



QUICK REFERENCE GUIDE

COLOUR SELECTION CODES

(BACKGND, COLOUR, CHECK
AVC MODES)

- 0 - BLACK
- 1 - RED
- 2 - GREEN
- 3 - YELLOW
- 4 - BLUE
- 5 - MAGENTA
- 6 - CYAN
- 7 - WHITE

MAT ARRAY FORMAT

NO OF LINES 2 BYTES

X CO-ORDINATE 2 BYTES

Y CO-ORDINATE 2 BYTES

CONTROL 1 BYTE

CONTROL BITS

SPARE FILL COL B G R
7 6 5 4 3 2 1 0

PEN TYPES

- 0 - DOM OR REPLACE
- 1 - OR
- 2 - XOR
- 3 - AND
- 4 - XNOR
- 5 - NOT
- 6 - NOR
- 7 - NAND

DEFAULT VALUES

COLOUR :- WHITE
PEN :- ALL DOWN
PLOT MODE :- DOM
WINDOW :- HARD CLIP
VECTOR :- RESET
CURSOR :- Ø, Ø
DASH :- OFF
LAST PIXEL :- ON
STANDARD CHARACTER TABLE

EXTENDED COLOUR MATRIX

Y				
3	13	1	16	4
2	5	9	8	12
1	15	3	14	2
0	7	11	6	10
	0	1	2	3
				X

ASSEMBLER COMMANDS

- 0 - BACKGND
- 1 - PLOT
- 2 - LINE
- 3 - CHECK
- 4 - LABEL
- 5 - POLY
- 6 - VECTOR
- 7 - DEFAULT
- 8 - ORIGIN
- 9 - MAT
- A - RECT
- B - TRI
- C - SLINE
- D - DUMP
- E - GLOAD
- F - GSAVE
- 10 - FILL
- 11 - DEFRECT

RESOLUTION

SINGLE 392 x 256
DOUBLE 784 x 256

ORIGIN (Ø, Ø)

BOTTOM LEFT HAND
OF SCREEN

PORT B2

- BIT 0 - RED PAGE
- BIT 1 - GREEN PAGE
- BIT 2 - BLUE PAGE
- BIT 3 - DOUBLE DENSITY
- BIT 4 - RED O/P
- BIT 5 - GREEN O/P
- BIT 6 - BLUE O/P
- BIT 7 - EXT VIDEO

POLYGON TYPES

- 0 - NORMAL
- 1 - CORD
- 2 - RADII

RADIANS/DEGREES

1 DEG = 0.0174532925 RAD
1 RAD = 57.29577951 DEG

JUMP TABLE

? = C FOR G48
? = 8 FOR G32
COLD DOS = ? FFD
COLD NAS = ? FFA
COLD RET = ? FF7
AVCALL = ? FF4
AR = ? FF2

MODE

- 0 = EXT VIDEO
- 1 = SINGLE
- 2 = DOUBLE
- 3 = SINGLE & DOUBLE

AVC PORT ADDRESSES

B0 CRTC ADDRESS
B1 CRTC DATA
B2 CONTROL

CRTC REGISTERS

- 0 - HORIZ TOTAL - 1
- 1 - HORIZ DISPLAYED
- 2 - H. SYNC POSITION
- 3 - H. SYNC WIDTH
- 4 - VERTICAL TOTAL - 1
- 5 - V. TOTAL ADJUST
- 6 - V. DISPLAYED
- 7 - V. SYNC POSITION
- 8 - INTERLACE MODE
- 9 - MAX SCAN LINE ADDRESS
- 10 - CURSOR START
- 11 - CURSOR END
- 12 - START ADD H
- 13 - START ADD L
- 14 - CURSOR H
- 15 - CURSOR L
- 16 - LIGHT PEN H
- 17 - LIGHT PEN L

BASIC COMMAND SUMMARY

(FOR NASCOM ROM BASIC USE PREFIX OF SET)

LINE	X, Y, (MODE CARRIAGE)
ALINE	X, Y, (X1, Y1, MODE, CARRIAGE)
PLOT	X, Y, (MODE, CARRIAGE)
SLINE	X, Y, (MODE, XMAG, YMAG, SLANT, ROTATE, CARRIAGE)
ASLINE	X, Y, X1, Y1, (MODE, XMAG, YMAG, SLANT, ROTATE, CARRIAGE)
VECTOR	LENGTH, (ANGLE, MODE, CARRIAGE)
AVECTOR	X, Y, LENGTH, (ANGLE, MODE, CARRIAGE)
TRI	BASELEN, (HEIGHT, SLANT, ROTATE, FILL, CARRIAGE)
ATRI	X, Y, BASELEN, (HEIGHT, SLANT, ROTATE, FILL, CARRIAGE)
RECT	XLEN, (YLEN, SLANT, ROTATE, FILL, CARRIAGE)
ARECT	X, Y, XLENT, (YLEN, SLANT, ROTATE, FILL, CARRIAGE)
POLY	XRAD, (YRAD, SIDES, DISPL, START, ROT, FILL, TYPE, CARRIAGE)
APOLY	X, Y, XRAD, (YRAD, SIDES, DISPL, START, ROT, FILL, TYPE, CARRIAGE)
LABEL	STRING, (XMAG, YMAG, SLANT, ROTATE, CHAR SPACING, CARRIAGE)
ALABEL	X, Y, STRING, (XMAG, YMAG, SLANT, ROTATE, CHAR SPACING, CARRIAGE)
MAT	ADDRESS, (XMAG, YMAG, SLANT, ROTATE, FILL, CARRIAGE)
AMAT	X, Y, ADDRESS, (XMAG, YMAG, SLANT, ROTATE, FILL, CARRIAGE)
BACKGND	(RED INTENSITY, GREEN, INTENSITY, BLUE INTENSITY, CARRIAGE)
BACKGND	(COLOUR, CARRIAGE)
COLOUR	(RED INTENSITY, GREEN INTENSITY, BLUE INTENSITY)
COLOUR	(COLOUR)
CURSOR	X VARIABLE, Y VARIABLE
CHECK	VARIABLE, (X, Y)
DASH	(LINE ON, LINE OFF, LAST POINT)
DEFAULT	
MODE	(AVC MODE, VIDEO OUTPUT)
PEN	(RED, GREEN, BLUE, PLOT MODE)
ORIGIN	(X, Y)
DOS	(MODE)
WINDOW	(XMIN, XMAX, YMIN, YMAX)
FILL	(MODE)
GSAVE	FILE, (DRIVE)
GLOAD	FILE, (DRIVE)
DUMP	(PLANES)