

# TASWORD THREE

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## A D D E N D U M

- 1) The word 'microdrive' should be read as 'disc'
- 2) To configure Tasword to print through the built in printer port, add the following line to the Tasword BASIC program:

then execute:           60 OPEN #3;"B"  
                          GOTO 60

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# Getting Started with TASWORD

## Learning to Use TASWORD

Tasword is designed to be easy to use. We suggest that you learn to use Tasword by

the following steps:

- (1) Read 'How Tasword Works' on pages 5 to 8 of this manual;
- (2) Load Tasword as described on page 9;
- (3) Type in a few lines of text paying attention to the features described in the 'How Tasword Works' section of this manual. Experiment with some of the control keys — they are all described on pages 12 to 26;
- (4) Load the Tasword Tutor text file following the procedure described on page 11;
- (5) Take your time working through Tasword Tutor and experiment as much as you like. Refer to the control key descriptions in the manual (pages 12 to 26) as you work through Tasword Tutor;
- (6) You will now be sufficiently familiar with Tasword to use it to produce your own text files. As you continue to use Tasword you will discover which of the facilities are most useful to you and you will find that you remember the relevant control keys. Don't forget that the help page is always there;
- (7) Save Tasword, following the instructions on page 9, and use this cartridge as your working copy. Keep the original as your back-up copy.

## The $\Xi$ sign

The  $\Xi$  sign occurs frequently both in this manual and on the Tasword help page.

The  $\Xi$  sign represents Extended Mode. On the Spectrum+, Extended Mode is obtained by pressing the **EXTEND MODE** key. On the Spectrum, Extended Mode is obtained by pressing **CAPS SHIFT** and **SYMBOL SHIFT** at the same time. The bottom line of the display flashes when Tasword is in extended mode.

$\Xi$  = EXTENDED MODE

The  $\Xi$  sign is always used in conjunction with the symbol for some other key. The  $\Xi$  sign means enter extended mode and then press the indicated key.

$\Xi$  **P** means enter Extended Mode and then press the **P** key.

Note that references to symbols and keywords that require just **SYMBOL SHIFT** or **CAPS SHIFT** to be held down while another key is pressed are made in terms of the symbol or keyword. For example, **STOP** means hold **SYMBOL SHIFT** down and press the **A** key.

# How TASWORD Works

## The Text File

Tasword operates on a text file which contains whatever you type in from the keyboard. This text file can be up to about seventeen thousand characters long. The length of a line in the text file is normally 64 characters. This is the number of characters that can be shown on one line of the screen. The length of a line can be changed by resetting the margin positions. The maximum line length is 128 characters.

## The Window

The screen is a 'window' which shows either 15 or 22 lines of the text file. Certain 'Control Keys' move the window up or down the text file. Moving the window is called 'scrolling'. The window can also move sideways and will do this when the margins have been set to give more than sixty-four characters per line.

## The Cursor

The cursor is a flashing square or bar that indicates your current position in the text file. The cursor can be moved using the arrow keys on the keyboard and by certain other control key actions.

## The Keyboard

Each time you press one of the letter or numeric keys the character corresponding to that key appears on the screen at the cursor position. To type a capital letter hold **CAPS SHIFT** down and press the required letter key.

ZX Spectrum	ZX Spectrum+
Certain single characters are marked in red on the keys: (!@£\$%&'<>,"'- += :£?/,..')	Certain single characters are marked in immediately above and to the right of the main character on the key:
To type one of these characters hold the <b>SYMBOL SHIFT</b> key down while you press the relevant key.	(!@£\$%&'<>,"'- += :£?/,..')
Some single characters are marked in red <i>below</i> the keys:	To type one of these characters hold one of the <b>SYMBOL SHIFT</b> keys down while you press the relevant key.
[{}]	Some single characters are marked immediately above the raised 'circular' parts of the keys:
To type one of these characters you must enter Extended Mode (see page 4) and then hold <b>SYMBOL SHIFT</b> down while pressing the relevant key.	[{}]
The red markings <b>on</b> on some of the letter keys are not single characters but are words or double characters. (TO, THEN, <> etc.) These are Tasword 'Control Keys'. The white markings above the number keys are also Control keys.	On some of the letter keys the marking immediately above the main letter is a word or a double character (TO, THEN, <> etc.)
	These are Tasword 'Control Keys'

## Auto Repeat

If pressure is kept on any key then after a slight delay the key action is repeated. This applies to both character keys and most control keys.

## The Control Keys

A Tasword control key is a key which does not type a letter when pressed but instead manipulates the text file in some way. For example, the arrow keys move the cursor. Another useful control key is the **EDIT** key which displays the help page on the screen. The help page gives a brief description of the main control key actions and is reproduced below.

THE HELP PAGE		
CURSOR MOVEMENT		
⌘↑ start of text ⌘↓ end of text ⌘← start of line ⌘→ end of line ⌘ Q word left	THEN scroll up TO scroll down ⌘ G fast scroll up ⌘ F fast scroll down ⌘ E word right	⌘% start of paragraph ⌘ ( end of paragraph ⌘ & next page ⌘ ' start of page ⌘ * start of screen
MARGINS	DELETE / INSERT	
⌘ A set left margin ⌘ S clear margins ⌘ D set right margin SEARCH ⌘ R replace/find text	AT delete under OR delete word ⌘ DEL del line (un=⌘_ ) ⌘ ) delete paragraph AND insert line/char	DELETE delete 1 ⌘ X clear text ⌘ C delete block ⌘ I insert on/off ⌘ O auto on/off
FORMATTING	BLOCK COMMANDS	TAB COMMANDS
<= move text left <> centre text >= move text right ⌘ J rejustify para(EH) ⌘ K rejust line(un=EL)	⌘ B mark start ⌘ V mark end ⌘ M move block ⌘ N copy block (⌘Z) ⌘ C delete block	STEP tab right NOT tab left ⌘ + set, ⌘ - clear ⌘ ↑ clear all ⌘ = reset tabs
PRINTER	SWITCHES	
⌘ TRUEVID FF ⌘ 7 put header ⌘ 6 get header ⌘ 8 put footer ⌘ 5 get footer	⌘ I insert on/off ⌘ O auto insert on/off ⌘ P paging on/off ⌘ T change window size ⌘ U word-wrap on/off	⌘ Y right justify on/off STOP save/load/print DELETE/INSERT ⌘ 2 2nd character set GRAPH printer control ⌘ > & ⌘ < change case

A full description of the action of each of the Tasword control keys is given on pages 12 to 26.

When the help page is showing press EDIT again to view the part of the help page which describes the Printer Control Characters and the Second Character Set. The use of Printer Control Characters is described on pages 25 and 33. The second character set is described on pages 25 and 34.

When the help page is showing press ENTER to go back to where you were in the text file.

## **Word Wrapping**

Unless overridden by the  $\exists$  U command key (see page 16) Tasword word-wraps automatically at the end of each line. This means that if your last word on a line does not fit onto the line then the whole word is transferred to the beginning of the next line. The only time you will normally use the **ENTER** key when typing in text is when you want to start a new paragraph. You will soon find that when you are typing in text you will only occasionally look at the screen - Tasword keeps the text neat and leaves you free to concentrate on the keyboard.

## **Justification**

As well as word-wrapping when a word overflows the end of a line Tasword automatically justifies the line that has just been finished. The words in the line are spaced out by inserting spaces between them so that the text spreads across the screen. This gives the text a neat appearance with no jagged margin on the right hand side.

The automatic justification can be turned off using the  $\exists$  Y command key (page 16). This results in the typed text having a 'ragged right' appearance that may be, according to personal preference, more appropriate for the task in hand.

It is straightforward to change text that has already been typed from right justified to ragged-right or vice versa. Simply use the  $\exists$  Y command key to turn right justification on or off and then use the  $\exists$  J command key (page 15) to rejustify the desired paragraphs.

## **Tall Cursor**

When you type the last character in a line Tasword moves the cursor to the beginning of the next line. The cursor becomes taller. If you type a character when the cursor is tall Tasword will assume that the character is part of the last word on the previous line and word-wrap. If the word on the previous line is finished you must type a space - as you would have done anyway if you had not looked at the screen - before typing the next word.

If the last character on a line is a punctuation mark or a hyphen Tasword will not word-wrap when you begin the next line even if you type a character when the cursor is tall. It will ignore the first two spaces that you type so that you do not indent a line accidentally.

## **Good Typing Practice**

Help Tasword help you by following the two simple rules of good typing practice:

Always type at least one space after the full stop at the end of a sentence or after any other punctuation mark;

Always begin a new paragraph by indenting (typing spaces at the beginning of) the first line or by leaving a blank line between paragraphs, or by doing both.

## **The Reference Sections**

The remainder of this manual is for reference. You do not have to read it all before you can begin to use the program. The most commonly utilised facilities in the program are readily used by referring to the help page and using on-screen prompts at various points.

Five main parts follow. The first is concerned with loading and running the program and saving and loading the text files you create to and from microdrive or tape. The second part describes all the command key actions, grouped by type. Printing, and the format of printed text files, is described in the third part. The following part of the manual describes the data merge facility. The fifth part describes how you can customise the program to suit your own applications and personal preferences.

# Loading and Running TASWORD

## THE TASWORD THREE PROGRAM CARTRIDGE MUST REMAIN IN DRIVE 1 WHILE THE PROGRAM IS BEING USED.

To load Tasword insert the microdrive cartridge into microdrive number 1 (this is the microdrive nearest to the Spectrum). Press the **R** key for **RUN** and then press **ENTER**. Tasword will then load from the microdrive cartridge.

Tasword starts running when loaded. You will see the cursor flashing at the beginning of an empty text file and the line number and other information at the bottom of the screen. You can now type in text or load a previously created text file from microdrive or tape (see page 10).

To load Tasword Tutor follow the instructions on page 11.

If you have gone into Basic then to continue running Tasword type **RUN** and press **ENTER**.

### Saving Tasword

PLEASE NOTE: The facility to save Tasword has been included to allow you, the purchaser, to make back-up copies and to save your customised versions of Tasword. Passing copies of Tasword to a third party is a breach of copyright. WARNING: the save Tasword option clears the text file!

To make a back-up or customised copy of the Tasword program press the **STOP** command key while Tasword is running. A list of options will appear on the screen as shown on page 26. Press **T** to save the Tasword program and **ENTER** to confirm your choice. Then follow the prompts that appear on the screen.

When the save is complete the program will return to the main menu shown on page 26.

