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IMPORTANT NOTES:-

The INTERWORD chip is not just a normal ROM. The device supplied is a hybrid 32k chip. However as far as the user is concerned, it should be treated as a standard chip, fitting into any normal ROM socket. If the chip will not operate on a none standard ROM extension board, put it in one of the sockets on the main computer board.

The small carrier board underneath the chip is an integral part of the device. The chip must never be removed from its carrier. Re-insertion of the chip is not possible, and the ROM without the carrier cannot function. The integral chip carrier has strong steel pins.

NOTE that one of these pins is deliberately removed during manufacture. Please do not mistakenly send it back as damaged.
This document assumes that the INTERWORD chip is installed and is functioning correctly. Refer to the fitting instructions if this is not the case.

SECOND PROCESSORS:-

INTERWORD does not use the 2nd processor. The reasons for this are twofold. Firstly, INTER-WORD is 32k long and 'ACORN' made no provision for 32k languages on the 2nd processor. Secondly, even if INTER-WORD could be transferred to the 2nd processor, there would be less work space than on a standard machine because of INTER WORD's size; so, because there would be no advantage in using the 2nd processor, the message 'Turn 2nd processor off' is issued when attempting to do so.

1. INTRODUCTION

ABOUT INTER-WORD

INTER-WORD is part of the ROM-LINK range of integrated programs. The ROM-LINK system offers 2 main advantages over conventional programs. Firstly it allows data to be transferred simply and quickly between any ROM-LINK compatible programs; secondly it allows each ROM-LINK compatible program to have more than one set of data associated with it. In this particular case this means that INTER-WORD can support more than one document in memory.

In fact the ROM-LINK system supports up to 16 packages of data, so that it is theoretically possible to have up to 16 separate documents under INTER-WORD control. INTER-WORD is the successor to WORDWISE and WORDWISE-PLUS. The main advantage over it's predecessors is that it allows editing in 80 columns, it continually re-formats the text as it is entered and edited showing it at all times, just as it would appear if printed.

INTER-WORD allows not only 80 columns, but also 40,56 and 106 columns. All of the major features can be operated from simple menus. This allows a newcomer to INTER-WORD to make use of more features sooner than if they had to be learned and remembered.

The quick reference card shows the contents of the menus so that the required facility can be loaded quickly. The function key strip positioned above the function keys acts as a constant reminder of the uses of the keys. Together these facilities allow the use of INTER-WORD with the minimum of learning, but at the same time provide the maximum facilities.

Example Disc:-

A disc containing example text files is available direct from Computer Concepts when ordering, please specify the disc format required the cost is 4.95 including VAT and postage within the U.K.

Technical Enquiries:-

When writing technical enquiries to Computer Concepts please ensure that you quote your registration number (printed inside the front cover of this manual). Be as brief as possible, but please include all the relevant information e.g.

>   The type of BBC Micro
>   Any hardware add-on's
>   What other ROMS are fitted

The version No. of INTER-WORD in use (found by typing *HELP<RETURN> from the main menu.)

2. Starting from Scratch

The simplest way to start the INTER-WORD program is to type * IWORD<RETURN> provided that no other star commands conflict. This can be abbreviated to *IW.<RETURN>. This presents the user with the main menu which will be familiar to users of WORDWISE or ROM-LINK programs.

Each INTER-WORD package is numbered in the range 0 to 15 in order to differentiate one from the other. The *IW. command will, by default, refer to package 0 i.e. IW.0. To initiate or re-select another package, the package number should be given.

For instance INTER-WORD package 2 is selected by the command

*IW.2<RETURN>.

Quite often only one INTER-WORD package is used at any one time in which case, omitting the number will always refer to package zero. The package number is always shown on the main menu following the INTER-WORD title. When the package is created i.e. accessed for the first time the computer will 'beep'. This indicates that the package did not previously exist in memory.

ROM-LINK programs are integrated to a very high degree; they each allow the others to have data in memory and will never corrupt it. Beware though; entering any program which is not ROM-LINK compatible is likely to corrupt any or all of the packages in the memory. Ensure that all data in memory is SAVEd before entering BASIC or other ROMs which are not part of the ROM-LINK family.

It is frequently necessary to enter INTER-WORD and load an existing file. Instead of performing these two operations separately, they may be combined as a short-cut. INTER-WORD may be started by entering

*IW.<n><filename><RETURN>

which will start document number <n> and attempt to load the text file indicated by <filename>. The document number <n> is optional and if omitted, will assume document zero as usual. The short-cut command to enter IWORD 0 and load the file INTRO is therefore

*IW.INTRO<RETURN>

If a filename is specified after The '*IW.' command and the file is not found INTER-WORD is ended without a file being loaded.

3. Entering & Editing Text

The Main Menu.

On entry to INTER-WORD the main menu is displayed. Eight numbered options are shown the majority of which are concerned with the saving, loading and printing of documents. The last menu option 'Edit Text' is selected by pressing the ESCAPE key. The numbered options will be described later; they are only useful once text has been entered.

ESCAPE selects Edit mode in which any entry and editing of text is performed. Pressing ESCAPE again will return to the main menu. Repeated presses will simply switch alternately between menu and edit mode.

EDIT MODE

When reading this manual with the computer at hand, it will help to type some words at this stage. If mistakes occur, just ignore them until the methods of correction are introduced.

As text is being typed, it is stored in the computer's memory one character at a time and it can be extended and chopped and changed in a variety of ways, until the writer is satisfied with the result. However long the piece, the final result should be perfect.

INTER-WORD tries to show on the edit mode screen an accurate representation of the printed document

e.g. If a line of text is to be centered, it will appear centered on the screen. INTER-WORD also shows on screen emboldened and underlined text and indicates exactly where the page boundaries are. When the edit mode is first entered it displays text on an 80 column screen (screen mode) 80 columns per line. Obviously INTER-WORD cannot dictate that all text will be printed at 80 columns per line and therefore it must be possible to alter the position of both left and right margins of the text. These margins are controlled by 'rulers'. The ruler shows the margins and tabulation stops for the text beneath it.

As text is entered INTER-WORD continually re-formats the screen so that the text always fits between the current margins. This means that there is no need to press RETURN at the end of every line as is necessary on a typewriter.

If the length of a word being typed spills over the end of the current line the whole word is transferred to the start of the next line, this prevents the word being split across lines. Similarly if a word at the beginning of a line is reduced in length sufficiently for it to fit on the previous line, it will be moved up. INTER-WORD normally splits the document into pages.

It always completes a partially complete page with blank lines. The top and bottom limits of pages are indicated by a solid line across the screen. It is normal practice to leave a gap of a few lines at the top and bottom of every page, so the first line of text will appear several lines down the page from the page top. INTER-WORD will automatically leave an appropriate gap at the top and bottom of every page although their size can be altered as described below.

The layout of a page has several aspects. The terminology used to describe page layout is generally very simple. The lines usually left blank at the top and bottom of the page are known as 'Top space' and 'Bottom space' respectively. The text starts on the first line after the 'Top space' and finishes one line prior to the 'Bottom space'. Within the 'Top space' it is possible to have a 'Heading' line of text. Once a 'Heading' is defined INTER-WORD automatically prints it on every page. Similarly, a line of text called the 'Footing line' can be placed in the 'Bottom space'.

It is frequently the case that the page number is required at the bottom of each page INTER-WORD puts the word Page with the correct page number, centered on the bottom line. The position of the 'Heading' or 'Footing' within the top or bottom space is fully controllable as described later.

As text is typed, it automatically scrolls up after each line so that the cursor always remains on the center line of the screen. When the cursor nears the bottom of the page, the page break line will come on to the bottom of the page. Eventually as more text is entered the cursor will reach the bottom space. As it does so, a new page is created and the cursor is moved on to it.

INTER-WORD always works with complete pages. If text finishes halfway down a page, the rest of the page is shown on the edit screen as a cross-hatched area. This area simply prints as blank lines. The cross-hatched area is the most striking feature immediately visible when entering edit mode for the first time.

Because it is not possible to type directly in the top or bottom space INTER-WORD must skip over them when moving from one page to another. The effect can be quite surprising at first, but it takes little getting used to.
The advantage is that page breaks can be completely ignored while typing in, much the same as line ends are ignored. In this way INTER-WORD maintains an accurate screen representation of the page at all times.

