BRUNWORD

The Complete Wordprocessor
with
BrunSpell & DataFile

Brunning 🧸 Software

THE
BrunWord
WORD PROCESSOR

OPERATING MANUAL

BrunWord 6128 is written to be used on the Amstrad CPC6128 but also has built in software to work on an Amstrad CPC464 fitted with a Dktronics 64K or 256K memory expansion.

BrunWord 464 can be used on CPC464, CPC664 or CPC6128

We welcome all comments, in writing, relating to our products. Please quote serial number and date of purchase.

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CONTENTS

The Word Processor

1. INTRODUCTION

BrunWord 6128 is a professional full feature programme written to be used in the 80 column mode. It is a completely original programme designed to avoid the complications and slow response associated with many word processors. Once the programme, spelling checker and dictionary are loaded no access to the disc is needed which means no disc delays for any of the routines. This, and being 100% machine code help to give an almost instant response. (The CPC464 version needs to access the BrunWord disc during the spelling check.)

The non experienced user will get straight into basic word processing with the help of the detailed examples while the expert will appreciate the speed and subtle ease of complicated editing.

Text is entered in the 80 column mode and when the last word in the line reaches the right margin the whole word instantly transfers to the next line. If this happens part way through a paragraph then the following words are instantly grouped into full lines. Insert and overwrite modes are available and even touch typists will be unable to beat the programme. The true print format is always displayed.

Both margins can be set for each paragraph and the whole text or just one paragraph can be right justified with one command. BrunWord uses a complex process for justifying that adds spaces after punctuation and then between words alternating left and right towards the centre of the line. This ensures that the printed text looks balanced. Some well known word processors always add spaces right to left, which makes the left side look cramped. The end product from the printer is the most important feature of any word processor.

When the command to justify the whole text is used, the programme displays the text as it is adjusted and updates the Line/Col/Page display as it progresses. This is a fast routine but there is just enough time to see the result. This is a very useful way to check the general format before printing. A file of 500 words takes 8 seconds.

To avoid the problem of accidentally loading a new file on top of the current file, BrunWord only loads a file into the work area when it is clear. If not then the new file is loaded into free memory and may be transferred or merged as required. Any number of files can be stored in this way but the limited memory makes it most useful for cut and paste editing or for storing the current work while trying some changes.

The printer routine is written so that the programme will work correctly with any printer, even printers with no form feed. Most requirements are catered for with printer commands that can be embedded in the text but for special printouts allowance is made to send a sequence of up to nine codes to the printer before printing. The embedded codes are preset for Epson compatible printers and can easily be reset for any other printer. All printer codes are saved with each file giving almost unlimited possible variations between files. Other printer facilities include – page throw markers, multiple copies, page numbering, odd and even page headers and footers and the ability to print a specified part of the text using page numbers.

The maximum file size is about 8 to 10 pages of text but books or very long articles can be written by saving 7 or 8 pages at a time and using a group file to print all the files together. Group files are simply a list of the file names with "&&&" at the beginning and these can contain any number of files even files on different discs. The user has the choice to print each file following on directly from the last file or starting on a new page.

Extensive cursor control is based on the the cursor keys using normal, shift and control keys. <DEL> and <CLR> are single letter delete as used in BASIC. Quick local editing is easy with the word delete/undelete commands and block save, move, copy, merge and delete can be used for cut and paste operations on a larger scale.

Superscript and subscript numbers are fully supported with a true display on the screen. This is most useful in text where reference to a word is required in a note (note[1] or note[2]) and for scientific work ($Y=ax^2+bx^3+cx^4$ or H_2SO_4). Ten special characters are preprogrammed $\alpha \ \lambda \ \theta \ \Omega \ \emptyset \ \omega \ \pm \ \simeq \ \neq \ \pi$ and can be redefined.

Single words or short phrases can be found and, if desired, replaced with a new phrase. This is simple and fast to use with upper and lower case treated the same during FIND but treated separately when replacing.

The main menu, editor menu, print menu and spell check menu can all be referred to without losing the current cursor position. The editor menu includes a true word count and free memory display.

The user can set a security code of up to fifteen characters and if this is set the file will be encoded before saving to the disc. This is a highly secure system and care is needed to remember the code as even direct access to the data will not enable it to be read.

A tired eyes facility gives the option to switch to the full size 40 column multicolour mode at any time, keeping the same cursor position and with paragraphs temporarily made longer so that sideways scrolling is unnecessary. This is of greatest use in close work such as when correcting errors and is essential for use with a colour screen.

The spelling checker is an integral part of the programme and is supplied with a 30,000 word dictionary which can be expanded to about 35,000 words. Once loaded the dictionary is stored in the memory and a spelling check can be performed immediately without waiting for the spelling programme or the dictionary to be loaded. (CPC464 version needs to access the BrunWord disc during the spelling check).

It takes just 12 seconds to check a 500 word page (CPC6128 version) and as the words are tested they are flashed onto the base of the screen. When a possible error is found the programme stops and the user can edit, save the word, continue the test or ask for help. The help routine searches the dictionary for the nearest words it can find. NECESAY, NECCESARY, NEZESSARY, NECXSRY will all give a list of words that includes NECESSARY. The error can be automatically corrected by stepping through the help list to the correct word and pressing T for Transfer.

The CPC6128 version also has instant lookup where the word at the cursor can be checked instantly without leaving the editor and then saved or automatically corrected if necessary.

2. LOADING BrunWord

Reset the computer by holding <CTRL>, <SHIFT> and <ESC> then type run
"BRUNWORD". When the programme has loaded the main menu will be
displayed with the programme name. Each programme has its own serial
number which is displayed at the end of the copyright statement.

Press <ENTER> or <RETURN> and the programme will enter the editor.
"Insert" will be displayed at the base of the screen with the cursor
data and the file name which will be NONAME until it is set. Newcomers
are strongly recommended to work through the example (page 18) as the
quickest way to understand the basic principles of the programme.

3. EDITOR FUNCTIONS

```
              left Arrow : Cursor back one space.
             Right Arrow : Cursor forward one space.
                Up Arrow : Cursor up one line.
              Down Arrow : Cursor down one line.
   <SHIFT>  Left Arrow : Cursor to beginning of line.
   <SHIFT> Right Arrow : Cursor to end of line.
    <CTRL>  Left Arrow : Cursor back to the start of the text.
    <CTRL> Right Arrow : Cursor forward to the end of the text.

   <SHIFT>    Up  Arrow : Scrolls up one line.
   <SHIFT>  Down Arrow : Scrolls down one line.
    <CTRL>    Up  Arrow : Scrolls up two thirds screen.
    <CTRL>  Down Arrow : Scrolls down two thirds screen.

        <CTRL> <TAB>    : Insert/Overwrite.
        <CTRL>   B      : Justify Paragraph.
        <CTRL>   W      : Justify Whole Text.
        <CTRL>   V      : Unjustify Paragraph.
        <CTRL>   Q      : Unjustify Whole Text.
        <CTRL>   C      : Centre Line.
        <CTRL>   D      : Delete Word.
        <CTRL>   U      : Undelete Word.
        <CTRL>   L      : Set Left Margin.
        <CTRL>   R      : Set Right Margin.
        <CTRL>   T      : Set TAB to cursor column.
        <CTRL>   X      : Cancel TAB at cursor column.

                 <TAB>  : Move to next TAB.
                 <CLR>  : Delete character at cursor.
                 <DEL>  : Delete character before cursor.
        <CTRL> <COPY>  : 40/80 column switch.
                 <ESC>  : Press twice to display the main menu.

    FUNCTION    "."    : Next Find.
    FUNCTION     O      : BrunSpell Delete Marker.
    FUNCTION     1      : Set Left Margin until end of Paragraph.
    FUNCTION     2      : Set Right Margin until end of Paragraph.
    FUNCTION     3      : Spelling Instant Lookup.
    FUNCTION     4      : Fixed Space.
    FUNCTION     7      : Help Edit
    FUNCTION     8      : Page Throw Marker.
    FUNCTION     6      : Mark Text.
    FUNCTION     9      : Clear Marked Text.
```

3.1. ENTERING TEXT

When either "Insert" or "Overwrite" is displayed at the bottom left of
the screen then BrunWord is in the editor and text that is typed in will
appear at the cursor position. The end of the text is marked with a
diamond shaped marker and the cursor cannot be moved past this point
with the cursor keys. Use the space bar or TAB key to move across the
page and the <ENTER> key to advance down the page.

For normal typing use the "Insert" mode and type each paragraph as if it
is a continuous line. The programme will move words as necessary to
prevent them breaking at the end of the line. The result will be a block
of text with an uneven right margin. At the end of the paragraph press
the <ENTER> or <RETURN> key.

If a gap of one line or more is required between paragraphs then press
the <Enter> key once more for each line. The next paragraph can then be
typed.

3.2. CURSOR MOVEMENT

The cursor will normally do as expected (page 4) except that it cannot
go outside the margins or between a page throw marker and the end of the
page. This means that if the text scrolls with a page throw marker at
the top of the screen then the start of the next page will be set to the
top of the screen.

3.3. TAB

The programme has one TAB preset at column 51 but a total of 10 TABs can
be set by the user by pressing <CTRL> T when the cursor is in the
required column. All the TABs are shown in the ruler at the top of the
screen with "*" but if the TAB memory is full then no more TABs can be
stored and "TABS FULL" will be displayed. Similarly, the TABs can be
cancelled with <CTRL> X when the cursor is in the correct column.

Pressing the <TAB> key will move the cursor to the next TAB position. In
"Insert" spaces will be inserted but in "Overwrite" the cursor will jump
over any text in the line and insert spaces as necessary after the text.

3.4. JUSTIFY RIGHT MARGIN

The text as it is typed in will have an uneven right margin which can be
left as it is or justified. In either case it will be printed as it is
displayed on the screen.

To justify a single paragraph move the cursor to within the paragraph
and press B while holding the <CTRL> key. If the paragraph is required
to be indented then the <F4> key in the function key pad must be used to
set fixed spaces. Any ordinary spaces in this position will be removed.
The example shows how this works. (A single paragraph can be unjustified
using <CTRL> V - the key to the immediate left of B).

In a similar way, the whole text can be justified using <CTRL> W and in
this case the programme advances through the entire text justifying each
paragraph and displaying the new layout as the process continues. (The
whole text can be unjustified using <CTRL> Q - the key to the immediate
left of W).

3.5. CENTRE LINE

<CTRL> C can be used to centre a single line that
ends with a paragraph end marker, or to centre a
paragraph, such as this one, that has temporary
left and right margins.

3.6. SET NEW MARGINS

The user can set the left and right margins that are displayed in the
ruler at the top of the screen. These apply for the entire current file.
Temporary margins can then be set for each paragraph if necessary, using
special markers.

