

TASPRINT

The Style-Writer

A Tasman Software Program for the ZX 48K Spectrum

T A S P R I N T

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1. Introduction

Tasprint gives Spectrum users with standard dot-matrix printers output with a quality hitherto not approached with personal computer systems.

Tasprint produces printed output in a variety of print styles (fonts) with characters that are twice the normal height of dot-matrix output.

2. Loading and Configuring Tasprint

Load Tasprint by executing LOAD"" and play the tape. If you are using the Morex or Cobra interfaces then load your interface software first, initialise the interface, and ensure that tokenisation is off. All the other interfaces supported by Tasprint have the appropriate software within Tasprint.

Once Tasprint has loaded follow the instructions that appear on the screen to create a machine code program configured for your interface and printer. The program will prompt you to save your configured program. Make a note of the CLEAR statement that you must execute before subsequently loading your machine code Tasprint program. Make this note on your cassette or microdrive cartridge label.

When you have saved your Tasprint machine code, or if you have skipped this step and gone into Basic, you can use Tasprint by following the instructions given in the Section 4. You can execute NEW (the machine code Tasprint is protected by a lowered RANTOP) and enter your own program.

In order to fit into the Spectrum memory the Basic program does not trap all possible input errors. If you input a letter when the program expects a number, for example, you may get a "nonsense in Basic" error message. Just execute RUN and start again.

3. Loading Configured Tasprint Code

When you have saved a Tasprint machine code program configured for your interface and printer you can load it by first executing:

CLEAR xxxxx

where xxxxx is the number you noted if you followed the instructions in the preceding section. If you saved your Tasprint code onto tape then load it by executing:

LOAD "tasprint"CODE or LOAD ""CODE

and then playing the tape. If you saved your Tasprint code onto a microdrive cartridge then with the cartridge in drive 1 execute:

LOAD "*"";1;"tasprint"CODE

4. Using Tasprint

Before you can LPRINT or LLIST using Tasprint you must execute

RANDOMIZE USR 62000

The commands RUN, CLEAR, and NEW disable Tasprint so put the statement:

RANDOMIZE USR 62000

in a program line near the beginning of the program.

Once the above statement has been executed your LPRINT and LLIST commands will send normal characters to the printer. To switch to a Tasprint font execute:

LPRINT ""

(The tilde character ~ is the extended-mode symbol-shift A key.) Subsequent output to the printer will be in whichever Tasprint font you selected as your first font. To revert to normal printing execute:

LPRINT ""

4.1 Switching between Tasprint Fonts

After Tasprint fonts have been turned on using LPRINT "" after graphics symbols are interpreted as control characters and cause printing to switch between fonts.

The graphics symbols obtained by entering graphics mode and holding down CAPS SHIFT and pressing one of keys 4 - 8 causes the printing to switch between fonts. For example:

LPRINT"[]" ([] is CAPS SHIFT Key 5 in graphics mode)

will cause subsequent output to be in the second font you specified.

LPRINT"␣" (␣ is CAPS SHIFT Key 6 in graphics mode)

gives subsequent output in your third font and so on. Key 4 reverts to your first font. Do not forget to change the cursor back from a G to an L after typing a graphics symbol.

If you have configured your Taspri code for all five fonts the graphics symbols for the various fonts are as given in the following examples:

graphics mode CAPS SHIFT Key 4:	LPRINT"␣Lectura Light"
graphics mode CAPS SHIFT Key 5:	LPRINT"␣Median"
graphics mode CAPS SHIFT Key 6:	LPRINT"␣Compacta"
graphics mode CAPS SHIFT Key 7:	LPRINT"␣Data Run"
graphics mode CAPS SHIFT Key 8:	LPRINT"␣Palace Script"

Different fonts may be printed in the same line by using the graphics symbols as in the following example:

LPRINT "␣the font is changed␣in this line."

the font is changed in this line.

4.2 Underlining

Underlining is turned on by the CAPS SHIFT Key 3 graphics symbol and off by the Key 3 graphics symbol. For example:

LPRINT "Some of␣these words␣are underlined."

would print as:

Some of these words are underlined.

4.3 Inverse Printing

Inverse printing is turned on by the CAPS SHIFT Key 2 graphics symbol and off by the Key 2 graphics symbol.

LPRINT "This is␣an example␣of inverse."

would print as:

This is an example of inverse.

4.4 Boxing

Output within a line can be boxed by a similar use of the Key 1 graphics symbols. For example:

LPRINT "Words may be␣boxed␣where desired."

giving:

Words may be boxed where desired.

4.5 ZX Interface 1

If you are using ZX Interface 1 you must execute the following statement before printing:

FORMAT "b";X

where X is your printer baud rate. Do not open a channel as you normally would when printing via the ZX Interface 1.