CURSOR MOVEMENT:-

Once text has been entered, it is quite simple to move the cursor to any position in the text by using the cursor keys. When moving up and down the cursor always remains on the centre line of the screen whilst the text moves under the cursor. Experience shows that it is very much easier for the eye to find the cursor on the screen if it remains on the centre line. The cursor keys when used on their own, move the cursor one line up or down and one character left or right. Wherever the cursor is positioned text will be inserted at that point, automatically pushing any text after the cursor, to the right.

Because INTER-WORD is continually re-formatting, this text is not pushed off the right of the screen but is fitted in within the current margins.

Moving within a few lines or characters one at a time is quite useful but far too slow for moving long distances. Holding down the CTRL key whilst using cursor keys will move the cursor over larger distances; holding down the SHIFT key whilst using the cursor keys will move the cursor to the maximum position in any direction. A summary of cursor movements is shown below.

```
Cursor  left        Move 1 character left
  "     right         "  1    "       right
  "     up            "  up 1 line
  "     down          "  down 1 line
 CTRL   left          "  left 1 word
  "     right         "  right 1 word
  "     up            "  up 1 screenful
  "     down          "  down 1 screenful
 SHIFT  left          "  to start of line
  "     right         "  "  end of line
  "     up            "  "  top of text
  "     down          "  "  end of text
```

Two additional functions have been provided for use with paged text CTRL P will move the cursor to the same relative position on the previous page; CTRL N will move to the same relative position on the next page. Pressing CTRL^ will move the cursor to the current ruler i.e. the first ruler above the current cursor position.

Delete Facilities:-

The standard key for deleting the character to the left of the cursor DELETE, retains its usual function. It works very quickly, especially if the key is set to repeat quickly.(see preferences)

Because INTER-WORD is continually re-formatting the text, any gap created by deleting is immediately filled. This applies equally to any of the deleting operations. If any delete operation is repeated quickly

e.g. holding down the DELETE key, the screen display may not be able to keep up; pausing for a moment will let the display catch up, and show the true state of the text.

In WORDWISE, the forerunner of INTER-WORD CTRL A was used to delete one character at a time, at the cursor. For compatibility, this remains but, as an easier option, the COPY key also deletes the character at the cursor. Holding down the COPY key so that it repeats, has the effect of deleting characters to the right, therefore the 2 adjacent keys DELETE & COPY form a logical pair for deleting left or right.

Pressing CTRL D will delete the word at the cursor; it operates quickly and so can be held down to delete several words to the right. To delete one or more complete lines, it is easier to use CTRL L which will delete the whole line under the cursor.

It is not expected that the novice user of INTER-WORD will either need or remember these last 2 functions. However experienced users will find them time-saving.

To summarize, the delete keys are:-

DELETE- Delete 1 character to the left
COPY - Delete 1 character AT the cursor
CTRL A- same as COPY
CTRL D- Delete 1 word AT the cursor
CTRL L- Delete whole line at cursor

Deleting a ruler:-

Whilst the cursor is positioned on a ruler, CTRL L will delete the ruler completely.

NOTE that the ruler at the TOP of the text, cannot be deleted.

Deleting embedded commands:-

The embedded command menu itself has an option to delete the embedded command at the cursor. When either of the embedded commands 'force new page' or 'conditional page' are in the text, a cross-hatched area will be shown. If a new page is forced, these embedded commands can be deleted just by moving to any position in the cross-hatched area and pressing CTRL L.

NOTE:- Whenever a 'ruler', 'force new page' or 'conditional page' embedded command is inserted, a carriage return character is also inserted to ensure that it starts on a new line. This RETURN is an integral part of the embedded command and cannot be deleted on its own. If the ruler, or the page command are subsequently deleted, the RETURN is deleted at the same time automatically.

Deleting ALL text:-

There are several ways to delete all text depending upon exactly what is required.

Whilst in 'edit mode' pressing CTRL X will mark the entire text. Subsequently pressing f8 will delete the marked section (i.e. all the text). If the amount of text is more that 255 characters in size, the user will be prompted to confirm the deletion, as is usual for large amounts of text.

This method of deletion will NOT delete any heading or footing definitions and will not alter any of the current menu settings. This may be an advantage or a disadvantage in different circumstances. If the requirement is to completely delete text and re-set menu options to their defaults in the current package the :CANCEL command should be used. From the main menu, type the command

:CANCEL<RETURN>

which will prompt for confirmation. Confirm the action by pressing the 'Y' key, which will leave the cursor after the asterisk prompt. At this point simply type the *IW.<n> command to re-enter the same package. This method deletes everything with regard to the current package.

Using the :KILL command from the menu following the same procedure as for :CANCEL command has the most devastating action. This will delete all packages currently in memory, whether they are INTER-WORD or other ROM-LINK packages.

Obviously this command should be used with caution.

Upper/Lower case change:-

Pressing CTRL S, will swap the case of the character AT the cursor. It may also be held down so that it's action repeats, changing a whole series of characters.

4. RULERS

INTER-WORD uses rulers to control the format of the text specifically, they control:-

      LEFT MARGIN
      RIGHT MARGIN
      RETURN MARGIN
      TABS

A ruler occupies 2 screen lines. The first line shows the left margin, all the TAB positions and the right margin. The second line is marked in a manner similar to a standard measuring ruler; small marks representing character position and larger marks indicating every tenth character position.

The 'return margin' is also shown on the second line of the ruler.

A ruler defines the format of following text; it has no effect on any preceding text. They can be inserted in the text wherever a different format is required.

The default ruler, automatically inserted at the top of each new document, has left and right margins of 5 characters each, leaving 70 characters for text.

The settings for the default ruler or any further rulers inserted, are very easy to change. Any of the markers for margins or TABS can be dragged from their current position to a new position. In addition, new TAB markers can be inserted, or existing ones deleted.

To 'drag' one of the margins, it is necessary first to move the cursor on to the corresponding margin indicator. While holding down SHIFT move the cursor left or right with the appropriate cursor key. The TAB marked will be dragged in the same manner.

A Return margin:-

As mentioned above the RETURN key does not have to be pressed at the end of every line, except when introducing a break in the text such as a new paragraph. It is standard practice to press the RETURN key twice to start a new paragraph.

Quite often, depending upon personal style, the first line of a new paragraph is indented a few spaces. This is where the return margin is useful. The start position of the first line after a RETURN is not controlled by the left margin on the ruler, but by the 'return margin'.

By dragging the return margin, say 5 characters, further to the right than the left margin, all paragraphs will automatically start with an indented line.

In a similar manner, it is possible to obtain what is often referred to as a 'hanging indent'. This term describes the text layout in which all lines except the first in a group, are indented; this is achieved by dragging the 'return margin' to the left of the left margin.

Hanging indents are quite useful when numbering paragraphs with the number protruding to the left of the main body of text.

TABULATION:-

When the TAB key is pressed, a special code is put into the text and the cursor is moved along the line to the next position indicated on the ruler. There are 8 TAB positions marked on the default ruler (one every 10 characters). A TAB position may be 'dragged' just like the margins.

The TAB key is used mainly when laying out tables, or data, or lining up columns of numbers.

A TAB character in the text or the TAB marker on a ruler, can be deleted just like any other character by pressing DELETE or COPY.

Visible Codes:-

When either the TAB or RETURN key is pressed it does not cause a character to be displayed on the screen in the same way as say the 'A' key for example. Usually the keys have an obvious effect; however it is sometimes useful to be able to see exactly where they were entered.

INTER-WORD has the ability to represent the TAB and RETURN codes on the screen with special characters. The option to display them can be selected from the preference menu.

Changing rulers:-

Any change made to the margins or TABS on a ruler will cause all following text to be immediately re-formatted to the new setting. There are one or two small points to remember about the margins.
Left & Right margins can only be moved to within 10 characters of each other as a line length less than 10 is not really useful.

For a similar reason it is not possible to move the 'return margin' to within less than 10 spaces of the right margin.

When the left margin is dragged into the page to the right, it can move only 10 positions, leaving them where they are. This enables 'hanging indents' to have TABS within the 'hanging' portion.

When the right margin is moved into the centre, it covers up all TABS beyond the right margin. These are uncovered if the margin is moved back again.

Remember that a ruler controls the format of all text that follows it up to the end of the text or the next ruler. When reference is made to 'the current ruler' it means the ruler which is affecting the text at the current cursor position. This is always the first ruler above the current position.

The right margin indicator appears to be one position past the end of the line. However, this is in fact correct because it is above the space which always occurs at the end of every line.

Inserting new Rulers:-

Whenever a section of text must be formatted in a different way to that which precedes it, a new ruler must be inserted. This is done by pressing function key f2.

