Character sets

Apple's MacRoman character set and equivalent Unicode and HTML characters

ANSI	MACROMAN	DIFFERENCES	WGL4	SYMBOL	WINGDINGS	WINGDINGS 2

The following table lists all of the 223 characters in Apple's proprietary MacRoman character set, and gives the Unicode name and numeric character reference (in decimal and hexadecimal) for each character. Characters 32–126 are identical to those in the ANSI character set and the ISO 8859-1 character set. Differences between character sets.

The characters that appear in the first column of the following table are either typed from the keyboard (32–126) or generated from Unicode numeric character references (127–255), and so they should appear correctly in any Web browser that supports Unicode and that has suitable fonts available, regardless of the operating system.

Character	Macintosh Number	Unicode Number	Macintosh Hex	Unicode Hex	HTML 4.0 Entity	Unicode Name	Unicode Range
	32	32	0x20	U+0020		space	Basic Latin
!	33	33	0x21	U+0021		exclamation mark	Basic Latin
"	34	34	0x22	U+0022	"	quotation mark	Basic Latin
#	35	35	0x23	U+0023		number sign	Basic Latin
$	36	36	0x24	U+0024		dollar sign	Basic Latin
%	37	37	0x25	U+0025		percent sign	Basic Latin
&	38	38	0x26	U+0026	&	ampersand	Basic Latin
'	39	39	0x27	U+0027		apostrophe	Basic Latin
(	40	40	0x28	U+0028		left parenthesis	Basic Latin
)	41	41	0x29	U+0029		right parenthesis	Basic Latin
*	42	42	0x2A	U+002A		asterisk	Basic Latin
+	43	43	0x2B	U+002B		plus sign	Basic Latin

,	44	44	0x2C	U+002C		comma	Basic Latin
-	45	45	0x2D	U+002D		hyphen-minus	Basic Latin
.	46	46	0x2E	U+002E		full stop	Basic Latin
/	47	47	0x2F	U+002F		solidus	Basic Latin
0	48	48	0x30	U+0030		digit zero	Basic Latin
1	49	49	0x31	U+0031		digit one	Basic Latin
2	50	50	0x32	U+0032		digit two	Basic Latin
3	51	51	0x33	U+0033		digit three	Basic Latin
4	52	52	0x34	U+0034		digit four	Basic Latin
5	53	53	0x35	U+0035		digit five	Basic Latin
6	54	54	0x36	U+0036		digit six	Basic Latin
7	55	55	0x37	U+0037		digit seven	Basic Latin
8	56	56	0x38	U+0038		digit eight	Basic Latin
9	57	57	0x39	U+0039		digit nine	Basic Latin
:	58	58	0x3A	U+003A		colon	Basic Latin
;	59	59	0x3B	U+003B		semicolon	Basic Latin
<	60	60	0x3C	U+003C	<	less-than sign	Basic Latin
=	61	61	0x3D	U+003D		equals sign	Basic Latin
>	62	62	0x3E	U+003E	>	greater-than sign	Basic Latin
?	63	63	0x3F	U+003F		question mark	Basic Latin
@	64	64	0x40	U+0040		commercial at	Basic Latin
A	65	65	0x41	U+0041		Latin capital letter A	Basic Latin
B	66	66	0x42	U+0042		Latin capital letter B	Basic Latin

C	67	67	0x43	U+0043		Latin capital letter C	Basic Latin
D	68	68	0x44	U+0044		Latin capital letter D	Basic Latin
E	69	69	0x45	U+0045		Latin capital letter E	Basic Latin
F	70	70	0x46	U+0046		Latin capital letter F	Basic Latin
G	71	71	0x47	U+0047		Latin capital letter G	Basic Latin
H	72	72	0x48	U+0048		Latin capital letter H	Basic Latin
I	73	73	0x49	U+0049		Latin capital letter I	Basic Latin
J	74	74	0x4A	U+004A		Latin capital letter J	Basic Latin
K	75	75	0x4B	U+004B		Latin capital letter K	Basic Latin
L	76	76	0x4C	U+004C		Latin capital letter L	Basic Latin
M	77	77	0x4D	U+004D		Latin capital letter M	Basic Latin
N	78	78	0x4E	U+004E		Latin capital letter N	Basic Latin
O	79	79	0x4F	U+004F		Latin capital letter O	Basic Latin
P	80	80	0x50	U+0050		Latin capital letter P	Basic Latin
Q	81	81	0x51	U+0051		Latin capital letter Q	Basic Latin
R	82	82	0x52	U+0052		Latin capital letter R	Basic Latin
S	83	83	0x53	U+0053		Latin capital letter S	Basic Latin
T	84	84	0x54	U+0054		Latin capital letter T	Basic Latin
U	85	85	0x55	U+0055		Latin capital letter U	Basic Latin
	86	86	0x56	U+0056		Latin capital	Basic Latin

