

TASWORD 6128

The Word Processor

**A
Tasman Software Program
for the
Amstrad CPC 6128**

© Tasman Software Ltd 1985

TASWORD 6128

© Tasman Software Ltd. 1985

The program is copyright and it is sold subject to the condition that it shall not be lent, resold, hired out, or otherwise circulated.

**Tasman Software Ltd.
Springfield House
Hyde Terrace
Leeds LS2 9LN**

Reproduction or translation of any part of this work or the computer program disc that accompanies this publication without permission of the copyright owner is unlawful.

Contents

Getting Started with Tasword	4
Learning to use Tasword	4
The Δ and \blacktriangledown Signs	4
How Tasword Works	5
The Text File	5
The Window	5
The Cursor	5
The Keyboard	5
Auto Repeat	5
The Command Keys	6
Word Wrapping	7
Justification	7
Tall Cursor	7
Good Typing Practice	8
The Reference Sections	8
Loading and Running Tasword	9
Saving Tasword	9
Saving and Loading Text Files	10
Saving	10
Loading	10
The Program Disc	10
Merging	10
Tasword 6128 Tutor	11
Text File Names	11
The Command Keys	12
Help Commands	12
ESC show help page	12
$\Delta 1$ help on	12
$\Delta 2$ help off	12
$\Delta [$ scroll up help	12
$\Delta]$ scroll down help	12
$\Delta 3$ get help	12
$\Delta 4$ put help	12
Cursor movement	
ENTER	13
ARROWS - move cursor	13
$\Delta \uparrow$ start of text file	13
$\Delta \downarrow$ end of text file	13
$\Delta \leftarrow$ start of line	13
$\Delta \rightarrow$ end of line	13
$\Delta \triangleright$ scroll down	14
$\Delta \triangleleft$ scroll up	14
$\blacktriangledown \downarrow$ fast scroll down	14
$\blacktriangledown \uparrow$ fast scroll up	14
$\blacktriangledown \rightarrow$ word right	14
$\blacktriangledown \leftarrow$ word left	14
Formatting Commands	
ΔQ move text left	15
ΔW centre line	15

Formatting Commands (continued)

△E move text right	15
△J rejustify paragraph	15
△K justify line	15
△L unjustify line	15
△U hard rejustify	16
△F right justify on/off	16
△G word wrap on/off	16
Delete Commands	17
DEL delete character to left of cursor	17
CLR delete character under cursor	17
▼DEL delete word	17
△DEL delete line	17
△@ undelete line	17
△CLR clear text file	17
△C delete block	17
Insertion Commands	18
△I insert line or character	18
△H insert mode on/off	18
△O auto-insert mode on/off	18
Margin Commands	19
△A set left margins	19
△S clear margins	19
△D set right margins	19
The Search Command	20
△R replace or find text	20
Block Commands	21
△B mark beginning of block	21
△V mark end of block	21
△M move block of text	21
△N copy block of text	21
△C delete block of text	21
Tab Commands	22
TAB move cursor to tab stop	22
▼TAB set tab	22
△TAB clear tab	22
△X reset tabs	22
△Z clear tabs	22
Printer Commands	23
△P page break display on/off	23
Inverse-U force form feed	23
△6 put top line into header	23
△T get header	23
△7 put top line into footer	24
△Y get footer	24
Special Characters	25
△SPACE printer control characters	25
△ 2nd character set	25
△* capitals to lower case	23
△+ lower case to capitals	25
Note Pad Commands	26
△ESC notepad mode on/off	26
△CLR clear current notepad	26
▼ESC show all notepads	26
▼COPY send text to notepad	26
△COPY get text from notepad	26

Other Command Keys	27
△ENTER save/load/merge/print text	27
CAPS LOCK	27
COPY repeat	27
Printing Text	28
Printer terminology	28
The Print Options	29
Start at line	29
Finish at line	29
Number of Copies	29
Line Spacing	29
Continuous or Single Sheet	30
Form Feed at Page Breaks	30
Print Header	30
Print Footer	30
Print Page Numbers	30
At Top or Bottom	31
At Middle or Sides	31
Start Numbering at	31
Left Margin on Printing	31
Form Feed after Printing	31
Formatting Output	32
Page Breaks	32
Automatic Page Breaks	32
Forced Form Feeds	33
Page Layout	33
Printer Control Characters	34
Printing Normal Characters	35
Printing 2nd Character Set Characters	35
Printing Text Files from Disc	36
Data Merge	37
The Tutorial Sessions	37
The Data Merge Control Character – &	37
Files, Records and Fields – An Introductory Example	38
Text Entry During Printing – The & "prompt" Command	43
Numbering Documents – The & number Command	45
Conditional Printing – The && Commands	46
Printing Labels	49
Restrictions	49
Program Customisation	50
Define Page Layout	51
Define Normal Print Characters	52
Define Printer Control Characters	53
Define Second Character Set Print Characters	54
Define Numeric Keypad Option	54
Change Program	55
Appendix 1 – Determining Printer Control Codes	57
Appendix 2 – Printing \$ signs	59
Appendix 3 – User Definable Keys	60