A new ruler is always inserted before the start of a current line, never in the middle. The new ruler inserted is always a copy of the one at the very top of the text. The inserted ruler may then be altered, affecting the format of the following text, without altering text above it.

If one particular ruler regularly needs to be inserted into the text then simply ensure that that is the one at the top of the text. In effect the user defines a default ruler at the start of the text, to be copied whenever f2 is used.

When it comes to printing the text, the rulers are not printed on the paper, only their effect can be seen.

NOTE:- If there is no ruler visible at the top of the text, rulers inserted will be copies of a default ruler.

There are several ways in which a ruler may be deleted but probably the simplest way is to move on to it and press CTRL L (delete line).

The ruler may also be marked and then moved or copied, just like any other text.

5. The Use of Menus in General

There are 10 menus available during 'edit mode'. Each of these is described in the following sections. Menus are a simply way of giving commands to INTER-WORD instead of having to remember command-words as is necessary on most word processors.

The menus show lists of possible commands or settings.

Pressing the function key f0 alone, brings up the status menu described in the following section. This menu not only shows status information but also lists all other menus and allows the user choose to one.

The status menu can therefore, be seen as the top level menu giving access to all the others.

When first starting to use INTER-WORD f0 is the key to just about everything.

The problem with accessing menus from the status menu is that it takes several key presses to reach the one required. Once experience is gained, it is often better to remember the order of the menus and access them directly.

Holding down the CTRL key and pressing one of the function keys will bring up one of the particular menus. The menus are numbered as follows:-

0-Status
1-Preferences
2-Marked sections
3-Search & Replace
4-Page Layout
5-Printer Set-up
6-Control Codes
7-Multi-file
8-Spell Check
9-ROM-LINK menu

With reference to the list above, pressing CTRL/f1 would select the 'Preferences' menu. This method can be used to access any of the menus directly.

Changing Options:-

Menus consist of a list of options. Some of these options have nothing following. Some have numbers following and some have one choice from a set of fixed alternatives such as 'On' or 'Off'. The cursor up and down keys may be used to highlight any one of the option names prior to changing the setting parameter. Where no alternative settings are available, the option is selected simply by pressing RETURN.

Where a numeric range is possible either a number key may be typed, or cursor right or cursor left can be used to increase or decrease the number. One choice from set alternatives is made also by pressing cursor left or right keys to cycle through the possible settings.

RETURN or moving off of the highlight to select the setting shown.

Word Input:-

Some option names require a string of characters as their setting. The 'Search & Replace' menu is one such example. The string of characters may be edited quite simply rather than having to re-type a completely new string.

Cursor left & right keys move along the characters displayed, subsequent characters being inserted at the cursor position. The usual DELETE, COPY and CTRL A keys operate on strings to delete characters to the left or right of the cursor.

Acceptable range checking:-

Values changed via cursor keys are kept within an acceptable range automatically. When a value exceeds the acceptable maximum, it changes to the minimum, and vice versa. When values are typed and they are unacceptable, an acceptable value is inserted upon moving to another option.

Option settings are never permitted to have unacceptable values at any time.

Exit from menus:-

On menus which require selection of one item from many exit is automatic upon selection by pressing RETURN. The normal way to exit from a menu is by pressing the ESCAPE key. On the whole, any key which is not expected as input will exit the menu. Pressing the RETURN key when not on an option selected in this way i.e. one which has a number or option following it, will simple move the highlight on as if the cursor down key had been pressed.

Return to previous menu:-

When one menu is selected from another, SHIFT/cursor up will return to the previous menu.

e.g. When the Preferences menu has been accessed from the Status menu, pressing SHIFT/cursor up will return to the status menu. When one menu overlays another, the menu beneath it is shaded to hide it's options.

6. STATUS

The status menu is displayed simply by pressing the function key f0. In addition to showing status information about the current package, this menu allows any of 9 further menus to be selected.

Status information:-

The status information is very straight forward and requires little explanation. None of the status items listed can be altered directly on the menu by the user.

Bytes Free:-

This is the number of bytes remaining free to INTER-WORD, effectively the number of characters which may be entered. The number will be seen to have decreased when the text has been entered.

On a standard Model B without 'shadow' RAM this figure is most dramatically affected by the screen mode selected.

Bytes Used:-

This is the number of bytes of text which is being used in the content of the word package. This is not necessarily a text character count since it includes bytes used by embedded commands and rulers.

The number is always greater than zero even before any text has been entered because the ruler occupies a few bytes at the start.

Word Count:-

The word count indicates the number of words in the current text and is updated whenever displayed. In order to count the words in a specific area it is a simple matter to export the area to an empty INTER-WORD package and look at it's word count.

Current Page:-

This indicates the number of the page on which the cursor is currently positioned.

Current Line:-

This indicates the line within the current page on which the cursor is currently situated.

Markers Set:-

Markers are used to define a block of text for a subsequent operation. The message on the status menu, may be any one of 3 possibilities

No Marker
1 Marker Set
2 Markers Set

The simplest way to delete any markers which may be set anywhere in the text is to press CTRL/R.

Filename:-

This indicates the filename of the text being edited. This is set to the latest filename used for a SAVE or LOAD operation performed by menu options 1 or 2.

Multi-File:-

This option may be set to either 'On' or 'Off'. The default system is to have Multi-file off. When it is on, text in memory is just one part of a large document spread over many files.

Refer to the section on Multi-File use for further information.

Other Menus:-

The lower half of the 'status' menu contains a list of other menus which may be selected from this point. The list is numbered, and one item is highlighted in a black bar. There are several ways in which one of the sub-menus can be selected so that the user may choose whichever is most convenient.

Pressing The RETURN key will select the menu which is currently highlighted. The cursor keys, up & down, move the highlight up or down the list prior to pressing RETURN to select.

As an alternative method, pressing either the function keys or the numeric keys, will immediately select the menu so numbered in the list.

e.g. whilst editing the text, the Search & Replace menu may be selected. Press f0 (status menu)

Either press 'cursor down' twice to highlight the option and press RETURN or press f3 or 3 to select the option by its number.

7. PREFERENCES

When using systems in which features are fixed, one or more will often prove to be an irritation. INTER-WORD allows the users to set their individual preferences:

Selectable items include:-
Screen colour
Key repeat rate
Screen mode

Columns on screen:-

Four possible character densities are possible on the screen display, 40,53,80 and 106 per line i.e. columns per screen.

BBC Model B without 'shadow' memory uses memory for displaying the screen which could otherwise be used to store text. The addition of 'shadow' RAM, as is standard on the B+ and MASTER, alleviates the problem. Without 'shadow' RAM, the text capacity is dramatically reduced. The memory figures which follow, apply only to non-shadow RAM systems.

40 or 53 columns	25 lines	8k used
40 or 53 columns	32 lines	10k used
80 or 106 columns	25 lines	16k used
80 or 106 columns	32 lines	20k used

It is also worth pointing out that the 40 and 53 column modes both use the same amount of screen memory. Similarly the 80 or 106 modes are equal.
Obviously, without shadow RAM, very little text can be entered whilst using the 80 or 106 column modes. Users without shadow RAM are strongly advised to seek advice on a system most suited to their use. Use of either the:-

WATFORD Electronics 32k RAM board or
ARIES B20/B32 RAM board is recommended for INTER-WORD in general.
A 40 column mode, displays much larger characters than does the 106 column mode, though less of the text is visible on the screen at one time.

To aid the use of text wider than the displayed screen width, sideways scrolling is provided. Sideways scrolling allows the ruler to be extended beyond the right-hand edge of the screen to a maximum of 120 characters total width.

When the cursor is moved off the right-hand edge of the screen, the text scrolls sideways showing the next characters on the right whilst text overflows on the left. It is best envisaged as a window through which only part of the text can be seen.

Whilst sideways scrolling, the SHIFT/left cursor and SHIFT/right cursor keys may be used to advantage to move all the way to the left or right-hand end of the cursor line.

Lines on the screen:-

The number of lines of text shown on the screen at one time, is limited to the choices available to the BBC micro itself. There may be 25 lines or 32 lines, together with any of the choices of character size.

Line numbering:-

This option is only useful when the text is broken into pages. With line numbering 'On' a line number is displayed on the end of each screen line. The number is displayed only, not stored in the text memory.

Even if the ruler exceeds the width of the screen the line number is always shown at the end of the line.

Line numbers run from 1 to the page length; repeated for each page.

Line numbers are not shown when the text is printed.

