sinclair

ZX Spectrum

Tasword Two



Tasman Software

Cassette
48K RAM

Tasword Two

by

Tasman Software

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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 7 of this manual;

(2) Load Tasword as described on page 11;

(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 14 to 24;

(4) Load the Tasword Tutor text file following the procedure described on page 13;

(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 14 to 24) 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 pages are always there;

(7) Configure Tasword for your interface and printer as described on pages 29 to 33. Save Tasword, following the instructions on page 12, and use this tape as your working copy. Keep the original as your back up copy.

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 320 lines long. Your television is a "window" which shows you 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

Tasword normally shows you all 64 characters on each line of the text file. The window can be "opened" to show just 32 of the characters on each line at normal Spectrum character size. This is done using the Extended-mode-C control key as described on page 23.

The Keyboard

Each time you press a single key the character marked in white on that key (a letter or a numeral) appears on the screen at the cursor position. The exception is the ENTER key which moves the cursor to the beginning of the next line.
To type a capital letter hold the CAPS SHIFT key down and press the relevant key.
Certain single characters are marked in red *on* the keys:

```
(!#@↓$%&'_<>;"↑-+=:£?/*,.)
```

To type one of these characters hold the SYMBOL SHIFT key down while you press the relevant key.
Some single characters are marked in red *below* the keys:

```
[]@~¦\{}
```

To type one of these characters you must enter "Extended Mode" (see p.8) and then hold SYMBOL SHIFT down while pressing the relevant key.
The red markings *on* some of the letter keys are not single characters but are words or double characters. (TO; THEN; <= etc.) These are the Tasword "Control Keys". The white markings above the number keys are also 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 control keys.

The Control Keys

With the exception of ENTER one of the SHIFT keys must be held down to obtain a control key action. When a control key is pressed Tasword manipulates the text file in some way. For example the arrow keys (CAPS SHIFT 5, 6, 7, and 8) move the cursor. Another useful control key is EDIT (CAPS SHIFT 1) which displays the help page on the screen. The help page gives a brief description of each control key action and is reproduced below.

```
EDIT ........help page
CAPS LOCK ...capitals lock
TRUE VIDEO ..cursor to word left
INV. VIDEO ..cursor to word right
ARROWS .....cursor movement
GRAPHICS ...printer control chars
DELETE .....delete characters
<= ..........move line left
<> ..........centre line
>= ..........move line right
AND .........insert line/character
OR ..........go to end of text
AT ..........go to start of text
STOP ........load/save/print text
NOT .........delete line
STEP ........reform to end of para
TO ..........scroll down
THEN ........scroll up
ENTER .......start of next line
CAPS+SYMBOL SHIFT-enter or leave
extended mode
```

ENTER returns to text. Both shift keys for the other help page.

A full description of the action of each of the above control keys is given on pages 14 to 19.

While the help page is showing press both CAPS SHIFT and SYMBOL SHIFT to see the Extended Mode help page. Press the two shift keys again to return to the normal mode help page.

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

Extended Mode

To perform some operations on the text file you must put Tasword into "Extended Mode" by pressing CAPS SHIFT and SYMBOL SHIFT at the same time. The bottom line of the display flashes to remind you that Tasword is in Extended Mode.

The Extended Mode help page is displayed when EDIT (CAPS SHIFT 1) is pressed while in Extended Mode. This help page shows which keys are control keys in Extended Mode and it is reproduced below.

TASWORD
Extended Mode Control Keys

SCROLLING
F – fast scroll down
G – fast scroll up

ZX PRINTER
P – print text file
L – large printing on marker
K – large printing off marker

MISCELLANEOUS
C – change window on text
X – clear text file
R – replace or find text
I – insert mode on/off
EDIT – help page
ARROWS – cursor movement

FORMATTING
E – right justify on/off
W – word-wrap on/off
J – justify line
K – unjustify line

MARGINS
A – set left margin at cursor
S – reset margins to normal
D – set right margin at cursor

BLOCK COMMANDS
B – mark beginning of block
V – mark end of block of text
N – copy marked block to cursor
M – move marked block to cursor

SYMBOL SHIFT and key to type these characters:
[ ] @ ~ ¦ \ { }

ENTER returns to text. Both shift keys for the other help page.

