C0 Controls and Basic Latin
Range: 0000–007F

This file contains an excerpt from the character code tables and list of character names for
The Unicode Standard, Version 5.1.

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See http://www.unicode.org/errata/ for an up-to-date list of errata.

See http://www.unicode.org/charts/ for access to a complete list of the latest character code charts.
See http://www.unicode.org/charts/PDF/Unicode-5.1/ for charts showing only the characters added in Unicode 5.1.
See http://www.unicode.org/Public/5.1.0/charts/ for a complete archived file of character code charts for Unicode 5.1.

Disclaimer

These charts are provided as the online reference to the character contents of the Unicode Standard, Version 5.1 but do not provide all the information needed to fully support individual scripts using the Unicode Standard. For a complete understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode Standard, Version 5.0 (ISBN 0-321-48091-0), online at http://www.unicode.org/versions/Unicode5.0.0/, as well as Unicode Standard Annexes #9, #11, #14, #15, #24, #29, #31, #34, #38, #41, #42, and #44, the other Unicode Technical Reports and Standards, and the Unicode Character Database, which are available online.

See http://www.unicode.org/ucd/ and http://www.unicode.org/reports/

A thorough understanding of the information contained in these additional sources is required for a successful implementation.

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See http://www.unicode.org/charts/fonts.html for a list.

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See http://www.unicode.org/pending/pending.html and http://www.unicode.org/alloc/Pipeline.html.

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	000	001	002	003	004	005	006	007
0	NUL 0000	DLE 0010	SP 0020	0 0030	@ 0040	P 0050	` 0060	p 0070
1	SOH 0001	DC1 0011	! 0021	1 0031	A 0041	Q 0051	a 0061	q 0071
2	STX 0002	DC2 0012	" 0022	2 0032	B 0042	R 0052	b 0062	r 0072
3	ETX 0003	DC3 0013	# 0023	3 0033	C 0043	S 0053	c 0063	s 0073
4	EOT 0004	DC4 0014	$ 0024	4 0034	D 0044	T 0054	d 0064	t 0074
5	ENQ 0005	NAK 0015	% 0025	5 0035	E 0045	U 0055	e 0065	u 0075
6	ACK 0006	SYN 0016	& 0026	6 0036	F 0046	V 0056	f 0066	v 0076
7	BEL 0007	ETB 0017	' 0027	7 0037	G 0047	W 0057	g 0067	w 0077
8	BS 0008	CAN 0018	(0028	8 0038	H 0048	X 0058	h 0068	x 0078
9	HT 0009	EM 0019	) 0029	9 0039	I 0049	Y 0059	i 0069	y 0079
A	LF 000A	SUB 001A	* 002A	: 003A	J 004A	Z 005A	j 006A	z 007A
B	VT 000B	ESC 001B	+ 002B	; 003B	K 004B	[005B	k 006B	{ 007B
C	FF 000C	FS 001C	, 002C	< 003C	L 004C	\ 005C	l 006C	| 007C
D	CR 000D	GS 001D	- 002D	= 003D	M 004D	] 005D	m 006D	} 007D
E	SO 000E	RS 001E	. 002E	> 003E	N 004E	^ 005E	n 006E	~ 007E
F	SI 000F	US 001F	/ 002F	? 003F	O 004F	_ 005F	o 006F	DEL 007F

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C0 controls

Alias names are those for ISO/IEC 6429:1992. Commonly used alternative aliases are also shown.

0000 NUL <control>
= NULL

0001 SOH <control>
= START OF HEADING

0002 STX <control>
= START OF TEXT

0003 ETX <control>
= END OF TEXT

0004 EOT <control>
= END OF TRANSMISSION

0005 ENQ <control>
= ENQUIRY

0006 ACK <control>
= ACKNOWLEDGE

0007 BEL <control>
= BELL

0008 BS <control>
= BACKSPACE

0009 HT <control>
= CHARACTER TABULATION
= horizontal tabulation (HT), tab

000A LF <control>
= LINE FEED (LF)
= new line (NL), end of line (EOL)

000B VT <control>
= LINE TABULATION
= vertical tabulation (VT)

000C FF <control>
= FORM FEED (FF)

000D CR <control>
= CARRIAGE RETURN (CR)