Screen Codes:-

The RETURN and TAB characters have an obvious effect on the text when entered, but this option, allows their position to be seen exactly. When 'screen codes' are 'On' the RETURN character is shown as it's standard symbol (an arrow turned left) and the TAB character is shown as a short arrow pointing right.

INK Colour:-

Sets the text colour. The screen colour changes at the same time as the option is selected. If the screen 'paper' colour is the same as the screen 'ink' colour, nothing will be visible. Holding down either 'cursor left' or 'cursor right' key will cycle quickly through the available colours.

All colours are available in all screen modes.

Paper Colour:-

The same as ink colour above except that it is the background colour that is set.

Keyboard Repeat Rate:-

If a key is held 'pressed', it will automatically repeat. This option sets the rate at which it will repeat i.e. the number of repeats which will occur within a given time period. Normal repeat rate on the BBC micro is 6 though this is far too slow to be practical so INTER-WORD's default is 4. Users familiar with the keyboard should decrease the number to 3 or possibly even 2, thus increasing the number of repeats. This also increases the rate at which the cursor moves when a cursor key is held pressed.

With a repeat rate of 2 the speed of INTER-WORD's 80 column scrolling is shown at it's best.

Keyboard Repeat Delay:-

When a key is held pressed, there is a short delay period before it starts repeating. The normal delay period is 50. Experienced typists may decrease the number thereby decreasing the delay, though most would leave it alone. Inexperienced and heavy handed typists may increase the delay to prevent unwanted key repetition which might otherwise occur.

Cursor Line:-

Usually the cursor remains on the centre screen line. It is possible to position it several lines up or down from the centre if it is found to be more convenient. The cursor line must always be less than the current page length. In an exceptional case, where the page length is set very small, the cursor line will have to be changed first.

e.g. after setting the cursor line to 9, it will be possible to set the page length to 10. This rarely needs to be taken into consideration since the page lengths are never usually less than 60 lines.

Interlacing:-

This is a technical term concerning the screen display. As far as the user is concerned, and depending upon the monitor in use, using this option can make the display absolutely rock steady.

When using most colour monitors, there is an irritating wobble to the display. If this is found to be the case, simply turn Interlacing 'Off'.

8. MARKED SECTIONS

INTER-WORD allows any section of text to be marked for a subsequent operation. The range of operations offered is detailed in this chapter.

Marking a Section of Text:-

A marked section is a piece of text BETWEEN 2 markers shown reversed on the screen (i.e. ink & paper colours reversed). A start or end marker is inserted at the current cursor position by pressing f3 The first marker inserted is shown as a character-sized block, inverting the character underneath it which is included as part of the marked section.

The block is shown in the current 'ink' colour (white by default). By inverting the character at the marker position, the marker does not upset the format of the line.

When just the first marker has been inserted, the cursor will blink at twice the normal rate as a reminder that the second marker has yet to be placed.

The second marker may, in fact, be placed before or after the first one and as soon as it is inserted, ALL the text BETWEEN the markers becomes inverted. This is the 'marked section'.

The 'status menu' and the 'marked section menu' both show how many markers are currently inserted. If 2 markers are already inserted, pressing f3 once more, will delete the previous 2 markers and insert a new 'first' marker at the current position.

If the existing markers are a long way apart, or a long way from the new cursor position, deleting them may take a second or two.

Deleting Markers:-

Pressing CTRL/R whilst in 'edit mode' will delete any markers that exist anywhere in the text at the time.

(No error is given if no markers exist when an attempt is made to delete them). This performs the same function as the 'Remove Markers' option.(see below)

Operations on Marked Text:-

There are 3 groups of operations which may be performed on marked sections.

The operation for deleting and copying 'marked sections' are duplicated on function keys f8 & f9 respectively. There are also keys which may be used to set styles of alignment of text at the cursor (the 'marked section' at the cursor or the paragraph at the cursor) rather than just operating on the 'marked section'.

These are indicated on the function key strip.

Text Underline, BOLD and Dotted Underline are described in the section headed 'Function Keys', as too are the align left, centre, right align and justify functions.

Markers Set:-

Purely for information, this message indicates the number of markers currently set in the text. The message will be any one of:-

No Markers
1 Market set
2 Markers set

Moving and Copying:-

Any style changes turned on prior to a 'marked section' will not be on the text when moved or copied. Only style changes actually turned on within a 'marked section' will be moved or copied.

Move Marked Section:-

Providing that both markers are set, this option will move the marked section of text to a new position starting at the current cursor. It is obviously not possible to move to a new position which lies within the 'marked section' itself.

The move operation is the same as 'copy' followed by 'delete'.
No single key operation is provided as a direct equivalent, although pressing f9 followed by f8 will perform the task.

Copy Marked Section :-

This is the same as pressing f9 and will copy the 'marked section' to the current cursor position.

Delete Marked Section:-

This will delete the currently marked section.
If the 'marked section' is more than 250 characters long, a warning message will prompt for confirmation before the text is deleted.

Pressing f8 performs the same function.

Mark Entire Text:-

On some occasions it is necessary to mark the entire text ready for a subsequent operation

e.g. The entire text may be deleted without losing current format and preference settings by marking it with this option and then using the 'Delete marked section' option.

Pressing CTRL/X is an alternative method of marking the entire text.

Remove Markers:-

The option will remove any markers from wherever they may be in the text. This may sometimes take a few seconds if the amount of text is large, because of the large search area.

Pressing CTRL/R will perform the same function without having to go through the menu.

CTRL/Z will mark the current word at the cursor for underlining a single word, which is much quicker than the menus.

Style Changes:-

The following 4 options will work only on the currently 'marked section' regardless of where it may be in respect to the current cursor position. In this respect THEY DIFFER from the related function keys.

The function keys will operate on the marked area, ONLY IF the cursor is positioned on the 'marked section'; otherwise they will act on the paragraph AT the cursor.

A 'paragraph' is defined as text that lies between 2 'Carriage Return' characters.

Bold:-

This option will embolden characters within the 'marked section'. any new characters typed within the 'bold' area, will also be emboldened.
The 'Normal' option should be used to reverse the effect should it be necessary.

When printed the 'bold on' and 'bold off' printer control sequences (defined in the 'Control Codes Menu') are sent to the printer at the start and end of the 'bold' section.
No action is taken if the section is marked. *******Check if this should be..if it is NOT marked ...***********

Underline:-

As above except that the marked section is 'underlined'

Dotted:-

As above, except that the text is shown with a dotted underline.
No such style as 'dotted underline' exists on printers. It is merely intended as a general purpose style, visible on screen.
By default, the corresponding controls code sequences are those required for the italic style on 'EPSON' compatible printers.

Clear Style Changes:-

This option will remove any of the above style changes from within the marked region.

Alignment and Justification:-

The following 4 options will work only on the currently marked text, otherwise they are the same as function keys f4 to f7 inclusive.

Align Left:-

This option will cause all text within the 'marked area' to be aligned with the ruler's left margin. This is the default state.

This option should be used to reverse the effect of any of the following options.

Centre:-

This causes the 'marked section' to be centered between the ruler's left and right margins. If text is entered within the centered region, it is continually re-centered. This may seem a quite surprising effect when first used, but is really quite advantageous.

Align Right:-

This will cause all lines within the marked region to be aligned with the ruler's right margin. It may be set to affect text starting part way through a line separating at a TAB character, but unusual effects may result from it if it is used inappropriately on lines which do not end with a RETURN.
'Align right' may be better known as 'Fully indent', especially to users of Wordwise Plus.

Justify:-

A 'justified' line is one which is padded out with spaces so that the first and last characters of each line are in line with the left and right ruler margins respectively, thereby producing text with parallel margins. The text is continually justified as further characters are entered within the region.

9. SEARCH & REPLACE

There are 2 search facilities provided in INTER-WORD.

The 'Search & Replace' menu option, and a quick 'GO TO' facility accessed by pressing CTRL/G. The 'go to' facility is described at the end of this section. In both cases the search operation always starts at the current cursor position and works down through the text, therefore always put the cursor at the top of the text if all the text is to be searched.

The 'search & replace' feature, allows any string of characters to be replaced by any other string of characters. Once the 'search & replace' menu is shown, the cursor 'up' and 'down' keys can be used to move between the items. Once entered, search and replace strings remain in memory for subsequent operations.

The search & replace strings can be entered without initiating a search operation. Searching can be initiated from the menu by using CTRL/F.

The maximum length of 60 characters for both 'search' & 'replace' string is likely to be far greater than necessary.

