7 Printing

Printing can be done in two ways:

- Printing out whatever text is currently held in the computer's memory.
- Printing directly from a file on disc or tape.

If you print directly from a file on disc or tape, this has no effect at all on the text in memory, so there is no reason why you should not pause wile editing the text in memory to print out text from files.

For general advice on the management of printers, see your *BBC Microcomputer System User Guide*, and the manual for the printer itself. In these pages we shall concentrate on the word processing aspects.

When you have everything set up so that you can print out text quickly and easily, printing will seem a very straightforward operation, but there is a good deal more going on behind the simple command `PRINT`.

VIEW does not itself directly manage the printer. Instead it sends codes to a *printer driver program* which in turn sends codes to the printer to produce the effect you have specified in your text and stored commands. This may seem an unnecessarily complicated way of running things, but it has an important benefit: VIEW can be made to work with many different printers, simply by using different printer driver programs.

In fact VIEW itself contains a 'default' printer driver program, which is adequate for straightforward printing on most printers. But if you are using a high quality daisy wheel printer such as a RICOH or QUME you need some way of taking advantage of the special effects these printers can provide - such as bold or underlined type.

This is done by installing a special printer driver program for that printer. Programs are available for many printers, and the *Printer Drivers* booklet goes into much more detail on their use and how they work.

7.1 General procedure for printing

If you need a printer driver to run your printer, load it from disc or cassette. The command is PRINTER followed by the name of the printer and **RETURN**. For example:

```
PRINTER RICOH RETURN
```

If your printer of the serial RS423 type, the computer must be switched to this type of output. The printer driver may do this for you, but space for the driver' s facilities is limited, so you may have selected RS423 output for yourself. See the *Printer Driver Generator* package published by Acornsoft. To select for RS423 output type:

```
*FX5,2 RETURN
```

For similar reasons you may have to set the baud rate. This is done with a command beginning *FX8 followed by a digit selecting the rate as follows.

Baud rate	**Command**
75	*FX8,1
150	*FX8,2
300	*FX8,3
1200	*FX8,4
2400	*FX8,5
4800	*FX8,6
9600	*FX8,7
19200	*FX8,8

Your printer may allow microspacing. The normal way in which VIEW justifies a line is by distributing any spaces left over throughout the line, adding the extra spaces to some of the spaces already present in the line. This is the standard practice because many printers only have whole character spaces.

Some printers however have a facility for adjusting the position of characters by 120th of an inch. This allows VIEW to adjust the line more finely by dividing the spaces left over into units of 120th of an inch and distributing these units evenly throughout the line, giving a much neater appearance.

This is microspacing. If you printer and printer driver have this facility, you can call it into action by typing:

```
MICROSPACE RETURN
```

If you are not sure, type it anyway, and if it is not available VIEW will tell you so.

Use the command `PRINT` or `SHEETS` to print the text, as described below.

7.2 PRINT

This is very straightforward to use. It prints out the entire file from disc or cassette, or the entire text in memory.

To print out the text in memory, use

`PRINT` **RETURN**

To print a file, use

`PRINT (filename)` **RETURN**

or, if you want to print several files continuously, use

`PRINT (filename1 filename2 filename3...etc)` **RETURN**

When VIEW is printing and comes to the end of a page, either because the set number of lines is used up or because it encounters a ' pageject' ,it carries out a page eject (ie the printer winds on whatever number of lines would be needed to take care of the bottom margin on one page and the header margin on the next) and just carries on printing. Headers and footers, and other matters concerned with page layout, are dealt with in chapter 9.

If you use `PRINT` with several files in succession, you can set automatic page numbering (see chapter 9) at the beginning of the first file and it will continue throughout the batch.

To stop printing press **ESCAPE**.

7.3 SHEETS

If you are using separate pages fed into the printer one at a time you will have to use this command. It is also useful when you do not want to print all the pages in the file, since it allows you to miss out pages.