The main margins can be set without leaving the editor, using <CTRL> L
or <CTRL> R. A number between 1 and 80 can be entered or if no change is
required just press <ENTER>. Numbers that bring the margins closer than
20 will be ignored. On return to the editor the whole text is adjusted
for the new margin which takes a few seconds. It must be right
justified, if required, before printing.

3.7. TEMPORARY MARGINS

The <F1> key can be used to set a left margin and the <F2> key, to set a
right margin, both of which are reset at the end of the paragraph.

Move the cursor to the start of the paragraph and use the space
bar to indent the text to the new left margin position. Press
the <F1> key and the left margin will instantly shift in.

To set the right margin, move the cursor across the text to
the required position. Press the <F2> key and the right
margin will instantly move in. Use both procedures together
to set both margins and in this case <CTRL> C can be used,
if required, to centre the block.

Remember that both temporary margins will be reset at the end of the
paragraph. <CTRL> B and <CTRL> W will function normally on these
paragraphs but, no change will occur in the first line if the temporary
right margin is set.

3.8. DELETE/UNDELETE ONE WORD

<CTRL> D will delete one word to the right of the cursor and put it into
a temporary store. <CTRL> U will remove one word from that store and
insert it to the right of the cursor, even in the Overwrite mode. In
principle, the entire current file could be put into this store and then
retrieved but be warned that the memory allocated has low priority and
is reset by other procedures that use free memory. (MEMORY save, TEAR,
QUICK move/copy, LOAD, SAVE and the expanding work area).

3.9. USER DEFINED CHARACTERS

∝ λ θ Ω ø ω ± ≃ ≠ π

The number keys at the top of the keyboard produce special characters
when used with the <CTRL> key. The BrunWord text file TUTOR2 contains
full instructions on how to redefine these, and various other symbols.

3.10. FIXED SPACE

When a paragraph is justified, spaces are added in a complex predetermined way to give the best chance of the text looking neat. If spaces are required that the programme must not alter then the <F4> key can be used in place of the space bar. Words with one <F4> between them will be printed with one space but will be treated by the programme as being one long word. This is useful to indent the start of a paragraph or to ensure that two words are always on the same line.

3.11. PAGE THROW MARKER

If the <F8> key is pressed a special marker will be generated and all the following text will be pushed onto the next page. The screen will show the blank lines at the end of the page but the cursor cannot rest in that area.

3.12. USING THE 40 COLUMN MODE

The programme is written to be used in the 80 column mode but most operations are also possible in the full size, multicolour 40 column mode. Press <CTRL> and <COPY> together and the programme will switch to 40 columns and keep the same cursor position. The paragraphs will temporarily be made longer so that sideways scrolling is unnecessary.

Formatting with <CTRL> B, <CTRL> W and <CTRL> C must be performed in 80 columns and are not available in 40 columns. Other facilities including entering text, editing, loading, saving and spelling check can all be used effectively in both modes.

We envisage that most work will be comfortable in 80 columns but spelling corrections and detailed editing, particularly on a colour screen, will greatly benefit from this facility. The ability to switch any time, will be the prop to lean on at the end of the day.

The standard colours in 40 columns are:- normal text in yellow
                                          marked text in red
                                          instructions in blue and red

These will be fine on a colour screen but may need changing for a green screen. <ESC> 1 to <ESC> 6 can be used to set different colours and these are detailed on page 8. <ESC> 2 is recommended for green screens and <ESC> 1 for colour screens.

In forty columns, only the insert mode is available and there is no display of the cursor position or the file name.

NOTE:- REMEMBER TO FORMAT IN THE 80 COLUMN MODE BEFORE PRINTING.

3.13. EDITOR MENU

The <F7> key in the number key pad can be pressed any time while in the editor, to display the editor functions, free memory and a count of the words in the current file.

3.14. MAIN MENU

Press the <ESC> key twice.

4. ESCAPE Function

When in the EDIT mode (with "Insert" or "Overwrite" displayed) press the
<ESC> key and "Escape?" will be displayed. Release that key then press
the first letter of the key word. Press the <ESC> key twice to display
the main menu. Press <ENTER> or <RETURN> to return to EDIT.

```
              L - LOAD from Disc.
              S - SAVE  to Disc.
              A - ASCII Save or Load (Not for normal use).
    <SHIFT> @ - CAT, DIR, DISC, ERA, TAPE.
              M - MEMORY save.
              G - GET from memory.
              K - KILL file in memory.
              D - DIRECTORY of memory files.
              T - TEAR (copy) marked block to memory.
              W - WEAVE memory file into text.
              Q - QUICK MOVE or QUICK COPY marked text to cursor.
              R - REMOVE marked text.
              C - CLEAR work area or file area.
              F - FIND or REPLACE.
              P - PRINT.
              U - User character set (see section 3.9 page 6)
              X - BrunSpell spelling checker.
              Z - Security code.
           <F7> - Display editor functions.

              1 - Set ink yellow, paper dark blue.
              2 - Set ink white, paper dark blue.
              3 - Set ink bright cyan, paper dark blue.
              4 - Set ink sea green, paper dark blue.
              5 - Set ink dark blue, paper yellow.
              6 - Set ink dark blue, paper white.

         PRESS <ENTER> or <RETURN> to Return to Text.
```

Care of Discs

Modern discs are very reliable but it is advisable not to switch the
equipment on or off with a disc in the disc drive and essential to keep
them well away from magnetic material.

Using New Discs

Before a new unused disc can be used it must first be formatted. This
cannot be done from within BrunWord and should be done before loading
BrunWord. If you are in BrunWord save all current files to a formatted
disc then reset the computer by turning Off and ON.

CPC6128 - Insert Side 1 of your master CPM system disc into the disc
drive. Type :CPM <ENTER>. Type DISCKIT3 <ENTER>. Press <F4> then press
<F6>. Now insert the new disc and press Y. When it is finished turn the
disc over and press Y again. Take out the disc and reset the computer.

CPC464 - Insert the CPM disc. Type :CPM <ENTER>. Type FORMAT D <ENTER>.
Now follow the instruction on the screen to format both sides.

BEWARE, FORMATTING A DISC WILL COMPLETELY ERASE ALL THE DATA.

4.1. <ESC> L - LOAD from Disc

This routine is used to load files from disc (or cassette). The disc is automatically CATalogued and then the name of the file to load is requested. If the user is in the 80 column mode then the name of any current file in the work area will be displayed on the bottom right of the screen. Type in the file name and press <ENTER>.

Before the file is loaded, the programme tests the size and will display "OUT OF MEM" if there is not enough free memory. In this case some memory must be cleared (see CLEAR and KILL) before the LOAD is possible. If the work area is clear then the new file is loaded directly into the work area but otherwise it will be loaded into the file area.

If the new file goes into the file area then BrunWord displays the DIRECTORY of memory files when the loading is complete. It is necessary to GET or WEAVE a memory file to load it into the work area.

WARNING:- If the file to be loaded has been encoded then the correct code must be set before loading the file. If this is not done then the file will load but will not be readable.

4.2. <ESC> S - SAVE to Disc

This routine is used to save files to disc (or cassette). The disc is CATalogued and then the name of the file to save is requested. If the user is in the 80 column mode then the name of the current file in the work area will be displayed on the bottom right of the screen.

Press <ENTER> before any other key to use the current file name or type in a new name followed by <ENTER>. If a new name is typed then the current name will be updated.

"SAVE?...Work or Files+Work" will now be displayed. Type W or F. In both cases the text in the work area will be saved but only if F is typed will the files in the memory also be saved.

WARNING:- If a security code has been set then this is used to encode the file before saving. The user must then remember the code as no record is made.

4.3. <ESC> A - ASCII LOAD or SAVE

This routine must not be used for normal loading or saving to disc as it is very much slower and special data such as printer codes and header/footer data is not saved. It is intended for use with other word processors data and does not necessarily produce data that is fully compatible with BrunWord or the other word processor.

4.4. <ESC> Z - Security Code

A security code up to fifteen digits long can be entered which can consist of any printable keys. Spaces must not be used. The user must VERIFY by typing in the same code again. If <ENTER> is pressed before any other key then there is no encoding. Files will be encoded using the code word when they are saved to disc or cassette. Be sure to remember the code as there is no way to retrieve it.

4.5. <ESC> <SHIFT> @ - : Functions

Press <ESC>, <SHIFT> @, and : will be displayed.

    :CAT   The disc files and file sizes will be displayed.

    :ERA NAME   Type ERA then one space, then the file name. The name
                will be deleted from the disc.

    :TAPE   All subsequent loading and saving uses cassette.
    :DISC   All subsequent loading and saving uses disc.

Press <ESC> to return to ESCAPE mode.

4.6. <ESC> M - MEMORY save

This is used to save the whole work area to the file area of the memory.
The file name is requested and if <ENTER> is pressed before any other
key then the current name will be used. Otherwise type in the name and
press <ENTER>.

If the name is already in the directory "Being Used" will be displayed
and another name must be chosen. If there is insufficient memory to
complete the save "OUT OF MEM" will appear. In this case some memory
must be cleared before the file can be successfully saved . KILL a file
or shorten the length of the text to save (see TEAR).

If neither default occurs then the file will be saved in memory and the
DIRECTORY will be displayed. Press <ENTER> to return to the text.

The left margin, right margin, number of lines per page, the printer
control codes and the headers/footers are saved with the file.

4.7. <ESC> G - GET from memory

Enter the name of the file required. BrunWord will search the directory
and load the work area with the first file of that name and then return
to the editor. If the file name request is answered by pressing <F0> in
the function key pad, then <ENTER> - the first file will be loaded to
the work area and then KILLed from the directory. This is the only way
that a very long file can be transferred to the work area if it is
LOADed into the file area from disc or cassette.

The left margin, right margin, number of lines per page and the printer
control codes will be reset with the data saved with the file. If the
headers/footers were set before the file was saved then these will also
be updated. If not then any current headers/footers will be reset.

4.8. <ESC> K - KILL

If a name is entered then the first file with that name will be deleted
from the directory. If the name is entered as <F0>, <ENTER> then the top
file will be deleted.

4.9. <ESC> D - DIRECTORY

This displays the names of all the files in the memory file area. Two
files can only have the same name through being loaded from disc.

4.10. <ESC> T - TEAR

Tear is used to copy part of the work area to the file area. Mark the text using the <F6> key then type <ESC>, T, give a file name and press <ENTER>. If the name is BEING USED or there is not enough memory then a warning is given and the file is NOT saved.

The left margin, right margin, number of lines per page and the printer control codes are saved with the file but will only be returned if the file is loaded with GET.

4.11. <ESC> W - WEAVE

This is used to insert a file at the cursor position. Move the cursor to the correct position then type <ESC>, W, give a file name and press <ENTER>. The inserted file will be displayed as marked text. Press <F9>, <ENTER> to reset the marked text.

The left margin, right margin, number of lines per page, the printer control codes and headers/footers will NOT be changed by this command.