V						letter V	
W	87	87	0x57	U+0057		Latin capital letter W	Basic Latin
X	88	88	0x58	U+0058		Latin capital letter X	Basic Latin
Y	89	89	0x59	U+0059		Latin capital letter Y	Basic Latin
Z	90	90	0x5A	U+005A		Latin capital letter Z	Basic Latin
[	91	91	0x5B	U+005B		left square bracket	Basic Latin
\	92	92	0x5C	U+005C		reverse solidus	Basic Latin
]	93	93	0x5D	U+005D		right square bracket	Basic Latin
^	94	94	0x5E	U+005E		circumflex accent	Basic Latin
_	95	95	0x5F	U+005F		low line	Basic Latin
`	96	96	0x60	U+0060		grave accent	Basic Latin
a	97	97	0x61	U+0061		Latin small letter a	Basic Latin
b	98	98	0x62	U+0062		Latin small letter b	Basic Latin
c	99	99	0x63	U+0063		Latin small letter c	Basic Latin
d	100	100	0x64	U+0064		Latin small letter d	Basic Latin
e	101	101	0x65	U+0065		Latin small letter e	Basic Latin
f	102	102	0x66	U+0066		Latin small letter f	Basic Latin
g	103	103	0x67	U+0067		Latin small letter g	Basic Latin
h	104	104	0x68	U+0068		Latin small letter h	Basic Latin
i	105	105	0x69	U+0069		Latin small letter i	Basic Latin

j	106	106	0x6A	U+006A		Latin small letter j	Basic Latin
k	107	107	0x6B	U+006B		Latin small letter k	Basic Latin
l	108	108	0x6C	U+006C		Latin small letter l	Basic Latin
m	109	109	0x6D	U+006D		Latin small letter m	Basic Latin
n	110	110	0x6E	U+006E		Latin small letter n	Basic Latin
o	111	111	0x6F	U+006F		Latin small letter o	Basic Latin
p	112	112	0x70	U+0070		Latin small letter p	Basic Latin
q	113	113	0x71	U+0071		Latin small letter q	Basic Latin
r	114	114	0x72	U+0072		Latin small letter r	Basic Latin
s	115	115	0x73	U+0073		Latin small letter s	Basic Latin
t	116	116	0x74	U+0074		Latin small letter t	Basic Latin
u	117	117	0x75	U+0075		Latin small letter u	Basic Latin
v	118	118	0x76	U+0076		Latin small letter v	Basic Latin
w	119	119	0x77	U+0077		Latin small letter w	Basic Latin
x	120	120	0x78	U+0078		Latin small letter x	Basic Latin
y	121	121	0x79	U+0079		Latin small letter y	Basic Latin
z	122	122	0x7A	U+007A		Latin small letter z	Basic Latin
{	123	123	0x7B	U+007B		left curly bracket	Basic Latin
		124	124	0x7C	U+007C		vertical line	Basic Latin
}	125	125	0x7D	U+007D		right curly	Basic Latin