Search String:-

The search string may include the 'hash' (#) symbol to indicate a wild card. This matches with any single character; for instance a search string #AB will match with SAD, HAD, BAD, DAD...see also 'Special Characters' below

Replace String:-

The replacement will be substituted in place of the 'search string' when found after confirmation, only if the 'confirm changes' option is 'On'. It may be of lesser, equal or greater length than the 'search string'.

A 'replace string' of zero characters will cause the search string to be deleted, and replaced with nothing. See also 'Special Characters' below.

Confirm Changes:-

With this option set 'On' as is the default, the search is interactive or 'selective'. This simply means that whenever a match for the 'search string' is located, the cursor is moved to that position in the text and a small message appears asking

'Replace Y/N'

If 'Y' is pressed the 'search string' is replaced otherwise it is not.

Regardless of response the search will then continue from that point until the next occurrence of the 'search string' or until the end of the text is reached.
Pressing the ESCAPE key will terminate the search, leaving the cursor where it is. A search can then be re-started later by pressing CTRL/F.

Case Sensitivity:-

Computers do not treat upper-case letters (capitals) in the same way as lower-case letters. Sometimes, when searching for strings, it is desirable to treat the two differently and some times it is not.
This option allows the user to choose which option is appropriate in this instance.

With 'case sensitivity' 'On' the word Computer is not considered a match for computer because the first letter is upper-case in one and lower-case in the other.
When 'case sensitivity' is 'Off' a replacement word is inserted so that it's characters match the case of the characters in the string BEING REPLACED.

e.g. with a 'search string' THE and a replacement string ABC the occurrence of 'the' would be replaced by 'abc' but the occurrence of 'The' would be replaced by 'Abc'.

Start Search:-

Moving on to this option, therefore highlighting it, and pressing RETURN will start the 'Search & Replace' operation. It starts at the current cursor position and works down the text. This is ALMOST the same as pressing CTRL/F while the menu is not displayed. (see below)

CTRL/F will re-start a 'Search & Replace' operation. This is often quicker than selecting the menu option. However because it is possible that it could be started mistakenly whist editing, it always forces the 'Confirm Changes' option to 'On'.
This prevents accidental use from going right through the text replacing all the occurrence, which may be disastrous.

Special Characters:-

Search & replace strings may freely contain one or more special characters. These are single capital letters preceded by the double bar character. These are listed below

```
|M represents RETURN
|I      "      TAB
```

Note that the end of a screen line is not necessarily a RETURN character.
The codes option in the Preference menu may be set 'On' to show exactly where TAB & RETURN characters exist in the text.

Quick-go Search:-

CTRL/G
This merely allows one or more characters to be searched for (not replaced) without having to go through the 'search & replace' menu. The string of characters entered is entirely independent of the main search & replace strings therefore a further advantage is that it enables a quick move to a known character or string without destroying the current search strings, which may still be needed.

This facility does not allow automatic replacement of one string for another merely moves the cursor to the next occurrence of the specified string. If no occurrence is found, a message is displayed, stating 'not found' and the cursor is left at it's current position.

When CTRL/G is pressed a small menu appears in the top left-hand corner of the screen, prompting for a string. It may up to 30 characters long. After entering the string the ESCAPE key must be pressed. The cursor is immediately moved to that position.
CTRL/Q will repeat the operation on the same string as previously entered for the CTRL/G operation.

One further for the 'quick-go' facility is that of searching for special hidden codes in the text.

It is possible by specifying a special code to move to a ruler, a 'bold code', an 'underlining code', an 'embedded command' and others. The 'search & replace' facility may NOT be used for this function. The table below lists all the codes necessary to search for the various highlights, rulers etc.. All of these consist of the double bar character followed by a capital letter or other symbol found on the keyboard. A 'go-to' string may contain one or more of these codes alone or intermixed with text.

A   Force new page
|B   Conditional page
|E   Ruler
|I   TAB character
|J   Single marker
|K   Bold start
|L   Underline start
|M   Carriage return
|N   Dotted start
|O   Marked section start
|P   Centered start
|Q   Right align start
|R   Justified start
|S   Bold end
|T   Underlined end
|U   Dotted end
|V   Marked section end
|W   Centered end
|X   Right aligned end
|Y   Justified end
|Z   Change heading number
|/   Change footing number
|^   Embedded *,:,or (?) codes

10. PAGE LAYOUT

This menu controls page length, top and bottom space and positions of headings and footings.

All but the first option have numeric values dealing with the number of lines.

Paging:-

This option may be 'On' or 'Off'. INTER-WORD will normally divide text into pages. However this is not always required.

Changing to the 'Off' setting hides all page breaks and sets the top and bottom space to zero lines. This makes the text appear as one stream without breaks. Continual text is useful in applications such as editing programs.

Some users may find it less distracting to use paging 'Off' whilst entering and then turn on paging afterwards.

Turning 'Off' the page mode merely hides the 'page breaks', 'headings', 'footings' etc..

Any embedded command used to force a new page, will still have an effect.
'Line numbering' if enabled, will also act just as if paging was 'On'. This allows 'paging' to be turned 'Off' temporarily without permanently destroying the page structure.

The option may be set either way, at any stage, during editing.

Whilst using the 'continuous' option the following options in the menu will have little, if any, effect on the displays, since they apply only to page settings.
The changed settings will come into effect if 'page mode' is later re-selected.

Start Page:-

Usually documents will start at page 1 which is the default setting. If however a document must start at some other page number, it should be set with this option. The number automatically increases by one on all subsequent pages in the document. The maximum page number is 255.

Lines per Page:-

This controls the total number of lines per page including the top and bottom spaces. The maximum page length is 120.
The page length should not be set less than 16. If a shorter length is selected, the page may not always be accurate.
The user is prevented from using a page length less than (top space+bottom space+1).

Top Space:-

This is the number of lines always left at the top of each page, including the 'heading' line.
The minimum 'top space' is zero and the maximum is whatever is the sum of (top space+bottom space+1).

Bottom space:-

This is the number of blank lines always left at the bottom of each page, including the 'footing' line. The range is the same as for 'top space'.

Header Position:-

This is simply the line number on the page at which the heading is always to be printed. If the 'heading' position is set outside the 'top space' the 'heading' is simply not printed. INTER-WORD allows flexibility in the positioning of the 'heading' line, even allowing it to appear in the 'bottom space'. This would mean that nothing appeared in the 'top space' but that TWO lines could be printed in the bottom space.

Footer Position:-

This is the line number on the page at which the 'footing' is always printed. As with the 'heading' position, this may be set outside the page range or even in the 'top space', allowing TWO lines as a 'heading'.

Removing the default page numbering:-

By default, a footing of the word 'Page' and the current page number is defined and displayed at the foot of every page. The simplest way to remove this altogether is to set the 'footing position' (see above) to a number greater than the page length.

Multi-file mode:-

Note that the page layout can only be changed whilst on the first file in MULTI-FILE mode. Consequent, the page layout menu is not even accessible during MULTI-FILE mode unless on the first file.

11. PRINTER SET-UP

The 'printer set-up' menu contains all the options that are likely to be needed to handle the printing of the text. It includes the ability to produce multiple copies of a document, to print text in several columns per page, to print a specified range of pages only and several other options.

At the foot of the menu, there is access to a sub-menu used for defining in detail the printer codes required to print the various character styles visible in the text.

The 'control code' menu is also accessible as an option from the 'status' menu, and is described in the next section.

Number of Copies:-
This determines the number of copies to be printed when the Main Option 6 is selected. The setting is 1 by default.

Page Range:-
The 2 settings available are 'All' and 'Some'

If the option is set to 'All' then all pages will be printed. If set to 'Some', only pages specified by 2 related parameters will be printed.

In order to print just one page, set the option to 'Some' and set both the 'From page' and 'To page' to the same required page number.

From Page:-
Specifies the first page to be printed when the page range is set to 'Some'.

To Page:-
Specifies the last page to be printed when the page range is set to 'Some'.

Number of Columns:-
Usually, this option is set to 1 to achieve a normal print-out.

It may be set to any number up to and including 5, specifying the number of text columns to be printed on each page. Note that multi-column printing will not operate when in MULTI-FILE mode.

Each page shown in edit mode, becomes one column of the print-out e.g. If the number of columns is 3, the first printed page will show 3 columns. Column 1 will be the text from page 1, column 2 will be from page 2 etc..

The first column of the printed page 2, will be the contents of page 4 in 'edit mode'. Thus each page shown in edit mode, becomes 1 column when printed.
The complete multi-column page has 'top' and 'bottom spaces' as defined by the 'page layout' settings, together with 'headings' and 'footings' as defined. Pages are numbered correctly, rather than showing the numbers used in edit mode, on every column.

