters included in part 11 cover Thai.



## Annex B (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 Basic Multilingual Plane.*

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

DRAFT

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