To print out the text in memory, type

`SHEETS` **RETURN**

To print a file type

`SHEETS (filename)` **RETURN**

or, if you want to print several files continuously, use

`SHEETS (filename1 filename2 filename3...etc)` **RETURN**

The prompt appears:

```
Page 1..
```

To print, press any key except M, Q, **ESCAPE**, **COPY** or **BREAK**
To miss out a page, press M
To stop printing, press Q or **ESCAPE**

When page 1 is printed or missed out, VIEW goes on to prompt `Page 2..` etc. until the file is finished.

7.4 Editing procedures

The fact that VIEW allows you to print out from memory using either `PRINT` or `SHEETS` can be useful for revising a lengthy report, for example.

Suppose you have already printed out pages 1 to 20 and subsequently want to revise page 9. You load the file and carry out your revisions. You record the amended file back on disc.

All you need to print again is page 9. The simplest way of doing this is to delete everything in memory coming before and after page 9, by setting markers 1 and 2 each side of the text to be deleted and pressing DELETE BLOCK (**CTRL** **f0**). This is quite safe since the full version remains on disc. Then use `PRINT` or `SHEETS` alone, and page 9, which is all that remains in memory, will be printed.

7.5 SCREEN

The `SCREEN` command allows you to ' flickthrough' the pages of a file, or of the text in memory, to get an idea of how it will be printed out. In this way you can check the formatting and see where the page breaks occur.

To display the text in memory, type

`SCREEN` **RETURN**

To display the contents of a file, type

`SCREEN (filename)` **RETURN**

To display the contents of several files, type

```
SCREEN (filename1 filename2 filename3...etc) RETURN
```

As soon as you press **RETURN** the first page moves up the screen. To move on to the next screenful press **SHIFT**. If you have specified headers or footers (for example, page numbers) these will be displayed.

7.6 Highlights

We mentioned earlier that some printers permit special effects such as underlined or bold type. Text to be printed in such a way is marked using the HIGHLIGHT 1 and HIGHLIGHT 2 keys.

When the text is printed, these highlight codes signal to the printer driver that a special effect is required, and the printer driver sends instructions to the printer.

To mark highlight 1

- Place the cursor under the first character of the text concerned and press HIGHLIGHT 1. The text will jump to the right and an underbar will appear.
- Move the cursor to the space after the last character of the text concerned and press HIGHLIGHT 1 again. A second underbar will appear and if there is any text to the right it will move to make room for the underbar.

Text marked for highlight 1 looks like this on the screen:

```
See the _VIEW Guide_ for details.
```

and would normally result in:

See the <u>VIEW Guide</u> for details.

To mark highlight 2 use the same procedure as for highlight 1. Instead of an underbar the marker in the text is an asterisk. Text marked for highlight 2 looks like this on the screen:

```
See the *VIEW Guide* for details.
```

and would normally result in:

See the **VIEW Guide** for details.

7.7 Resetting highlight codes

We say that these would ' normallybe the results because some printer drivers and printers have other facilities than underlining and bold type - facilities such as an additional character set or superscripts.

Since there are only two highlight codes, VIEW allows you to reset these codes temporarily to send alternative signals to the printer driver. The stored command HT is used for this, and is described in more detail in the VIEW Guide.

7.8 Printing from cassette

When printing from cassette VIEW reads in one block of text at a time and prints it before reading in the next block. On some cassette recorders the BBC Microcomputer cannot stop the cassette motor quickly enough to prevent the tape running on to the next block. If it moves into the next block you will get a `Block?` error message.

Obviously one way to avoid the problem is to load the file into memory and print out from memory, as described earlier in the chapter.

Alternatively you can re-record the file, leaving more tape between blocks. This is done as follows:

Type: `*OPT 3,10` **RETURN**

Type: `WRITE (filename)` **RETURN**

For more information on `*OPT` consult the *BBC Microcomputer System User Guide*.