

APPLICATION NOTE NO. 25.

MULTI-COLOURED TEXT ON THE ENTERPRISE.

The Enterprise has two built-in text modes which not only look different, but behave in different ways.

'TEXT 40' is a mode with 38 columns of text each 24 characters deep, (the '40' represents the size of character which could be repeated 40 times across the screen and still be readable on the majority of domestic television receivers. Widths of up to 42 characters are possible using the SET VIDEO X command). This mode allows up to 4 colours to be displayed on the screen at once. The four colours are arranged as two parts of background and foreground colours. When the Enterprise is first switched on, the colours are GREEN on BLACK and RED on BLACK. Translated into palette colours, these become:-

0,146,0,73

The cursor automatically takes on the colours of the second part in the palette unless instructed otherwise, (SET CURSOR COLOUR X) Try this example:-

- 1) Reset computer.
- 2) Type this:  
SET £102:PALETTE 17,27,7,255
- 3) Type this:  
SET CURSOR CHARACTER 154

The observed results are achieved by redirecting the palette-setting command to the text channel (£102). To switch between the colour pairs in immediate mode without altering the palette, there are two options. The first is to press the CTRL key and FUNCTION 7 simultaneously which will toggle between the two colour pairs for 1 line only. The second is to press the ALT key and FUNCTION 7 which will colour an entire paragraph. To use these two functions in a program, print the codes 246 and 254 respectively, e.g.:

```
PRINT CHR$(246);"HELLO"
```

A more versatile method of changing colours is on a character by character basis using the SET INK command. This must be re-directed to the text page in the same way as the palette command, e.g.:

```
SET £102:INK2
```

will cause all subsequent text to be printed in background colour 2, foreground colour 3.

SET £102:INK 3

will have exactly the same effect because each ink colour in a text mode is always associated with a defined paper colour.

The second text mode is 'TEXT 80'. This offers a screen format of 78 x 24 text in 8 colours (4 colour pairs). Because of the higher resolution and number of characters, this mode uses much more video RAM than 'TEXT 40' but, instead of colours being toggled, they alternate in a sequence of 4 permutations (it's easier to understand if you try it for yourself). Palette commands can have up to eight arguments in this mode, e.g.:

SET £102:PALETTE 1,2,3,4,5,6,7,8

Any unspecified colours default to black.

Finally, try this demo-program:-

```
100 PROGRAM "COL_TEXT"  
110 ! WRITTEN BY GERALD MORGAN  
120 TEXT 80  
130 SET £102:PALETTE 7,255,17,27,25,146,73  
140 LET SHADE=0  
150 DO  
160 SHADE=SHADE+1  
170 SET £102:INK MOD(SHADE,8)  
180 PRINT "*";  
190 LOOP  
200 END
```