### The Program Cartridge

A catalogue of the Tasword Three program cartridge will show that it contains the following files:

MERGE	MF	PRINT
README	TASCODE1	TASODE2
TASCODE3	TASCTRL	TASTABLE
TEXT1	TEXT2	TEXT3
TEXT4	TEXT5	TUTOR
T2T3	run	

The file called run and all the files with names beginning with the letters TAS are the Tasword Three program files. These are the files that will be copied to another cartridge when you make a back-up or customised copy of the program using the 'save Tasword' option from the main menu. TUTOR is the Tasword Three Tutor text file. The files MERGE, PRINT, and all the files beginning with the letters TEXT are example files that you can use when working through the tutorial sessions in this manual. The file README, if present, is a text file which contains further information about the program. The file T2T3 is a program, described in Appendix 5, which can be used to convert Tasword Two text files into Tasword Three format. MF is a Masterfile Basic program for Masterfile owners whose use is described in Appendix 6.

# Saving and Loading Text Files

## Saving

You can save the text you have typed onto a cartridge as a 'text file'. Press the **STOP** control key while Tasword is running and the list of options shown on page 26 will appear on the screen. Choose the 'Save text file' option by pressing the **S** key and then **ENTER** to confirm your choice.. Tasword will catalogue the current drive and then ask you to type in a name for the text file. Type in a name of your choice and press **ENTER**.

When the save is complete the main menu shown on page 26 will reappear on the screen. Press **R** if you wish to return to the text file.

## Loading

LOADING A TEXT FILE WILL CLEAR ALL  
THE TEXT THAT IS CURRENTLY IN THE  
TASWORD TEXT FILE.

To load a text file from cartridge use the **STOP** control key to obtain the main menu as shown on page 26. Then press the **L** key to select the 'Load text file' option. Tasword will catalogue the current drive and then ask you to type the name of the text file that you wish to load. Type a name and press **ENTER**. The text file will appear on the screen as soon as it has loaded.

## Merging

Merging is loading a text file and putting it in the Tasword text file *after* any text that is already there. To do this use the **STOP** control key and then press the **M** key to select the 'Merge text file' option. Tasword will then prompt you to follow the same procedure as described in loading' above.

## Erasing

A file can be erased from a microdrive cartridge by selecting the **3** option from the main menu shown on page 26. The Spectrum can sometimes corrupt other files on a cartridge when a file is erased and you are therefore recommended not to erase files from a cartridge which contains files which you want to keep and which you have not saved onto another cartridge.

## Single Drive Systems

The requirement that the Tasword Three program cartridge must always remain in drive 1 while the program is being used means, if you only have one microdrive, that you must save your text files on the program cartridge. This is quite acceptable as the 'save Tasword' option described on page 9 allows you to copy Tasword Three onto additional microdrive cartridges. Tasword Three can be configured to allow text files to be kept on a separate cartridge on single drive systems, in which case the program and data cartridges have to be exchanged at the appropriate times. To configure the program in this way see the section 'Return to text after load' on page 57.

## Changing Drives

The 'current drive' is the microdrive that Tasword is using to save and load your text files. This is the drive that Tasword will catalogue whenever you select load, save, or merge from the main menu. The current drive number is always shown at the bottom right hand corner of the main menu. To change the current drive whenever Tasword has prompted you to type a filename just press one of the number keys 1 to 8.

To save or load a text file to or from tape select drive 0 when Tasword asks for a filename.

The current drive can also be changed when the main menu is showing by pressing one of the keys 1 to 8 or key 0 for cassette.

### **Text File Names**

Text file names may be up to ten characters and can be made up of both letters and numbers although they must always begin with a letter and not a number character.

The case of letters is significant so that, for example, a text file called 'text' is different from a file called 'TEXT'.

### **TASWORD THREE Tutor**

Tasword Three Tutor is a text file which helps you familiarise yourself with the use of the control keys.

The Tutor is recorded on the Tasword Three program cartridge. Load Tasword as described on page 9. You will see the flashing square, the cursor, near the top of a mainly empty screen. Follow the normal procedure for loading a text file by taking the following steps:

- 1) Press the normal mode STOP control key (SYMBOL SHIFT A). The list of options will appear on the screen (this is the main menu);
- 2) Select the 'Load text file' option by pressing the L key;
- 3) Press ENTER as prompted by Tasword to confirm your choice;
- 4) Tasword will catalogue the program cartridge and then ask you for the text file name.  
Type: TUTOR  
and press ENTER

Tasword Three Tutor will appear on the screen as soon as it has loaded.

### **The BREAK Key**

The BREAK key can be pressed at any time to abandon a microdrive operation and return to the main menu.

## **The Control Keys**

The  $\Xi$  sign indicates that Extended Mode must be entered before pressing the relevant key. On the Spectrum + this is done by pressing the EXTEND MODE key. On the Spectrum, Extended Mode is entered by pressing CAPS SHIFT and SYMBOL SHIFT together.

### **Help Commands**

#### **EDIT show help page**

The first part of the help page is displayed when the EDIT key is pressed. When the help page is on the screen press ENTER to return to the text file or EDIT again to display the second part of the help page.

#### **$\Xi$ 1 Help on/off**

Help is on when part of the help page is shown at the top of the screen. Help is off when no help information is shown at the top of the screen. The  $\Xi$  1 control key is used to turn help on and off.

#### **TRUE VIDEO scroll up help**

If help is on then this control key replaces the segment of help page shown on the screen with the segment immediately above it in the full help page.

#### **INV VIDEO scroll down help**

When help is on this command key replaces the segment of the help page shown on the screen with the segment immediately below it in the full help page.

#### **$\Xi$ 3 get help**

This control key is normally inhibited but can be enabled through the 'Change program' option described on pages 55-57. When  $\Xi$  3 is enabled and pressed the printer control characters and second character set part of the help page are copied into the first 12 lines of the text file (overwriting any text that is there).

#### **$\Xi$ 4 put help**

This control key is also enabled via the 'Customise program' option. It puts the top twelve lines of the text file into the printer control character and second character set area of the help page.  $\Xi$  4 disables  $\Xi$  3 and  $\Xi$  4 to prevent accidental overwriting of text and/or the help page. See page 57 for a further description of the  $\Xi$  3 and  $\Xi$  4 commands.

## **Cursor Movement**

### **ENTER**

This key moves the cursor to the left margin at the beginning of the next line. If insert mode is ON (see page 18) a new line is also inserted.

### **ARROWS move cursor**

The arrow keys are used to move the cursor to any required position on the screen. Keeping an arrow key depressed causes auto-repeat to be implemented and this is a useful way of moving the cursor quickly towards some desired position on the screen.

The left arrow key may be used to move the cursor to the left of the left margin if the left margin is set to some other position than column one. The right arrow can move the cursor to the right of the right margin if the latter is set to less than column 128.

### **⌘ ↑ start of text file**

This command key is used to jump back to the beginning of the text file.

### **⌘ ↓ end of text**

When this key is pressed Tasword finds and displays the end of the text file.

### **⌘ ← start of line**

This command key moves the cursor to the start of the current line. This is the left margin setting.

### **⌘ → end of line**

This command key moves the cursor to the end of the current line. This is taken to be the right margin setting.

This command, and the ← command described above, are particularly useful when reviewing text that has been typed with more than eighty characters per line.

### **TO scroll down**

The **TO** command scrolls the display down one line of the text file.

### **THEN scroll up**

This command scrolls the display up one line of the text file.

## **Cursor Movement (continued)**

### **⌘ F Fast scroll down**

The ⌘ F command forces Tasword to scroll down one screenful of lines. This is a scroll of either 15 or 22 lines depending on whether help is on or off. This is a useful way of scrolling quickly through your text.

### **⌘ G fast scroll up**

Tasword scrolls up a screenful of lines (15 or 22) when this key is pressed.

### **⌘ E word right**

This key moves the cursor to the beginning of the next word to the right. If there is no word to the right of the cursor then it moves to the beginning of the next line.

### **⌘ Q word left**

This key moves the cursor to the end of the next word to the left of the cursor.

### **⌘ % start of paragraph**

This control key moves the cursor to the start of the paragraph that the cursor is in.

### **⌘ ( end of paragraph**

This control key moves the cursor to the end of the paragraph containing the cursor.

### **⌘ & next page**

The next page in this context is the start of the next page when the text file is printed. The start of each page is shown by the page break display which is turned on and off by the 3 P command described on page 23. The ⌘ & control key moves the cursor to the beginning of the next page.

### **⌘ ' start of page**

This control key moves the cursor to the beginning of the current page as shown by the page break display (if on). If the cursor is already at the beginning of a page then it is moved to the beginning of the previous page.

### **⌘ \* start of screen**

This control key moves the cursor to the top left hand corner of the screen.

## **Formatting Commands**

### **<= move text left**

This moves the text under and left of the cursor left one character position. There is no effect if there is already a character at the left margin. Text within margins is not affected by this command and if the cursor is inside a margin no text is moved.

### **<> centre line**

This key centres the text on the line containing the cursor between the margins. It is useful for headings. Text inside margins is not moved and there is no action if the cursor is inside a margin.

### **>= move text right**

This key moves the text under and to the right of the cursor right one character position. There is no action if there is a character on the right margin. Text inside margins is not moved and there is no action if the cursor is inside a margin.

### **⌘ J rejustify paragraph**

This key reforms the text from the line containing the cursor to the end of the paragraph. The end of the paragraph is detected by the occurrence of a blank or an indented line. The ⌘ J key is very useful for tidying up text in which you have made insertions and deletions.

Only the text within the margins is reformed and the reforming is to the current margin positions. To reform a paragraph to new margin positions use the hard rejustify command ⌘ H.

The ⌘ J command will right justify the text if Right Justify is on and will leave the text 'ragged right' if Right Justify is off. The ⌘ J command can therefore be used to change the format of a paragraph from right justified to ragged right and vice versa.

### **⌘ K justify line**

The line that the cursor is on is right justified by this key.

### **⌘ L unjustify line**

The line that the cursor is on is unjustified by deleting any surplus spaces between words.

## **Formatting Commands (continued)**

### **≡ H hard rejustify**

The hard rejustify command reforms the entire paragraph containing the cursor to the current margin positions. The hard rejustify command is useful for reforming paragraphs after the margin settings have been changed. The paragraph is forced to lie within the new margin positions.

During hard rejustification all text both inside the new and old margin settings is considered to be part of the current paragraph. Annotations within margins will be incorporated into the new paragraph and therefore should be deleted before hard rejustification.

Hard rejustification only detects the start and end of the current paragraph by the occurrence of blank lines. Ensure that there is a blank line at both the start and the end of a paragraph before executing the hard rejustify command.