000E SO <control>
= SHIFT OUT
• known as LOCKING-SHIFT ONE in 8-bit environments

000F SI <control>
= SHIFT IN
• known as LOCKING-SHIFT ZERO in 8-bit environments

0010 DLE <control>
= DATA LINK ESCAPE

0011 DC1 <control>
= DEVICE CONTROL ONE

0012 DC2 <control>
= DEVICE CONTROL TWO

0013 DC3 <control>
= DEVICE CONTROL THREE

0014 DC4 <control>
= DEVICE CONTROL FOUR

0015 NAK <control>
= NEGATIVE ACKNOWLEDGE

0016 SYN <control>
= SYNCHRONOUS IDLE

0017 ETB <control>
= END OF TRANSMISSION BLOCK

0018 CAN <control>
= CANCEL

0019 EM <control>
= END OF MEDIUM

001A SUB <control>
= SUBSTITUTE
→ FFFD 🞜 replacement character

001B ESC <control>
= ESCAPE

001C FS <control>
= INFORMATION SEPARATOR FOUR
= file separator (FS)

001D GS <control>
= INFORMATION SEPARATOR THREE
= group separator (GS)

001E RS <control>
= INFORMATION SEPARATOR TWO
= record separator (RS)

001F US <control>
= INFORMATION SEPARATOR ONE
= unit separator (US)

ASCII punctuation and symbols

Based on ISO/IEC 646.

0020 SP SPACE
• sometimes considered a control code
• other space characters: 2000 NQSP –200A HSP
→ 00A0 NBSP no-break space
→ 200B ZWSP zero width space
→ 2060 WJ word joiner
→ 3000 IDSP ideographic space
→ FEFF ZWNBSP zero width no-break space

0021 ! EXCLAMATION MARK
= factorial
= bang
→ 00A1 ¡ inverted exclamation mark
→ 01C3 ǃ latin letter retroflex click
→ 203C ‼ double exclamation mark
→ 203D ⁉ interrobang
→ 2762 ❢ heavy exclamation mark ornament

0022 " QUOTATION MARK
• neutral (vertical), used as opening or closing quotation mark
• preferred characters in English for paired quotation marks are 201C “ & 201D ”
→ 02BA ″ modifier letter double prime
→ 030B ◌̋ combining double acute accent
→ 030E ◌̎ combining double vertical line above
→ 2033 ″ double prime
→ 3003 〃 ditto mark

0023 # NUMBER SIGN
= pound sign, hash, crosshatch, octothorpe
→ 2114 ℔ l b bar symbol
→ 266F ♯ music sharp sign

0024 $ DOLLAR SIGN
= milreis, escudo
• glyph may have one or two vertical bars
• other currency symbol characters: 20A0 ₠ –20B5 ₵
→ 00A4 ¤ currency sign

0025 % PERCENT SIGN
→ 066A ٪ arabic percent sign
→ 2030 ‰ per mille sign
→ 2031 ‱ per ten thousand sign
→ 2052 ⁒ commercial minus sign

0026 & AMPERSAND
→ 204A ⁊ tironian sign et
→ 214B ⅋ turned ampersand

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0027 ' APOSTROPHE
= apostrophe-quote (1.0)
= APL quote
• neutral (vertical) glyph with mixed usage
• 2019 ’ is preferred for apostrophe
• preferred characters in English for paired quotation marks are 2018 ‘ & 2019 ’
→ 02B9 ʹ modifier letter prime
→ 02BC ʼ modifier letter apostrophe
→ 02C8 ˈ modifier letter vertical line
→ 0301 ◌́ combining acute accent
→ 2032 ′ prime
→ A78C ꞌ latin small letter saltillo

0028 (LEFT PARENTHESIS
= opening parenthesis (1.0)

0029) RIGHT PARENTHESIS
= closing parenthesis (1.0)
• see discussion on semantics of paired bracketing characters

002A * ASTERISK
= star (on phone keypads)
→ 066D ٭ arabic five pointed star
→ 204E ⁎ low asterisk
→ 2217 ∗ asterisk operator
→ 26B9 ⚹ sextile
→ 2731 ✱ heavy asterisk

002B + PLUS SIGN

002C , COMMA
= decimal separator
→ 060C ، arabic comma
→ 201A ‚ single low-9 quotation mark
→ 3001 、 ideographic comma

002D - HYPHEN-MINUS
= hyphen or minus sign
• used for either hyphen or minus sign
→ 2010 ‐ hyphen
→ 2011 ‑ non-breaking hyphen
→ 2012 ‒ figure dash
→ 2013 – en dash
→ 2212 − minus sign
→ 10191 𐆑 roman uncia sign