A full description of the action of each Extended Mode control key is given on pages 19 to 24.

Pressing the two shift keys while the Extended Mode help page is showing will put the normal mode help page on the screen.

To return to normal Tasword mode from Extended Mode Press CAPS SHIFT and SYMBOL SHIFT at the same time. The bottom line of the display will stop flashing to show you that Tasword is in normal mode.

Word-Wrapping

Unless overridden by the Extended-Mode-W control key 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 Extended-Mode-E control key (p.20). 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 Extended-Mode-E control key to turn right justification on or off and then use the normal mode STEP control key (p.18) 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 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:

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

(2) 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.

Loading and Running Tasword

To load Tasword place the cassette in your recorder and ensure that it is fully rewound.

Type `LOAD "" ` and press `ENTER`, then start the tape. Tasword loads in two parts: first the "program" and then the "bytes". The beeper sounds when loading is complete. Stop the tape.

Tasword starts running when the beeper stops. 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 tape. (See p.12 and 13).

To load Tasword Tutor load Tasword as described above. Then follow the instructions on page 13.

If you have gone into Basic then to continue running Tasword press R for `RUN` and the `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.*

To make a back-up or customised copy of the Tasword program press the STOP (symbol shift A) control key while Tasword is running. A list of options will appear on the screen as shown on page 18. Press T to save the Tasword program, put a blank cassette into your recorder and press the record button, then press ENTER.

Saving and Loading Text Files

Saving

You can save the text you have typed onto tape as a "text file". Press the STOP (symbol shift A) control key while Tasword is running in normal mode and the list of options shown on page 18 will appear on the screen. Choose the "save text file" option by pressing the S key and Tasword will ask you to type in a name for the text file. Type in a name for your text file, which can be up to ten characters long, and then press ENTER. Follow the instructions which will appear on the screen. When Tasword has saved your text file you will be asked if you want to verify the saved file to check that it has been saved successfully. If you press Y for yes Tasword will give you instructions on the screen.

The STOP control key options will re-appear on the screen whether you verify the text file or not. Press the Y key to return to the text file.

If a "Tape Loading Error" message appears then the verification has failed. Press R for RUN and then ENTER. Try saving and verifying the text file again. If it fails twice there may be a fault on the blank tape and you should try a fresh one.

Loading

Loading a text file will clear all the text that is currently in the Tasword Text File.

To load a text file from tape use the STOP control key while Tasword is running in normal mode. Then press the J key to select the "load text file" option. Tasword will ask you to type the name of the text file you want to load. Type the text file name, press ENTER and then play the tape. The text file will appear on the screen as soon as it has loaded.

Merging

Merging is loading a text file from cartridge 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 files" option. Tasword will then prompt you to follow the same procedure as described in "loading" above.

The merge will fail if there is not enough room for both the text files (320 lines). You will then be in Basic: press R for RUN and then ENTER to continue running Tasword.

Tasword Tutor

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

Tasword Tutor is recorded on the tape immediately after the Tasword "bytes". Load Tasword as described on p.11 taking care to stop the tape before the beeper stops sounding.

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);

(2) Select the "load text file" option by pressing the J key;

(3) Press ENTER as prompted by Tasword to confirm your choice;

(4) Tasword will ask you for the text file name. Type `tutor` and press ENTER.

(5) Play the tape.

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

The Control Keys

The action of the normal mode Tasword control keys are described below. Tasword is in normal mode when the bottom line of the display is *not* flashing.

The appropriate shift key must be held down when a control key is pressed. The ENTER key is the exception to this rule.

Edit

caps shift 1

The normal mode help page is displayed when EDIT is pressed. When the help page is showing press ENTER to go back to the text file or press CAPS SHIFT and SYMBOL SHIFT simultaneously to see the Extended Mode help page.

Caps Lock

caps shift 2

A capital letter can be typed by holding CAPS SHIFT down and pressing the required letter key. Once the CAPS LOCK control key is pressed every letter key pressed will give a capital letter. Pressing CAPS LOCK a second time will turn the capitals lock off.