### **≡ Y Right Justify On/Off**

This command key turns the automatic right justification Off or On. The 'R/J' message at the bottom of the screen tells you the current status. Justification is described on page 7. When justification is On the text typed will be reformed at the end of each line to the right margin (as in most of this manual). When right justification is Off the text has the 'ragged right' appearance of this paragraph.

### **≡ U Word Wrap On/Off**

This command is used to turn the automatic word-wrap Off or On. The 'WAV' message at the bottom of the screen indicates whether the word-wrap is On or Off. Word-wrapping is described on page 7.

## **Delete Commands**

### **DELETE delete character to left of cursor**

The DELETE key deletes the character to the left of the cursor and moves the remainder of the line left one character position. Note that characters which are mis-typed can be typed over once the cursor has been moved to the correct position and you do not have to use the DELETE key to do this. The delete key is useful for correcting mistakes as they are made and for removing unwanted characters.

### **AT delete character under cursor**

This control key is similar to the DELETE key described above except that it is the character under the cursor that is deleted.

### **OR delete word**

The OR key deletes the entire word over which the cursor is positioned. The remainder of the line is moved left to fill the gap created by the deletion of the word.

### **⌘ DELETE delete line**

This key deletes the line that the cursor is on. All subsequent lines are moved up.

### **⌘ \_ undelete line**

Tasword remembers the most recent line to have been deleted. The E \_ control key recovers the most recently deleted line and inserts it into the text above the line that the cursor is on.

### **⌘ ) delete paragraph**

This control key deletes the entire paragraph that the cursor is in. Tasword asks for confirmation before deleting the paragraph.

### **⌘ X clear text file**

All text is removed from the text file when this key is pressed. The header and the footer (see p. 24) are also cleared. To prevent accidental erasure Tasword asks for confirmation when this key is pressed.

### **⌘ C delete block**

This command deletes a marked block of text after asking for confirmation. The block commands are described on page 21.

## **Insertion Commands**

### **AND insert line or character**

This key is used to insert new lines, words, and characters into the text file.

To insert a blank line position the cursor at the beginning of the line following the line to be inserted. Press **AND** to insert the new line. (New lines are inserted automatically when insert mode is turned on — see **≡ I** below).

To insert additional words between existing words position the cursor on the space between the words. Pressing **AND** then throws the words to the right of the cursor on to a new line. The additional text can then be typed in. Use **AND** again to create additional blank lines to type on as required or turn insert mode on (see below).

To insert a character into the middle of a word position the cursor over the character to the right of the required position. When **AND** is pressed the line is unjustified (see page 15 for the meaning of this) and a space is created for the new character to be typed. If the line cannot be unjustified then a new line will be created as described in the previous paragraph.

These insertion procedures will usually destroy the justification of the paragraph. The justification can be recovered using the **≡ J** key (see page 15).

### **≡ I insert mode On/Off**

When insert mode is turned On Tasword creates a new blank line for you to type on whenever a line of text is completed or ENTER is pressed. Turning insert mode On is useful when you want to type some lines of text in the middle of some existing text. The 'Insert' message at the bottom of the screen shows the current state of the insert mode.

### **≡ O auto-insert mode On/Off**

When auto-insert mode is on the current paragraph is continually rejustified while the text is being typed. Each letter that is typed is inserted into the text immediately before the current cursor position.

Auto-insert mode is useful for inserting a word or group of words into the middle of some existing text. If more than a few words are to be inserted then the normal insert mode described above should be used as the computer keyboard buffer can become full, resulting in typed characters being lost.

## Margin Commands

### **⊖ A set left margin**

When this key is pressed the left margin is set to immediately before the current cursor position. The margin setting is indicated by a line instead of the dotted bar on the penultimate line of the screen. The use of margins is described below. The left arrow may be used to move the cursor into the left margin either to type text or to reset the margin.

Tasword loads with the left margin set to column 1. This default may be changed by the 'Change Program' option (pages 55-57).

### **⊖ S clear margins**

This key resets the margins to the default positions.

### **⊖ D set right margin**

This key sets the right margin to immediately after the cursor position. The margin position is indicated by a line instead of a dotted bar near the bottom of the screen.

The maximum right margin position is at column 128. Tasword loads with the right margin set at column 64. This default setting may be changed by the 'Customise Program' option described on pages 55-57.

When margins are set the text that is typed will normally be put only between the two margins. Word-wrap and justification take place as though the margin positions represent the edges of the screen.

Margins are useful for automatically indenting part of your text. Paragraphs can be highlighted by having different margin settings, or a list of paragraphs can be typed and numbering and other annotations can be put within the margins.

The cursor moving arrows can be used to move the cursor into the margins to set new margin positions or to type text within a margin. The <=, <>, and >= text moving and centering commands do not affect the text inside the margins and do not work at all when the cursor is within a margin. The AND text insertion command does not operate inside margins except when the cursor is in column 1. The ⊖ J command rejustifies just the text that is between the left and right margin. The ⊖ H hard rejustify command may be used to reform paragraphs to new margin settings.

The find and find and replace commands only search within the margins. The automatic paragraph rejustification that takes place on text replacement may modify the format of text that has been typed with different margin settings and should be used with care if you have typed parts of your text with different margin settings.

## The Search Command

### **⊞ R replace or find text**

This facility allows you to find the next occurrence of a given word or to replace all the following occurrences of a given word with another word or group of words. The implementation of this command key is from the current cursor position. (To find or replace from the beginning of the text use the ⊞ ↑ command key first to get to the start of the text.)

When the ⊞ R key is pressed Tasword asks you to type the word to be replaced or found. You must type a single word — Tasword will not accept your input if you include spaces.

Press ENTER after you have typed the word that is to be replaced or found and Tasword will ask if case is to be ignored. If you specify that case is to be ignored then Tasword will treat capital and lower case letters as being the same when it searches through the text file.

Tasword will then ask you for the text that the word is to be replaced with. Just press ENTER to find the next occurrence of the word you typed. To replace the following occurrences of the word that you specified type the replacement text and press ENTER. The replacement text can include spaces but must be no longer than the smaller of the space between the current margin settings or 63 characters.

If you enter some replacement text then Tasword will ask if the find and replace should be 'selective' or 'all'. If you specify 'all' then Tasword will replace every occurrence of the given word with the new text. If you specify 'selective' then Tasword will, on finding each occurrence of the specified word, show the text containing the word on the screen and give you the option of replacing or not replacing the word.

Tasword will reform each paragraph in which it replaces text according to whether right justification is on or off and to the current margin settings. Use this command with care if you have used different margin settings for different parts of your text.

You can escape from a find or find and replace operation at any time by pressing the EDIT key.

## **Block Commands**

### **⌘ B mark beginning of block**

Blocks of text may be moved or copied from one part of the text file to another. The beginning and end of the block of text must be 'marked' before it can be moved or copied. The ⌘ B key is used to tell Tasword that the line of text that the cursor is in is the first line of a block. Tasword will mark the beginning of the block by inserting an inverse-open-square-bracket character above the first line of your block.

There is a short delay when this key is used while Tasword checks that there is not already a Beginning of Block Marker in the text file. You cannot have more than one Beginning of Block Marker in the text file at any one time.

To delete a block marker move the cursor to the line containing the marker and use the ⌘ DELETE command key to delete the line.

### **⌘ V mark end of block**

This key is used to mark the line that the cursor is on as the last line of a block of text. Tasword marks the end of the block by inserting an inverse-close-square-bracket symbol on the line below the line containing the cursor. There is a delay while Tasword checks that there is not already an end of block marker in the text file.

Use the line delete command ⌘ DELETE to delete a block marker.

### **⌘ M move block of text**

A block of text that has been marked is moved to a new position when the ⌘ M key is pressed. The text is moved to new lines that are created above the line containing the cursor when ⌘ M is pressed.

### **⌘ N copy block of text**

The action of this command key is identical to the move block ⌘ M key described above except that the block of text is copied to a new position rather than moved.

### **⌘ Z paste block of text**

The ⌘ Z paste block control key has the same action as the ⌘ N copy block command except that the block markers defining the original block are not deleted. This allows a block to be repetitively copied or 'pasted' into different positions in the text without having to reset the block markers.

### **⌘ C delete block of text**

A marked block of text is deleted when the ⌘ C control key is pressed provided that the cursor is not inside the marked block.

The screen clears during a block move or copy operation. The maximum size of block that can be moved or copied is about six thousand characters. If a block operation cannot be completed because the marked block is too large then some character positions will change colour on the cleared screen before the text is re-displayed.

## **Tab Commands**

### **STEP move cursor right to tab stop**

This control key moves the cursor right along the line to the next tab stop position. The tab stop positions are marked on the last but one line of the display.

### **NOT move the cursor left to tab stop**

This control key moves the cursor left to the tab stop immediately before the current cursor position.

### **⌘ + set tab**

The ⌘ + command creates an additional tab stop at the current cursor position. ⌘ - clear tab

The E - control key removes the tab stop that is at the current cursor position. There is no effect if there is not a tab stop at the current position.

### **⌘ = reset tabs**

This command key resets all the tab stops to their default positions of every tenth column.

### **⌘ T clear tabs**

The ⌘ ↑ command removes all the tab positions that are currently set. Note that the up arrow for this control key is SYMBOL SHIFT H and NOT the cursor arrow.

When Tasword is saved the current tab settings are saved as the default tab settings. If you wish to have a customised copy of Tasword which loads with a particular set of tab stops then save Tasword with the tabs set as required.

## **Printer Commands**

### **⌘ P page break display On/Off**

The ⌘ P command is used to switch the page break display between On and Off. The current status is shown by the 'Pg/Bk' message in the bottom line of the display.

When the page break display is On a dashed line appears across the screen to show the page breaks. This shows where one page will end and the next page will begin when the text file is printed.

See pages 31 to 32 for a description of the formatting of printed output.

### **⌘ TRUE VID force form feed**

The ⌘ TRUE VID control key combination is used to type the inverse-F 'force form feed' character. This is a special printer control character that forces a form feed on printing.

When the text file is printed the printer will perform a form feed after printing a line containing the inverse F character.

If this printer control character is used then subsequent page breaks will not occur at the positions shown by the on-screen page break display. (See page 32).

### **⌘ INV VID tasprint character**

This control key is used to type the special Tasprint control character. The use of Tasprint with Tasword Three is described in Appendix 4.