						bracket	
~	126	126	0x7E	U+007E		tilde	Basic Latin
	127	127	0x7F	U+007F		(not used)	
Ä	128	196	0x80	U+00C4	Ä	Latin capital letter A with diaeresis	Latin-1 Supplement
Å	129	197	0x81	U+00C5	Å	Latin capital letter A with ring above	Latin-1 Supplement
Ç	130	199	0x82	U+00C7	Ç	Latin capital letter C with cedilla	Latin-1 Supplement
É	131	201	0x83	U+00C9	É	Latin capital letter E with acute	Latin-1 Supplement
Ñ	132	209	0x84	U+00D1	Ñ	Latin capital letter N with tilde	Latin-1 Supplement
Ö	133	214	0x85	U+00D6	Ö	Latin capital letter O with diaeresis	Latin-1 Supplement
Ü	134	220	0x86	U+00DC	Ü	Latin capital letter U with diaeresis	Latin-1 Supplement
á	135	225	0x87	U+00E1	á	Latin small letter a with acute	Latin-1 Supplement
à	136	224	0x88	U+00E0	à	Latin small letter a with grave	Latin-1 Supplement
â	137	226	0x89	U+00E2	â	Latin small letter a with circumflex	Latin-1 Supplement
ä	138	228	0x8A	U+00E4	ä	Latin small letter a with diaeresis	Latin-1 Supplement
ã	139	227	0x8B	U+00E3	ã	Latin small letter a with tilde	Latin-1 Supplement

å	140	229	0x8C	U+00E5	å	Latin small letter a with ring above	Latin-1 Supplement
ç	141	231	0x8D	U+00E7	ç	Latin small letter c with cedilla	Latin-1 Supplement
é	142	233	0x8E	U+00E9	é	Latin small letter e with acute	Latin-1 Supplement
è	143	232	0x8F	U+00E8	è	Latin small letter e with grave	Latin-1 Supplement
ê	144	234	0x90	U+00EA	ê	Latin small letter e with circumflex	Latin-1 Supplement
ë	145	235	0x91	U+00EB	ë	Latin small letter e with diaeresis	Latin-1 Supplement
í	146	237	0x92	U+00ED	í	Latin small letter i with acute	Latin-1 Supplement
ì	147	236	0x93	U+00EC	ì	Latin small letter i with grave	Latin-1 Supplement
î	148	238	0x94	U+00EE	î	Latin small letter i with circumflex	Latin-1 Supplement
ï	149	239	0x95	U+00EF	ï	Latin small letter i with diaeresis	Latin-1 Supplement
ñ	150	241	0x96	U+00F1	ñ	Latin small letter n with tilde	Latin-1 Supplement
ó	151	243	0x97	U+00F3	ó	Latin small letter o with acute	Latin-1 Supplement
ò	152	242	0x98	U+00F2	ò	Latin small letter o with grave	Latin-1 Supplement
ô	153	244	0x99	U+00F4	ô	Latin small letter o with circumflex	Latin-1 Supplement

ö	154	246	0x9A	U+00F6	ö	Latin small letter o with diaeresis	Latin-1 Supplement
õ	155	245	0x9B	U+00F5	õ	Latin small letter o with tilde	Latin-1 Supplement
ú	156	250	0x9C	U+00FA	ú	Latin small letter u with acute	Latin-1 Supplement
ù	157	249	0x9D	U+00F9	ù	Latin small letter u with grave	Latin-1 Supplement
û	158	251	0x9E	U+00FB	û	Latin small letter u with circumflex	Latin-1 Supplement
ü	159	252	0x9F	U+00FC	ü	Latin small letter u with diaeresis	Latin-1 Supplement
†	160	8224	0xA0	U+2020	†	dagger	General Punctuation
°	161	176	0xA1	U+00B0	°	degree sign	Latin-1 Supplement
¢	162	162	0xA2	U+00A2	¢	cent sign	Latin-1 Supplement
£	163	163	0xA3	U+00A3	£	pound sign	Latin-1 Supplement
§	164	167	0xA4	U+00A7	§	section sign	Latin-1 Supplement
•	165	8226	0xA5	U+2022	•	bullet	General Punctuation
¶	166	182	0xA6	U+00B6	¶	pilcrow sign	Latin-1 Supplement
ß	167	223	0xA7	U+00DF	ß	Latin small letter sharp s	Latin-1 Supplement
®	168	174	0xA8	U+00AE	®	registered sign	Latin-1 Supplement
©	169	169	0xA9	U+00A9	©	copyright sign	Latin-1 Supplement
™	170	8482	0xAA	U+2122	™	trade mark sign	Letterlike Symbols