The user must set the 'rulers' in the text to keep the same width as the columns printed within the required printout size. e.g.

If the paper width is 78 characters and 3 columns are being printed, the width of the 3 columns added together should not exceed 78 including 'margins' and column 'indent' (see below)

If the columns are of equal width, that would allow 26 characters in each column including margins.

Column Indent:-

The 'column indent' may be regarded as a print-out margin. whenever text is printed, the number of characters specified for 'column indent' are printed prior to each column. If more than 1 column is printed the spaces are printed between each column. This is it's intended use though it can be quite useful in other circumstances.

If a single column of text is being printed with a total printed line length of 90 characters, the 80 column screen mode can be used with the ruler set to full screen width; then, with the 'column indent' set to 5, the printed output will have a margin of 5 blank spaces, followed by a full screen width of 80 characters, followed by nothing i.e. an equal right blank margin.

Note that the 'column indent' is in addition to any 'left margin' set on the format rulers shown on screen.

Line Spacing:-

Quite often, text is printed double spaced i.e. one blank line between each line for checking before final printing, usually to allow corrections and comments to be written on the printout.

When the 'line spacing' option is set to 2, the lines will be double spaced and similarly triple spaced if set at 3.

Note that the blank lines are simply inserted in the normal single spaced page when printing, therefore, with a page length of 66 lines, 132 lines will be printed for one page when double spaced.

In order to keep the same printed page length of 66 lines it is simply necessary to halve the number of lines per page.

Top space, Bottom Space, Header position & Footer position:-

If there is a regular need to start with double spacing, simply save a blank file with all the page layout options set accordingly. This file may then be loaded each time when starting a document. The same applies to any other standard page layouts that may be needed repeatedly.

Pause between pages:-

Printing on single sheets of paper, requires that printing must pause at the end of every page, whilst the next sheet is inserted. Setting this option to 'On' will halt printing at the end of each page. Printing will then continue when the user presses a key to indicate that the printer is ready.

Send Form Feed:-

Sometimes it can be difficult to print 'paged' text at equal positions at each sheet of paper. Most printers accept a special 'form feed' character often simply called FF to instruct the printer to move to the start of the next sheet. Printers do this by working to a set number of lines per page, counting each line printed, so that the remainder may be feed through upon receipt of an FF code.

To send 'form feed' option set to 'On' INTER-WORD will send an FF character to the printer immediately after the footing of each page.

The 'footing' position, and indeed its presence, dictates the point at which the FF code is sent.
If the footing is not positioned in the 'bottom space' the FF will not be sent.

Note however, that positioning the footing in the top space will produce unwanted results.

Some printers may be fitted with an optional mechanism known as 'automatic sheet feeder'. This holds a single stack of paper and feeds them automatically to the printer as they are required. Most, will feed the next sheet as the preceding one nears the end, but it is usually very inaccurate. It is far better to use the FF code recognized by most sheet feeders to cause insertion of the new sheet at exactly the right point.

Send Line Feed:-

Setting this option to 'On' is effectively the same as that usually achieved by the command *FX6,0.Some printers feed the paper up one line whenever they receive such a carriage return character, but some explicitly require a 'line feed' character.

If this option is set to 'Off', then line feeds are not sent to the printer.

If the printer in use fails to feed the paper, overprinting each line, this option should be set to 'On'. If the printer prints a blank line after every line of text, this option should be set to 'Off'.

Pad Character:-

Whenever a space is entered into text, INTER-WORD may split the line at that point or may insert justification spaces.

A 'pad character' may be inserted instead of a space, causing INTER-WORD to treat items joined by 'pad characters' as a single word which cannot be split.

Inserting a 'pad character' shows the chosen character in 'edit mode' and when previewed, but it is printed as a space.

The option allows the user to choose which character should be the 'pad character'. By default the 'pad character' is the double vertical bar (Control) ASCII code 124. Consequently this means that any such characters which occur in the text will actually be printed as spaces.

If the double bar character is required as a printable character, simply define the 'pad character' as something else.

Defining the 'pad character' as a space, effectively means No Pad Character.

Printer Type:-

This option governs the printer interface to be used. It actually issues an FX5,n as defined in the 'BBC User Guide'.

There are 5 standard options,
None, Parallel, Serial, User, and Network. The default type is Parallel.

When using a 'serial' printer it may be necessary to set the transmission rate, known as the baud rate. This is done using a standard operating system call *FX8,n where 'n' is a number between 1 and 8 as defined in the 'BBC User Guide'. For convenience the rates are listed below:

1 75   baud
2 150   baud
3 300   baud
4 1200   baud
5 2400   baud
6 4800   baud
7 9600   baud
8 19200 baud

The manual for the printer in use or for the serial interface in use, will give details of the setting necessary.

Control Code Menu:-   This option displays the printer 'control code' menu.

This defines the codes which will be sent to the printer in order to achieve underlined, emboldened and dotted underlined text shown in 'edit mode'. See the following section for a detailed description.

12. CONTROL CODES

The 'control code menu' holds all the printer specific information for INTER-WORD to perform automatic underlining, bold and other effects. For users who lack technical experience, printer codes are often a source of frustration and this is usually not helped by the appalling technical descriptions given in printer manuals; often badly translated into pigeon English.

In order to achieve any given effect on a printer (underling for instance), a sequence of codes must be sent to the printer.

As if this isn't difficult enough, the codes are different for different printers. The only standard which is becoming recognised is the Epson printer codes. These have become standard, not because they are any better than others, but simply because Epson printers are sold in such large quantities.

INTER-WORD uses Epson code by default, but these may easily be changed for other printers.

Codes are expressed in many different ways in printer manuals. Most codes start by sending a special character which the printer recognizes as being the start of an instruction rather than being printed text. This special character is called an 'Escape' character, the same name as happens to be on the keyboard key although the two are hardly related. Consequently the code sequences are frequently called 'escape sequences'.

The first steps for understanding the codes for a particular printer, is to find the relevant sections in the printer manual. It may be indexed under 'escape sequences', 'printer sequences', 'printer codes' or something else along these lines.

If all else fails, flick through the pages, starting at the back and work forward. Manuals usually give a table of 'escape sequences': these show a description of the effects such as 'underlining On' together with the sequence of characters to be sent to the printer in order to achieve that effect.

Each character has a code called an 'ASCII code' e.g. the ASCII code for letter A is 65 (&41). These codes are sometimes listed in decimal, sometimes in hexadecimal, and sometimes as the character itself and frequently as a mixture e.g. The Epson code sequence used to turn underlining on is the 'escape character' followed by a dash (negative sign) followed by code or character 1. This might be expressed as any of

Escape,45,1
Escape,"-",1
27,45,1
&1B,"-",1
&1B,&2D,1

All the above mean the same thing.

Escape is usually abbreviated to ESC, but may also be shown as 27 (its ASCII value in decimal) or &1B (in hexadecimal).
INTER-WORD makes 'escape sequences' as easy to use as possible. It will accept any of the above alternatives provided that each code is separated from the next by a comma.

Some ASCII codes are even given names of their own. These names like NAK, ACK and SOH are totally meaningless without technical knowledge. INTER-WORD has a vocabulary for them and will accept them in sequences. INTER-WORD can accept any of the codes as hexadecimal (base 16) numbers, and the are all preceded by an ampersand ('&')

e.g. character 'A' might be listed as &41 though it not obvious that the two are the same thing. Some manuals use the dollar sign ('$') to indicate hexadecimal numbers, in which case, just replace it by '&' when it is entered into INTER-WORD.

Essentially, type whatever your manual lists as the code sequence, with each code separated by a comma and see if INTER-WORD accepts it, and check that it gives the desired effect. If not, try changing parts of it to fit the style of any examples above.

Note that some exceptional codes may not even start with 'ESC'.

Some parts of this manual describe how to highlight an area of text with 'bold' or 'dotted underline'.

The 'code menu' defines printer codes which will correspond to each screen effect when the text is eventually printed.

Regardless of the names, it is in fact possible to make underlining shown on the screen print as italics or some other such style, just by putting the correct sequences into the 'code menu'. Of course there is no such printer effect as 'dotted underline'; this is intended to represent on the screen, whatever printed style the user selects.

It will be found that in use when a sequence of codes is entered, INTER-WORD will examine it and translate it to a standard format. This will not always be exactly as the user intended it.

Some printers appearing on the market, have less than comprehensive facilities.