### **⌘ 7 put top line into header**

On printing the text file a header and a footer can optionally be printed at the top and bottom of each page (see pages 28-30). A header is created by typing it on line one of the text file and then pressing the ⌘ 7 command key. Subsequent use of the ⌘ 7 command key will put whatever is in line one of the text file into the header, over-writing any existing header.

## **Printer Commands (continued)**

### **⌘ 6 get header**

The ⌘ 6 control key gets the header from memory and inserts it into line one of the text file. The header may be edited and put back using the ⌘ 7 command.

### **⌘ 8 put top line into footer**

A footer for printing is defined by typing it on line one of the text file and then pressing this control key.

### **⌘ 5 get footer**

This command gets a copy of the footer from memory and inserts it into line one of the text file.

Both the header and the footer are saved onto the cartridge whenever a text file is saved. If not being used as such then they are useful for storing any short notes or comments concerning your text.

## **Special Characters**

### **GRAPH printer control characters**

The GRAPH command allows you to type the printer control characters whose use is described on page 33. The printer control characters appear on the screen as graphics symbols.

When GRAPH is pressed a message appears at the bottom of the screen to remind you that you are in GRAPHICS mode. This indicates that the next number key or letter key in the range A to P will give a printer control character. If help is on (page 12) then the help display will change to show a list of the printer control characters and their functions. Press the required key to obtain a printer control character. Just press GRAPH again if you do not wish to type a printer control character.

### **∃ 2 2nd character set**

Tasword Three contains an additional character set consisting of many additional and foreign language characters. When ∃2 is pressed the cursor becomes an outline cross, and if help is on (page 12), then the help display changes to show the list of the second character set and the characters that will be obtained by pressing particular keys. Press the required key or just press ENTER to return to the normal cursor.

### **∃ > Capitals to lower case**

If there is a capital letter at the current position then this command replaces it with the equivalent lower case letter. This command, in conjunction with auto-repeat, is useful if a section of text has inadvertently been typed with CAPS LOCK (see below) set.

### **∃ < lower case to Capitals**

This command replaces a lower case letter at the current cursor position with the equivalent capital letter.

### **CAPS LOCK**

The CAPS LOCK key toggles capitals lock on and off. When capitals lock is on pressing a letter key types a capital letter. The bottom line of the display changes to capitals to show that capitals lock is on.

## **Other Control Keys**

### **STOP save/load/merge/print text**

This command key is usually used to save, load, and print text files. The following list of options is displayed when STOP is pressed. (The numbers in brackets refer to the page number in this manual on which each option is described.)

Print text file	P	(p.27)
print with Data merge	P	(p.37)
Save text file	S	(p.10)
Load text file	L	(p.10)
Merge text file	M	(p.10)
Return to text file	R	(p. 26)
Customise program	C	(p.50)
save Tasword	T	(p. 9)
Erase file from M/D	E	(p.10)
into Basic	B	(p.26)

Pressing R will take you back to the text file. Pressing B to go into Basic allows you to do other tasks while still holding Tasword in memory. To leave Basic and re-enter Tasword type RUN and press ENTER.

When the main menu, reproduced above, is displayed on the screen a word count, character count and line count is also displayed. The free space count is usually an over estimate as Tasword compacts the text file before showing the main menu in order to create workspace. In practice the end of the text file can be reached when the free character count shows less than about two thousand characters.

The current drive number is shown at the bottom right hand corner of the main menu. When the main menu is showing you can change the current drive number by pressing one of the keys 1 to 8 or key 0 for cassette.

### **≡ T change window size**

This control key is used to open or close a 32 character wide window on the text file. When the window is closed the screen shows 64 Tasword characters on each line. With the window open the screen shows a 32 character wide part of the text file with the characters shown at normal Spectrum size.

# Printing Text

To print part or all of a text file use the STOP control key to obtain the main menu shown on page 26. Select the 'Print text file' option by pressing P and confirm your choice by pressing ENTER. The print menu will appear on the screen and is reproduced below:

start at line (1)  
finish at line (last)  
number of copies (1)  
line spacing (1)  
continuous or single sheet (C) C/S  
FF at page breaks (N)Y/N  
print header (N) Y/N  
print footer (N) Y/N  
print page numbers (N)Y/N  
    at top or bottom (T)T/B  
    at middle/sides (M) M/S  
    start page number (1)  
left print margin (0)  
FF after printing (N)Y/N

press **ENTER** for default settings  
**OR** to start again  
**AT** at any time to print  
**EDIT** to return to menu

With this menu showing on the screen just press **AT** to print your text file.

Tasword Three has a comprehensive set of print options. The first time user is recommended to by-pass these options by just pressing the **AT** key to print the text file. A description of the print options is given on pages 28-30.

Many of the above print options depend on a pre-defined page layout. See page 32 for a description of page layouts and page 51 for the instructions for defining your own page layout.

## Printer Terminology

A form feed is a special code that is sent to the printer. The printer interprets it as an instruction to move the paper to the beginning of the next page.

The form length is the number of lines of the text file printed on each page of paper. In this manual the form length does not include the additional lines printed on each page as a result of the printing of page numbers and footers and headers.

# The Print Options

The print menu shown on page 27 consists of a number of options. There is a default answer to each option which is shown in brackets. If any option is answered by just pressing ENTER then the default answer is selected. If AT is pressed, in order to jump the remaining options and begin printing, then the default answers are selected for the remaining options.

If a non-default answer is given to any of the options after the first two then these answers become the default options for subsequent print commands while Tasword remains in the computer. Furthermore, if Tasword is saved (page 9) then the current default options are saved as the new default print options. In this way you can create a customised copy of Tasword that has as default the print options that you use most often. (See also program customisation on pages 50-57.)

## **Start at Line**

Enter the line number of the line in your text file that you wish the printing to start at. The default is line 1.

## **Finish at Line**

Enter the line number that is to be the last line to be printed. The default is the last line of the text file containing text.

## **Number of Copies**

Enter the number of copies of the text file that you wish to be printed. If you are printing more than one copy and you want each copy to begin on a separate sheet then either enter Y to respond to the 'form feed after printing' question below (page 30) or type the inverse-F printer control character (pages 23 and 32) into the last line of your text file.

## **Line Spacing**

Enter 2 for double line spacing and three for triple line spacing and so on. If you print out text with a line spacing greater than one and you require form feed at page breaks then you will have to redefine the form length (the number of text lines on the page) as the program counts the number of lines of text printed and not the intervening blank lines.

**Continuous/Single**

If you are using continuous (i.e. fan fold) stationery then respond by pressing C. Press S if you are printing onto single sheets.

If you specify single sheet then the program will perform an automatic form feed at each page break and then halt. A message on the screen invites you to feed the next sheet of paper into the printer and to press a key to continue printing.

**FF (Form Feed) at Page Breaks**

This question is asked if continuous stationery is specified in the above option. If you specify that you do want a form feed at the page breaks then after printing out a number of lines equal to the form length (page 27) on each page the program will force the printer to do a form feed so that no printing is performed on or near the perforations between the sheets.

If you specify no form feeds at page breaks then the following questions concerning headers, footers, and page numbers are irrelevant and the next option becomes the 'left margin on printing' option.

**Print Header**

A header is a line of text that can be printed at the top of every page. To define a header use the  $\exists 7$  option described on page 23.

Pressing Y for yes in response to this option will cause the header to be printed at the top of each page.

**Print Footer**

A footer is a line of text that can be printed at the bottom of every page. A footer is defined using the  $\exists 8$  option described on page 24.

Responding Y to this option will cause the footer to be printed at the bottom of each page.

**Print Page Numbers**

Respond Y for yes to this option if you require a page number to be printed on each page.

The next three options are only appropriate if you specify that you do require page numbers printing.

**At Top or Bottom**

Use this option to choose whether the page numbers should be printed at the top or the bottom of the printed page. The page numbers are printed above the header or below the footer.

**At Middle/Sides**

You can choose to have page numbers printed either in the middle of the page or at the sides. 'Middle' and 'sides' in this context refer to the margin positions as set in the text file when the STOP command was used to leave the text file.

If you specify that page numbers should be printed at the sides then odd numbers will be printed at the right hand side of the page and even numbers will be printed at the left hand side.

**Start Page Number**

Enter the number that you require the page numbering to start at. This is useful with large documents which have to be stored on cartridge in separate parts.

**Left Print Margin**

This margin is separate and distinct from the left margin in the Tasword text file. A left margin on printing is a number of spaces that are sent to the printer at the start of every printed line.

You may, for example, type text that is to be printed on normal width A4 paper. Eighty characters in a normal typeface will fill the width of the paper. In order to obtain a margin at each side of the paper you could set the text file margins at columns 8 and 72 say. This is a perfectly valid approach but a better method, which saves some memory, is to have the left margin at column 1, the right margin at column 64, and to specify a left margin on printing of 8. A disadvantage of this second method is that if you use different sized typefaces then the spaces that are sent to the printer for the left margin may be of differing sizes and the left justification will be lost.

**FF (Form Feed) after Printing**

Answering Y for yes to this option gives a final form feed at the end of the printing. The footer and page number are printed at the bottom of the page if selected.

# Formatting Output

This section describes how to format your printed output in terms of the layout of each page and the number of lines to be printed on each page. The beginner is recommended to follow the advice given on page 27, and by-pass the print options, until familiar with the other features of the program.

## Page Breaks

There are two reasons for utilising page breaks and Tasword has a facility which is appropriate for each:

When printing onto continuous stationery you may prefer that printing does not take place in the region of the perforations. Similarly, when printing onto a single sheet, you will not want to print to the very end (and beyond!) of each sheet.

If your text is split into distinct parts you may wish each of the separate parts to begin on a new page. This manual is an example of this type of document.

If your text is a continuous document it may be that (1) above is the main consideration and you can use the automatic page break facility. If, on the other hand, your main requirement is that of (2) above, then you will want to force form feeds by typing a special printer control character into your text at the relevant places.

Each of the two ways of obtaining page breaks is described below. It is unwise to try to use both methods in the same document.

### (1) Automatic Page Breaks

The print menu (reproduced on page 27) contains a 'FF (form feed) at page breaks' option. If you respond Y for yes to this option, or if you have already specified that you are using single sheet, then every time the printer has printed out a number of lines equal to the form length a form feed will be performed.

For example, if the form length is fifty lines, the printer will perform a form feed after printing every fifty lines of the text file.

If you have specified that the footer should be printed, then this will be done before the form feed. The same applies to page numbers that are to be printed at the bottom of the page.

If the page break display is turned on ( $\exists$  P, see page 23), then a dotted line across the text shows where each page break will occur.