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) Reading '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 command keys - they are all described on pages 12 to 27;
- (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 27) 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 disc as your working copy. Keep the original as your back-up copy.

The Δ and ∇ signs

The Δ and ∇ signs occur frequently both in this manual and in the Tasword help pages. The Δ sign represents the **CONTROL** key and the ∇ sign represents a **SHIFT** key.

Δ = **CONTROL**
 ∇ = **SHIFT**

These keys are always used in conjunction with some other key by holding either **SHIFT** or **CONTROL** down and pressing the other key while still holding the **SHIFT** or **CONTROL** key down. For example:

Δ **W** means hold **CONTROL** down and press the **W** key
 ∇ \rightarrow means hold a **SHIFT** key down and press the \rightarrow 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 sixty thousand characters long. The length of a line in the text file is normally 80 characters. This is the number of characters that the monitor can display on one line. The length of a line can be changed by resetting the margin positions. The maximum line length is 128 characters.

The Window

The monitor is a 'window' which shows either 16 or 23 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 eighty 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 command key actions.

The Keyboard

Each time you press one of the letter keys the character corresponding to that key appears on the screen at the cursor position. To type a capital letter hold one of the **SHIFT** keys down and press the required letter key. Numbers may be typed by using the numeric keypad on the right hand side of the keyboard or by pressing the keys on the top row of the main keyboard. Some keys are marked with two characters. The lower character on the key is typed when the key is pressed. To type the upper character on the key hold one of the **SHIFT** keys down and press the key.

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 command keys.

The Command Keys

A Tasword command 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 command key is the Escape key [ESC] which displays the help page on the screen. The help page gives a brief description of each command key action and is reproduced below.

THE HELP PAGE

<p>FORMATTING</p> <p>△Q move text left △W centre line △E move text right △J rejustify para (△U) △K rejust line (un-△L)</p>		<p>DELETE/INSERT</p> <p>▼DEL delete word △DEL delete line △@ undel line △CLR clear text △I insert line/char</p>		<p>CURSOR MOVEMENT</p> <p>△↑ start of text ▼↑ fast scroll up △↓ end of text ▼↓ fast scroll dn △← start of line ▼← word right △→ end of line ▼→ word left △< scroll up △> scroll down</p>	
<p>MARGINS</p> <p>△A set left margin △S clear margins △D set right margin</p>		<p>TAB COMMANDS</p> <p>TAB cursor to tab ▼TAB set tab △TAB clear tab △X reset tabs △Z clear tabs</p>		<p>BLOCK COMMANDS</p> <p>△B mark block beginning △V mark block end △M move marked block to cursor △N copy marked block to cursor △C delete marked block</p>	
<p>SEARCH</p> <p>△R replace or find text</p>		<p>PRINTER</p> <p>U form feed △6 put header △T get header △7 put footer △Y get footer</p>		<p>TEXT FILE COMMANDS</p> <p>△ENTER save/load/merge/print text</p>	
<p>SWITCHES</p> <p>△F Right Justify on/off △G Word Wrap on/off △H Insert on/off (△0=auto) △P Page display on/off △1 Help on △2 Help off</p>		<p>SPECIAL CHARACTERS</p> <p>△SPACE printer control character △\ 2nd character set △* Cap. to lower △+ lower to Cap</p>		<p>PRINTER CONTROL CHARS (caps for on, lower case for off)</p>	
<p>A emphasised B proportional C condensed D double strike E elite</p>		<p>F form feed G superscript H subscript I italics J underline</p>		<p>K condensed-enlarged L enlarged M 1/6 line spacing N 1/8 line spacing O 7/72 line spacing</p>	
<p>©Tasman Software Ltd 1985</p>		<p>TASWORD press ENTER to return to text</p>		<p>TASPRINTOPTION</p> <p>V lectura light W median X compacta Y data run Z palace script</p>	

Many of the command key actions are obtained by holding the **CONTROL** key down and pressing the relevant key. These commands are prefixed by the upwards pointing triangles (△) on the help page.