A message appears at the bottom of the screen when the capitals lock is on.

True Video

caps shift 3

This control key moves the cursor to the end of the next word to the left of the cursor. This provides a rapid way of moving the cursor left along a line.

Inv. Video

caps shift 4

This key moves the cursor to the beginning of the next word to the right. This gives a quick way of moving the cursor to the right along a line.

If you overshoot your last item of text using this key there will be a short delay while Tasword checks that there is no subsequent text in the text file.

Arrows

caps shift 5, 6, 7, and 8

The arrows on the 5, 6, 7, and 8 keys are used to move the cursor to any required position on the screen.

Graphics

caps shift 9

This key is used to type the graphics symbols printed on the number keys 1 to 8. When GRAPHICS is pressed a message appears at the bottom of the screen to remind you that when you press one of the number keys 1–8 you will type the graphics character given by the **grey** pattern on the key.

To obtain the graphics character given by the white pattern on the key hold CAPS SHIFT down and press the key.

Press GRAPHICS a second time to turn graphics off.

The graphics characters are printed as typed on the ZX printer but are used as control characters for full width printers. The use of the graphics characters as control characters is described on pages 26 and 27.

Delete

caps shift 0

The DELETE key deletes the character under the cursor and moves the remainder of the line left one position. Note that characters which are mis-typed can be typed over once the cursor have 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.

<=

symbol shift Q

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 (see p.25) is not affected by this control key and if the cursor is inside a margin no text is moved.

<>

symbol shift W

This key centres the text on the line containing the cursor between the margins. It is useful for headings. Text inside margins (see p.25) is not moved and there is no action if the cursor is inside a margin.

>=

symbol shift E

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 (see p.25) is not moved and there is no action if the cursor is inside a margin.

And

symbol shift Y

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 page 21.)

To insert additional words between existing words position the cursor on the space between the words. Pressing the AND key then throws the words to the right of the cursor onto a new line. The addition text can then be typed in. Use the AND key again to create additional blank lines to type on as required or turn Insert Mode on (see p.21).

To insert a character in the middle of a word position the cursor over the character to the right of the required position. When the AND key is pressed the line is unjustified (see p.9 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 STEP key (see p.18).

The AND control key has no effect within margins except when the cursor is in column 1.

Or

symbol shift U

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

At

symbol shift I

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

Stop

symbol shift A

This key is usually use 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 in this manual on which the option is described).

print text file	p (p.21)
save text file	s (p.12)
load text file	j (p.12)
merge text file	m (p.13)
return to text file	y (p.18)
define graphics/printer	g (p.26)
save Tasword into Basic	t (p.11)
	b (p.18)

Pressing y 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 the memory. To run Tasword again press R for RUN and then ENTER.

Not

symbol shift S

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

Step

symbol shift D

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 STEP key is very useful for tidying up text in which you have made insertions and deletions.

If margins are set (see p.24) then only the text within the margins will be reformed.

The STEP key will rejustify the text if Right Justify is on and will leave the text "ragged right" is Right Justify is off (see p.9). The STEP control key can therefore be used to change the format of a paragraph from right justified to ragged right and *vice versa.*

To

symbol shift F

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

Then

symbol shift 6

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

Enter

This key moves the cursor to the beginning of the next line. If Insert Mode is ON (see page 21) a new line is also inserted.

The Extended Mode Control Keys

To enter or leave Extended Mode press CAPS SHIFT and SYMBOL SHIFT at the same time.

The bottom line of the display flashes when Tasword is in Extended Mode.

The following characters are typed in Extended Mode by holding SYMBOL SHIFT down and pressing appropriate key:

[]@~¦\{}

No other characters are typed in Extended Mode.

The following are control keys in Extended Mode. They are described in their approximate order on the keyboard, reading from top to bottom and left to right.

Edit

caps shift 1

This key puts the Extended Mode help page onto the screen when Tasword is in Extended Mode. Press the two shift keys at the same time to see the normal mode help page. Press ENTER to return to the text file.

Arrows

caps shift 5, 6, 7, and 8

These keys move the cursor just as they do in normal mode.