## **(2) Forced Form Feeds**

An alternative to relying on the automatic page breaks described in (1) above is to use forced form feeds. A forced form feed is obtained by typing the inverse-F printer control character into your text.

Printer control characters are obtained by pressing GRAPHICS and then pressing the appropriate number or letter key as described on page 25.

When the text file is printed the printer will perform a form feed after printing any line containing the inverse-F character.

Automatic page breaks will still take place at form-length intervals after a forced form feed but these automatic page breaks will not occur at the positions indicated by the on-screen page break display. It is therefore wise, if you are using forced form feeds, not to rely on subsequent automatic page breaks, but instead to continue to use the inverse-F character to obtain form feeds at the desired places in your text.

## **Page Layout**

The layout of each page of printed text is as follows:

- 1) The page number, if specified, and if specified to be printed at the top of the page, is first printed. The printer moves down two lines after printing the top page number;
- 2) The header, if specified is printed. The header is a line of text that is printed at the top of every page. The header is defined using the  $\exists$  7 command described on page 23. The printer moves down three lines after printing a header;
- 3) A number of lines of text are then printed. The number of lines of text that are printed is the form length which is set to fifty lines by default;
- 4) If the footer is to be printed the printer moves down three lines and prints the footer;
- 5) If the page numbers are being printed at the bottom of the page the printer moves down two lines and prints the page number.

The number of lines of text on a page (the form length) and the number of lines moved by the printer in each of the above are all user selectable via the 'Customise program' option described on page 50.

## Printer Control Characters

Tasword Three helps you make effective use of the capabilities of your printer by providing thirty-two user definable printer control characters. The printer control characters are graphics symbols. These graphics symbols are typed by first pressing the GRAPHICS control key and then pressing the appropriate letter or number key. When the GRAPHICS key is pressed a message near the bottom right hand corner of the screen reminds you that the next key you press will give a graphics printer control character.

Each printer control character has a sequence of up to five printer control codes associated with it. The appropriate sequence is sent to the printer whenever Tasword comes across a printer control character during printing.

You may, for example, define a printer control character to be the sequence of codes that instructs your printer to print enlarged text (if your printer has this capability). Then you can simply type this printer control character into your text and the text following will be printed in the enlarged form.

Tasword Three comes with the Spectrum block graphics printer control characters defined as shown on the help page (see page 6) for the Epson FX-80 printer. Many of these codes are valid for other dot-matrix printers. On the help page there is a Spectrum block graphics character before and after each function. The character before the function turns the function on, and the character after the function turns it off. The 'on' characters are typed by holding CAPS SHIFT down and pressing the relevant number key. The 'off' characters are typed by just pressing a number key.

The additional graphics printer control characters which are obtained by pressing the letter keys A to P are not defined on the program as supplied.

You can define your own sequences of printer control codes to be associated with the printer control characters by going through the 'Customise program' facility described on page 50.

The part of the help page that lists the printer control characters can be edited (see pages 12 and 57). This is especially useful if you change the existing functions or use the additional undefined graphics symbols as you can then change the help page to give you a reminder of the function of the redefined graphics symbols.

The sections of printer manuals that deal with control codes vary in both clarity and terminology. See Appendix 1 (page 58) for an explanation of some of the terminologies used in printer manuals.

### Example

The program is provided with the `_` symbol defined to send to the printer the code for a space followed by the Epson sequence of codes to tell the printer to begin underlining. The symbol is similarly defined to be the terminate underlining sequence of codes followed by a space.

The following text in the text file:

```
    this is an _ example - of underlining
```

will be printed as:

```
    this is an example of underlining
```

## **Printing Normal Characters**

The ascii code associated with each normal character is sent by default when the text file is printed.

The 'Customise program' option (page 50) allows you to define a sequence of up to three codes to be output for any normal character on printing. You may want to do this, for example, in order to print accented characters. You could define the codes associated with a particular character to be the code for a character, followed by the backspace code, followed by the code for an accent. This assumes that your printer has such codes.

## **Printing 2nd Character Set Characters**

A character from the second character set is normally printed as the corresponding character from the normal character set. The 'Customise program' option allows you to define a sequence of up to three codes to be output for each character from the second set.

# Printing Text Files from Cartridge

A document which is longer than the Tasword text file size must be held on cartridge as two or more text files. The document can be printed by loading and printing each file in turn. This procedure can be automated in Tasword Three by printing a special text file, called a 'print file', which consists of the names of the text files that are to be printed.

The following is an example of a print file:

```
$  
TEXT1  
TEXT2  
TEXT3  
TEXT4  
TEXT5
```

The dollar, which must be at the beginning of the text file in column one of line one, informs Tasword that the text is a print file. The dollar is followed by a list of filenames, each starting in column one of a new line. These filenames form a list of the text files that Tasword will print.

When Tasword is instructed to print it inspects the first character in the text file to see if it is a dollar. If it is, then Tasword will print the named files in the specified order.

Tasword will search for the files on the current cartridge as shown on the bottom right hand corner of the main menu. The file names in the print file may include a drive specification by preceding the name with the drive number and a colon, i.e.:

```
1:TEXT1  
2:TEXT2
```

Printing text files from cartridge may only be done via the 'print text file' main menu option: during a 'print with data merge' the program disregards the dollar sign. It is recommended that the user answer Y for yes to the 'form feed after printing' option on the print menu so that the printing of each text file begins on a new page: this is essential if headers, footers, or page numbers are being printed or if form feeds at page breaks is specified. Tasword will only print one copy of a document that is being printed from a print file.

## Tutorial Session — Printing Text Files from Cartridge

Summary: In this tutorial session we shall:

- 1) Load and inspect the example print file PRINT;
  - 2) Print several text files from cartridge by printing the print file.
- 
- 1) Load the text file PRINT and confirm that it is the same as the file shown on the previous page. Note that the print file begins with a dollar right at the beginning of an otherwise blank line at the start of the text file. Also note that each of the filenames that follows also begins in column one.
  - 2) Press **STOP** to access the main menu and press **P** to select the 'print text file' option. Press **ENTER** to confirm your choice and then **AT** to choose the print menu defaults. The five files specified in the print file will be printed.

# Data Merge

Tasword Three includes a Data Merge facility. You can use Data Merge to, for example, produce multiple copies of a letter each individually addressed to a number of recipients whose names and addresses are held on a disc file called a Data Merge File.

You can create your own Data Merge File using Tasword, or you can use Masterfile amended as described in Appendix 6. The Tasword Data Merge facility is an intelligent one in that it allows conditional printing. You could, for example, have a Data Merge File which consists of a list of names and addresses of customers together with a number which represents the total value of the purchases that the customer has made from you in the last year. Using the Tasword Data Merge Facility you could send an individually addressed letter to each customer who had done over £500 of business with you in the last year.

The conditional printing offered by the Tasword Data Merge facility is a powerful and useful feature. It allows printing to be turned on and off depending on whether the data in some field in the current Data Merge record satisfies a condition that is specified in the text file that is being printed. Users who wish to process and select their data under more complex criteria than those allowed by Tasword Data Merge are advised to enter their data using Masterfile and to import it into Tasword.

## The Tutorial Sessions

Using the Tasword Data Merge facility requires an understanding of the concepts of files, records, and fields. Do not be daunted if these are unfamiliar terms. The Tasword program cartridge is supplied with a number of files which serve as examples. The tutorial sessions in this section of the manual invite you to use these example files to learn to use the Data Merge facility by seeing it in action. Do not worry if you do not understand on first reading each reference part of this section of the manual. Work through the tutorial session that concludes each reference section, and spend some time experimenting before ending each session. Then read the preceding reference part of the manual again.

## The Data Merge Control Character - &

The & character is the Data Merge control character. This character is typed into the Tasword text file to specify where merge data will be printed. The & character is also used in the Data Merge file to specify different fields within a record. (The Data Merge control character may be changed by the user — see page 56).

## Files, Records, and Fields — An Introductory Example

A good example of the use of the Tasword Data Merge facility is a straightforward mail merge in which a set of individually addressed letters is sent to a list of names and addresses held on a Data Merge file. The list of names and addresses, which could have been typed in using Tasword and then saved to cartridge as a text file, might look as follows:

&NCampbell Software Design Ltd &A57Trap'sHill Loughton Essex IG101TD &T01 508 5058	this is a record  a blank line separates records
&NMicromend &A8 Manor Drive Leeds 6 &T0532 742858	this is a field
&NTasman Software Ltd &ASpringfield House Hyde Terrace Leeds LS29LN &T0532 438301	this is a field that is three lines long
&NTransform Ltd &A24 West Oak Beckenham Kent &T01 6586350	In this example the Data Merge file consists of these four records – each consisting of a name, address and telephone no.

In a Data Merge file each field must be preceded by the Data Merge control character '&' followed by a letter which identifies the field. In the above example each Name is preceded by &N, each Address by &A, and each Telephone number by &T.

The character following each & in the Data Merge file MUST be a letter: i.e.A-Z or a-z. The program distinguishes between upper and lower case letters and therefore each record in a Data Merge file could consist of up to fifty-two fields. (The maximum size of record that the program will accept is around fifteen hundred characters.)

Note that the & Data Merge control character that begins each field MUST be in column 1 of the text file.

The letter in this mail merge example would be typed using Tasword and might look as follows:

&N &A

Dear &N,

This is a very short letter that we are using as an example of a Tasword Data Merge.

Yours sincerely,

Tasman

When this letter is printed using the Data Merge facility from the Tasword main menu with the above example file used as the Data Merge file then it will in fact be printed four times.

The first letter will be printed as:

Campbell Software Design Ltd 57 Trap's Hill Loughton Essex IG10 1TD

Dear Campbell Software Design Ltd,

This is a very short letter that we are using as an example of a Tasword Data Merge.

Yours sincerely,

Tasman

Inspection of the first record in the Data Merge file (shown on the previous page) and the text file (shown at the top of this page) will show how the print with Data Merge has worked to produce this letter. The &N in the text file has been replaced with the field called &N in the first record of the Data Merge file: Campbell Software Design Ltd. Similarly, the &A in the text file has been replaced with the multi-line field called &A in the first record of the Data Merge file.

The second letter will read:

Micromend 8 Manor Drive Leeds 6

Dear Micromend,

This is a very short letter that we are using as an example of a Tasword Data Merge.

Yours sincerely,

Tasman

The final two letters will similarly contain the names and addresses taken from the final two records of the Data Merge file:

Tasman Software Ltd  
Springfield House  
Hyde Terrace  
Leeds LS2 9LN

Dear Tasman Software Ltd,

This is a very short letter that we are using as an example of a Tasword Data Merge.