Some of the cursor command key actions similarly require the Shift key to be held down while the relevant key is pressed. These commands are prefixed by the downwards pointing triangles (▼) on the help page.

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

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 Δ **G** 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 Δ **F** 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 Δ **F** command key to turn right justification on or off and then use the Δ **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 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.

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 disc. 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 fourth part describes the data merge facility which allows a mail-merge type multiple print of a document. The fifth part describes how you can customise the program to suit your own applications and personal preferences. Two appendices cover certain points concerning printers. A final appendix describes the use of the user definable keys.

Loading and Running Tasword

To load Tasword put the program disc into the 6128 disc drive, type

```
RUN "TASWORD"
```

and press **ENTER**.

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 disc (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 version 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 **△ENTER** command key while Tasword is running. A list of options will appear on the screen as shown on page 27. Press **T** to save the Tasword program and **ENTER** to confirm your choice. The program will prompt you to put a blank formatted disc into the drive and then to press a key to begin the save of the program.

When the save is complete the program will return to the main menu shown on page 27.

Saving and Loading Text Files

Saving

You can save the text you have typed onto a disc as a 'text file'. Press the Δ ENTER command key while Tasword is running and the list of options shown on page 27 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 ask you to type in a name for the text file. Type in a name of your choice and press **ENTER**.

The allowed format for text file names is described on page 11.

When the save is complete the main menu shown on page 27 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 tape use the Δ ENTER command key to obtain the main menu as shown on page 27. Then press the **L** key to select the 'Load text file' option. Tasword will 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.

The Program Disc

A catalogue of the Tasword 6128 program disc will show that it contains the following files:

MERGE1	.DAT	TASWORD	.BAS	TEXT1	.TXT	TEXT4	.TXT
PRINT1	.PRT	TASCODE1	.BIN	TEXT2	.TXT	TEXT5	.TXT
README		TASCODE2	.BIN	TEXT3	.TXT	TUTOR	

The files with the terminators BIN and BAS are the Tasword 6128 program files. These are the files that will be copied to another disc when you make a back-up or customised copy of the program using the "save Tasword" option from the main menu. The files with terminators DAT, PRT and TXT are example files that you can use when working through the tutorial sessions in this manual. TUTOR is the Tasword 6128 tutor text file. README, if present, contains further information about the program.

Merging

Merging is loading a text file from disc and putting it in the Tasword text file after any text that is already there. To do this use the Δ ENTER 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'.

TASWORD 6128 Tutor

Tasword 6128 Tutor is a text file which helps you familiarise yourself with the use of the command keys.

The Tutor is recorded on the Tasword 6128 program disc. Load Tasword as described on page 9. Leave the disc in the drive when the program has loaded. You will see the flashing square, the cursor, near the top of a mainly empty screen. Hold down the **CONTROL** key and press **ENTER**. This is Δ **ENTER**. The list of options shown on page 27 will appear on the screen (this is the main menu). Follow the normal procedure for loading a text file by taking the following steps:

- (1) Select the 'Load text file' option by pressing the **L** key;
- (2) Press **ENTER** as prompted by Tasword to confirm your choice;
- (3) Tasword will ask you for the text file name. Type

' t u t o r '

and press **ENTER**.

Tasword 6128 Tutor will appear on the screen as soon as it has loaded.

Text File Names

Text file names may be up to eight characters, followed by an optional full stop and a three character terminator. The following examples of text file names are all valid:

TUTOR
TUTOR.TXT
DOCUMENT
DOCUMENT.002
DOCUMENT.BAK

If you save a text file with a name corresponding to a file that is already on the disc then the name of the file on the disc will be changed so that its file type is **BAK**. For example, if there is a file on the disc named:

DOCUMENT.TXT

and you save your text with the same name, then after your text has been saved the disc will contain the following two files:

DOCUMENT.TXT
DOCUMENT.BAK

where the latter is the old file that has been renamed. (If there was already a file **DOCUMENT.BAK** then it will have been erased).

The Command Keys

The Δ sign indicates that the **CONTROL** key must be held down while the relevant key is pressed. The \blacktriangledown symbol means that the **[SHIFT]** key must be held down. These symbols are also used on the help page.