´	171	180	0xAB	U+00B4	´	acute accent	Latin-1 Supplement
¨	172	168	0xAC	U+00A8	¨	diaeresis	Latin-1 Supplement
≠	173	8800	0xAD	U+2260	≠	not equal to	Mathematical Operators
Æ	174	198	0xAE	U+00C6	Æ	Latin capital letter AE	Latin-1 Supplement
Ø	175	216	0xAF	U+00D8	Ø	Latin capital letter O with stroke	Latin-1 Supplement
∞	176	8734	0xB0	U+221E	∞	infinity	Mathematical Operators
±	177	177	0xB1	U+00B1	±	plus-minus sign	Latin-1 Supplement
≤	178	8804	0xB2	U+2264	≤	less-than or equal to	Mathematical Operators
≥	179	8805	0xB3	U+2265	≥	greater-than or equal to	Mathematical Operators
¥	180	165	0xB4	U+00A5	¥	yen sign	Latin-1 Supplement
µ	181	181	0xB5	U+00B5	µ	micro sign	Latin-1 Supplement
∂	182	8706	0xB6	U+2202	∂	partial differential	Mathematical Operators
Σ	183	8721	0xB7	U+2211	∑	n-ary summation	Mathematical Operators
∏	184	8719	0xB8	U+220F	∏	n-ary product	Mathematical Operators
π	185	960	0xB9	U+03C0	π	Greek small letter pi	Greek
∫	186	8747	0xBA	U+222B	∫	integral	Mathematical Operators
a	187	170	0xBB	U+00AA	ª	feminine ordinal indicator	Latin-1 Supplement
o	188	186	0xBC	U+00BA	º	masculine ordinal indicator	Latin-1 Supplement

Ω	189	937	0xBD	U+03A9	Ω	Greek capital letter Omega	Greek
æ	190	230	0xBE	U+00E6	æ	Latin small letter ae	Latin-1 Supplement
ø	191	248	0xBF	U+00F8	ø	Latin small letter o with stroke	Latin-1 Supplement
¿	192	191	0xC0	U+00BF	¿	inverted question mark	Latin-1 Supplement
¡	193	161	0xC1	U+00A1	¡	inverted exclamation mark	Latin-1 Supplement
¬	194	172	0xC2	U+00AC	¬	not sign	Latin-1 Supplement
√	195	8730	0xC3	U+221A	√	square root	Mathematical Operators
ƒ	196	402	0xC4	U+0192	ƒ	Latin small letter f with hook	Latin Extended-B
≈	197	8776	0xC5	U+2248	≈	almost equal to	Mathematical Operators
Δ	198	8710	0xC6	U+2206		increment	Mathematical Operators
«	199	171	0xC7	U+00AB	«	left-pointing double angle quotation mark	Latin-1 Supplement
»	200	187	0xC8	U+00BB	»	right-pointing double angle quotation mark	Latin-1 Supplement
…	201	8230	0xC9	U+2026	…	horizontal ellipsis	General Punctuation
	202	160	0xCA	U+00A0		no-break space	Latin-1 Supplement
À	203	192	0xCB	U+00C0	À	Latin capital letter A with grave	Latin-1 Supplement
Ã	204	195	0xCC	U+00C3	Ã	Latin capital letter A with	Latin-1 Supplement

						tilde
Õ	205	213	0xCD	U+00D5	Õ	Latin capital letter O with tilde	Latin-1 Supplement
Œ	206	338	0xCE	U+0152	Œ	Latin capital ligature OE	Latin Extended-A
œ	207	339	0xCF	U+0153	œ	Latin small ligature oe	Latin Extended-A
–	208	8211	0xD0	U+2013	–	en dash	General Punctuation
—	209	8212	0xD1	U+2014	—	em dash	General Punctuation
"	210	8220	0xD2	U+201C	“	left double quotation mark	General Punctuation
"	211	8221	0xD3	U+201D	”	right double quotation mark	General Punctuation
'	212	8216	0xD4	U+2018	‘	left single quotation mark	General Punctuation
'	213	8217	0xD5	U+2019	’	right single quotation mark	General Punctuation
÷	214	247	0xD6	U+00F7	÷	division sign	Latin-1 Supplement
◊	215	9674	0xD7	U+25CA	◊	lozenge	Geometric Shapes
ÿ	216	255	0xD8	U+00FF	ÿ	Latin small letter y with diaeresis	Latin-1 Supplement
Ÿ	217	376	0xD9	U+0178	Ÿ	Latin capital letter Y with diaeresis	Latin Extended-A
⁄	218	8260	0xDA	U+2044	⁄	fraction slash	General Punctuation
€	219	8364	0xDB	U+20AC	€	euro sign	Currency Symbols
‹	220	8249	0xDC	U+2039	‹	single left-pointing angle	General Punctuation