Yours sincerely,

Tasman

Transform Ltd  
24 West Oak  
Beckenham  
Kent

Dear Transform Ltd,

This is a very short letter that we are using as an example of a Tasword Data Merge.

Yours sincerely,

Tasman

## Tutorial Session One — A Mail Merge Print

Summary: In this tutorial session we shall:

- 1) Load Tasword;
- 2) Load and inspect the example Data Merge file MERGE;
- 3) Clear the text file;
- 4) Load and inspect the example text file TEXT1;
- 5) Do a Data Merge print of the text file using the data in MERGE;
- 6) Add an additional record to the Data Merge file and do another Data Merge print;
- 7) Amend the text file to include the instruction to print the telephone numbers held in the Data Merge file during a Data Merge print.

- 1) Load Tasword by putting the program cartridge into drive 1 and executing:

**RUN**

- 2) An example Data Merge file called MERGE is recorded on the cartridge. Load this file as a text file by accessing the main menu using STOP and specifying option L for 'Load text file'. When you press ENTER to confirm your choice a list of the files on the program cartridge will be displayed and you will be invited to type in the name of the file that you want to load. Type:

**MERGE**

and press ENTER. The Data Merge file will load as a text file and you can inspect it to confirm that it is the same as the file shown on page 38. Later in this tutorial session you will want to edit this Data Merge file and to do this you will load it as a text file, make the necessary changes, and then save it. For the time being we want to leave this Data Merge file on cartridge unchanged so:

- 3) Clear the text file by pressing 3 X and then pressing Y to confirm.
- 4) Now load the text file TEXT1 and confirm that it is the same as the text file illustrated on page 39.

- 5) We will now do a Data Merge print of the text file that you have just loaded and which should still be on the screen. Press STOP to access the main menu and then press D to specify the 'print with Data merge' option. When you press ENTER to confirm your choice the print menu will appear on the screen. Press AT to choose the default options. A list of the files on the program cartridge will be displayed and you will be invited to type in the name of the Data Merge file that you wish to use. Type:  
MERGE

and press ENTER. The program will access the cartridge to check that the specified file exists and will then ask you to:

Press:     A to print All records  
           S to print Selected records  
           EDIT to return to menu

Press A to specify all records and the four letters will be printed.

You would normally require each letter to start on a separate sheet. To do this simply specify Y for Yes to the 'FF (form feed) after printing' option at the end of the Print Menu (see page 27).

Now repeat this Data Merge print but when given the option of All records or Selected records specify S for selected records only. You will find that each record is displayed on the screen and that you are given the option of printing with this record, or of skipping the record and not printing with it.

- 6) Now load the Data Merge file MERGE as a text file and add your own name, address and telephone number to it. Do not forget to use the &N, &A, and &T field identifiers at the beginning of the appropriate records. Save the amended Data Merge file as TEMPDAT, re-load the TEXT1 text file, and do a print with Data Merge specifying TEMPDAT to be the file containing the required Merge Data.
- 7) Type in &T at some place of your choosing in the text file so that when you print with Data Merge the telephone number in each record will also be printed out. Do another print with a Data Merge to see if it works!

## **Text Entry During Printing — The &"prompt" Command**

If the text file contains a Data Merge control sequence of the form:

&"prompt"

i.e. the Data Merge control character followed by the double quote character followed by some text and terminated by another double quote character, then during a Data Merge print the following action will be taken when the sequence is encountered:

Printing will halt and the prompt text inside the double quotes will appear on the screen. Up to a line of text may be typed and will appear on the screen. When ENTER is pressed the text that has been entered will be printed and the printing of the text file will then continue.

When the text file is printed for the second and subsequent times during a Data Merge print the text that was last entered at the prompt will be displayed on the screen in addition to the prompt. To print this previously entered text just press ENTER when the prompt and text appear on the screen. If new text is typed in then it is the new text that is printed and this new text becomes the text that is displayed on the screen during the next print in the Data Merge print run.

To print no text when the prompt and a remembered text sequence appear on the screen press SPACE and then ENTER.

There can be any number of &"prompt" commands within a text file but the program will only remember the previously entered text for six &"prompt" commands.

## Tutorial Session Two — Text Entry During Printing

Summary: In this tutorial session we shall:

- 1) Load and inspect the example text file TEXT2. This text file contains & "prompt" commands;
  - 2) Do a Data Merge print of the text file using the data in MERGE;
  - 3) Add an additional &"prompt" command to the text file and do another Data Merge print.
- 1) Load the text fileTEXT2 and confirm that it is as follows:

&N  
&A

Dear &N,

Thank you for your interest in our new product range. I have passed on your request for a demonstration at your premises to our sales office and a sales engineer will visit you on &"enter date".

Yours sincerely,

Mr. Hope U Buyit

This text file contains an &"prompt" command which allows a date to be typed in when the letter is printed.

- 2) Carry out a 'print with Data Merge' on this text file using the Data Merge file MERGE.
- 3) Add another &"prompt" command to the end of the letter which allows you to type in a postscript at the end of each print of the letter. Then perform another print with Data Merge.

## Numbering Documents —The &number Command

The documents printed during a Data Merge print of the text file may be numbered in sequence using the &number command.

If, for example, a text file contains the Data Merge command:

&57

then during a print with Data Merge the number 57 will be printed on the first print of the text file, 58 will be printed on the second print, and so on.

A text file may contain up to sixteen &number commands.

### Tutorial Session Three — Numbering Documents

Summary: In this tutorial session we shall:

- 1) Add an &number command to the example text file TEXT2;
- 2) Do a Data Merge print of the text file in which the letters are sequentially numbered starting with 1;
- 3) Amend the &number command in the text file so that the numbering starts at some other number than 1.

1) Load the example text file TEXT2 and add an extra line so that it appears as follows:

&N  
&A

In any reply please quote ref. &1

Dear &N,

Thankyou for your interest in our new product range. I have passed on your request for a demonstration at your premises to our sales office and a sales engineer will visit you on &"enter date".

Yours sincerely,

Mr. Hope U Buyit

- 2) Carry out a print with Data Merge on this text file using the Data Merge file MERGE.
- 3) Amend the &number command in the text file so that the numbering starts at some other number than one and carry out another print with Data Merge.

## Conditional Printing — The && Commands

A double occurrence of the Data Merge control character, &&, is a conditional printing command. Conditional printing commands can be used to turn printing on and off within a document depending on whether some condition, specified in the text file using the && command, and related to a specified field in the current record of the Data Merge file, is true or false.

The syntax of a conditional printing command is: && followed by a field identifier followed by a logic symbol followed by a number or text.

The allowed logic symbols are:

= equal to  
> greater than  
< less than  
<> not equal to

The following are valid examples of conditional printing commands:

```
&&T=1  
&&N<>Tasman Software Ltd  
&&X>500  
&&
```

When a conditional printing command is encountered during a print with Data Merge the number or text following the logic symbol is compared with the number or text contained within the field of the current Data Merge record that is specified by the letter following the && characters. If the condition is true then printing proceeds. If it is false then printing is turned off for the remainder of the current print of the text file or until the 'printing on1 command is encountered.

The 'printing on' command is && followed by a space.

The following points concerning the comparisons in conditional printing commands should be noted:

Numbers are integers and must be terminated by a space. If a number includes a non-numeric character, e.g. a decimal point, then it is treated as a text string. If both the conditional text string and the relevant data field are found to be integer numbers then the comparison is arithmetic. If either is non integer then the comparison is as if each is a string of text. Strings are compared by ASCII value of each character in the string. When a comparison is made only the first line in multi-line fields is inspected. A conditional print command turns printing off if the field identifier is not in the current record.

In a conditional printing command containing text all the text after the && up to the end of the line is compared with the field in the data merge record. Conditional printing commands should therefore be inserted on blank lines of the text as in the examples given in the tutorial sessions below. Conditional printing commands simply turn printing on or off—an AND type logical relation between two conditional cannot be implemented.

## Tutorial Session Four — Conditional Printing

Summary: In this tutorial session we shall:

- 1) Load and inspect the example text file TEXT3. This text file contains a numeric conditional printing command;
  - 2) Do a Data Merge print of the text file using the data in MERGE;
  - 3) Change the text and conditional printing command to print a different set of letters;
  - 4) Alter the conditional printing command in the text file so that the comparison is between text strings, and perform another print with Data Merge.
- 
- 1) Load the text file TEXT3 and confirm that it is as follows:

```
&&T=1
```

```
&N
```

```
&A
```

```
Dear &N,
```

```
The enclosed brochures describe just some of the interesting new products that will be on view at the London Computer Show. Hoping to see you there.
```

```
Yours faithfully,
```

```
The Show Manager
```

This letter contains a conditional printing command in the first line. It turns printing on if the numeric field T in the current record during a Data Merge print is equal to 1.

- 2) Carry out a print with Data Merge on this text file using the Data Merge file MERGE.

You will find that you have just printed out the letter addressed to those correspondents in your mailing list who live in or near London. The print condition was to only print the text if the field T in the record was equal to one. Because numbers are terminated by a space the program only looks at the first part of the telephone number.

- 3) Can you edit the text file so that it refers to a Leeds computer show and do a print with Data Merge that just sends the letter to the addresses with Leeds dialling codes? The dialling code for Leeds is 0532.

- 4) Now load the example text file TEXT4 which is slightly different from the text file you have just been using in that it looks as follows:

&N &A

Dear &N,

The enclosed brochures describe just some of the interesting new products that will be on view at the London Computer Show. Hoping to see you there.

&&T=532

Special low cost group travel arrangements have been made for Leeds residents. Contact the Leeds office of Get There Coaches Ltd for details.

&&

Yours faithfully,

The Show Manager

The conditional printing command between the two paragraphs of this letter will turn printing off if the field T does not have a numeric value of 532. The && after the second paragraph turns printing on if it was off.

Do a print with Data Merge on this text file using the Data Merge file MERGE. You will find that the second paragraph of the letter is only printed in letters to addresses with Leeds telephone codes.

- 5) Load the example text file TEXT5 which reads as follows:

&&N=Micromend

&N

&A

Dear &N,

Thank you for your letter of 16th August quoting for the repair of our damaged computer. Please proceed with the work at your earliest convenience.

Yours faithfully,

Mr. P. Monico  
General Manager

This text file illustrates one of the many other possible uses of the Data Merge facility. The Data Merge file is a 'name and address book' which is consulted by the program to find and print the address of your intended recipient. Do a Data Merge print using MERGE to print the properly addressed letter.