4.12. <ESC> Q - QUICK MOVE/COPY

"MOVE/COPY Marked text?" will be displayed. Press M to MOVE or C to COPY the marked text to the cursor position. N or <ESC> will cancel the change. If "OUT OF MEM" is displayed then the text must be moved or copied in two or more smaller blocks. If QUICK COPY fails through OUT OF MEM then a MOVE/COPY file may be left in the memory file area. This should be deleted with KILL or CLEAR.

4.13. <ESC> R - REMOVE

"REMOVE-Marked Text?" will be displayed. Press Y to delete the marked text. N or <ESC> will cancel the change.

4.14. <ESC> C - CLEAR

"Clear Work or Files" will be displayed. Press W to clear the work area or F to clear the file area. Any other key will cancel the change.

4.15. <ESC> F - FIND or REPLACE

Type in up to 15 characters after "Find Phrase?", using only one space between words and ending with <ENTER>. "New Phrase?" will then be displayed. Type in a New Phrase only if you want to REPLACE the Find Phrase, otherwise press <ENTER>. If a New Phrase is entered "All or Selective?" will be displayed. Press A to replace all the phrases without stopping or S if you wish the programme to stop at each phrase.

BrunWord will search the work area, starting at the beginning, for the Find Phrase treating upper and lower case letters the same and taking all gaps as one space. The REPLACE routine will copy the New Phrase exactly as typed in, except for the first letter which will be made upper case if the first letter of the original phrase is upper case. (Answer "REPLACE?" with either Y for Yes or N for No or press <ESC>).

A new search or replace can be started from the cursor at any time by pressing "." in the function key pad.

5. <ESC> P - Printer Functions

When in the editor, press <ESC>, P, to display the "Print Menu", the
current margin settings, number of lines per page, form length and the
pre print codes. The headers/footers and start page number will also be
displayed if turned on.

```
P....Print the text in the work area.
L....Set Left Margin.
R....Set Right Margin.
N....Set No of Lines.
F....Set Form Length. (Normally zero).
H....Header (Set headers or footers).
B....Set page number to BEGIN printing.
E....Set page number to  END  printing.
S....Set START Page number.
Z....Set Pre Print.
```

5.1. P...Print Text

The text in the work area will be sent to the printer using the margins,
page length and other data as displayed in the Print Menu. Two questions
must be answered.

```
"Print Single Pages ?"   Answer  Y  for yes to stop at the end of
                         each page to change the paper. Any other
                         key will give continuous printing.

"No of Copies ?"         Enter   a  number  between  1  and   255
                         followed by <ENTER>.
```

Answer the questions then switch on the printer and the file will be
printed. Press <ESC> at any time to stop the printing.

If only part of the text is to be printed then the "Begin Page" and "End
Page" can be set by pressing B or E.

5.2 L... Set Left Margin

This is used to set the left margin for the whole file and is the same
routine as <CTRL> L from the Editor. A number between 1 and 60 may be
entered but numbers that bring the left margin closer than 20 below the
right margin are ignored. The text must be rejustified, if required.

5.3. R... Set Right Margin

This is used to set the right margin for the whole file and is the same
routine as <CTRL> R from the Editor. A number between 21 and 80 may be
entered but numbers that bring the right margin closer than 20 above the
left margin are ignored. The text must be rejustified, if required.

5.4. N....Set No of Lines

This sets the number of lines that will be sent to the printer before
sending a form feed. Normal fan fold paper has a maximum of about 60
lines but an allowance of two lines must be made if footers are set.
Headers are automatically allowed for.

5.5. F....Set Form Length

Normally this is set to zero but for printers that do not use form feeds set the exact length of the page (66 for standard length fan fold paper).

This can also be set to obtain more than one copy of a short piece of text on one page. For two copies on one page using 66 line paper, enter 33 and request at least 2 copies. Providing the text is shorter than half a page exactly two copies will be printed on each page.

5.6. H....Headers and Footers

Press H from the print menu, and "Head, Foot, Both or None ?" will be displayed. Press H or F to turn on headers or footers. Press B for one of each or N to turn off headers and footers.

If H, F, or B is entered the first current header/footer will be displayed. Press <ENTER> to leave this unchanged or overtype with the new header/footer. Two special characters can be used in the header/footer to format left, middle and right. "+" is used to indicate the start of the middle and "*" the end of the middle. Wherever a "?" is encountered it will be replaced with the current page number.

Example 1: Page ? * Manual

Page 13   Manual

Example 2: Manual+Page ?*Manual

Manual   Page 13   Manual

Example 3: + ? centre ? *

                            13 centre 13

Example 4: *Page ?

                                                                    Page 13

After the first header/footer is entered the second will be displayed and this must be entered in the same way. This can either be the same lettering or changed as required.

5.7. S....Set Start Page

A number up to 999 may be entered. The first page of the file will start with this page number.

When using a group file the starting page number will be the one contained in the group file itself.

Immediately before any text is sent to the printer, nine printer control codes are sent. These are normally zero but can be set for special purposes. Look through the printer manual and work out the codes for the required process. Press Z (from the Print Menu) and enter the codes in decimal numbers. Set all unused codes to zero.

Examples for Epson compatible printer:-

```
Reset Printer................27,64, 0, 0, 0, 0, 0, 0, 0
Double Strike...............27,64,27,71, 0, 0, 0, 0, 0
Double Strike + Emphasised...27,64,27,71,27,69, 0, 0, 0
Ignore Paper end Detector....27, 8, 0, 0, 0, 0, 0, 0, 0

Double line spacing..........27,64,27,65,24, 0, 0, 0, 0
(Note:- For correct paging set "No of Lines" to half)

Indent left margin 6 col.....27,64,27,108, 6, 0, 0, 0, 0
Indent left margin 8 col.....27,64,27,108, 8, 0, 0, 0, 0
Indent 8 + set 12 char/inch..27,64,27,108, 8,27,77, 0, 0
```

6. PRINTER Control Codes

Special characters can be placed within the text that give instructions to the printer such as to change to emphasised printing. These characters are generated when the function keys <F1> to <F9> are pressed with <SHIFT> or <CTRL> also pressed. (Function keys are the separate pad of number keys).

These keys have been programmed to suit an Epson compatible printer where <SHIFT> turns the effect ON and <CTRL> turns it OFF. All eighteen keys can be redefined by the user and are saved with the text file.

When the programme encounters a control code three special characters and a space are sent to the printer. This arrangement ensures that the character can be treated as a space in the programme. When the printer control character occurs at the start of the line then the space is placed at the first convenient place in the same line.

```
<SHIFT> Function.....ON      <CTRL> Function.....OFF
```

```
<F1>... ENLARGED mode. (Square bracket with "E").
<F2>... CONDENSED mode. (Square bracket with "C").
<F3>... UNDERLINE mode. (Square bracket with "-").
<F4>... EMPHASISED mode. (Square bracket with "S" for Strong).
<F5>... SUPERSCRIPT mode. (Square bracket with up arrow)
<F6>... SUBSCRIPT mode. (Square bracket with down arrow).
<F7>... DOUBLE STRIKE mode. (Square bracket with "D").
<F8>... ITALICS mode. (Square bracket with "A").
<F9>... not programmed. (Square bracket with "N").
```

Equations such as $Y=ax+bx^2+cx^3+dx^4+ex^{27}$ will be displayed on the screen with a proper display of the numbers. To achieve x^2 press x, then shift <F5>. x will be followed by a special square bracket up arrow character. Now press 2 and the special character will change to ^{2}. Similarly, H_2SO_4 or $NOTE_5$ can be achieved using shift <F6> followed by the number.

6.1. Redefine Printer Control Codes

Let us assume that the function key <SHIFT> and <CTRL> <F7> is to be reprogrammed to set and cancel the double strike mode for an Epson compatible printer. The printer manual gives ESC G as the code to set the Epson RX80 to DOUBLE STRIKE. ESC is 27, and G is 71 in ASCII.

Press <ESC>, P to display the print menu then hold <SHIFT> and press <F7>. "Printer Control G No.1" will appear. Type in the first number. In our example this is 27.

"Printer Control G No.2" will appear. Type in the second number. In our example this is 71.

"Printer Control G No.3" will appear. Type in the third number. In our example the third number is not used so O must be input.

"Print Menu" is now displayed and the process can be repeated to set <CTRL> <F7> to cancel the double strike mode. Press <CTRL> <F7>.
"Printer Control P No.1" will appear. Enter 27.
"Printer Control P No.2" will appear. Enter 72.
"Printer Control P No.3" will appear. Enter O.

The <SHIFT> and <CTRL> function keys can be set to any code and need not be in pairs. However, this does help in remembering the code.

6.2. Non Epson Compatible Printers

For printers that are not Epson compatible, it will be necessary to redefine all the printer codes. Find the codes in the printer handbook and follow paragraph 6.1. for each pair of codes.

These codes are saved with each file and to avoid having to enter them each time a new file is created, it is best to have a dummy file just to contain the codes. To do this simply enter the codes, type one word "Codes" in the work area and save the file to disc with the name "Codes". The printer can now be set by loading "Codes" (into the work area) and then deleting the word in the work area. CLEARing the work area does not reset any of the printer data.

7. Group Print Files

A group print file is a file containing the names of several files that are to be printed automatically and is any file that has &&& or &&&$ at the start before any other text. The page numbering will start from the page number in the group file but headers and footers will be taken from the last file loaded. Each file name must be on a new line.

Example 1   &&&   Example 2   &&&$
             Part1   Part1
             Part2   Part2
             Part3   Part3

Example 1 will print the three files in sequence starting each file on a new page. Headers/footers will be updated as each file is loaded but page numbers will follow from the previous page. With $ immediately after &&& as example 2, the files will follow directly without starting a new page. The disc can be changed during the printing.

A file in the work area can be checked for spelling errors using
BrunSpell. Press <ESC>, X and the BrunSpell menu will be displayed,
showing the word counts of the four dictionary sections ABCD, EFGHIJK,
LMNOPQR, STUVWXYZ + non letter words.

BrunSpell 6128 can also be entered directly from the editor by pressing
<F3>. In this case BrunSpell will test just the word at the cursor and
then return to the editor. This also has the effect of setting the
BrunSpell pointer and can be used to set a particular starting point.

8a.1. CHECK SPELLING 6128

Press X to start the spelling check. The file is tested for normal words
and then for non letter words. Any marked text will not be checked.

The words as they are tested will be flashed on the bottom left of the
screen in large letters. When a word is found that is not in the
dictionary, the testing will stop and "Save, Edit, Help, Cont?" will be
displayed after the word. Press S, E, H, C or <ESC>.

       S..Save The word will be added to the dictionary in the computers
               memory but the disc will not automatically be updated. This
               must be done separately when the test is finished.

       E..Edit The user is returned to the editor with the cursor at the
               start of the last word tested. The word can be changed and
               the spelling checker re-entered with <ESC>, X. In this case
               the BrunSpell menu will display "CONTINUING" in place of the
               word count lists. Press X again to start the test from the
               beginning of the word that the cursor is at.

