

# Appendix A

## VDU codes

---

VDUA is equivalent to PRINT CHR\$A;

VDU A,B,C is equivalent to PRINT CHR\$A;CHR\$B;CHR\$C;

This chapter is a description of the whole character set from 0 to 255 which can be used with either VDU or PRINT CHR\$. The ASCII table is in Appendix F, and you will see that the codes from 0 to 31 give control characters for the screen display; codes 32 to 127 generate visual characters; and the remainder are initially undefined.

Here is each key code in detail:

Code	Keyboard	Description
0	<b>CTRL</b> @	Does nothing.
1	<b>CTRL</b> A	Reserved.
2	<b>CTRL</b> B	Reserved.
3	<b>CTRL</b> C	Reserved.
4	<b>CTRL</b> D	Allows the text cursor and the graphics cursor to operate independently of one another. (Reverses the action of VDU5.)
5	<b>CTRL</b> E	Causes the text cursor to be joined to the graphics cursor. The text cursor ceases to exist, and characters are printed at the graphics cursor, which is positioned using MOVE.
6	<b>CTRL</b> F	Allows output to be printed on the screen. (Reverses the action of VDU 21.)
7	<b>CTRL</b> G	Causes a short 'beep' from the internal loudspeaker.
8	<b>CTRL</b> H	Moves the text cursor back one space on the screen. Does not delete the previous character.
9	<b>CTRL</b> I	Moves the text cursor forward one space on the screen.

10	<b>CTRL</b> J	Moves the text cursor down one line on the screen. If the cursor is already at the bottom then the screen will scroll up one line.
11	<b>CTRL</b> K	Moves the text cursor up one line on the screen. If the cursor is already at the top then the screen will scroll down one line.
12	<b>CTRL</b> L	Clears the text screen. Same as <b>CLS</b> .
13	<b>CTRL</b> M	<b>VDU13</b> issued as a command (not in a program), or <b>CTRL</b> M, have exactly the same effect as <b>RETURN</b> . In a program, <b>VDU13</b> will move the text cursor to the start of the current line.
14	<b>CTRL</b> N	Puts the display into paged mode. Programs will only be listed to fill the screen, and then the computer will wait until the <b>SHIFT</b> key is pressed before listing another screen full. Used when reading long programs.
15	<b>CTRL</b> O	Cancels paged mode. (Reverses the action of <b>CTRL</b> N.)
16	<b>CTRL</b> P	Clears the graphics screen. Same as <b>CLG</b> .
17	<b>CTRL</b> Q	Changes text colour. Same as <b>COLOUR</b> .
18	<b>CTRL</b> R	Changes graphics colour, and colour mix. Same as <b>GOCL</b> .
19	<b>CTRL</b> S	Assigns any logical colour value to any actual colour. For example, mode 6 normally has two colours only, black and white, assigned the logical colour values 0 and 1. To change 0 (black) to blue, use <b>VDU19</b> with the logical colour 0, and the actual colour 4 (blue).

**MODE 6**

**VDU 19, 0, 4, 0, 0, 0**

20	<b>CTRL</b> T	Returns all logical colours to normal. (Reverses VDU19).
21	<b>CTRL</b> U	<b>CTRL</b> U deletes the whole of the current line being typed. VDU21, in a program, disables all output to the screen. This is reversed by VDU6.
22	<b>CTRL</b> V	Changes mode. VDU22,2 is equivalent to <b>MODE2</b> , except that <b>HIMEM</b> is not altered.
23	<b>CTRL</b> W	Reprograms a displayed character. 32 user-definable characters are set aside for use with VDU23. All the rest of the characters can be redefined if the memory is exploded with *FX20,1.
24	<b>CTRL</b> X	Defines a graphics window.
25	<b>CTRL</b> Y	Same as <b>PLOT</b> . VDU25,85,X,Y is the same as <b>PLOT 85,X,Y</b> .
26	<b>CTRL</b> Z	Reverses the effects of VDU24, VDU28 and VDU29. Graphics and text windows both occupy the whole screen; text origin and text cursor are at top left; graphics origin and graphics cursor are at bottom left.
27	<b>CTRL</b> [	Reserved.
28	<b>CTRL</b> ,	Defines a text window.
29	<b>CTRL</b> -	Moves the graphics origin. VDU 29,X,Y will move 0,0 to position X,Y.
30	<b>CTRL</b> .	Homes text cursor to top left of text window.
31	<b>CTRL</b> /	VDU31,X,Y is the same as <b>PRINT TAB(X,Y)</b> .
32 to 126	<b>CTRL</b> SPACE to ~	The complete set of ASCII characters.
127	<b>CTRL</b> DELETE	Moves the text cursor back one space on the screen and deletes the character to the current background colour.

268 Appendix A

128 to 223

Normally undefined. Can be defined if memory is allocated using \*FX20,1 and VDU23.

224 to 255

User-definable characters. Can be defined using VDU23.