5. Technical Details & Useful Pokes

When Tasprint is loaded using the Basic configuring program RANTOP is set to 42799. When a configured Tasprint is saved a message appears on the screen to tell you where RANTOP must be lowered to (using the CLEAR) statement on subsequent reloading. This varies from 52399 when Tasprint is saved with all five fonts, to 60079 when it is saved with just one font. The highest memory location used by Tasprint is 63221. This leaves room at the top of Memory for other utilities (i.e. Taswide) or for interface driving software if it is required.

If your printer does an automatic linefeed on receipt of a carriage return then POKE 62015,1.

POKE 62049 with the code your printer uses for a pound sign to obtain this sign on normal printing.

POKE 62040 with a number greater than 1 to increase the line spacing. (Especially useful for Seikosha 100 owners).

Each character occupies ten horizontal dot positions. Some dot matrix printers can only print 480 dots across the width of the paper and with these you are restricted to 48 characters per line. The same restriction applies when printing normal characters. To increase the number of normal characters per line to, for example 80, execute:

POKE 62044,80

You must then POKE 62044 with the number of Tasprint characters per line before executing LPRINT "*" to obtain Tasprint characters.

You can change the * character that turns Tasprint on and off by POKEing 62039 with the code of the character that you want to use.

6. Merging Tasprint and Tasword Two

A version of Tasprint that can be merged into Tasword Two is recorded on side 2 of the tape. Follow this procedure to merge the two programs:

- (1) Load the program from side 2 of the tape by executing `LOAD"` and playing the tape. When the program has loaded it will prompt you to answer a set of questions so that it can configure the machine code for your printer and interface;
- (2) The program will then prompt you to save your configured code. Use a blank tape or a microdrive cartridge in drive 1;
- (3) Load a working Tasword Two (i.e. one that you have already configured for your interface);
- (4) Go into Basic ("STOP" control key and then "B"), replace your Tasword Two tape or cartridge with the one you saved your configured code onto in step (2) above, and load your configured code by executing:
`LOAD "" CODE` or (microdrive load) `LOAD "*"1;"t2print"CODE`
- (5) Execute:

`RANDOMIZE USR 54000`

This runs a program which makes some changes to Tasword. Interface control code 4 is changed - do not change it back!

- (6) Edit the following lines of the Tasword Two Basic so that they appear as shown for the cassette version of Tasword:

```
700 CLS: LET i=8: GO SUB 800: LET i=33408+64*(PEEK 64150 +  
    256*PEEK 64151): LET a$="tasword":SAVE a$LINE 15  
710 SAVE a$ CODE i,(65536-i): GO SUB 900  
790 VERIFY a$ CODE i,(65536-i):  
    PRINT AT 21,20;" m/c code O.K.": GO TO 25
```

If you have created a microdrive version of Tasword Two by following the instructions supplied by Tasman Software then edit the following lines of the Basic so that they appear as shown below:

```
700 CLS: LET i=33408+64*(PEEK 64150 + 256*PEEK 64151):  
    LET a$="tasword":SAVE "*"1;"run"LINE 15  
710 SAVE "*"1;a$ CODE i,(65536-i)  
790 VERIFY "*"1;a$ CODE i,(65536-i):  
    PRINT AT 21,20;" m/c code O.K.": GO TO 25
```

- (7) If using ZX Interface 1 you should have a line 279:

```
279 FORMAT "b";X
```

where X is your printer baud rate. Do not have an OPEN statement;

- (8) RUN Tasword. Save Tasword!

7. Using Tasprint and Tasword Two

The "" character in your text file will be printed as a space and instructs the program to print the text from the start of the next line in a Tasprint font. A subsequent "" will revert to normal printing.

When printing using a Tasprint font the graphics symbols are printed as spaces and have the same control functions as with Tasprint (see sections 4.1 to 4.4). They can be used to change fonts (if more than one has been merged into Tasword Two) and to turn underlining, boxing, and inversion on and off.

Unless you loaded just one font into the help page area of Tasword Two the maximum text file size will have been reduced. Do not load larger text files than the size allowed by your Tasprint+Tasword as this would overwrite the area of memory holding the font patterns.

If your printer will only print 48 Tasprint characters per line then only the first 48 characters of each text file line will be printed out. Set the Tasword Two right margin at column 48 before typing in your text.

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TASPRINT AND THE KEMPSTON INTERFACE "E"

There are two versions of the above interface. If on configuring Tasprint you obtain no output then configure again and when given the option of saving the configured code go into Basic (you must use the Break key with the merging program) and execute:

POKE out+7,64 (POKE 0+7,64 with the merging program)

Then execute GOTO 1900 and proceed as before.