						quotation mark	
›	221	8250	0xDD	U+203A	›	single right-pointing angle quotation mark	General Punctuation
fi	222	64257	0xDE	U+FB01		Latin small ligature fi	Alphabetic Presentation Forms
fl	223	64258	0xDF	U+FB02		Latin small ligature fl	Alphabetic Presentation Forms
‡	224	8225	0xE0	U+2021	‡	double dagger	General Punctuation
·	225	183	0xE1	U+00B7	·	middle dot	Latin-1 Supplement
‚	226	8218	0xE2	U+201A	‚	single low-9 quotation mark	General Punctuation
„	227	8222	0xE3	U+201E	„	double low-9 quotation mark	General Punctuation
‰	228	8240	0xE4	U+2030	‰	per mille sign	General Punctuation
Â	229	194	0xE5	U+00C2	Â	Latin capital letter A with circumflex	Latin-1 Supplement
Ê	230	202	0xE6	U+00CA	Ê	Latin capital letter E with circumflex	Latin-1 Supplement
Á	231	193	0xE7	U+00C1	Á	Latin capital letter A with acute	Latin-1 Supplement
Ë	232	203	0xE8	U+00CB	Ë	Latin capital letter E with diaeresis	Latin-1 Supplement
È	233	200	0xE9	U+00C8	È	Latin capital letter E with grave	Latin-1 Supplement
Í	234	205	0xEA	U+00CD	Í	Latin capital	Latin-1

						letter I with acute	Supplement
Î	235	206	0xEB	U+00CE	Î	Latin capital letter I with circumflex	Latin-1 Supplement
Ï	236	207	0xEC	U+00CF	Ï	Latin capital letter I with diaeresis	Latin-1 Supplement
Ì	237	204	0xED	U+00CC	Ì	Latin capital letter I with grave	Latin-1 Supplement
Ó	238	211	0xEE	U+00D3	Ó	Latin capital letter O with acute	Latin-1 Supplement
Ô	239	212	0xEF	U+00D4	Ô	Latin capital letter O with circumflex	Latin-1 Supplement
	240	63743	0xF0	U+F8FF		Apple logo	Private Use Area
Ò	241	210	0xF1	U+00D2	Ò	Latin capital letter O with grave	Latin-1 Supplement
Ú	242	218	0xF2	U+00DA	Ú	Latin capital letter U with acute	Latin-1 Supplement
Û	243	219	0xF3	U+00DB	Û	Latin capital letter U with circumflex	Latin-1 Supplement
Ù	244	217	0xF4	U+00D9	Ù	Latin capital letter U with grave	Latin-1 Supplement
ı	245	305	0xF5	U+0131		Latin small letter dotless i	Latin Extended-A
ˆ	246	710	0xF6	U+02C6	ˆ	modifier letter circumflex accent	Spacing Modifier Letters
˜	247	732	0xF7	U+02DC	˜	small tilde	Spacing Modifier Letters
¯	248	175	0xF8	U+00AF	¯	macron	Latin-1

						Supplement
˘	249	728	0xF9	U+02D8		breve	Spacing Modifier Letters
˙	250	729	0xFA	U+02D9		dot above	Spacing Modifier Letters
˚	251	730	0xFB	U+02DA		ring above	Spacing Modifier Letters
¸	252	184	0xFC	U+00B8	¸	cedilla	Latin-1 Supplement
˝	253	733	0xFD	U+02DD		double acute accent	Spacing Modifier Letters
˛	254	731	0xFE	U+02DB		ogonek	Spacing Modifier Letters
ˇ	255	711	0xFF	U+02C7		caron	Spacing Modifier Letters

The euro sign at position 219 was introduced with Mac OS 8.5; this position was previously used for the currency sign.

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Send comments or questions to Alan Wood

Alan Wood's Web site