Help Commands

ESC show help page

The help page is displayed when the Escape key **[ESC]** is pressed. When the help page is on the screen press **ENTER** to return to the text file.

$\Delta 1$ help on

When $\Delta 1$ is pressed part of the help page is shown on the top seven lines of the screen.

$\Delta 2$ help off

The $\Delta 2$ command key removes the segment of the help page from the top part of the screen and the monitor shows 23 lines of the text file.

$\Delta [$ scroll up help

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

$\Delta]$ 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. By scrolling down beyond the final segment of the full help page the second character set can be viewed. Scrolling down yet further gives access to the notepads. The notepads are described on page 26.

$\Delta 3$ get help

This command key is normally inhibited but can be enabled through the 'Customise program' option described on pages 50-56. When $\Delta 3$ 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).

$\Delta 4$ put help

This command 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. $\Delta 4$ disables both $\Delta 3$ and $\Delta 4$ in order to prevent accidental overwriting of text and/or the help page. See page 56 for a further description of the $\Delta 3$ and $\Delta 4$ 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 on the top right hand part of the keyboard 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.

$\Delta \uparrow$ **start of text file**

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

$\Delta \downarrow$ **end of text**

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

$\Delta \leftarrow$ **start of line**

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

$\Delta \rightarrow$ **end of line**

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

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

Cursor Movement (continued)

△ > scroll down

The △ > command scrolls the display down one line of the text file.

△ < scroll up

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

▼ ↓ fast scroll down

The Shift ↓ command forces Tasword to scroll down one screenful of lines. This is a scroll of either 16 or 23 lines depending on whether help is on or off. This is a useful way of scrolling quickly through your text.

▼ ↑ fast scroll up

Tasword scrolls up a screenful of lines (16 or 23) when this key is pressed.

▼ → 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.

▼ ← word left

Shift left arrow moves the cursor to the end of the next word to the left of the cursor.

△Q move text left

This moves the text under and left of the cursor left one character position. There is no affect 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.

△W 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.

△E 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 △U.

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.

△ U 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.

△ F 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.

△ G Word Wrap On/Off

This command 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 7.

Delete Commands

DEL delete character to left of cursor

The **DEL** 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 **DEL** key to do this. The delete key is useful for correcting mistakes as they are made and for removing unwanted characters.

CLR delete character under cursor

This command is similar to the **DEL** command described above except that it is the character under the cursor that is deleted.

▼DEL delete word

The **SHIFT DEL** 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.

△DEL 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 using **△DEL**. This command recovers the most recently deleted line and inserts it into the text above the line that the cursor is on.

△CLR 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. The block commands are described on page 21.

Insertion Commands

△I 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 **△I** to insert the new line. (New lines are inserted automatically when insert mode is turned on - see **△H** below.)

To insert additional words between existing words position the cursor on the space between the words. Pressing **△I** then throws the words to the right of the cursor onto a new line. The additional text can then be typed in. Use **△I** 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 **△I** 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).

△H 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 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 'Customise program' option (pages 50-56).

△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 80. This default setting may be changed by the 'Customise Program' option described on pages 50-56.

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 margin to set new margin positions or to type text within a margin. The **△Q**, **△W**, and **△E** 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 **△I** 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 **△U** 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 then ask you 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 80 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 **ESC** 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.

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 **△DEL** 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.

Use the line delete command **△DEL** 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.

△C delete block of text

A marked block of text is deleted when the **△C** command key is pressed provided that the cursor is not inside the marked block.

Tab Commands

TAB move cursor to tab stop

This command 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.

▼TAB set tab

The **▼TAB** command creates an additional tab stop at the current cursor position.

△TAB clear tab

The **△TAB** command key removes the tab stop that is at the current cursor position. There is no effect if there is no tab stop at the current position.

△X reset tabs

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

△Z clear tabs

The **△Z** command removes all the tab positions that are currently set.

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 'Paging' 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 32 to 35 for a description of the formatting of printed output.

Inverse-U force form feed

The inverse **U** (both capital and lower case) is a special printer control character that forces a form feed on printing. See page 34 for a description of printer control characters. These characters are typed via the **△SPACE** command described on page 25.

When the text file is printed the printer will perform a form feed after printing a line containing the inverse **U** 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 33).