W – Word wrap on/off

This Extended Mode control key is used to turn the automatic word-wrap off or on. The "W/W" message at the bottom of the screen indicates whether the word-wrap is on or off. Word-wrapping is described on page 9.

E – Right justify on/off

This control key turns the automatic right justification off or on. The "R. Justify" message at the bottom of the screen tells you the current status. Justification is described on pages 9 and 10. When justification is on the text typed will be reformed at the end of each line to the right margin; when justification is off the text has the "ragged right" appearance of this paragraph.

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 control key is from the current cursor position. (To find or replace from the beginning of the text use the normal mode AT control key before using this Extended Mode key.)

When the R key is press in Extended Mode 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 to be replaced or found and Tasword will 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 all the following occurrences of the word that you specified type up to 32 characters of text (which can include spaces) and then press ENTER.

Tasword will reform each paragraph in which it replaces text according to whether Right Justification is on or off at the time the find and replace command is executed. There is a short delay after the final replacement before Tasword continues.

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.

P – Print Text on ZX Printer

If a ZX Printer is connected the text file will be printed when this key is pressed. The display scrolls through the text file during printing. To quit the print hold the Q key down.

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 part of the screen changing colour. The use of margins is described on page 24.

S – Clear Margins

This key clears the margins to the normal positions at the extreme left and right of the display.

D – Set Right Margin

This key sets the right margin to immediately after the cursor position. The position of the right margin is indicated by screen colour. See page 24 for a description of margins.

F – Fast Scroll Down

Tasword scrolls down 22 lines (one screenful) every time this key is pressed in Extended Mode. This is a useful way of scrolling quickly through your text.

G – Fast Scroll Up

When G is pressed in Extended Mode Tasword scrolls up 22 lines.

J – Justify Line
The line that the cursor is on is right justified by this key.

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

L – Large Printing ON Marker for ZX Printer
When this key is pressed in Extended Mode a line is inserted into the text file containing the message "print at double height on". The line is inserted above the line that the cursor is on, so use this control key when the cursor is in the first line that you want printed at double height. Tasword will not print this marker line when the text file is printed on the ZX Printer but subsequent lines will be printed at double height.

Use the normal mode **not** control key if you wish to delete this marker.

K – Large Printing OFF Marker for ZX Printer

A "print at double height off" message is inserted by this key in Extended Mode. The message is on a line inserted above the line that the cursor is on, so use this key when the cursor is in the first line that you want printed at normal height.

To delete this marker line use the normal mode **not** control key.

X – Clear Text File

All text is removed from the text file when this key is pressed in Extended Mode. To prevent accidental erasure Tasword asks for confirmation when you press this key.

C – Change Window on Text

This Extended Mode 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 the full 64 characters in each line. When the Window is opened the border changes colour to indicate an open Window. With the Window open the screen shows a 32 character wide part of the text file with the characters shown at normal Spectrum size. The window may be scrolled sideways by using the arrow keys to move the cursor. Sideways scrolling takes place automatically as text is typed.

B – Beginning of Block Marker
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 Extended Mode 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 a large open bracket symbol on the line 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 file at any one time.

To delete a block marker move the cursor to the line containing the marker and use the normal mode **not** control key to delete the line.

V – End of Block Marker

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 a large close bracket symbol on the line below. There is a delay while Tasword checks that there is not already an end of block marker in the text.

Use the normal mode **not** control key 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 in Extended Mode. The text is moved to new lines that are created *above* the line containing the cursor when the **M** key is pressed.

N – Copy Block of Text

The action of this Extended Mode Control 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.

Margins

The Extended Mode A and D control keys are used to set the left and right margins respectively as described on page 21. The Extended Mode **S** control key clears the margins.

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 through 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.

When a margin is set part of the screen will change colour to represent the margin setting. (When the window is set at 64 characters per line the actual margin position may be one greater than indicated by the screen colour).

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 control keys 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 control key does not operate inside margins except when the cursor is in column 1. The **STEP** control key reforms just the text that is between the left and right margin. The find and replace (Extended Mode **R**) command ignores margin settings. The automatic paragraph rejustification that takes place on text replacement may modify the format of text that has been typed with margins set.