       H..Help The BrunSpell help routine has two levels of search. The
               first is quite rigorous while the second takes a broader
               spectrum of possibilities intended for errors that are only
               vaguely similar to the word. At the end of the first search
               "* * *" is displayed under any words found and the
               programme waits for instructions. Press <ESC> to exit or C
               to Continue with the second search.

               At the end "Finished" is displayed but <ESC> can be pressed
               at any time to stop the Help routine.

               The testing will also pause when the screen is full. Press
               <ESC> to exit from HELP or C to continue.

       C..Cont The spelling check continues ignoring the possible error.

The <ESC> key can be pressed at any time during the testing to return to
the BrunSpell menu. In this case the word counts are replaced with
"CONTINUING" to warn that the test will continue from the word which
contains the cursor. If words are added to the dictionary then this must
be saved to the disc at the end of the test. (See paragraph 8.4.)

8a.2. AUTOMATIC CORRECTION 6128

Spelling errors can be automatically corrected using one of the words
found with the help routine. First, use HELP as above and as soon as the
correct word is displayed, press <ESC>. The first word in the HELP list
will be displayed immediately above the incorrect word.

Step through the list to the correct word using the down arrow key (or
back using the up arrow key) then press T for Transfer. The error will
be automatically corrected keeping the first letter the same case as the
original word. The programme will return to the editor so that the
correction can be seen. Resume the testing with <ESC> X X.

8a.3. LOAD DICTIONARY 6128

With the BrunSpell menu displayed, press L and "INSERT DICTIONARY DISC"
will be displayed. Press <ESC> to return to the BrunSpell menu or insert
the correct disc and press any other key.

8a.4. SAVE DICTIONARY 6128

Press S when the BrunSpell menu is displayed and "Save Dictionary" will
be displayed. Answer Y for yes, N for no or press <ESC>. If the answer
is Y then "INSERT DICTIONARY DISC" will appear. Insert the dictionary
disc and press any key. BrunSpell is supplied with over 30,000 words
which use about 49K of memory. Another 15K is available which should
store another 5000 words.

8a.5. RESET POINTER 6128

If "CONTINUING" is displayed when BrunSpell is entered and it is
required to start the checking from the beginning then press R to reset
the pointer.

When Brunspell is exited before the checking is complete the pointer
will store the last position. This happens quite normally when editing
corrections. On entering BrunSpell the next time the checking will start
from the last pointer position unless the cursor has been moved back to
the start of the text at any time since leaving BrunSpell.

8a.6. DELETING WORDS 6128

If it is found that an incorrect word is in the Dictionary then this can
be deleted by typing the word in the BrunWord work area with the special
character generated with the <F0> function key placed immediately after
it. Run Brunspell in the usual way and the option to delete that word
will be given. This will remove all words with the same stem from the
dictionary. (e.g. help, helped, helps, helping etc).

8a.7. NON LETTER WORDS 6128

The BrunSpell Dictionary can contain strings that are numeric or
alphanumeric. These use more memory than normal words and only the most
common should be stored. Single numbers 1 to 10, 1st, 2nd, ...,31st,
1987 etc are already stored. No "number trap" option is given as it is
quite simple when the programme finds an unknown number, to press <ESC>
to end. It is pointless not testing numbers that it recognises. The HELP
facility does not work with non letter words.

A file in the work area can be checked for spelling errors using
BrunSpell. Press <ESC>, X, insert the BrunWord disc into drive A and
press X again. When the loading is complete, the BrunSpell menu will be
displayed with "INSERT DICTIONARY DISC". BrunSpell 464 loads each
section of the dictionary into the memory when it is needed and so the
disc must be in the drive during the spelling check. If words are added
or deleted then the updated section is saved before the next is loaded.

When BrunSpell 464 is loaded, the work area is reduced by 8k to allow
the dictionary to be loaded. If there is not 8k free then OUT OF MEM
will be displayed and it is impossible to continue until enough memory
is available. (Clear the file area or split the current file into two).

8b.1. CHECK SPELLING 464

Press X to start the spelling check. The file is tested for normal words
and then for non letter words. Any marked text will not be checked.

The words as they are tested will be flashed onto the bottom left of the
screen in large letters. When a word is found that is not in the
dictionary, the testing will stop and "Save, Edit, Help, Cont?" will be
displayed after the word. Press S, E, H, C or <ESC>.

    S..Save The word will be added to the dictionary in the computers
            memory and the disc will be automatically updated before the
            next section is loaded.

    E..Edit The user is returned to the editor with the cursor at the
            start of the last word tested. The word can be changed and
            the spelling checker re-entered with <ESC>, X. In this case
            the BrunSpell menu will display the word count of the
            current dictionary section. Press X again to start the test
            from the beginning of the word that the cursor is at.

    H..Help The BrunSpell help routine has two levels of search. The
            first is quite rigorous while the second takes a broader
            spectrum of possibilities intended for errors that are only
            vaguely similar to the word. At the end of the first search
            "* * *" is displayed under any words found and the
            programme waits for instructions. Press <ESC> to exit or C
            to Continue with the second search.

            At the end "Finished" is displayed but <ESC> can be pressed
            at any time to stop the Help routine.

            The testing will also pause when the screen is full. Press
            <ESC> to exit from HELP or C to continue.

    C..Cont The spelling check continues ignoring the possible error.

The <ESC> key can be pressed at any time during the testing to return to
the BrunSpell menu. In this case the word count of the current section
will be displayed to warn that the test will continue from the word
which contains the cursor and starting with the current dictionary
section.

8b.2. AUTOMATIC CORRECTION 464

Spelling errors can be automatically corrected using one of the words
found with the help routine. First, use HELP as above and as soon as the
correct word is displayed, press <ESC>. The first word in the HELP list
will be displayed immediately above the incorrect word.

Step through the list to the correct word using the down arrow key (or
back using the up arrow key) then press T for Transfer. The error will
be automatically corrected keeping the first letter the same case as the
original word. The programme will return to the editor so that the
correction can be seen. Resume the testing with <ESC>, X, X.

8b.3. LOAD DICTIONARY 464

With the BrunSpell menu displayed, press L and "Load DICT — Number?"
will be displayed. Press <ESC> to return to the BrunSpell menu or enter
a number 1 to 8. This is useful to see the word counts of each section.

8b.4. SAVE DICTIONARY 464

Press S when the BrunSpell menu is displayed and "Save Dictionary" will
be displayed. Answer Y for yes, N for no or press <ESC>. If the answer
is Y then the current dictionary will be saved to the disc.
BrunSpell 464 automatically updates the disc during the spelling check
and so this feature is of limited use and should not normally be used.

8b.5. RESET POINTER 464

If a word count is displayed when BrunSpell is entered and it is
required to start the checking from the beginning then press R to reset
the pointer.

When Brunspell is exited before the checking is complete the pointer
will be set. This happens quite normally when editing corrections. On
entering BrunSpell the next time, the checking will start from the
cursor position using the current dictionary, unless the cursor has been
moved back to the start of the text at any time since leaving BrunSpell.

8b.6. DELETING WORDS 464

If it is found that an incorrect word is in the Dictionary then this can
be deleted by typing the word in the BrunWord work area with the special
character generated with the <F0> function key placed immediately after
it. Run Brunspell in the usual way and the option to delete that word
will be given. This will remove all words with the same stem from the
dictionary. (e.g. help, helped, helps, helping etc).

8b.7. NON LETTER WORDS 464

The BrunSpell Dictionary can contain strings that are numeric or
alphanumeric. These use more memory than normal words and only the most
common should be stored. Single numbers 1 to 10, 1st, 2nd, ...,31st,
1987 etc are already stored. No "number trap" option is given as it is
quite simple when the programme finds an unknown number, to press <ESC>
to end. It is pointless not testing numbers that it recognises. The HELP
facility does not work with non letter words.

9. A WORKED EXAMPLE

This is a step by step example to demonstrate the basic principles of using BrunWord. The methods used are intended to show the simple formatting capability of the programme and should be developed by the user to suit his own style.

Load the programme as explained on page 4 and press the <ENTER> key to enter the editor. "Insert" will be displayed at the base of the screen with the cursor data and the file name "NONAME". Type the following text exactly as instructed.

<div align="right">

Brunning Software,
34 Helston Road,
Chelmsford,
CM1 5JF.
</div>

Word Processor User,
Your Address.

Dear Sir,

This is a demonstration letter to show the basic principles of using BrunWord. Remember that all words must have at least one space between them and that each paragraph is typed as if it is one very long line. The programme automatically moves words as necessary to prevent them being broken at the end of the line.

Each paragraph must be ended by pressing either ENTER or RETURN. It is difficult to forget this as the cursor will not move past the end of text marker. To test the spelk checher we need some errers!

<div align="center">

Yours sincerely,
</div>

<div align="center">

Brunning Software.
</div>

A. With the cursor sitting on the diamond end of text marker, at the top left corner, type "Brunning Software" then press <ENTER>. A paragraph end marker will appear at the end of the line and the cursor will move to the start of the next line.

B. Press the up arrow key to move the cursor back to the "B" of Brunning then press the <TAB> key to move the text across the screen. Press the space bar until "Software" moves down to the next line, then use the <DEL> key until "Software" just moves back.

C. Press the down arrow key and type "34 Helston Road,", press <ENTER>, press up arrow and again use the <TAB>, space bar and <DEL> key to position the "3" under the "u" in Brunning.

D. Press the down arrow key and type "Chelmsford,", press <ENTER>, up arrow and move to the right using <TAB>, space bar and <DEL> so that "C" is under the gap between "4" and "H".

E. Press the down arrow and type "CM1 5JF", press <ENTER>, up arrow and
   move to the right using <TAB>, space bar and <DEL>.

F. Press down arrow and then <ENTER> to move down. Type "Word Processor
   User," and press <ENTER>.

G. Type "Your Address." and press <ENTER> twice.
H. Type "Dear Sir," and press <ENTER> twice.

I. Now type in the first paragraph as a continuous stream using the
   space bar between words. At the very end press <ENTER> twice. If
   <ENTER> is used part way through the paragraph then the formatting
   routines will treat it as more than one paragraph.

J. Type the second paragraph in the same way, copying the spelling
   errors in the last line, then press <ENTER> three times.

K. Type "Yours sincerely,", press <ENTER> and press up arrow once to
   come back to "Y". Now centre the line by holding the <CTRL> key and
   pressing C.

L. Press down arrow then press <ENTER> 4 or 5 times. Type "Brunning
   Software" and press <CTRL> C to centre the line.

M. The paragraphs as typed in will have a ragged right margin. This can
   be left as it is or justified using either <CTRL> B for one paragraph
   or <CTRL> W for the whole text. Hold the <CTRL> key and press W. The
   entire text will be justified.