△6 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, 29 and 33). A header is created by typing it on line one of the text file and then pressing the **△6** command key. Subsequent use of the **△6** command key will put whatever is in line one of the text file into the header, overwriting any existing header.

△T get header

The **△T** command 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 **△6** command.

Printer Commands (Continued)

△7 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 command key.

△Y 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 tape 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

△SPACE printer control characters

The **△SPACE** command allows you to type the printer control characters whose use is described on page 34. The printer control characters appear on the screen as inverse letters.

When **△SPACE** is pressed the cursor becomes an outline rectangle and a 'PRINTER CTRL' message replaces the 'NORMAL CHARS' message at the bottom right hand corner of the screen. These indicate that the next letter key you press 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 letter key to obtain a printer control character. Just press **ENTER** if you do not wish to type a printer control character.

△\ 2nd character set

Tasword 6128 contains an additional character set consisting of many additional and foreign language characters. When **△** is pressed the cursor becomes an outline rectangle and a '2ND CHAR SET' message appears at the bottom righthand corner of the screen. If help is on (page 12) then the help display changes to show the additional 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 page 27) set.

△+ lower case to Capitals

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

Notepad Commands

When help is On so that part of the help page is displayed at the top of the screen **CONTROL** may be used to scroll down through the help page as described on page 12. Scrolling down beyond the list of the second character set characters gives access to the four notepads.

You can type text into each of the notepads. It may occur to you when typing a document, for example, that later in the document you want to mention a particular topic. You can move the cursor into the notepad and type a reminder to yourself that will remain on the screen for as long as the current notepad is displayed.

When you save Tasword the contents of the notepads are saved along with the program. This allows you to save a customised copy of the program in which the notepads contain useful personal information and reminders.

Text can be moved from the notepads to the main screen and vice versa. You could set up one notepad to contain your letter heading, for example, and move it onto the main screen after loading the program so that you can start typing the main part of your letter immediately.

△ESC notepad mode On/Off

If one of the four notepads is displayed at the top of the screen then this command moves the cursor into or out of the notepad. This is the command that is used to move into the notepad to type text in it and to move out of the notepad to continue typing or editing the main text. Many of the command keys are inhibited while the cursor is in a notepad.

△CLR clear current notepad

If the cursor is in a notepad then this command key will remove all the text from the notepad. To prevent accidental erasure Tasword asks for confirmation when this key is pressed. Note that the **CLR** command is the command that clears the text file when the cursor is not in the notepad so study the wording of the confirming message carefully to ensure that it is the notepad and not your text that you are about to clear.

▼ESC show all notepads

This command shows all four notepads on the screen in the same way that the **ESC** key by itself shows all the help page.

▼COPY send text to notepad

This command, which only works when the cursor is in a notepad, copies six lines of text from the screen into the current notepad. The six lines that are copied begin with the line that the cursor is on in the main part of the screen.

△COPY get text from notepad

This command only works when the cursor is in a notepad and it copies the six lines from the current notepad into the main body of the text. The six lines are inserted immediately above the line that the cursor is on in the main part of the text.

Other Command Keys

△ENTER 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 △ENTER 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. 28)
Save text file	S	(p. 10)
Load Text file	L	(p. 10)
Merge text file	M	(p. 10)
Return to text file	R	(p. 27)
Customise program	C	(p. 50)
Save Tasword	T	(p. 9)
Erase file from disc	E	(p. 27)
into Basic	B	(p. 27)
check Spelling	K	(p. 27)
Install Tasprint	I	(p. 27)

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**.

The **E** option allows you to erase unwanted files from the disc. The check spelling option refers to TAS-SPELL, a program that checks the spelling of the words in the text file. The **I** option allows you to load your configured TASPRTINT fonts into memory.

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 in the text file, in terms of the number of characters free, 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.

Caps Lock

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

COPY repeat

Pressing **COPY** repeats whichever key was last pressed. The repeat applies to both character keys and command keys.