Interfaces

You can send your text files to printers provided that you have an interface between your Spectrum and your printer. Different interfaces each have their own "printer control code" and they use them in different ways.

You must tell Tasword the printer control code for your interface. This is done by using the normal mode **STOP** control key and then selecting the **"define graphics/printer"** option by pressing the **6** key. This procedure is described in the following section.

Some interfaces require their own software to be loaded into the Spectrum. See p.29–33 for information on how to merge this software with Tasword.

Printers

To send your text to the ZX printer use the Extended Mode **P** control key (see page 21).

To send your text to to other printers press the normal mode STOP control key and then press the P key to select the "print text file" option. Tasword will ask for your required line spacing and then print the text file. You can stop the printing at any time by holding down the Q key.

Printer Initialisation

You must tell Tasword the codes that your printer uses for carriage return and linefeed. You can do this by pressing the normal mode STOP control key and then choosing the "define graphics/printer" option. This procedure is described on the next page.

Graphics Characters

The Spectrum graphics characters are not sent to full width printers (as opposed to the ZX printer) but they are interpreted by Tasword as a sequence of printer control characters. In this way Tasword helps you make effective use of the capabilities of your printer. You can, for example, define a particular graphics character to be the sequence of codes that instructs your printer to print enlarged text. (If your printer has this facility). Then you can simply type this graphics character into your text and the text following will be printed in the enlarged form.

Another useful control character your printer may obey is "form feed" (move to the top of the next page). You could then define one of the graphics symbols to be the form feed control and type this character into your text wherever you require the printing to start on a new page.

Tasword Two comes with the graphics characters defined as shown on the normal mode help page for the Epson FX-80 printer. Some of these codes are valid for the Epson MX-80 and other printers.

To define your own printer control characters you must use the "define graphics/printer" facility described below.

The Define/Graphics Printer Facility

Press the normal mode STOP control key (Symbol Shift A) and the list of options shown on page 18 will appear on the screen. Choose "define graphics/printer" by pressing the G key. Tasword will ask you to confirm your choice by pressing ENTER.

A list of the graphics symbols along with their Spectrum character codes on the left and the sequence of pre-defined printer control codes on the right will appear on the screen.

Specify the graphics character you want to redefine by typing the character code (the number to the left of the symbol) and pressing ENTER.

Type the decimal number for each control code as prompted by Tasword. If your sequence is less than four numbers then terminate the sequence by just pressing ENTER.

On entering the fourth number Tasword will redisplay the symbols and codes. You can redefine another graphics symbol by typing the appropriate code as described above.

When you press ENTER without having typed a number Tasword will go on to ask you:

(1) The control code that your interface uses. Enter the appropriate number. (e.g. 27 for the Hilderbay, 5 for the Euroelectronics Interface)

(2) The control codes that your printer uses for linefeed and carriage return. If your printer uses one code for both then enter zero for the second code.

(3) The character width of the left margin on printing. This is set to eight characters by default.

When you answer the final question Tasword returns to the STOP control key list of options.

When you save Tasword you will automatically also save all the codes that you have set. In this way you can create your personal view of Tasword that you have customised to your system and your requirements.

Changing Tasword Characters

The following information is provided to allow you to modify the Tasword characters. A certain amount of programming knowledge is assumed. Characters that you redefine will be reproduced on the ZX Printer but not on other printers. Some full width printers have internal RAMs that allow you to define your own characters.

The Spectrum user defined graphics characters cannot be used.

The character generator for the 64 character per line (64cpl) characters is in a table from 61184d to 62079d and whose base address is 60928d. This includes the 64cpl graphics characters. Each character is represented in this table by eight sequential bytes in the normal way. The four most significant bits of each byte must be zero.

With the exception of the graphics symbols the ROM character table is used to generate the 32cpl characters so these cannot be changed.

The sixteen 32cpl graphics characters are held in a table from 60928d to 61055d whose base address if 59904d.

More About Printer Interfaces

To configure Tasword Two for a particular interface use the define graphics/printer facility as described on page 27 of the manual. After allowing you to define graphics symbols Tasword will ask if you want to redefine the inteface control codes. Respond by pressing y for yes and Tasword will ask you for four interface control codes.