N. This letter with its spelling errors will be used for further
   demonstrations so save it to disc as follows. Insert a disc into the
   disc drive. (See bottom of page 8 "Using New Discs").

   Press the <ESC> key. "Escape?" will be displayed at the bottom left
   of the screen. Release the <ESC> key and press S. The current files
   on the disc will be CATalogued then "SAVE...Name?" will be displayed.
   Type LETTER1 and press <ENTER>. "SAVE?...Work or Files+Work" will be
   displayed. Press W and the programme will save the work area onto the
   disc.

9.1. LOADING THE EXAMPLE

All further examples will assume that LETTER1 has been typed exactly as
described in section 11 and saved to a disc.

Before loading, CLEAR the work area. Press <ESC> then press C. "Clear
Work or Files?" will be displayed. Press W. The work area will be
cleared and the main menu displayed. Insert the correct disc in the disc
drive and press L. The disc will be CATalogued then "LOAD...Name?" will
be displayed. Type LETTER1 and press <ENTER>. As the work area is clear
the letter will load directly into the editor.

Before any changes are made the letter can be saved into memory for fast
access. Press <ESC> then press M and "Memory Save-Name?" will be
displayed. To use the current file name LETTER1 press <ENTER> before any
other key. The file will be copied into memory and the directory of
memory files will then be displayed to show that the file has been
saved. Press <ENTER> to return to the editor.

9.2. SPELL CHECK EXAMPLE

This continues from section 9.1 Press <ESC> then X.

As BrunSpell has not yet been loaded, "Insert BRUNSPELL Disc" will be
displayed. Insert the BrunWord disc and press X again. When BrunSpell
has loaded "Insert Dictionary Disc" will be displayed. Press any key.
When the dictionary has loaded, press X.

Our test letter has some deliberate spelling errors. The words will be
flashed onto the screen until SPELK is reached. The checking will stop
and "SAVE, EDIT, HELP, CONT?" will be displayed on the bottom right of
the screen.

Press H to request HELP and BrunSpell will search the dictionary for
similar words, displaying them on the screen. "* * *" will show the
end of the first search and "ESC or CONT?" will be displayed at the
bottom right". Press <ESC> to exit from HELP and the first word in the
HELP list will be displayed immediately above the error. Press the down
arrow key until SPELL is reached then press T for Transfer.

SPELK will automatically be corrected to SPELL and the programme will
return to the editor so that the correction can be seen. Press <ESC>
then X and X again to continue the spelling check.

The next error is "CHECHER". Again press H for HELP and just two words
will be found the first is the correct spelling. Press <ESC> to stop the
search then T for Transfer.

Press <ESC> then X and X again to continue the checking. The next error
is "ERRER". Press H and a list of words will appear on the screen. Press
<ESC> to exit from HELP then use the down arrow key to advance down the
list to the correct word. Press T for Transfer.

Press <ESC>, X and X again to continue the checking and when "Finished"
is displayed, press any key to return to the editor. Hold <CTRL> and
press W to re-justify the text.

The HELP routine always "Pauses" after the first search. Normally, it is
only worth continuing with the second search if the word is very badly
spelt or if the second letter may be wrong.

Now Memory save the corrected version. Press <ESC> then M. Then type
LETTER2 <ENTER>. Press <ENTER> again to return to the text.

9.3. EDITING THE EXAMPLE

Either continue directly from section 9.2 or follow section 9.1 to load
LETTER1 with a copy in the memory file.

Indent Paragraph

The paragraphs in the letter are are not indented and if the space bar
is used to do this they will be removed with <CTRL> B or <CTRL> W. Fixed
spaces must be used to indent a paragraph.

Move the cursor to sit on the "T" in "This" at the start of the first
paragraph and press the <F4> key in the function key pad nine times. The
special character generated is a fixed space. Press <CTRL> B and the
paragraph will justify. When this is printed the <F4> fixed spaced will
be printed as spaces.

Set Main Margins

The margins are preset at switch on to 10 and 70 which are convenient
for letter writing and short pieces of text. These can be set either
from the print menu or while in the editor.

Hold the <CTRL> key and press L. "Left Margin 10" will be displayed.
Type in 5 followed by <ENTER>. Now press <CTRL> R and type 75, <ENTER>.
The margins will now be set to 5 and 75 but the text will need to be
justified. Press <CTRL> W.

The address at the top is now too far to the left. Press the space bar
to move the top line right and the <DEL> key to move it back. Move down
with the down arrow key and correct the rest of the address.

Set Temporary Margins and Centre Paragraph

Move the cursor into the second paragraph and press <CTRL> and V to
unjustify the paragraph. Then press the space bar until the column count
at the bottom of the screen reaches 20. Press <F1> in the function key
pad and the left margin will instantly move in.

Now move the cursor across using the right arrow key until the column
count reaches 60. This is not a convenient position as the cursor is
resting on the end of "pressing". Move right one more space. Press <F2>
and the right margin will instantly move in.

Press <CTRL> B to reformat the paragraph which will also set the cursor
to the start of the paragraph. Press <CLR> several times and the
paragraph block will move left keeping its basic format. Now hold <CTRL>
and press C and the paragraph will automatically centre itself. The
cursor can be anywhere in the paragraph for <CTRL> B or <CTRL> C.

Sometimes it is better to define the format in the preceding blank line,
particularly when exact margins are required. Move the cursor to the
start of the first paragraph and press the up arrow key to move the
cursor to the start of the blank line above. Press the space bar until
the column count reaches 20. Press <F1> then press <F4> until the column
count reaches 60. Press <F2>. The format is set but it has its own
paragraph end marker and so the first paragraph is not affected. Press
<CLR> once or twice to remove the paragraph end marker. Press <CTRL> B.

GET from Memory

The letter is not quite what is wanted after all the editing. Press
<ESC> then press G. The DIRECTORY of memory file will be displayed with
"Get-Name?" at the bottom. As there is a current file in the work area a
warning will be given "FILE IN WORK AREA WILL BE DELETED" .

Type in LETTER1 (or LETTER2 if the errors have been corrected) and press
<ENTER>. The original Letter will be loaded into the editor.

QUICK Move and QUICK Copy

Now the first and second paragraphs will be changed round. Move the
cursor to the start of the first paragraph and press the <F6> key. All
the text from the cursor onwards will turn to inverse video. Move the
cursor to the line between the paragraphs and press <F6> again. The text
from the cursor onwards will turn back to normal video.

Move the cursor to two lines below the second paragraph and press <ESC>
then press Q. "Move/Copy Marked Text?" will be displayed. Press M and
the marked paragraph will move to the cursor position and will still be
marked. <F9> can be used to reset the marked text but leave it for the
next example.

Move the cursor to the start of the other paragraph and press <ESC> then
press Q. Press C and the paragraph will be copied to the cursor
position. It will now be in both positions. Press <F9> to reset the
marked text.

Use of TEAR WEAVE & REMOVE

The same result as QUICK move and QUICK copy can be achieved using the
TEAR, WEAVE and REMOVE commands. Mark the second paragraph again using
the <F6> key as described above. Press <ESC> then press T and
"TEAR-Name?" will be displayed. Type in PARA2 and press <ENTER>. If no
warning is given then the file is saved in memory.

Press <ESC> then R. "REMOVE-Marked Text?" will be displayed. Press Y for
yes and the marked block will be deleted.

Now move the cursor to two lines below the bottom paragraph. Press <ESC>
then W and the DIRECTORY of memory files will be displayed with
"WEAVE-Name?" at the bottom. PARA2 should be one of the files listed.
Type in PARA2, press <ENTER>, and the paragraph will be inserted at the
cursor position.

These examples of moving text have used whole paragraphs but any piece
of the text can be marked and moved in the same way.

Delete/Undelete Word

For moving one or two words the DELETE word and UNDELETE word functions
are very useful. Move the cursor to the space on the left of "show" in
the first paragraph. Hold <CTRL> and press D. "show" will be deleted.
Move the cursor to the space on the left of "demonstration" and use
<CTRL> D again to delete that word. Move the cursor to the space to the
left of "the basic" which is to the right of where "show" was removed.
Hold <CTRL> and press U to return "demonstration" to the new position.

9.4. PRINTING THE EXAMPLE

If continuing from 9.3 above, press <ESC> then G and enter either
LETTER1 or LETTER2. If starting at this section then first load LETTER1
into the work area as explained in section 9.1.

To print the letter press <ESC> then P and the print menu will be
displayed. FOOT 1 and FOOT 2 are shown and are both the same. These are
set to give a simple page number at the bottom of the page.

Switch the printer off and set the paper to the top of the form. Press P
and "Print Single Pages?" will be displayed. If single sheets are being
used then answer Y for yes but normally fan fold paper is used and the
answer is N. "No of Copies?" will be asked, enter 1 followed by <ENTER>.

Switch on the printer and the letter will be printed. At the end of the
letter the paper will be moved up to print the page number two lines
below the "No of Lines" which in this case will be line 60.

The <ESC> key can be pressed at any time to stop the printer.

Now repeat the printing but without the page number. Display the print
menu with <ESC> P. Press H and then N for None. The print menu will now
show no headers/footers. Press P and answer the question as before. This
time the letter will be printed and then end with a form feed.

If a file needs to be printed without the form feed this can only be
done automatically using a group print file.

9.5. SPECIAL FORMATTING EXAMPLE

If you have an Epson compatible printer then you can follow these
instructions to produce some special effects. If your printer uses
different codes to Epson then they must first be redefined (section 6).

A. Press <CTRL> back arrow, to move to the start of the text.
B. Press <F4> on its own. (Forces C & D to be treated as spaces).
C. Press <SHIFT> and <F4> to set emphasised.
D. Press <SHIFT> and <F1> to set enlarged.
E. Type "Headed Note Paper".
F. Press <CTRL> and <F1> to cancel enlarged.
G. Press <CTRL> and <F4> to cancel emphasised.
H. Press <F4> seventeen times (once for each character in the heading).
I. Press <ENTER> twice then up arrow twice to get back to the top line.
J. Press <CTRL> and C to centre the heading
K. Move the cursor to the "d" in demonstration.
L. Press <SHIFT> and <F3> to set underline.
M. Move the cursor to the space after "n" at the end of the word.
N. Press <CTRL> and <F3> to cancel underline.
O. Press <CTRL> W to justify the text.
P. Press <ESC>, P, P, N, 1, <ENTER>.
Q. Switch on the printer and the letter will be printed with an enlarged
   heading and with demonstration underlined.

NOTE:- The formatting routines in BrunWord do not take account of
different character lengths. This can be overcome as illustrated above
by adding fixed spaces to force the correct format. Enlarged characters
are twice as long and so require an equal number of fixed spaces.

DataFile

10.1. INTRODUCTION

DataFile has been written to compliment BrunWord but is more than a simple mail merge programme. It is a completely self contained card filing programme that can select on any number of fields, sort alphabetically, numerically or by date, and print using its own printing routines. When it is coupled with BrunWord, the flexibility in presentation of the data is incredible.