Printing Text

To print part or all of a text file use the Δ **ENTER** command to obtain the main menu shown on page 27. 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
form feed 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 or sides (M) M/S
start numbering at ( 1 )
left margin on printing ( 0 )
form feed after printing (N) Y/N

press ENTER for default settings
press CLR to start again
press COPY at any time to print
```

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

Tasword 6128 has a comprehensive set of print options. The first time user is recommended to by-pass these options by just pressing the **COPY** key to print the text file. A description of the print options is given on pages 29-31.

Many of the above print options depend on a pre-defined page layout. See page 33 for a description of page layouts and pages 50-51 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 28 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 **COPY** 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 50-56.)

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 31) or type the inverse u printer control character (pages 23 and 33) 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 or Single Sheet

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.

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 after printing out a number of lines equal to the form length (page 28) 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 are still relevant as headers, footers, and page numbers are printed, if selected, as a result of forced form feeds.

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 $\Delta 6$ 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 $\Delta 7$ 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 to be printed.

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 or 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 Δ ENTER 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 Numbering At

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

Left Margin On Printing

This margin is separate and distinct from the left margin in the Tasword text file. A left hand 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.

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 28, 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:

- (1) When printing onto continuous stationery you may prefer that printing does not take place in the region of the perforations. Similarly, when printing onto single sheet, you will not want to print to the very end (and beyond!) of each sheet.
- (2) 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 28) contains a '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 (**△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-**U** printer control character into your text.

Printer control characters are obtained by pressing Δ **SPACE** and then pressing the appropriate 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-**U** 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-**U** 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 Δ **6** command described on page 23. The printer moves down three lines after printing a header;
- (3) A number of lines of text is 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 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 helps you make effective use of the capabilities of your printer by providing forty user definable printer control characters. The printer control characters are the inverse letters **a-t** and **A-T**. These inverse letters are typed by first pressing the Δ **SPACE** command key and then pressing the appropriate letter key.

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 comes with the printer control characters defined as shown on the help page (see page 6) for the Epson FX-80 printer. Some of these codes are valid for other printers.

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 56).

The sections of printer manuals that deal with control codes vary in both clarity and terminology. See Appendix 1 (page 57) for an explanation of some of the terminologies used in printer manuals.

Example

The program is provided with the inverse **J** defined to send to the printer the code for a space followed by the Epson sequence of codes that tell the printer to begin underlining. The inverse **j** is similarly defined to be the terminate underlining sequence of codes followed by a space.

Denoting inverse **J** by **J** and inverse **j** by **j** then the following text in the text file:

```
this is an Jexamplej 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 a 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 'Configure 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 Disc

A document which is longer than the Tasword text file size must be held on disc 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 6128 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.txt
text2.txt
text3.txt
text4.txt
text5.txt
```

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 checks that all the files specified in subsequent lines are on the disc. If any file is not found then an error message is displayed and the program returns to text editing mode so that the print file may be edited. If all the files are found then Tasword will print them in the specified order.

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

```
a:text1.txt
b:text2.txt
```

Printing text files from disc 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 Disc

Summary: In this tutorial session we shall:

- (1) Load the text file PRINT1.PRT and confirm that it is the same as the file shown at the top of this page. Note that the print file begins with a dollar sign 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 **△ENTER** to access the main menu and press **P** to select the "print text file" option. Press **ENTER** to confirm your choice and then **COPY** to choose the print menu defaults. The five files specified in the print file will be printed.

Data Merge

Tasword 6128 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 the Data Export facility in Masterfile with the Masterfile Program Extensions. 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 464 and to export it to Tasword using the Masterfile Program Extensions Package.

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 disc 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 are 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 disc as a text file, might look as follows:

&NCampbell Software Design Ltd &A57 Trap's Hill Loughton Essex IG10 1TD &T01 508 5058	} this is a record
&NMicromend &A8 Manor Drive Leeds 6 &T0532 742858	— this is a field
a blank line separates records	
&NTasman Software Ltd &ASpringfield House Hyde Terrace Leeds LS2 9LN &T0532 438301	} this is a field that is three lines long
&NTransform Ltd &A24 West Oak Beckenham Kent &T01 658 6350	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.)

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 MERGE1.DAT;
- (3) Clear the text file;
- (4) Load and inspect the example text file TEXT1.TXT;
- (5) Do a Data Merge print of the text file using the data in MERGE1.DAT;
- (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 disc into drive A and executing:

RUN'TASWORD"

- (2) An example Data Merge file called MERGE1.DAT is recorded on the disc. This file is the same as the one illustrated on page 38. Load this file as a text file by accessing the main menu using **△ENTER** and specifying option **L** for "Load text file". When you press **ENTER** to confirm your choice a list of the files on the program disc will be displayed and you will be invited to type in the name of the file that you want to load. Type:

MERGE1.DAT

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 disc unchanged so:

- (3) Clear the text file by pressing **△CLR** and then pressing **Y** to confirm.
- (4) Now load the text file TEXT1.TXT 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 **△ENTER** 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 **COPY** to choose the default options. A list of the files on the program disc will be displayed and you will be invited to type in the name of the Data Merge file that you wish to use. Type:

MERGE1.DAT

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

Press: **A** to print the text file for all records in the merge data

S to print the text file for selected records only

ESC to abandon data merge and return to main 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 "form feed after printing" option at the end of the Print Menu (see page 28).

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 MERGE1.DAT 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 TEMP.DAT, re-load the TEXT1.TXT text file, and do a print with Data Merge specifying TEMP.DAT 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 BAR** 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.TXT. This text file contains &“prompt” commands;
- (2) Do a Data Merge print of the text file using the data in MERGE1.DAT;
- (3) Add an additional &“prompt” command to the text file and do another Data Merge print;

- (1) Load the text file TEXT2.TXT and confirm that it is as follows:

&N

&A

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

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 MERGE1.DAT.
- (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.TXT;
 - (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.TXT 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 MERGE1.DAT.
- (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 on” 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.TXT. This text file contains a numeric conditional printing command;
- (2) Do a Data Merge print of the text file using the data in MERGE1.DAT;
- (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.TXT 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 MERGE1.DAT.

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.TXT which is slightly different from the test 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 MERGE1.DAT. 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.TXT which reads as follows:

&&N=Micromend

&N

&A

Dear &N,

Thankyou 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 MERGE1.DAT 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.

Program Customisation

TASWORD 6128 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 disc it is saved in its currently customised form. You can therefore customise the program, save it onto disc, and subsequently load your own customised program. This obviates the need to customise the program whenever you load it. Keep the original disc 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 6128 press the Δ **ENTER** 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 characters Y/N	(p.52)
define printer control chars Y/N	(p.53)
define 2nd char set print characters Y/N	(p.54)
define numeric keypad characters 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 6128 page layout is described on page 33.

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