## Printing Labels

After a Data Merge print you may wish to print a set of labels containing, for example, the names and addresses of the intended recipients of the letters that you have just printed.

The easiest way to ensure that each label print starts at the same place on each label is to redefine the printer form length (page length) to be the distance between the start of each label. Standard address labels are offset by one and a half inches from each other. The standard line spacing is one sixth of an inch. The distance between the start of each label is therefore nine print lines. The Epson sequence to redefine the form length to nine lines is:

```
ESC "C" 9
```

Define a Tasword printer control character to be this sequence, which is, in decimal:

```
27 67 9
```

Send this sequence to the printer by printing a text file which contains just the printer control character which has been defined as described above. The labels can then be printed by doing a Data Merge print with a text file which would typically be as follows:

```
&N  
&A
```

To obtain the correct spacing respond with Y for yes to the 'form feed after printing' option in the print menu.

## Restrictions

Tasword does not reformat text containing embedded data merge commands. A consequence is that the justification of a paragraph containing a data merge command within the body of the text can be lost when the text is printed.

Tasword does not keep a count of the additional lines which are printed as a result of printing a multi-line field during a Data Merge print. A consequence is that printed page starts will not correspond to the page starts shown by the program page break display after multi-line Data Merge fields have been printed.

A Data Merge file should not contain the vertical bar character. Masterfile uses this character as a line delimiter in multi-line fields and it is interpreted accordingly by Tasword Three.

# Program Customisation

Tasword Three contains a comprehensive set of options that allow the user to create a version of the program suited to personal requirements and preferences. Whenever the program is saved onto cartridge it is saved in its currently customised form. You can therefore customise the program, save it onto cartridge and subsequently load your own customised program. This obviates the need to customise the program whenever you load it. Keep the original cartridge as your back-up copy.

It is recommended that you refer to the relevant sections in the following part of this manual whenever you go through the program customisation options.

To customise your Tasword Three press the STOP command key while Tasword is running to obtain the main menu shown on page 26. Press C to choose the 'Customise program' option and then press ENTER to confirm your choice. Tasword then asks the following sequence of questions:

- define page layout Y/N (p.51)
- define normal print chars Y/N (p. 52)
- define printer control chars Y/N (p. 53)
- define 2nd character set print chars Y/N (p. 54)
- change program Y/N (p. 55)

If the Y key is pressed in response to any of the above questions then the program will go into the relevant customisation sequence, each of which is described on the page whose number is referenced in brackets in the above list.

On return from any of the above customisation sequences the next option in the above list will be presented.

Pressing N or any other key in response to any of the above options will cause the next option on the list to be presented.

## Define Page Layout

This customisation option allows you to define your own page layout and to specify the codes that your printer uses for carriage return, linefeed, and form feed. The Tasword Three page layout is described on page 32.

When this customisation option is selected the following sequence of questions is asked by the program:

no. text lines on page (50)

top page no. — header (2)

header — text (3)

text — footer (3)

footer — bot. page no. (2)

carriage return (13)

linefeed (10)

form — feed (12)

The numbers in brackets are the current default values held within the program. They are supplied on the cartridge with the values shown above.

To specify a new value for any of the above parameters type the new value and press ENTER. To keep the current default value you can just press ENTER. A cursor indicates the question that the program is currently asking.

The first five questions allow you to define your own page layout. The Tasword Three page layout is described on page 32.

The last three questions allow you to define the codes that that printer uses for carriage return, linefeed, and form feed. Nearly all printer use the codes that are shown in brackets above. Many printers have an internal switch that, if set, will cause the printer to perform a linefeed as well as a carriage return on receipt of a carriage return signal. If your printer produces unexpected double line spacing then you can either reset the switch in your printer or specify the code for linefeed to be zero in the above list of questions.

A few printers do not do an automatic carriage return after performing a form feed. With such printers the first line on a page following a page terminated by a footer or a line number will not start at the correct position. With such printers add 128 to the printer code for a form feed (usually 12) and enter this number (i.e.  $12 + 128 = 140$ ) as your printer code for a form feed. The program performs a carriage return after a form feed if the defined printer form feed code is greater than 128.

## Define Normal Print Characters

This customisation option allows a sequence of up to three codes to be associated with any of the normal characters. When the character is printed it is this sequence of codes that is sent to the printer.

The program is supplied with a single code associated with each normal character. This code is the ASCII code for that character. You may wish to define some other code or sequence of codes for some character in order to, for example, print accented characters as mentioned on page 34, or to define your printer code for a £ sign (see appendix 2 for the printing of £ signs).

When this option is chosen the program prompts you to 'type the character you wish to define a sequence for'. Type the character or press ENTER if you have finished, or do not wish to, define a sequence.

If you type a letter the program will show the sequence of codes currently associated with that letter and invite you to type in a new sequence of codes. Type up to three sets of numbers, pressing ENTER after each number. To terminate the sequence with less than three numbers just press ENTER.

If you press ENTER to terminate the sequence before entering the first code then the character will have a 'null sequence' associated with it and nothing will be printed for that character.

### Example

In this example the normal \* character will be made to produce a 'plus or minus'  $\pm$  sign on printing.

Enter the 'define normal print characters' option and type a \* in response to the 'type a character you wish to define a sequence for' question. The program will show the 'old' code or sequence of codes associated with the \* character and invite you to type in a new sequence of codes.

We wish the printer to print, in place of the \*, first a + sign, then to do a backspace (move back a character), and finally to print the underline character \_.

The ASCII code for a + sign is 43.

The code for backspace on most printers is 8

The ASCII code for a \_ character is 95.

Type 43, then 8, and then 95, pressing ENTER after each. The \* character will now be printed as a  $\pm$  sign.

## Define Printer Control Characters

This customisation option allows a sequence of up to five codes to be associated with any of the printer control characters. The printer control characters are the sixteen Spectrum block graphics characters and the sixteen additional graphics characters. The Spectrum block graphics characters are typed by pressing the GRAPHICS key and then a number key or CAPS LOCK and a number key. The additional graphics characters are typed by pressing GRAPHICS followed by one of the keys A to P.

The program is supplied with the codes for the printer control characters obtained by pressing the number keys and CAPS SHIFT and the number keys defined to be control code sequences for the Epson FX-80 printer that give the effects shown on the second help page. Many of these control code sequences are valid for other dot-matrix printers. The printer control characters obtained by pressing the letter keys A to P are undefined in the program as supplied and may, along with the other printer control characters, be defined by the user. The printer control character inverse-F always forces a form feed (see pages 23 and 32). The 'TP' printer control character is reserved for use with TASPRT.

To define printer control characters to be particular sets of control codes for your printer press Y for yes in response to the 'define printer control chars' option shown on page 51.

A list of sixteen of the printer control characters together with their currently defined sequences of codes will be shown on the screen. The program will prompt you to press a key in order to specify which printer control character you wish to define a sequence for. (Press the SPACE key to obtain one of the other sixteen printer control characters). When you have specified a printer control character the program will prompt you to input a sequence of codes. Type in up to five codes, pressing ENTER after each one. If your sequence is less than five numbers then terminate the sequence by just pressing ENTER. Tasword will then redisplay the printer control characters and associated codes. You can redefine another printer control character by pressing the appropriate letter key or press ENTER to exit from this customisation option.

The printer control code sequences are entered as decimal numbers. Appendix 1 indicates how these numbers may be determined from the information given in some printer manuals.

A printer control character occupies a character position in a line of the text file. If the control code sequence does not cause a character to be printed then the justification of the printed text will be lost, as a line containing a single such printer control character will be a character shorter on printing than a line that does not. This effect is avoided by including the code for a space in the sequence of codes. The program is provided with the \_ and - underline characters including such a space.

## **Define Second Character Set Print Characters**

This customisation option allows a sequence of up to three codes to be associated with any of the 2nd character set characters. When the character is printed it is this sequence of codes that is sent to the printer.

The program is supplied with a single code associated with each 2nd character set character. This code is the ASCII code corresponding to the normal character that is obtained by pressing the same key.

When this option is chosen the program prompts you to define a sequence of codes in exactly the same way as for the 'define normal print characters' option described on page 52.

The ability to print second character set characters is entirely dependent on the capabilities of your printer. If your printer does not contain a required character pattern in its own internal memory, or if it does not have definable characters which you are able to program, then you cannot print the character.

## Change Program

This customisation option allows the user to make various modifications to the program. When this part of the program is entered by responding Y for yes to the 'change program' option (see page 50) the following sequence of questions is asked:

pen colour 1 (0) pen colour 2 (4) paper colour (7) border colour 1 (7) border colour 2 (4) cursor shape (140) left margin (0) right margin (64) data merge control character (38) file print control character (36) keyclick length (0) suppress ENTER to confirm Y/N unlock help Y/N return to text after load Y/N scroll at screen edge Y/N stop refresh in justify Y/N

The values shown in brackets are the current program values. Just press ENTER to keep the current value.

### Pen Colour 1

This specifies the colour, or brightness on monochrome screens, of the text in the text file. The program is supplied with this set to 0 which corresponds to black. Enter some other number for a different brightness or colour.

### Pen Colour 2

This specifies the second pen colour which is used on some of the program menus.

### Paper Colour

This specifies the background colour. The cartridge is supplied with this set to 7 for white. Enter some other number between 0 and 7 for a different brightness or colour.

### Border Colour 1

This specifies the normal border colour and is set to seven on the original program cartridge.

### Border Colour 2

The border colour changes at the beginning of some command key actions to indicate a delay while the program does some processing. The colour that the border temporarily changes to is the second border colour. This option allows this second border colour to be changed.

**Cursor Shape**

The symbol used for the cursor may be changed through this option. Enter 140 for the standard square cursor or 95 to change the cursor to the underscore ( \_ ) character

**Left Margin**

This defines the default setting for the left margin. Enter a number which is one less than the column number for the left margin setting you require.

**Right Margin**

This defines the default setting for the right margin. Enter a number up to the maximum right margin setting of 128.

**Data Merge Control Character**

38 is the ASCII code for the '&' data merge control character. Some other character may be specified by entering the corresponding ASCII code.

**File Print Control Character**

36 is the ASCII code for the '\$' file print control character. Some other character may be specified by entering the corresponding ASCII code.

**Keyclick Length**

Enter any number between zero and 255. Zero gives the shortest possible keyclick and 254 the longest. For no key click at all enter 255.

**Suppress ENTER to confirm**

This allows the user not to have to press the ENTER key after pressing a key to choose one of the main menu options.