The BrunWord interface uses a form of artificial intelligence enabling the programme to determine the style of addressing according to the data in the record. Business addresses filed under the business name can be mixed with personal addresses and the programme will normally address personal letters "Dear John" while business letters may be "Dear John", "Dear Mr Smith" or "Dear Sir" varying from letter to letter as appropriate.

BrunWord justifies all the paragraphs before printing so that data placed within the text does not upset the appearance and artificial intelligence is also used to construct addresses for letters and labels.

DataFile has many uses. It can be used simply to store names and addresses or for more complex purposes such as a card filing system of customer names, addresses, items purchased, price and date. In all cases the data can be passed to BrunWord for elaborate summaries of the data, reports or personalised addressing.

10.2. LOADING DataFile

Reset the computer by holding <CTRL>, <SHIFT> and <ESC> then type run "DATAFILE". When the programme has loaded the main menu will be displayed with "DataFile" displayed at the bottom left of the screen. Each programme has its own serial number which is displayed at the end of the copyright statement.

10.3. UNDERSTANDING DataFile

The best way to understand the subtleties of DataFile is to quickly read this section and then to work through the examples.

10.4. USING NEW DISCS

Before a new unused disc can be used it must be formatted and this cannot be done from within DataFile. If you are in DataFile save the current files to a formatted disc and then reset the computer with <CTRL>, <SHIFT> and <ESC>. BEWARE — FORMATTING A DISC WILL COMPLETELY ERASE ALL THE DATA.

CPC6128 — Insert Side 1 of your master CPM system disc into the disc drive. Type ¦CPM <ENTER>. Type DISCKIT3 <ENTER>. Press <F4> then press <F6>. Now insert the new disc and press Y. When it is finished turn the disc over and press Y again. Take out the disc and reset the computer.

CPC464 — Insert the CPM disc. Type ¦CPM <ENTER>. Type FORMAT D <ENTER>. Now follow the instruction on the screen to format each side of the disc.

Whenever "DataFile" is displayed at the bottom left of the screen, the
programme is in the command mode. Press the first letter of the keyword
for the required option or press <ESC> to display the main menu.

```
                    L - LOAD from disc
                    S - SAVE  to  disc
         <SHIFT> @ - CAT, DIR, DISC, ERA, TAPE
                    E - EDIT current file
                    N - NEW file
                    R - REUSE current text
                    V - Set up VARIATION of titles
                    C - CLEAR all the files
                    K - KILL current file
                    G - GET next file
                    D - List all files alphabetically (DIRECTORY)
                    Q - List preselected files (QUICK list)
                    U - UNRAVEL files
                    F - FIND files and list alphabetically
                    P - PRINT

                    1 - Set ink yellow, paper dark blue.
                    2 - Set ink white, paper dark blue.
                    3 - Set ink bright cyan, paper dark blue.
                    4 - Set ink sea green, paper dark blue.
                    5 - Set ink dark blue, paper yellow.
                    6 - Set ink dark blue, paper white.

                    B - Go to BrunWord
            <RETURN> - Display the text in the work area
```

```
            left Arrow - Move cursor back one space.
           Right Arrow - Move cursor forward one space.
            Down Arrow - Move cursor to next field.
         <CTRL> <TAB> - Insert/Overwrite
                <CLR> - Delete character at cursor.
                <DEL> - Delete character before cursor.
               <COPY> - Press to save the file
                <ESC> - Press to cancel the change
```

The editor can be entered from the command mode (with "DataFile"
displayed) by pressing N, E or R :-

    N - NEW FILE   The editor is entered and any existing data in the
                    work area is cleared. "New File" will be displayed
                    at the bottom left.

    E - EDIT FILE   The editor will be entered and any data already in
                    the work area will be left intact. If this data is
                    an existing file then "Edit File" will be displayed.
                    If the data has not been saved or the pointer has
                    been reset then "New File" will be displayed.

    R - REUSE DATA This is the same as NEW FILE but the data in the
                    work area is not cleared.

10.7. CREATING A FILE

On entering the editor (see para 10.6), the titles of the fields will be displayed on the left of the screen and any data in the work area will be displayed to the right of the titles. The cursor will be at the start of the first field.

Type in the data for the first field, editing any errors using the left cursor, right cursor, <CLR> and <DEL> keys . When the data is correct press <ENTER>, <RETURN> or down arrow to advance to the start of the next field. It is not necessary for the cursor to be at the end of the line. Type in the data for the next field and press <ENTER>. Continue in this way until all the data is entered. When the cursor is in the last field, pressing <ENTER> will return the cursor to the start of the first field enabling any remaining errors to be corrected.

The <COPY> key is used to save the data but first check that "New File" or "Edit File" is displayed as appropriate. In the case of "New File" the data is copied into the file area. With "Edit File" the original file is deleted and then the new file is saved.

Press <ESC> to exit from the editor without saving the data.

It is important to periodically save the data to disc or tape just in case of a power failure. We recommend doing this every 10 minutes or so.

When a file is first edited then DataFile is in the overwrite mode. Hold <CTRL> and press <TAB> to switch to insert.

10.8. NAME and ADDRESS FORMATS

The BrunWord interface programme relies on collecting certain data to make its decisions on how to address letters and labels. By entering the data according to simple rules it is possible to have implied information about the style of addressing. This avoids the need to enter this as separate data and saves time and memory. The following formats must be used for this to work successfully.

Heading	Private Address	Business Addr 1	Business Addr 2
Surname....	Smith	Bettering Ltd	Copper Ltd
Forename...	John James	Paul	
Title......	Mr	Mr Jones	
Street.....	5 Spring Road	8 London Road	1 Rose court
Town.......	Chesterford	Oakford	London
County.....	Essex	Sussex	
Post Code..	CM7 8PG	SP1 5TJ	SE2

Notice that the business name is in the "Surname" field and that the name of the contact follows after the title. Any data that is not known is left blank and the forename can be replaced with the initials. If a business contact name is given it must have a title.

This enables business names to be filed under the business name and allows the choice of using a contacts name in the address or not.

10.9. FORMATS FOR CORRECT SORTING

Alphabetical — Upper and lower case are treated the same. Numbers come
before letters.

Numerical — Starts with the shortest word or lowest number and ends
with the longest word or biggest number.

Date — MUST be in the format Day,Month,Year (e.g. 31,12,84).

10.10. V — VARIATION

This is used to define new headings for the fields. The procedure is
similar to creating a new file except that the data will be used for the
headings in subsequent displays.

From the command mode (with "DataFile" displayed) press V. Type in the
headings one line at a time leaving lines with no text where a blank line
is required in the display. When all the headings are correct press
<COPY> to change the internal heading or <ESC> to leave unchanged. Each
header MUST NOT be longer than 13 characters including spaces between
words.

It is very important to keep the name and address fields the same as in
the original format. The blank lines can be removed, as these are purely
a display feature, but the order and general arrangement for the name and
address are critical in the operation of the artificial intelligence. The
headings of a file can be changed after the files are created but new
fields can only be added at the bottom.

10.11. D — DIRECTORY

The directory is an alphabetical list of the files with the data
displayed across the screen in a condensed form. Two patterns can be used
to condense the data. Number two can be reset by the user and is saved
with the file. (See section 10.21 page 29).

If there are more than 20 files then "Continue?" will be displayed at the
bottom. Press <ESC> to end or any other key to continue.

10.12. C — CLEAR

Answer "Clear Files?" with Y to clear all the files. Any other key will
cancel the change. Beware, there is no way back.

10.13. K — KILL

If a current file is in the work area then K will bring the response
"KILL File?". Press Y for yes to KILL the file, any other key will cancel
the change. After KILLing a file the data will remain in the work area
and so can be edited or just returned to the files with R for REUSE
followed by <COPY>.

10.14. G — GET

Press G to display the next file in the QUICK list starting at the top.
At the end of the file it will GET a blank screen.

10.15. L - LOAD from Disc

This routine is used to load files from disc (or cassette). The disc is automatically CATalogued and then the file area is checked and if there are current files "CURRENT FILES - Load or Merge?" will be displayed. In this case press L to overwrite the current files or M to merge the new files into the existing files.

The name of the file to load is then requested. Type in the name and press <ENTER>. It is not necessary to type "&".

WARNING:- The programme will attempt to merge files even if they are too big so watch out for the OUT OF MEM warning. The current file will not be lost but may require editing as not all the records from the second file will be present. Always save the current files before merging.

10.16. S - SAVE to Disc

This routine is used to save files to disc (or cassette). The files are not saved in any particular order as DataFile always sorts directly to the screen or printer. Sorting onto disc would take considerably longer and normally this is of no importance. However, the QUICK routine does sort as it saves and can be used to save the whole file in a particular order for special purposes.

On entering the SAVE routine, the disc is CATalogued and then the name of the file to save is requested. Press <ENTER> before any other key to use the current file name or type in a new name followed by <ENTER>. If a new name is typed then the current name will be updated.

FILE NAMES - All DataFile files have a name beginning "&". This is so that BrunWord and DataFile files are easily distinguished. The "&" at the start of the name does not need to be typed.

10.17. <SHIFT> @ - ¦ Functions

Press <SHIFT> @, and "¦" will be displayed.

```
    !CAT       The disc files and file sizes will be displayed.
    !ERA NAME  Type "ERA", then one space, then the file name.  The name
               will be deleted from the disc.
    !TAPE      All subsequent loading and saving uses cassette.
    !DISC      All subsequent loading and saving uses disc.
```

Press <ESC> to return to the command mode.

10.18. Q - QUICK save or list

The QUICK list is the SELection of files that have been invisibly marked using the FIND routine. This list can be saved to disc or listed on the screen in a condensed format in the same way as the DIRECTORY.

Saving the QUICK list can be quite slow, with large files, as the programme must sort as it saves. The disc drive motor may stop several times before the end but the disc MUST NOT be removed.

If no files have been selected with FIND then the quick list contains all the files.

10.19. F - FIND

This will have the appearance of creating a "NEW" file and this is
exactly what happens. The "FIND" file is then compared to all the other
files and any that contain all the information in the correct fields will
be invisibly marked.

If only one file is found then this will be displayed. If more than one
is found then these will be listed alphabetically on the first field.
This list becomes the QUICK list and can be recalled with "Q" provided
that the markers are not reset with FIND or DIRECTORY.

When creating a FIND file, any number of character can be replaced with a
wild card "?". Putting just one "?" in a field will be a request for the
record to have SOME data in that field.

A more advanced use is where one field contains two separate items
(e.g Number, Date). A search can be made on the second item by using
"????..." for the exact length of the first item.

10.20. U - UNRAVEL

Normally the QUICK list will be displayed in alphabetical order on the
first field. The UNRAVEL routine allows this to be arranged
alphabetically, numerically or by date, on any field.