002E . FULL STOP
= period, dot, decimal point
• may be rendered as a raised decimal point in old style numbers
→ 06D4 ۔ arabic full stop
→ 3002 。 ideographic full stop

002F / SOLIDUS
= slash, virgule
→ 01C0 ǀ latin letter dental click
→ 0338 ◌̸ combining long solidus overlay
→ 2044 ⁄ fraction slash
→ 2215 ∕ division slash

ASCII digits

0030 0 DIGIT ZERO
0031 1 DIGIT ONE
0032 2 DIGIT TWO
0033 3 DIGIT THREE
0034 4 DIGIT FOUR
0035 5 DIGIT FIVE
0036 6 DIGIT SIX
0037 7 DIGIT SEVEN
0038 8 DIGIT EIGHT
0039 9 DIGIT NINE

ASCII punctuation and symbols

003A : COLON
→ 0589 ։ armenian full stop
→ 05C3 ׃ hebrew punctuation sof pasuq
→ 2236 ∶ ratio
→ A789 ꞉ modifier letter colon

003B ; SEMICOLON
• this, and not 037E ; , is the preferred character for ’Greek question mark’
→ 037E ; greek question mark
→ 061B ؛ arabic semicolon
→ 204F ⁏ reversed semicolon

003C < LESS-THAN SIGN
→ 2039 ‹ single left-pointing angle quotation mark
→ 2329 〈 left-pointing angle bracket
→ 27E8 ⟨ mathematical left angle bracket
→ 3008 〈 left angle bracket

003D = EQUALS SIGN
• other related characters: 2241 ≁ –2263 ≣
→ 2260 ≠ not equal to
→ 2261 ≡ identical to
→ A78A ꞊ modifier letter short equals sign
→ 10190 𐆐 roman sextans sign

003E > GREATER-THAN SIGN
→ 203A › single right-pointing angle quotation mark
→ 232A 〉 right-pointing angle bracket
→ 27E9 ⟩ mathematical right angle bracket
→ 3009 〉 right angle bracket

003F ? QUESTION MARK
→ 00BF ¿ inverted question mark
→ 037E ; greek question mark
→ 061F ؟ arabic question mark
→ 203D ‽ interrobang
→ 2048 ⁇ question exclamation mark
→ 2049 ⁉ exclamation question mark

0040 @ COMMERCIAL AT
= at sign

Uppercase Latin alphabet

0041 A LATIN CAPITAL LETTER A
0042 B LATIN CAPITAL LETTER B
→ 212C ℬ script capital b
0043 C LATIN CAPITAL LETTER C
→ 2102 ℂ double-struck capital c
→ 212D ℭ black-letter capital c
0044 D LATIN CAPITAL LETTER D
0045 E LATIN CAPITAL LETTER E
→ 2107 Ɛ euler constant
→ 2130 ℰ script capital e
0046 F LATIN CAPITAL LETTER F
→ 2131 ℱ script capital f
→ 2132 Ⅎ turned capital f
0047 G LATIN CAPITAL LETTER G

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0048 H LATIN CAPITAL LETTER H
→ 210B ℋ script capital h
→ 210C ℌ black-letter capital h
→ 210D ℍ double-struck capital h
0049 I LATIN CAPITAL LETTER I
• Turkish and Azerbaijani use 0131 ı for lowercase
→ 0130 İ latin capital letter i with dot above
→ 0406 І cyrillic capital letter byelorussian-ukrainian i
→ 04C0 Ӏ cyrillic letter palochka
→ 2110 ℐ script capital i
→ 2111 ℑ black-letter capital i
→ 2160 Ⅰ roman numeral one
004A J LATIN CAPITAL LETTER J
004B K LATIN CAPITAL LETTER K
→ 212A K kelvin sign
004C L LATIN CAPITAL LETTER L
→ 2112 ℒ script capital l
004D M LATIN CAPITAL LETTER M
→ 2133 ℳ script capital m
004E N LATIN CAPITAL LETTER N
→ 2115 ℕ double-struck capital n
004F O LATIN CAPITAL LETTER O
0050 P LATIN CAPITAL LETTER P
→ 2119 ℙ double-struck capital p
0051 Q LATIN CAPITAL LETTER Q
→ 211A ℚ double-struck capital q
0052 R LATIN CAPITAL LETTER R
→ 211B ℛ script capital r
→ 211C ℜ black-letter capital r
→ 211D ℝ double-struck capital r
0053 S LATIN CAPITAL LETTER S
0054 T LATIN CAPITAL LETTER T
0055 U LATIN CAPITAL LETTER U
0056 V LATIN CAPITAL LETTER V
0057 W LATIN CAPITAL LETTER W
0058 X LATIN CAPITAL LETTER X
0059 Y LATIN CAPITAL LETTER Y
005A Z LATIN CAPITAL LETTER Z
→ 2124 ℤ double-struck capital z
→ 2128 ℨ black-letter capital z