### **Unlock Help Y/N**

Tasword has the facility to edit the printer control character and 2nd character set parts of the help page via the  $\exists 3$  and  $\exists 4$  command keys as described on page 12. This facility is normally inhibited so that you do not accidentally erase either part of your text or the help page.

Responding Y for yes to this option enables the  $\exists 3$  command key. Subsequent use of the  $\exists 3$  command enables the  $\exists 4$  command as well as copying the relevant part of the help page into the top twelve lines of the screen (overwriting any text that is there). The  $\exists 4$  command, if enabled, puts the top twelve lines of the screen into the relevant area of memory and then re-inhibits the  $\exists 3$  and  $\exists 4$  command keys.

You may wish to edit the printer control character part of the help page if, for example, you have redefined some of the Spectrum block graphic printer control characters so that they have different functions from those described on the help page, or if you have defined some of the unallocated additional graphics characters.

A reason for editing the 2nd character set help page may be that you make frequent use of just some of the characters from the second set. You may then wish to erase the remainder of this part of the help page so that it is easier to find the characters that you use.

### **Return to text after load**

By default the program goes straight into text editing mode after you have loaded a text file rather than returning to the main menu from which the 'load text file' option was selected. Specifying N for no in answer to this question will modify the program so that it returns to the main menu after a text file has been loaded. You must select this option if you have just one microdrive and wish to keep text files on cartridges which do not contain a copy of the program. You must then ensure that the text file cartridge is in the drive before you select save or load from the main menu and that the program cartridge is in the drive before selecting 'Return to text file'.

### **Scroll at Screen Edge**

The program is supplied set up with the affirmative answer to this question so that vertical scrolling only takes place when the cursor reaches the top or bottom of the screen. Specifying N for no in answer to this question will result in vertical scrolling taking place whenever the cursor is three lines away from the top or bottom of the screen.

### **Stop Refresh in Justify**

Paragraph rejustification takes less time if it is not reproduced on the screen until the process is complete. Responding Y for yes in response to this question stops the rejustification process from taking place on the screen.

# Appendix 1 — Determining Printer Control Codes

The inverse letters typed via the GRAPH command are the Tasword printer control characters. These characters are placed in the text to control the printer. Each printer control character can be defined to be a list of up to five codes. These codes must be entered in the 'define printer control characters' option (see page 38) as decimal numbers. This can lead to confusion as printer manuals use a number of methods for specifying control code sequences.

Many printer control code sequences begin with ESC. The decimal code for ESC is 27.

Some printer manuals specify control code sequences in terms of characters. For example, the control code sequence to turn emphasised printing on may be given as:

ESC E

The decimal code for ESC is 27. The decimal (ASCII) code for E is 69. Therefore, to enter the above control code sequence as decimal numbers in the 'define printer control characters' option enter the two decimal numbers:

27 69

You can determine the ASCII code for a character by going into Basic and using the CODE function. Type, for example:

```
PRINT CODE("E")
```

and the code for E will be printed.

Some printer manuals give control code sequences in terms of hexadecimal numbers. The ESC E control code sequence used in the above example is specified in a number of ways in hexadecimal, including the following:

ESC 45h

1Bh 45h

The h specifies that the number is in hexadecimal. Not all manuals use this convention.

Some printer manuals list control codes in a square table with sets of binary digits to the left and along the top. To find the decimal code corresponding to an entry in the table read up from the entry to find the most significant (first) four digits and then read left from the entry to determine the four least (last) significant digits. Then use the Basic BIN function to determine the decimal number corresponding to the eight bit binary number that you have formed. This is demonstrated in the example below in which the decimal code for G is determined from such a table:

**Example**

```

                                0000000011111111
                                0000111100001111
                                0011001100110011
                                0101010101010101

0000      .
0001      .
0010      .
0100      .
0101      .
0110      .
0111 ..... G
1000
1001
1010
1100
1101
1100
1101
1110
1111

```

Therefore the binary code for G is 01000111. In Basic execute:

```
PRINT BIN01000111 to
```

determine that the decimal code for G is 71.

## Appendix 2 — Printing & Signs

The pound sterling sign is not a standard ASCII symbol. Different printers use a variety of codes for the £ sign. The common ones are 35, 96, and 129.

It is often necessary to alter a switch inside the printer. This normally selects a £ sign instead of a hash sign.

Tasword is supplied with the £ sign defined to be sent as a 35 to the printer. You can use the 'define normal print characters' option described on page 37 to change the code sent for a £ sign to, for example, 96.

## Appendix 3 — Interfaces

Most popular printer interfaces require a single additional line to be added to the Tasword Three Basic program. If your printer interface is one of those explicitly mentioned in the list below then go through the following steps to customise your Tasword Three for your interface:

- 1) Load Tasword in the usual way by executing

RUN

- 2) Press STOP to obtain the main menu and then press B to go into Basic followed by ENTER to confirm your choice.
- 3) Add the appropriate line of Basic to your program as given in the list below.
- 4) Execute RUN to obtain the Tasword main menu and select the T option to save Tasword, either onto the existing program cartridge, or onto a new one.
- 5) It is essential to reset the computer and reload Tasword before attempting to print with your newly customised program.

If your interface is not explicitly covered in the list below try consulting the Tasword README text file on the Tasword Three cartridge as it is expected to add information to this file that became available after this manual went to press.

### ZX Interface 1

```
60 FORMAT"B";n:OPEN #3;"B"
```

where n is a number specifying your printer baud rate.

### Tasman Type A

```
60 RANDOMIZE USR 23296
```

### **Tasman Type B**

60 RANDOMIZE USR 23298

### **Tasman Type C**

60 RANDOMIZE USR 23300

### **KEMPSTON E**

60 COPY: REM CHR\$ 0;

### **KEMPSTON S**

60 RANDOMIZE USR 23302

### **ZX LPRINT III**

60 LPRINT';CHR\$ 5;

### **ADS Interface**

60 RANDOMIZE USR 23304

### **Other Software Driven Interfaces (i.e. Morex)**

The general procedure outlined here applies to any software driven interface which is not covered in the above list.

```
15 CLEAR xxxxx LOAD *"m";l;"name" CODE yyyyy:RANDOMIZE USR zzzzz
```

where: xxxxx is the number that you have to specify in a CLEAR statement before loading your interface software;

"name" is the name of your interface software;

yyyyy is a number specifying the load address of your interface software; and

zzzzz is a number which is the address of the interface software initialisation routine.

If your interface software requires a POKE or a LPRINT statement to turn tokenisation off then you should put this statement at the end of the line 15.

If your interface requires you to follow the procedure in this section then, whenever you save Tasword onto a new cartridge, you must also save your interface software.

# Appendix 4 — Tasprint

## Loading Tasprint

Do not use the Tasprint — Tasword Two merging program on side 2 of the Tasprint tape. Do not follow the instructions in section 6 of the Tasprint manual.

Before using Tasprint in conjunction with Tasword Three ensure that you have a configured Tasprint machine code program that you have created by following the instructions in section 2 of the Tasprint manual. Also ensure that you can load and use the configured Tasprint program from Basic following the instructions in sections 3 and 4 of the Tasprint manual.

To use Tasprint with Tasword Three load your configured Tasprint first by executing:

```
CLEAR xxxxx
```

(where xxxxx is the number explained in the Tasprint manual) and then:

```
LOAD "*"m";1 ;"tasprint"CODE
```

followed by:

```
RANDOMIZE USR 62000
```

Finally, load Tasword Three by executing:

```
LOAD "*"m";1 ;"run"
```

You can create a copy of Tasword Three that automatically loads Tasprint by adding the following line to the Basic program:

```
15 CLEAR xxxxx LOAD "*"m";1 "tasprint" CODE: RANDOMIZE USR 62000
```

Save the modified program by RUNning Tasword and selecting the 'save Tasword' option from the main menu.

A Tasword Basic program which is used with Tasprint should not contain any statements which load or initialise interface software — i.e. it should not contain any of the statements listed in Appendix 3. (The FORMAT statement for ZX Interface 1 is an exception and should be retained).

## Using Tasprint

The instructions for using Tasprint with Tasword Three are the same as described in section 4 of the Tasprint manual. The special Tasprint character obtained by the 3INV VIDEO control key may be used to turn Tasprint on and off in addition to the tilde character.

Tasprint sends a carriage return/linefeed at the end of a full Tasprint line so to avoid unwanted double line spacing set the Tasword right margin to at least one less than the number of Tasprint characters that your printer can print on a line.

Note that the maximum size of the Tasword text file is reduced by about two thousand characters for each Tasprint font in your configured Tasprint code.

The second character set characters cannot be printed using Tasprint.

## Appendix 5 —Tasword Two text files

Tasword Two files cannot be loaded directly into Tasword Three as Tasword Three files have a different format which makes more efficient use of the available memory.

The Tasword Three program cartridge includes a utility program, T3T2, for converting Tasword Two text files to Tasword Three format.

To use this program reset the computer and execute:

```
LOAD *"m";1 ;"T2T3"
```

The program, when loaded, will ask you to type in the name of the Tasword Two text file that you wish to convert. Type the required text file name and press ENTER.

The program will then ask you if you wish to load the specified file from microdrive or tape. If you are loading the file from microdrive then ensure that the cartridge containing the required file is in drive 1 before pressing M to select microdrive.

The program will load the Tasword Two file and then ask you for the name of the new file that it will save to microdrive number 1 in Tasword Three format. You may wish to change cartridges before specifying the name of the new file. The new file name must not be the name of a file that already exists on the cartridge. Type your required new file name and press ENTER.

# Appendix 6 — Data Merge and Masterfile Data

Masterfile (version 1.09 or later) can be modified to produce Tasword Three Data Merge files. This modification consists of replacing the Masterfile Basic program with a new Masterfile Basic program contained on the Tasword Three program cartridge.

Before following the steps listed below ensure that you have a back-up of your working copy of Masterfile.

- 1) Place your Tasword Three program cartridge in drive 1 and execute:  
`LOAD *"m";1;"MF"`
- 2) Place your Masterfile program cartridge into drive 1 and erase the Basic program from the cartridge by executing:  
`ERASE "m";1;"MF"`
- 3) Save the new Masterfile Basic program by executing:  
`SAVE *"m";1;"MF" LINE 4035`

When using the modified Masterfile you can select the 'execute User Basic' option from the Masterfile main menu in order to create and send selected records to a Data Merge file. The modified Masterfile will ask you to specify the fields which you wish to be sent to the Data Merge file and will then ask you for the Data Merge file name. The Data Merge file will then be created in a form which can subsequently be used by Tasword Three.