

Appendix VI

















Displayed Character Set.

















There are 256 symbols in the displayed character set. All of these can be printed, although it requires special effort to print characters 0..31 which are often interpreted as control codes. The user can set the matrix for any or all characters (see section 4.6). The following lists describe the default character set.

The character set is split into a number of areas for ease of description:

0..31	(#00..#1F)	ASCII control codes.
32..127	(#20..#7F)	ASCII characters.
128..143	(#80..#8F)	Block graphics.
144..159	(#90..#9F)	Line graphics.
160..191	(#A0..#BF)	Further characters.
192..255	(#C0..#FF)	Miscellaneous graphic symbols.


a. ASCII Control Codes.

0	#00	NUL		Square.
1	#01	SOH		Upside down L.
2	#02	STX		Upside down T.
3	#03	ETX		Backwards L.
4	#04	EOT		Lightning flash.
5	#05	ENQ		Square with a diagonal cross.
6	#06	ACK		Tick.
7	#07	BEL		Bell (semi-circle with feet).
8	#08	BS		Left pointing arrow.
9	#09	HT		Right pointing arrow.
10	#0A	LT		Down pointing arrow.
11	#0B	VT		Up pointing arrow.
12	#0C	FF		Christmas tree (down pointing arrow with a tail).
13	#0D	CR		Bent left pointing arrow.
14	#0E	SO		Circle with a diagonal cross.
15	#0F	SI		Circle with a central dot.

16	#10	DLE		Square with a horizontal bar.
17	#11	DC1		Circle with three o'clock.
18	#12	DC2		Circle with half past three.
19	#13	DC3		Circle with half past nine.
20	#14	DC4		Circle with nine o'clock.
21	#15	NAK		Crossed out tick.
22	#16	SYN		Square wave.
23	#17	ETB		Sideways T.
24	#18	CAN		Hour glass.
25	#19	EM		Vertical bar with a central blob.
26	#1A	SUB		Backwards question mark.
27	#1B	ESC		Circle with a horizontal bar.
28	#1C	FS		Square with nine o'clock.
29	#1D	GS		Square with half past nine.
30	#1E	RS		Square with half past three.
31	#1F	US		Square with three o'clock.

b. ASCII Characters.

Characters 32-127 (#20..#7F) are listed in the following table. They make up the standard ASCII character set.

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
32	#20		!	%	#	\$		&	'	()	*	+	,	-	.	/
48	#30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
64	#40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
80	#50	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	-
96	#60		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	#70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	

c. Block Graphics.

Characters 128-143 (#80.. #8F) are a set of block graphics. Each character is divided into four cells. Bits 0-3 of the character number determine which cells are filled. If the appropriate bit is set then the cell is filled in, otherwise it is left blank. The cells are:

Bit 0	Bit 1
Bit 2	Bit 3

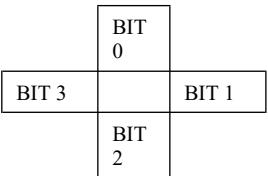
In the following list cells that are filled are marked with an ■, cells that are blank are marked with an □.

128	#80	Block graphic	□□
129	#81	Block graphic	■□
130	#82	Block graphic	□■
131	#83	Block graphic	■■
132	#84	Block graphic	■□
133	#85	Block graphic	■■
134	#86	Block graphic	■■
135	#87	Block graphic	■■
136	#88	Block graphic	□■
137	#89	Block graphic	■■
138	#8A	Block graphic	■■
139	#8B	Block graphic	■■
140	#8C	Block graphic	■■
141	#8D	Block graphic	■■
142	#8E	Block graphic	■■
143	#8F	Block graphic	■■

d. Line Graphics

Characters 144-159 (#90..#9F) are a set of line graphics. The lines join the centre of the character to the centre of an edge. Each of the lines is associated with a bit of the character number. If the bit is set then the line is present, if the bit is not set then the line is not present. The central block of the character is always set.

The lines are associated with bits as follows:



144	#90	Line graphic	
145	#91	Line graphic	
146	#92	Line graphic	
147	#93	Line graphic	
148	#94	Line graphic	
149	#95	Line graphic	
150	#96	Line graphic	
151	#97	Line graphic	
152	#98	Line graphic	
153	#99	Line graphic	
154	#9A	Line graphic	
155	#9B	Line graphic	
156	#9C	Line graphic	
157	#9D	Line graphic	
158	#9E	Line graphic	
159	#9F	Line graphic	

e. Further Characters.

