INTER-WORD can output any control sequence, but if the printer does not have a certain facility, the user can do little about it. If all else fails, turn to an expert. Remember that your printer may be quite unusual and so an expert is unlikely to be able to assist unless sufficient information is supplied. A list of 'escape codes' is a necessity.

NOTE:- Some printers are unable to support certain combinations of printed effects e.g. Some Epson printers are unable to print 'bold' characters when set in the 'elite' mode. In this particular case the simplest solution is to use 'double strike' instead, which IS permitted.

Because printers vary so much in their capabilities, it is unfortunately not possible to document all such intricate details.

Pre-printing:-

Before starting to print anything the 'pre-print' sequence is sent to the printer. This might be used for example to 'form-feed' to the start of the next sheet before printing, or to reset the printer (Epson code 27,64).

It may be left blank, as it is by default, so that no sequence is sent.

Post-printing:-

The code sequence which will automatically be sent to the printer at the end of a printing operation (see above).

Underline Start:-

This is a code sequence which will be sent to the printer corresponding to the start of underlining text. The default sequence is 27,"-",1

Underline End:-

This sequence corresponds to the end of underlining. The default is 27,"-",0

Bold Start:-

Corresponds to the start of 'Bold' text. Default is 27,"E"

Bold End:-

Corresponds to the end of 'bold' text. Default 27,"F"

Dotted Start:-

This is intended as a general purpose sequence and corresponds to the start of 'dotted underline' in text. Default is merely a suggested use; namely italics. Default is 27,"4"

Dotted End:-

This sequence corresponds to the end of the general purpose 'dotted underline' in text. Default (which turns off italics) is Epson compatible 27,"5"

Pound Sign:-

The character code for a pound sign is different on different printers. The 'Epson' code requires ASCII 35 decimal (the BBC '#' character). It is possible to use a sequence instead of a single code; often useful when it is necessary to change between international character sets in order to print the correct character

Some daisy-wheel printers require the sequence 27,32. Refer to the printer manual for specific details.

This can of course be used to deliberately select a special character other than the pound symbol though the 'screen' will always show a pound symbol regardless.

The default code is "#". For Epson compatible printers this will only work correctly if the printer is in the U.K. character set.

If it is actually in the U.S.A character set, then a '#' will be printed in which case, define the 'pound sign' as 27,"R",3,"#",27,"R",0

(I have been using 27,82,3,35,27,82,0)

This selects the U.K character set, prints the '`' and re-selects the U.S.A character set for every pound sign which appears in the text. This has the advantage that hash ('#') symbols in the text will not be converted into pound signs.

Save Printer Codes:-

This may be used to save the codes within the 'control code' menu. They may later be loaded with the following option.

This is particularly useful to achieve the same effect on different printers.

The option is selected by pressing the RETURN key while the highlight bar is on the option. The usual file selector will be displayed so that a file name for saving the codes can be entered.

Load Printer Codes:-

This option will re-load a file of 'printer control codes' previously saved by the 'save printer codes' option described above.

Editing Keys:-

When editing an existing printer sequence, it is not necessary to re-enter the whole line in order to make a small change.

The cursor left & right keys operate as they do in 'editing mode', as do the CTRL/A, COPY, and DELETE keys for deletion.

Any characters typed are inserted at the current cursor position. Simply delete the existing sequence if a completely new one is to be entered.

13. MULTI-FILE DOCUMENTS

The memory available for storing text on a BBC micro is quite limited.
Although it is adequate for handling letters, short reports etc., there is no chance of it holding a large document the size of a book. INTER-WORD provides the means of handling a long document by splitting it into a number of manageable files which can each fit into memory.

MULTI-FILE processing offers several advantages over the alternative methods of creating one huge file.

Using one large file, limits documents to a size of one side of a disc, which the MULTI-FILE method does not.

MULTI-FILE documents are easier to manage. It is easier to re-arrange sections and it allows movement backwards through the document instead of only forward.

Rather than have INTER-WORD automatically choose generic, and usually meaningless names for each file such as File1, File2 etc.., the user is allowed to choose all the filenames.

The files are held in a list. The order of the list takes is the order in which the files are printed as part of the document. Simply moving the filename from one position to another, has the effect of changing the order of the files in the document. This makes it very simple to re-arrange the order of sections within the document as late as final printing.

Printing is an automatic process. Loading and printing each document in order is handled without intervention.

Starting a MULTI-FILE Document:-

If the user is at the stage of having entered an amount of text, and realizes that it is necessary to enter MULTI-FILE mode, Then the present document must be saved.

Normally the existing text will become the first file in the MULTI-FILE document. If however the user knows from the start that MULTI-FILE processing is going to be required, then it is best to start in MULTI-FILE mode.

The MULTI-FILE menu has the option 'create new document' which is used to start a fresh MULTI-FILE document.

Selecting this option, (move on to it and press RETURN) will then display the normal file selector asking the user for the document name. Remember, the document name is the name given to the overall document. this file will not hold any file, but will hold a list of files, that make up the complete document.

If there is some text in memory before selecting the 'create new document' option INTER-WORD will prompt 'Are you Sure' before continuing. Replying 'Yes' will delete any text in memory.

Having entered a document name, the user is then asked for the first filename. This should be the file to be the first one on the list. If the user already has some text saved, that is to be the start of the document, then the name of this file should be entered first.

INTER-WORD will now load the first file and leave the cursor at the start, ready for editing.
If starting a fresh MULTI-FILE document with no text, then enter a new filename and INTER-WORD will present the user with a blank INTER-WORD screen ready for entering text.

At this stage, INTER-WORD is in MULTI-FILE mode. This can be confirmed by looking at the 'status menu' where the option MULTI-FILE should say 'On'. Also at this stage only the one file exists. Pressing CTRL/f7 will select the INTER-WORD menu which should show the file list on the right containing just one file.

If the user now wishes to extend the document to 2 files, either because there is little room left for the current file, or simply because it is appropriate to start a new chapter, and therefore a new file at this point, the way to add a new file at the end of the list is to select the INTER-WORD menu and move the 'highlight bar' down to below the first filename. At this point, simply pressing RETURN will tell INTER-WORD that the new filename is to be added to the end of the list. It will now ask for a new filename to be entered in the normal manner.

Again, entering an existing filename will load the file and add it's name to the end of the list.

The 'insert filename' option could be used to add a filename between other files but not to the END of the list. The above method is much simpler anyway.

It often makes sense to spread files on chapter boundaries, or some other convenient place. It is not necessary to fill each file with as much text as possible; indeed it is a positive disadvantage to do so. It is quite possible in INTER-WORD to have files which consist a few lines of text only. This is perhaps going a little too far, but it does make sense to leave a reasonable amount of room at the end of each file.

At this stage, the document will consist of 2 files. The same process is used to add more files to the list. INTER-WORD has room for about 30 or 40 files in this list, allowing documents of several hundred pages to be produced.

While in MULTI-FILE mode, selecting the MULTI-FILE menu will always show the list of files in the current document. The current file will be highlighted and in order to move to any other file in the list it is just a matter of moving the highlight bar to the required filename with the 'up' and 'down' arrows and pressing RETURN.

INTER-WORD will now SAVE the current document and move to the selected one.

If all that is required is to move up or down one file at a time then there is a much simpler way.

Remember that pressing SHIFT/cursor up will always move to the top of the current text and similarly SHIFT/cursor down moves to the bottom. However, if the cursor is already at the top of the text, pressing SHIFT/cursor up will save the current file and load the previous one. Likewise SHIFT/cursor down while at the bottom will move on to the next file in the list. In this way it is very simple to move up and down the list of files one at a time.

MULTI-FILE handling has another hidden advantage. whenever moving off the current file to another in the list, the current one is always saved. This means that if, for any reason, the computer goes wrong while editing in MULTI-FILE mode (power cuts etc..) all that is lost are the changes made to the current file since it was last saved.

i.e. since the last move from one file to another in the list. This means that it is perfectly safe to move to another file and then simply switch off the computer.

While in MULTI-FILE mode this is probably the simplest way to end an editing session.

Once the computer has been switched off, the simplest way to start editing a MULTI-FILE document is to load the document.

The main menu option(2) should be used. This option detects an attempt to load a 'document name', as opposed to a 'filename' and will start up MULTI-FILE mode and load the correct file name starting exactly where it was left at the end of the last session.

MULTI-FILE menus:-

The option list is shown on the left of the screen whilst the file list is shown on the right. The file list will not be displayed until actually using MULTI-FILE mode.