When you have created your customised version of Tasword Two save the program as described on page 11.

Tasman Interface

Use the define graphics/printer facility (obtained by pressing STOP and then the 6 key) to specify the following interface control codes:

```
Interface control code 1:     0
                code 2:     0
                code 3:     0
                code 4:64836
```

The tape is supplied with these codes set.

Kempston Interface "S" and "E"

Follow the instructions supplied with the Kempston Interfaces.

Sinclair ZX Interface 1

Load Tasword and enter Basic by pressing the STOP control key and the B key. Add the following two lines of Basic:

```
279 FORMAT"b";X:OPEN #3;"b"
281 CLOSE #3
```

Where X in line 279 is your printer baud rate. RUN Tasword and create your customised version by pressing the STOP control key and then the T key.

The interface codes should be as supplied on the tape for the Tasman Interface.

To quit printing the q key must be held down until the printer stops and this may take some time. The printing can be stopped immediately by pressing BREAK but you **must** then restart the program by executing GOTO 281.

Hilderbay Interface

You must incorporate the printer software into Tasword. Load the 48K Hilderbay printer software (NOT the "mini-software") and break into the program after the machine code has loaded by pressing Caps Shift and Space for "Break". Amend line 640 so that it reads:

```
640 SAVE"printcode"CODE st,65361-st
```

Then press R to RUN and create a customised printer program on tape as described in the interface documentation in which you specify that the codes for printer carriage return and linefeed are zero.

Load Tasword and enter Basic by pressing the STOP control key and then the B key. Execute the following two statements, taking care to type the correct numbers:

```
POKE 59818,217
POKE 59832,217
```

Then incorporate your customised printer program by putting the tape into your cassette player and executing:


```
LOAD"printcode"CODE 57856
```

taking care to type the correct number after the CODE statement.

Now RUN Tasword and use the define graphics/printer facility (obtained by pressing STOP and then the 6 key) to specify the following interface control codes:

```
Interface control code 1:    21
                  code 2:     0
                  code 3:     0
                  code 4: 65150
```

And then specify the codes for carriage return and linefeed on your printer. (13 and 10 on Epsons.)

Morex Interface

You must incorporate the printer software into Tasword. Load the 48K Morex printer software and customise it for your printer as described in the Morex manual. In particular, ensure that the serial/parallel flag (64517) has the correct value and that the baud rate is set correctly if you are printing serially. Also ensure that tokens will be printed by executing:

```
POKE 64519,1
```

Save your customised printer software onto tape by executing:

```
SAVE"printcode"CODE 64519,1
```

Load Tasword and enter Basic by pressing STOP control key and then the B key. Execute the following two statements, taking care to type the correct numbers:

```
POKE 59818,5
POKE 59832,5
```

Then incorporate your customised printer program by putting the tape into your cassette player and executing:

```
LOAD"printcode"CODE 57856
```

taking care to type the correct number after the `CODE` statement.

Now **RUN** Tasword and use the define graphics/printer facility (obtained by pressing **STOP** and then the **G** key) to specify the following interface control codes:

```
Interface control code 1:     0
                  code 2:     0
                  code 3:     0
                  code 4: 64973
```

And then specify the codes for carriage return and linefeed on your printer. (13 and 0 works on Epsons.)

Euroelectronics ZX Lprint

Follow the instructions supplied with the Euroelectronics interfaces.

ADS Interface

Tasword Two can be configured for the ADS interface by the following procedure. The software supplied with the ADS Interface is **not** used.

(1) Load Tasword.

(2) Enter Basic by pressing the **STOP** control key and then the B key followed by **ENTER**.

(3) Execute the following instructions, taking care to type the correct numbers:

```
POKE 57978,32
POKE 57979,12
POKE 57997,245
POKE 57998,219
POKE 57999,157
POKE 58000,203
POKE 58001,103
POKE 58002,32
POKE 58003,250
POKE 58004,241
POKE 58005,211
POKE 58006,157
POKE 58007,201
```

(4) **RUN** Tasword and create your customised version by pressing the **STOP** control key and then the **T** key.