160	#A0	^	Circumflex
161	#A1	'	Acute accent
162	#A2	¨	Umlaut
163	#A3	£	Pound
164	#A4	©	Copyright
165	#A5	¶	Pilcrow
166	#A6	§	Section
167	#A7	'	Open single quote (pairs with character 39)
168	#A8	¼	One quarter
169	#A9	½	One half
170	#AA	¾	Three quarters
171	#AB	±	Plus or minus
172	#AC	÷	Division
173	#AD	¬	Not
174	#AE	¿	Inverted question mark
175	#AF	¡	Inverted exclamation mark
176	#B0	α	Lower case alpha
177	#B1	β	Lower case beta
178	#B2	γ	Lower case gamma
179	#B3	δ	Lower case delta

160	#A0	^	Circumflex
161	#A1	'	Acute accent
162	#A2	¨	Umlaut
163	#A3	£	Pound
164	#A4	©	Copyright
165	#A5	¶	Pilcrow
166	#A6	§	Section
167	#A7	'	Open single quote (pairs with character 39)
168	#A8	¼	One quarter
169	#A9	½	One half
170	#AA	¾	Three quarters
171	#AB	±	Plus or minus
172	#AC	÷	Division
173	#AD	¬	Not
174	#AE	¿	Inverted question mark
175	#AF	¡	Inverted exclamation mark
176	#B0	α	Lower case alpha
177	#B1	β	Lower case beta
178	#B2	γ	Lower case gamma
179	#B3	δ	Lower case delta






180	#B4	€	Lower case epsilon
181	#B5	θ	Lower case theta
182	#B6	λ	Lower case lambda
183	#B7	μ	Lower case mu
184	#B8	π	Lower case pi
185	#B9	σ	Lower case sigma
186	#BA	φ	Lower case phi
187	#BB	ψ	Lower case psi
188	#BC	χ	Lower case chi
189	#BD	ω	Lower case omega
190	#BE	Σ	Upper case sigma
191	#BF	Ω	Upper case omega

f. Miscellaneous Graphics Symbols.

192	#C0	↙	Diagonal line joining top to left.
193	#C1	↘	Diagonal line joining top to right.
194	#C2	↗	Diagonal line joining bottom to right.
195	#C3	↖	Diagonal line joining bottom to left.
196	#C4	↗↘	Diagonal lines ioining top to left and right.
197	#C5	↘↗	Diagonal lines joining right to top and bottom.
198	#C6	↗↖	Diagonal lines joining bottom to right and left.
199	#C7	↖↗	Diagonal lines joining left to top and bottom.
200	#C8	↙↗	Diagonal lines joining top to left and bottom to right.
201	#C9	↘↖	Diagonal lines joining top to right and bottom to left.
202	#CA	◊	Diamond joining all edges.

203	#CB		Both major diagonals (large X).
204	#CC		Forwards major diagonal (large slash).
205	#CD		Backwards major diagonal (large backslash).
206	#CE		Chequered pattern.
207	#CF		Shading.
208	#D0		Line along top edge.
209	#D1		Line along right edge.
210	#D2		Line along bottom edge.
211	#D3		Line along left edge.
212	#D4		Triangle filling top left corner.
213	#D5		Triangle filling top right corner.
214	#D6		Triangle filling bottom right corner.
215	#D7		Triangle filling bottom left corner.
216	#D8		Top half shaded.
217	#D9		Right half shaded.
218	#DA		Bottom half shaded.
219	#DB		Left half shaded.
220	#DC		Shaded triangle filling top left corner.
221	#DD		Shaded triangle filling top right corner.
222	#DE		Shaded triangle filling bottom right corner.
223	#DF		Shaded triangle filling bottom left corner.
224	#E0		Happy face.
225	#E1		Sad face.
226	#E2		Club.

227	#E3	◆	Diamond.
228	#E4	♥	Heart.
229	#E5	♠	Spade.
230	#E6	○	Empty circle.
231	#E7	●	Filled circle.
232	#E8	□	Empty square.
233	#E9	■	Filled square.
234	#EA	♂	Male (Mars).
235	#EB	♀	Female (Venus).
236	#EC	♩	Crochet.
237	#ED	♪	Quaver.
238	#EE	✳	Star.
239	#EF	🚀	Rocket.
240	#F0	↑	Up pointing arrow head.
241	#F1	↓	Down pointing arrow head.
242	#F2	←	Left pointing arrow head.
243	#F3	→	Right pointing arrow head.
244	#F4	▲	Up pointing triangle.
245	#F5	▼	Down pointing triangle.
246	#F6	▶	Right pointing triangle.
247	#F7	◀	Left pointing triangle.
248	#F8	🕺	Dancing person standing.
249	#F9	🕺	Dancing person doing splits.
250	#FA	🕺	Dancing person with left leg out.

251	#FB		Dancing person with right leg out.
252	#FC		Bomb.
253	#FD		Mushroom (cloud).
254	#FE		Up and down arrow.
255	#FF		Right and left arrow.