On entering UNRAVEL the files headings are displayed with a "*" in the
first field. Move this "*" to the field that is to be tested using the
down arrow then press A, N, or D for Alphabetical, Numerical or Date.
Press <RETURN> and the QUICK list will be displayed as required. If no
preselection has been performed with FIND then the QUICK list will
contain all the files.

When sorting by date, the programme will search each record for the first
date format, (e.g. 12,8,31) starting at the field set by the "D" and then
sort into date order. This allows each field to have a separate date and
still to be generally sorted by date.

10.21. P - PRINTER FUNCTIONS

The user will be offered the following options:-

```
D - Same as DIRECTORY but sent to the printer as well.
Q - Same as QUICK list but sent to the printer as well.
G - Same as GET but sent to the printer as well.
W - Prints the QUICK list as Whole format.
8 - Sets an Epson compatible printer to 80 characters.
9 - Sets an Epson compatible printer to 96 characters.
1 - sets an Epson compatible printer to 137 characters.
S - Sets an Epson compatible printer to double strike. This enables
    any character length as defined by "8","9" or "1" to also be
    defined as double strike for darker printing.

F - This is used to set format 2. The current file will be displayed
    on the screen. Use the right arrow key and the down arrow key to
    put a number of "+" in each field corresponding to the length of
    the required print format. If any field is not to be printed then
    leave with no "+" in it. Exit is automatic after the last field.
```

10.22. DataFile Example

Load the programme as explained in section 10.2. Press N and the headings
will be displayed with "New File" at the bottom left of the screen. Type
in a surname of "Brown" followed by <ENTER>. Type in "Fred", <ENTER> then
"Mr", <ENTER> then press the <COPY> key. "File Saved" will be displayed
at the bottom.

Press N again and repeat the process to save the following names:-

Brown	Mike	Mr		Browne	Pat	Mrs
Jones	Hubert	Mr		Masters	Mike	Mr
Jones	Fred	Mr		Brown	Peter	Mr
Smith	David	Mr		Sympson	Bob	Mr
Smith	John	Mr		Brown	John	Mr
Gill	David	Mr		Brown	Ian	Mr

Press D then 1 and the files will be listed alphabetically.

Now imagine that we have left the "e" off Brown in the first name typed
in. Firstly press F and "Find File" will be displayed at the bottom while
the rest of the screen will appear as for NEW. Enter "bro" in the surname
field and press <COPY>. DataFile will now list all the files beginning
"Bro" alphabetically, treating upper and lower case the same.

Press G for GET and the first file will be fully displayed with its
headings. Press G again and again until the file that we need to edit is
displayed.

We could now press E for EDIT and make the change but let us try another
FIND before making the change.

Press F and enter surname "Br", <ENTER>, "Fred", <ENTER>, <COPY>.
DataFile will find the correct file first time as there is only one file
with surname beginning "Br" and forename "Fred"

Now press E and "Edit File" will be displayed and the file can be
changed. Use the right arrow key to advance the cursor to the end of
"Brown" and then add the "e". Press <COPY> to update the file.

As another demonstration of FIND press F then press <ENTER> to advance to
the forename field. Type "Fre", <COPY>. DataFile will list the two names
beginning with "Fre" in alphabetical order of surnames.

It is also possible to list the names in alphabetical order of forenames.
First press U for UNRAVEL, Press the down arrow key to move the "*" to
the second field and press A for alphabetical then <RETURN>. The names
will be listed in order of forenames. Press Q, L, 1 and the list will be
repeated. Press D, 1 and the original list will be displayed.

Now try a different print format. Press G to GET files until one of the
longer files is on the screen. Press P to display the print menu then F.
The current file will be displayed and DataFile is ready to accept the
format data. Press the right arrow 10 times and 10 "+" will appear in the
first field. Press <ENTER>, press the right arrow key once to put 1 "+"
in the second field, press <ENTER> and then <COPY> to reset number 2
format. Now press D then 2 to see the new format with just the surname
and initial. Press D then 1 to see the old format again.

11.1. PREPARING FOR DATA MERGE

DataFile Link is a special programme, supplied with DataFile, that
enables BrunWord to accept data directly from files created using
DataFile. The preparation for data merge is very simple but it is
essential to include all the steps. Follow this procedure carefully.

    1. Use DataFile normally to create a file of names, addresses and
       other data and save this to disc or tape. If only some of these
       records are needed for BrunWord then DataFile's FIND routine can
       be used to make the selection. In this case the smaller file
       must also be saved to disc using the QUICK command.

The rule is that before entering BrunWord, a suitable file of names,
addresses and other data must already be saved on a disc or cassette.

    2. Reset the computer and load BrunWord in the normal way. (Any
       data in DataFile will be destroyed). When BrunWord is loaded,
       press <ESC> then *. "Insert DATALINK Disc" will be displayed.
       The link programme is recorded on the BrunWord disc. Press
       <ENTER> to load the link programme.

A link programme is added to BrunWord to enable it to access data
created using DataFile. Most DataFile routines are NOT available. There
is simply not enough memory available for both programmes and data to be
together at the same time.

    3. Use BrunWord to create a file that contains the relevant
       DataFile instruction markers.

When DataFile Link is used, it starts by saving BrunWord's work area as
a memory file. This means that the maximum size of file that is possible
is smaller than normal. This memory file is named "**DataFile Link".

    4. Press <ESC> then * to enter DataFile Link. Options available:-

               P — Print one letter with each set of data
               S — Single step the print process
               J — Justify ON/OFF
               F — Find a file
               T — Transfer data without printing
               G — Get the next file
               R — Reset to start of file
               B — Return to BrunWord

          <ENTER> — Display current data

            <ESC> — Display Menu

DataFile Link can be used with cassette data files but whenever "END OF
FILE" is reached the cassette MUST BE REWOUND.

11.2. USING DataFile LINK

On entering DataFile Link the Link menu is displayed and "DataFile Link" is displayed at the bottom of the screen. DataFile Link cannot operate unless there are either DataFile markers in BrunWord's work area or there is a file named "**DataFile Link" in the memory.

P - Print   The name of the disc or cassette file containing the data is requested. One copy of the BrunWord file is then printed for each separate record in the data file. Firstly, all the relevant data is transferred. Then, if "J ON" is displayed, all paragraphs are justified. Finally, the file is printed just as any other BrunWord file. It is essential that the data disc or cassette is not removed until the process stops or is stopped using the <ESC> key.

S - Single   This follows the same process as PRINT but stops before printing. Press P to Print, <ESC> to stop, or G to GET the next letter without printing.

J - Justify   This toggles Justify ON and OFF.

F - Find   The phrase to find is requested. Enter up to 15 characters and then press <ENTER>. The records in the data file will be loaded one at a time and searched for the phrase. The programme stops if it finds the phrase in any field. If a search was started and not finished then it can be continued by entering FIND again by typing F.

               FIND is most useful to set a starting point for printing.

T - Transfer   This operates the same as PRINT except that it stops after transferring the data and returns to BrunWord.

G - Get   This advances to the next record in the data file and displays the content. Printing can then be started from that point.

R - Reset   Resets the pointer to the start of the data file.

B - BrunWord   Returns to BrunWord. The original file with DataFile markers will normally have been MEMORY saved. In this case it can only be returned to BrunWord's work area with GET <FO> as BrunWord will not accept the name. Any files MEMORY saved after "**DataFile Link" MAY BE DELETED on re-entering the Link programme.

NOTES:-   1. Even after returning to BrunWord the disc file that was opened when running LINK will be left open unless it was closed through reaching the end or by resetting. This allows the process to be restarted at the correct place.

           2. Once a file name has been entered it will be displayed on the left of the screen, near the bottom. It can be entered again by just pressing <ENTER> when "File Name" is requested. Similarly the FIND phrase is displayed on the right and can also be re-entered by just pressing <ENTER>.

11.3. SETTING UP DATAFILE MARKERS

Before anything can happen a BrunWord file must be created with special
markers that   tell DataFile Link what to do. Any group of characters
starting with & is assumed to be a marker and the characters that follow
are instructions to DataFile:-

                    &1 – Insert First field
                    &2 – Insert Second field
                    &3 – Insert Third field
                    etc

                    &A – Insert Address
                    &F – Insert Forename
                    &N – Insert Name

                    &G – Advance to next record
                    &Z – Change to overwrite mode.

These markers can be mixed logically but the programme expects to find a
field number or letter immediately after &G, &Z or &ZG.

        &Z1*********** – Overwrite first field into format

        &ZA***********   Overwrite Address into format
         ****
          ****
           *************   * = FIXED SPACE
            ****
             ****

        &ZGA**********   Advance to next record and
         *************   overwrite address into format
          ****
           *************   * = FIXED SPACE
            ****
             ****

            NOTE: Each "*" shown in the formats above represents a
                  BrunWord fixed space (F4 key).

This may seem rather complicated but it is really very simple. Most
applications will just need insert markers &A and &N to produce
personalised letters but there is just no limit to how far this can be
taken with the "Z" and "G" switches.

Insert markers can be put anywhere in BrunWord's text and need no
special format. Each marker will be deleted and then data from the
correct field will be inserted into the text at the same point.

Overwrite formats MUST be followed by a number of fixed spaces to define
the size of the format. Overwrite address formats MUST be provided with
six sets of fixed spaces, in consecutive lines. The data will be
truncated if necessary to fit the format.

11.4. DataFile LINK EXAMPLE

1. Load DataFile and type in the three addresses listed on page 26 and add the following extra data:-

	Mr Smith	Bettering Ltd	Copper Ltd
Birth Date	23,1,86	1,6,86	28,12,86
Other Data	23.00	48.50	52.45

2. Use the QUICK command to save these to disc or cassette so that they are saved in alphabetical order. Use the name &TEST.

3. Reset the computer and load BrunWord, set the right margin to 64, then type in the following letter

                                        16 Lever Street
                                           Potter
                                           Cambridge

        &A

        Dear &N,

        We are writing to let you know that your membership is
        now due for renewal. Please send £&10 before &9 if you
        wish to continue to receive our magazine.

                    Yours Sincerely,

                    Fast Sale Ltd.

4. Press <ESC> then * then * again to load and enter DataFile Link.

5. The DataFile Link menu will appear. Type P, enter the name &TEST, and switch on the printer. Three letters will be printed as follows:-

                                        16 Lever Street
                                           Potter
                                           Cambridge

        Mr P Jones,
        Bettering Ltd,
        8 London Road,
        Oakford,
        Sussex,
        SP1 5TJ.

        Dear Mr Jones

        We are writing to let you know that your membership is
        now due for renewal. Please send £48.50 before 1,6,86
        if you wish to continue to receive our magazine.

                    Yours Sincerely,

                    Fast Sale Ltd.

16 Lever Street
                                           Potter
                                          Cambridge

Copper Ltd,
1 Rose Court,
London,
SE2.