The interface control codes should be as supplied on the tape for the Tasman Interface.

Tasword Two and the ZX Microdrives

To create a microdrive version of Tasword Two load the program from tape, enter Basic, and make the changes listed overleaf. Note that many of the changes can be made by editing existing lines. Be careful to make the exact changes!

Once these changes have been made insert a blank but formatted microdrive cartridge into drive 1 (the drive nearest the Spectrum), **RUN** the program, and press the **STOP** control key and then the **t** key to save Tasword Two onto the cartridge. The program will be verified automatically.

Tasword auto-runs: to load it execute **NEW** and then **RUN**. The Tasword Two microdrive cartridge must be in drive 1.

The drive used by Tasword Two on loading is drive 1: this number is shown in brackets on the STOP control key menu. The drive being used can be changed by pressing the d key when the STOP control key menu is showing. You can have Tasword Two in drive 1 and a cartridge containing your text files in drive 2.

The catalogue for the current drive is shown on the screen whenever the Load, Save, or Merge text file options are chosen. If you do not like the resulting delay then remove the CAT statements in lines 1000 and 2000.

A file cannot be saved onto a microdrive cartridge with the same name as a file that is already there. The program can be changed to erase any existing file with the same name before saving by putting the statement

```
ERASE "m";md;a$
```

at the beginning of line 1030. This is not recommended as you may inadvertantly lose text and also the system takes some time to erase non-existent files. It is probably better to save each version of a document with a different name and to erase unwanted files from Basic.

To save a file onto cassette press the STOP control key and then B to enter Basic and then execute:

```
SAVE"NAME"CODE 32000,A  AND  VERIFY""CODE
```

To load a text file from cassette enter Basic and execute:

```
LOAD""CODE
```

In each case just execute RUN to continue running Tasword Two.

If the program enters Basic and fails with a Microdrive error report due to, for example, there being no cartridge in the current

drive, you will not have lost your text. Just execute RUN.

Microdrive Implementation

Refer to Instructions in preceding sections.

```
  5 LET md=1
 11 delete this line
 15 POKE 23609,2: CLEAR 31999: GO SUB
  4000: LOAD *"m";1;"tasword"CODE: LET
  a=USR 59081: GO TO 5
 60 PRINT AT 2,0;"catalogue/change drive
  (";md;")";AT 2,31;"d"
175 IF b=100 THEN LET i=2
670 IF b=100 THEN GO TO 5000
700 CLS: LET a$="tasword": SAVE *"m";1;
  "run"LINE 15
710 SAVE *"m";1;a$CODE 54784,10751
780 VERIFY *"m";1;"run": PRINT AT
  21,0;"tasword basic O.K.;";AT 19,0;
790 VERIFY *"m";1;a$CODE 54784,10751:
  PRINT AT 21,20;" m/code O.K.": GO TO 25
900 delete this line
1000 LET b=FN p(62216): CLS: CAT md
1005 PRINT AT 8,16;"Name of text";AT
  9,16;"file for saving?": LET i=11: LET
  j0=16: GO SUB 6000
1030 SAVE *"m";md;a$CODE b,a: CLS
1050 delete this line
1100 VERIFY *"m";md;a$CODE b,a
2000 CLS: CAT md: PRINT AT 8,16;"type the
  name of";AT 9,16;"the text file";AT
  10,16;and press ENTER"
2010 delete this line
2020 LET j0=16: LET i=14: GO SUB 6000: IF
  a$="" THEN GO TO 2020
2030 LET b=FN p(62216): LOAD
```

```
    *"m";md;a$CODE (a+b),((FN
    p(62221)+22)*64-a):GOTO 10
5000 CLS: CAT md: LET j0=15: PRINT AT
    8,j0;"Current Drive=";md
5010 PRINT AT 10,j0;"Type new drive";At
    11,j0;"number and press";AT
    12,j0;"ENTER.";AT 14,j0;"Just press
    ENTER";AT 15,j0;"for current drive"
5020 LET i=17: GO SUB 6000: IF a$="" THEN
    CLS: GO TO 25
5030 LET md=VAL a$: IF md<1 OR md>8
    THEN LET md=1
5040 GO TO 500
```


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