ASCII punctuation and symbols

005B [LEFT SQUARE BRACKET
= opening square bracket (1.0)
• other bracket characters: 27E6 ⟦ –27EB ⟫ , 2983 ⦃ –2998 ⦄ , 3008 〈 –301B 〛
005C \ REVERSE SOLIDUS
= backslash
→ 20E5 ⃥ combining reverse solidus overlay
→ 2216 ∖ set minus
005D] RIGHT SQUARE BRACKET
= closing square bracket (1.0)
005E ^ CIRCUMFLEX ACCENT
• this is a spacing character
→ 02C4 ˄ modifier letter up arrowhead
→ 02C6 ˆ modifier letter circumflex accent
→ 0302 ◌̂ combining circumflex accent
→ 2038 ‸ caret
→ 2303 ⌃ up arrowhead
005F _ LOW LINE
= spacing underscore (1.0)
• this is a spacing character
→ 02CD ˍ modifier letter low macron
→ 0331 ◌̱ combining macron below
→ 0332 ◌̲ combining low line
→ 2017 ‗ double low line
0060 ` GRAVE ACCENT
• this is a spacing character
→ 02CB ˋ modifier letter grave accent
→ 0300 ◌̀ combining grave accent
→ 2035 ‵ reversed prime

Lowercase Latin alphabet

0061 a LATIN SMALL LETTER A
0062 b LATIN SMALL LETTER B
0063 c LATIN SMALL LETTER C
0064 d LATIN SMALL LETTER D
0065 e LATIN SMALL LETTER E
→ 212E ℮ estimated symbol
→ 212F ℯ script small e
0066 f LATIN SMALL LETTER F
0067 g LATIN SMALL LETTER G
→ 0261 ɡ latin small letter script g
→ 210A ℊ script small g
0068 h LATIN SMALL LETTER H
→ 04BB һ cyrillic small letter shha
→ 210E ℎ planck constant
0069 i LATIN SMALL LETTER I
• Turkish and Azerbaijani use 0130 İ for uppercase
→ 0131 ı latin small letter dotless i
→ 1D6A4 𝚤 mathematical italic small dotless i
006A j LATIN SMALL LETTER J
→ 0237 ȷ latin small letter dotless j
→ 1D6A5 𝚥 mathematical italic small dotless j
006B k LATIN SMALL LETTER K
006C l LATIN SMALL LETTER L
→ 2113 ℓ script small l
→ 1D4C1 𝓁 mathematical script small l
006D m LATIN SMALL LETTER M
006E n LATIN SMALL LETTER N
→ 207F ⁿ superscript latin small letter n
006F o LATIN SMALL LETTER O
→ 2134 ℴ script small o
0070 p LATIN SMALL LETTER P
0071 q LATIN SMALL LETTER Q
0072 r LATIN SMALL LETTER R
0073 s LATIN SMALL LETTER S
0074 t LATIN SMALL LETTER T
0075 u LATIN SMALL LETTER U
0076 v LATIN SMALL LETTER V
0077 w LATIN SMALL LETTER W
0078 x LATIN SMALL LETTER X
0079 y LATIN SMALL LETTER Y
007A z LATIN SMALL LETTER Z
→ 01B6 ƶ latin small letter z with stroke

ASCII punctuation and symbols

007B { LEFT CURLY BRACKET
= opening curly bracket (1.0)
= left brace

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007C | VERTICAL LINE
= vertical bar
• used in pairs to indicate absolute value
→ 01C0 ǀ latin letter dental click
→ 05C0 ׀ hebrew punctuation paseq
→ 2223 ∣ divides
→ 2758 ❘ light vertical bar

007D } RIGHT CURLY BRACKET
= closing curly bracket (1.0)
= right brace

007E ~ TILDE
• this is a spacing character
→ 02DC ˜ small tilde
→ 0303 ◌̃ combining tilde
→ 2053 ⁓ swung dash
→ 223C ∼ tilde operator
→ FF5E ～ fullwidth tilde

Control character

007F <control>
= DELETE

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