```
no. text line on page (50)
top line no. - header (2)
header - text (3)
text - footer (3)
footer - bot. line 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 tape 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 6128 page layout is described on page 33.

The last three questions allow you to define the codes that that printer uses for carriage return, linefeed and form feed. Nearly all printers 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 line feed 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 within the 'defined page layout' sub-option of the 'customise program' option. The program performs a carriage return after a form feed if the define 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 35, 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' ± 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 of 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 ± 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 inverse letters, both capital and lower case. These characters are typed by pressing Δ **SPACE** and then pressing the relevant letter key.

The program is supplied with the codes for the printer control characters A-0 and a-0 defined to be control code sequences for the Epson FX-80 printer that give the effects shown on the help page (see page 6). Some of these control code sequences are valid for some other printer. The printer control characters P-T and p-t are undefined on the program as supplied and may, along with A-0 and a-0 be defined by the user. The printer control characters U and u always force a form feed (see page 23 and 33). The **V-Z** and **v-z** printer control characters are 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 50.

A list 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 letter key in order to specify which printer control character you wish to define a sequence for. When you have specified a letter 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 (inverse letter) 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 inverse-**J** and inverse-**j** 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.

Define Numeric Keypad Option

This option within the Customise Program facility allows a sequence of one or two codes to be associated with each key on the numeric keypad in both normal and shifted states. This option has been provided for non English language versions of the program as it allows a second character set character to be typed with a single keystroke.

When this option is selected the user is prompted to specify a function key to define and is then prompted to type in a sequence of up to three character codes to be associated with the specified key. The third code entered will be ignored. When the redefined key is pressed in text editing mode the one or two characters associated with the key will be sent to the screen.

The code that is generated when **CTRL** \backslash is pressed is 186. To define a numeric keypad character so that a second character set character is produced enter 186 followed by the ASCII code for the character that would normally be pressed after pressing **CTRL** \backslash . For example, Greek alpha is normally typed by pressing **CTRL** \backslash followed by the **a** key. To redefine a numeric keypad key to type Greek alpha, enter the code 186 followed by the code for "a" which is 97.