Dear Sir,

We are writing to let you know that your membership is
now due for renewal. Please send £52.45 before
28,12,86 if you wish to continue to receive our
magazine.

                    Yours Sincerely,

                    Fast Sale Ltd.

                                        16 Lever Street
                                           Potter
                                          Cambridge

Mr J J Smith,
5 Spring Road,
Chesterford,
Essex,
CM7 8PG.

Dear Mr Smith,

We are writing to let you know that your membership is
now due for renewal. Please send £23.00 before 23,1,86
if you wish to continue to receive our magazine.

                    Yours Sincerely,

                    Fast Sale Ltd.

NOTES:- A. DataFile Link automatically places commas after the address
           lines and a full stop at the end.

        B. The text is expanded by one line for each of the address
           lines.

        C. As Copper Ltd has no contact name, the programme replaces &N
           with "Dear Sir" but uses only the company name in the
           address.

6. At the end of the printing, END OF FILE will be displayed. Press any key then B to return to BrunWord. Type in the next example but first clear the work area with <ESC>, C, W.

7. Type in the following format using the <F4> key wherever * is shown. All DataFile Markers must be numbers or capital letters. Take note that the last line has a G after the Z.

```
&ZA************      &ZA*************            &ZA***
***************      **************              ******
***************      ***************             ******
***************      ***************             ******
***************      ***************             ******
***************      ****************            ******

 Name           Forename    Address      Fee    Date

&Z1************ &Z2** &Z3 &Z4************ &Z10* &Z9*****
&ZG1*********** &Z2** &Z3 &Z4*********** &Z10* &Z9*****
```

8. Press <ESC> then * to enter DataFile Link. Type P, then enter the name &TEST and switch on the printer. Two pages will be printed as follows:-

```
Mr J J Smith,        Mr J J Smith,                Mr J J
5 Spring Road,        5 Spring Road,              5 Spri
Chesterford,          Chesterford,                Cheste
Essex,                  Essex                     Essex
CM7 8PG                 CM7 8PG                    CM7 8P


 Name           Forename    Address      Fee    Date

Smith           John   Mr  5 Spring Road 23.00  23,1,86
Bettering Ltd   Paul   Mr  8 London Road 48.50  1,6,86




Copper Ltd,          Copper Ltd,                 Copper
1 Rose Court,         1 Rose Court,               1 Rose
London,                London                     London
SE2.                   SE2.                       SE2


 Name           Forename    Address      Fee    Date

Copper Ltd                 1 Rose Court  52.45  28,12,86
```
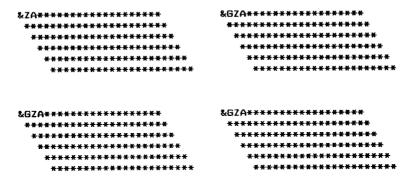
(Note that the last line is missing as there is no more data)

11.5. PRINTING LABELS

DataFile Link can use BrunWord to produce an unlimited number of formats. A typical layout is shown below.

```
&ZA*********************         &GZA********************
  ********************           ********************
   ********************          ********************
    *********************        ********************
     *********************       ********************
      *********************      ********************


&GZA********************         &GZA********************
  ********************           ********************
   ********************          ********************
    *********************        ********************
     *********************       *********************
      *********************      *********************
```

Either, construct a complete page of formats to suit the type of labels being used or make a small pattern and set the "No of Lines" and the "Form Length" to repeat this over the page. Take note that all except the first pattern contain a G to advance to the next record. Use an <F4> fixed space where * is shown.

11.7. EXAMPLE FROM DISC

Disc versions have a selection of useful formats and an example file recorded on the disc. The example is a list of names, addresses, telephone numbers, birth dates and a record of Christmas cards received and sent. This example will show how to use the formats with the data to produce printed addresses for Christmas cards and a data summary.

USING THE ADDRESS FILE
Load DataFile then load the file named &XMAS. This file contains 45 fictitious names and addresses and has the headings preset for Christmas card data. Press D then press 1. The names and addresses will be listed in alphabetical order. Press any key to page through the file.

Press D then press 2 to display format 2. This has been set to display the names telephone numbers and the Christmas card data. The notation used is S for sent and R for received. Where R is used without S then -R is used to preserve the format. Use any key to page through the file.

Press G and the first file will be displayed in full format. Most of the information for the Christmas cards is in the header as this is only saved once with each disc file and so saves memory. Press G again and again to look through the file in full format.

You can use the same format to store your own list. Press C for clear and answer "Clear File?" with Y. This will clear all the files but leave the heading unchanged. Choose a different name for your own list!

SELECTING CHRISTMAS CARD ADDRESSES
Let's assume that cards will only be sent to people who sent one to us
last year (1986). Names that have been added since last Christmas will
already be marked with S in 1987 if a card is to be sent. (This must be
decided when the name is typed in).

Press F and the headings will be displayed. Move the cursor down to the
1986 line and type ?R then press <COPY>. The programme will mark all
files containing R in 1986 and display 20 of these to the screen. Press
any key to page through the names selected.

Each file must now be marked to show that a 1987 card is sent. Press G
to GET the first record from the QUICK list. Press E to Edit the record.
Move the cursor down to the 1987 field and type S, <COPY>. "Replaced"
will be displayed at the bottom to show that the file has been updated.

Press G and the same file will be taken from the memory. Press G again
to GET the next file. Press E and again add S to the 1987 data field and
press <COPY> to update the file. Continue in this way until all files
have been updated. Before doing anything further, SAVE the whole file to
your own disc using the same name as before. To do this press S for
SAVE. When the disc directory is displayed just press <ENTER>.

All the names to send cards to will now be marked with S in 1987. These
must be selected and saved in a separate file. Press F and move the
cursor to the 1987 field. Type S then press <COPY>. The first 20 files
selected will be displayed to the screen. Press any key to continue.

The selection can now be saved to the disc using the QUICK command. (If
SAVE is used then all the files will be saved). Press Q, then S, then
type the file name as &1987.

PRINTING FAN FOLD LABELS
Reset the computer and load BrunWord then load LABEL1 into BrunWord's
work area. LABEL1 is a BrunWord file recorded on the BrunWord disc for
printing to fan fold labels two across. Load the printer with suitable
labels. Press <ESC> then * and * again to load and enter DataFile Link.

Insert your data disc. Press J to turn justify OFF. Press P and type in
the name &1987 then press <ENTER>. All the addresses saved will be
automatically printed to the labels.

PRINTING ONTO ENVELOPES
Load LABEL2 into BrunWord's work area and press <ESC> then * to enter
DataFile Link. Press J to turn justify OFF. Press S and enter the name
as &1987 then press <ENTER>.

The programme will transfer the first address into the format and stop.
Load the printer with an envelope for that address then press P. The
name and address will be printed and then the next one transferred into
the format. Load the next envelope into the printer and press P.
Continue in this way until all the envelopes are printed.

PRINTING DATA SUMMARY USING BRUNWORD
Load FORMAT into BrunWords work area. Press <ESC> then * to enter
DataFile Link. Load the printer with ordinary fan fold paper. Press P
and enter the name &XMAS. The whole list of names will be printed using
the special format.

12.1. INTRODUCTION

BrunWord has provision to load various OPTIONs using <ESC> O (letter O
NOT number zero). Disc Extension is the first of these to be available
and is only recorded on the disc if it is purchased as an extra.

12.2. LOADING DISC EXTENSION

BrunWord must first be loaded as Disc Extension will not run on its own.
From BrunWord press <ESC> then O, and enter the name as DISC. Once
loaded DISC is available from BrunWord, in place of BrunSpell, by
pressing <ESC> then X.

12.3. F - FORMAT DISC

With Disc Extension loaded, it is possible to format a disc while in the
middle of typing text into BrunWord. Press <ESC> then X to enter Disc
Extension then press F for Format. Normally discs should be formatted to
DATA format but can be formatted to SYSTEM format if required by
pressing S. Insert a blank disc into Drive A and press <ENTER>.

Before formatting, the programme tests the disc for data and stops with
a warning if it is already formatted. Press <ENTER> to ignore the
warning or <ESC> to abort with no damage to the data on the disc.

12.4. E - EDIT DISC DIRECTORY

Insert a DATA or SYSTEM disc into drive A and press <ENTER>. All 64
entries of the directory will be displayed:-

<USER No> <NAME> <*> <DIR/SYS> <¹> <FILE SIZE>

An * after the name will show that the file is WRITE PROTECTED and a
number ¹ after DIR or SYS will indicate that it is part 2 of the file.

When a directory is first displayed, the long cursor will be in the top
left hand corner of the box at the first name. Use the cursor keys to
move the long cursor to the required file.

    E toggles Erase on and off (shown by the e in place of the user
      number on the left of the name).
    D toggles between DIRectory and SYStem. SYStem files are not
      displayed when the disc is CATalogued.
    R Rename a file.
    * toggles the write protection on and off.
    N set a new User Number.
    S Save the updated directory back to the disc. If this is not done
      then the changes will be cancelled.

If a file is more than 16K long then it is stored as two (or more)
entries and any changes need to be done to both (all) entries. If the
file is shown as 16K then look for another file with the same name
followed by ¹.

Warning - use this section with care. You have more power than you may
          realise. Do not make ANY changes to the BrunWord disc.

12.4. C - COPY DISC to DISC

This routine is intended for making backup copies of your own programme or text discs but will copy any disc with DATA or SYSTEM formats. If used on a 464 or 664 machine, then all text in BrunWord will be lost. On 6128 machines, the extra memory is used and BrunWord text will be safe.

12.5. D - ARCHIVE DISC to TAPE

Use this to save any of your little used discs onto tape for permanent low cost storage. Each side of the disc takes 14 minutes to save. This means that C30 is the minimum size cassette that can be used and this will store one side of the disc to each side of the cassette. A C60 will store a whole disc to one side but is much less convenient than C30.

Insert the disc into drive A, press enter and the disc will be CATalogued. Think of a name up to 15 character that describes the content and type this in followed by <ENTER>. Wind the tape to the end of the leader (MOST IMPORTANT!) and insert in the cassette recorder. Press <ENTER> and the disc will be automatically copied, one track at a time, onto the tape

12.6. T - RETRIEVE TAPE to DISC

This will copy a cassette saved by the ARCHIVE routine, back onto disc. Insert a cassette and press <ENTER> and about 10 seconds later the content of the cassette will be shown in a similar form to a disc CATalogue.

Insert a disc into drive A and press <ENTER>. You will be warned if the disc contains data and the CATalogue of the disc will be displayed. Press <ENTER> to ignore the warning or <ESC> to abort.

The retrieval will take 14 minutes and will completely erase any data that was already on the disc.

12.7. V - VERIFY TAPE/DISC

This routine tests any ARCHIVE tape against any disc and displays a continuous count of all the bytes that are different. It can be used to verify that the recording was made successfully or to count the number of changes between an archive tape and any disc.