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 (26)
paper colour (0)
border colour 1 (0)
border colour 2 (13)
cursor shape (4)
cursor type (0)
l. margin (0)
r. margin (80)
data merge control character (38)
file print control character (36)
suppress ENTER to confirm Y/N
suppress screen rejustification Y/N
right to left typing Y/N
unlock help Y/N
```

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

Pen Colour

This specifies the colour, or brightness on monochrome monitors, of the text in the text file. The program is supplied with this set to 26 which corresponds to brilliant white. Enter some other number for a different brightness or colour.

Paper Colour

This specifies the background colour. The disc is supplied with this set to zero for black. Enter some other number between 0 and 26 for a different brightness or colour.

Border Colour 1

This specifies the normal border colour and is set to zero on the original disc.

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 4 for the standard square cursor or 95 to change the cursor to the underline (–) character.

Cursor Type

Zero corresponds to an opaque cursor. An opaque cursor obscures the character at the cursor position when the cursor flashes on. Enter 1 for a transparent cursor.

Data Merge and Fileprint Control Characters

38 is the ASCII code for the “&” data merge control character. Some other character may be specified by entering the corresponding ASCII code. The dollar file print control character may similarly be changed.

Suppress ENTER to confirm

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

Suppress Screen Rejustification

Paragraph rejustification takes less time if it is not reproduced on the screen until the process is complete.

Right to Left Typing

This is for languages in which text is entered from right to left.

Unlock Help Y/N

TASWORD has the facility to edit the printer control characters and 2nd character set parts of the help page via the $\Delta 3$ and $\Delta 4$ 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 $\Delta 3$ command key. Subsequent use of the $\Delta 3$ command enables the $\Delta 4$ 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 $\Delta 4$ command, if enabled, puts the top twelve lines of the screen into the relevant area of memory and then re-inhibits the $\Delta 3$ and $\Delta 4$ 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 printer control characters so that they have different functions from those described on the help page.

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 character that you use.

Appendix 1 - Determining Printer Control Codes

The inverse letters typed via the Δ SPACE 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 53) 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 **ASC** function. Type, for example:

```
PRINT ASC ("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. To determine the decimal form of a hexadecimal number go into Basic and use the **&H** function. For example:

```
PRINT &H1B
```

will print 27 to show that the hexadecimal number 1B is decimal 27.

Similarly:

```
PRINT &H45
```

will print 69, which is the decimal number corresponding to hex 45.

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 &x 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

```
      0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
      0 0 0 0 1 1 1 1 1 0 0 0 0 1 1 1 1
      0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1
      0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
0 0 0 0      .
0 0 0 1      .
0 0 1 0      .
0 0 1 1      .
0 1 0 0      .
0 1 0 1      .
0 1 1 0      .
0 1 1 1 ..... G
1 0 0 0
1 0 0 1
1 0 1 0
1 0 1 1
1 1 0 0
1 1 0 1
1 1 1 0
1 1 1 1
```

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

```
PRINT &X01000111
```

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 52 to change the code sent for a £ sign to, for example, 96.

It is not possible to send codes larger than 127 to the printer. If your printer uses code 129 for the £ sign it is still possible to print this sign provided that the printer has 'MSB' or 'eighth bit' control code sequences. On some printers ESC > is a control code sequence that instructs the printer to regard subsequent codes as having the eighth bit set. This is equivalent to the printer adding 128 to each subsequent code it receives. On such printers ESC= is the control code sequence that resets the eighth bit of subsequent data to zero.

With a printer that uses 129 as the code for the pound sign, and which has the control code sequence described in the above paragraph, the pound sign is printed by sending the following sequence of codes:

27 62 1 27 61

This is five codes in all so define one of the printer control characters to be this sequence. Type this control character into your text wherever you require a £ sign to be printed.

Appendix 3 -User Definable Keys

The user definable keys are the number keys on the numeric keypad on the right hand side of the keyboard. Each of these keys may be defined to be a word or a sequence of words. By way of an example the program is provided with $\Delta 0$ defined to produce:

TASMAN SOFTWARE LTD.
Springfield House
Hyde Terrace
Leeds LS2 9LN

Dear

To define your own keys go into Basic (Δ **ENTER** and **B**) and edit one of lines 20 to 110 of the Basic program. Note in line 20 of the program the use of the character:

`CHR$(13)`

which moves the cursor to the beginning of the next line

The total number of characters that can be associated with all the user definable keys must not exceed one thousand.

Example

Suppose you are typing some text in which there are to be many occurrences of the word 'microcomputer'. Enter BASIC and edit line 30 so that it reads:

```
30 KEY 1,"microcomputer"
```

Then whenever $\Delta 1$ on the numeric keypad is pressed the word

microcomputer

will be put onto the screen at the current cursor position.