The process of transfer from editing the current file to editing the previous or following one is semi-automatic simply by moving to the very top or very bottom of the text and pressing SHIFT/cursor up or SHIFT/cursor down. The current text is saved and the previous or following file is loaded for editing.

An alternative of moving from one file to another is via the 'file list'. When the MULTI-FILE menu and 'file list' are displayed, the highlight bar is used to move between options in the usual way. However in addition, pressing cursor-left or cursor-right keys will move between the option menu and the file list.

Whilst on the file list, the highlight bar is used to move up and down the files. Pressing RETURN will save the current file, so that any editing changes are retained, and load the highlighted file.

Moving to a file earlier in the document (i.e. a file higher up the list), is very fast indeed; moving forward is not so fast.
When moving down the file list which may take a noticeable time, the file list is displayed and the highlight bar shows the file reached so far, updated as it goes until it reaches the destination file.

The format of the document (set by rulers by the 'page layout' menu) is carried forward through the files automatically. This means that if any change is made to a file, all files following will be rearranged e.g. A narrow ruler may have been inserted increasing the number of pages to accommodate the same amount of text. As a result, when moving forward through the list of files it is NECESSARY TO LOAD AND FORMAT EVERY FILE ON THE WAY TO THE REQUIRED FILE. It is still of course faster than any other method.

Because text styles and alignments are turned 'On' and 'Off' within a single file, these effects must be handled individually for each file. If all files are to be underlined then it is actually necessary to mark and underline each file individually. Of course it is highly unlikely that this would be required.

MENU OPTIONS

Current document:-

This is status information indicating the name of the entire document being edited. Effectively, this is the file containing the list of 'filenames' which form the complete document e.g. If this manual was being edited the name might be Manual. This name must NOT then be entered as one of the files on the list.

Current File:-

This is also 'status' information, showing the name of the file currently in memory. e.g. If this section of the INTER-WORD manual was being edited in memory at the time, then a suitable short name might be MULTI.

Insert Filename:-

This option when selected by pressing RETURN whilst it is highlighted will allow insertion of a new 'filename' providing there is room in the list. A 'filename' is inserted in the list immediately before the highlighted position i.e. the current file.

To insert a file at a different position in the list it is necessary first to move to the file at that position before using the 'insert' option.

Remove Filename:-

This option simply removes a filename from the list. It does NOT delete the actual file itself from the disc. It may therefore be used to temporarily or permanently removing a file from the 'document'.

To change the order of the files in the document, the 'filename' to be moved must be 'removed' and then 'inserted' at its new position.

To rename a file simply 'remove' its name from the list *RENAME the file on the disc, and 'Insert' the new name.

Print Document:-

This will print the document starting at the 'current' filename. It is therefore necessary to move to the first file on the list if the entire document is to be printed.

Current options, set up in the 'printer menu' and the 'printer code' menu are used. Hence, only pages both within page range and between the current file and the last file, will be printed.

Create Document:-

This option should only be used to start an entirely new document i.e. a completely new list of files. Any text currently in memory is liable to be lost so that it is necessary to ensure that anything valuable is first saved.

A safety-net prompt forces the user to confirm this operation if more than a few lines of text already exists in the current package.

The user will be prompted to supply a 'document name' and the first filename via the usual file selector menus.

Page Numbers:-

Page numbering is carried across files automatically. To the right of each 'filename' in the list is the number of the first page in that file. However, it is important to note that these numbers are only up-dated when it's corresponding file is formatted. Any files below the 'current' file are not accurately formatted according to changes made in the files above, therefore their page numbers may be incorrect.
When printing takes place, each file is formatted so that they will never be seen to be incorrect except on the file list below the current file.

Operational Notes:-

As the current file nears the memory size, a new 'filename' should be inserted following the 'current filename' in the list. In practice it is important never to try to fill the current memory right to the limit.

In fact it would be best to leave a few thousand characters free in every file if possible. This makes life easier when it is necessary to insert forgotten paragraphs and also to allow for occasions when it might be necessary to enter another ROM-LINK package.

If a file in memory becomes unmanageably long, then it is advisable to split it into two smaller files.

The simplest way to do this is to mark and SAVE the bottom half of the text. The 'saved' section should then be 'deleted' and the remaining text saved under the existing 'filename'. Finally, the name of the 'saved section' should be inserted into the file list.

The 'main menu' 'Load new text' (option 2) should NOT be used while in MULTI-FILE mode.

Option 4 may be used to load text to the cursor in the usual way. Should it be necessary, options 1 & may also be used.

Page layout:-

The page layout may not be changed part way through a MULTI-FILE document. It may only be change when on the first file on the list.

Consequently the 'page layout' menu may not even be selected unless on the first file.

Multiple columns:-

It is NOT possible to use multiple column printing during MULTI-FILE operation.

To start a new page:-

Usually INTER-WORD fills out the last incomplete page of a file with a cross-hatched area and outputs blank lines to complete the page when printing. During MULTI-FILE operation this automatic completion of page still appears on screen for every file, but it would be inconvenient to have to start a new page every time the text continued on to the next file.

For this reason each subsequent file actually starts on the next line of the same page as the previous file finished on. e.g. If file 5 finished on line 21 of page 4, file 6 will start on line 22 of page 4.

The problem therefore is how to start a completely new page e.g. when starting a new chapter. The answer is simply to insert a 'force new page' embedded command at the start of the following file.

14. SPELLING CHECKER

INTER-WORD has no built in spelling checker. However, it is designed to make use of the ROM-LINK compatible spell-checker available separately.

If the 'spell-checker' is not fitted to the machine in use then a message will indicate its absence if an attempt is made to access the 'spell-checker' menu.
If the 'spell-check' ROM is fitted to the machine full details of the operation will be found in the manual supplied with the ROM.

Continuous Check:-

In this mode each word is checked as it is typed. The very fast speed of the spell-check ROM allows this to occur without interfering with typing speed.

Check Entire text:-

When selected, this option calls for a complete spelling check on the entire text in memory.

Check Marked Section:-

As above but only a selected section of text is checked.

Brows:-

The 'spell-check' ROM has facilities to allow the user to brows through the dictionary to find the required word.

Check Word at Cursor:-

Obviously this checks only the word at the cursor.

15. ROM-LINK MENU

The ROM-LINK menu is very simple. It shows which packages currently exist in memory together with the number of bytes allocated to each.
The current package is always shown at the top of the list occupying all of the available memory. Exactly how much of that memory it is using can be seen from the 'bytes used' count in the package (or perhaps the 'percentage free' in INTER-SHEET).

Using the cursor up and down keys in the normal manner, the user may move the highlight bar on to any one of the packages shown. Pressing RETURN will select the highlighted package.

16. MENU OPTIONS

On entry to INTER-WORD the main menu is displayed. It in the same style as other ROM-LINK programs and very similar to WORDWISE.

Following the INTER-WORD title at the top of the screen, the current package number is shown.

Listed below is a brief summary of each menu option. The major options are described in more detail in following sections.

1). Save entire text:-

Saves the current text on to the current filing system.
Files saved with this option are intended for reloading by INTER-WORD. The current preferences and settings for all menus are saved at the front of the file although this is transparent to the user.

2). Load new text:-

This is intended for reloading files saved by option 1. It expects the header information containing preference and menu settings.
If files from other sources are loaded with this option all preferences will be set to their default value.

If the file being loaded is too large for available memory, the error message 'No Room' is given and no part of the file is loaded. A safety-net prompt will ask for confirmation before going ahead with the load if more than a few lines of text will be overwritten as a result.

3). Save marked text:-

This option will save the currently 'marked' section only. No additional data (preferences etc..) is saved; purely the text itself.
If 'embedded commands' 'highlights' etc., are within the section, they will all be saved complete.

4). Load text at cursor:-

A text file saved by INTER-WORD options or plain text without control codes from other programs, may be loaded with this option.

The text is loaded into (added to) the current text at the cursor position. It may therefore be used to perform a 'merge' or 'join' operation on text files.

If there is insufficient memory to hold the additional file being loaded, an error message is issued and no part of the new file is loaded.

5). Printer set-up:-

This selects the 'printer set-up' menu as described in section 10. It is simply a short-cut method of setting options in the menu prior to printing without having to go to edit mode to see the menu as would normally be the case.

6). Print text:-

Sends the text to the currently selected printer.

7). Preview text:-

Previews the text on the screen, usually as a final check before printing.

Because INTER-WORD shows the finished document layout whilst editing, there is little use for the preview option. However 'preview' does have it's uses, namely for showing multiple columns, multiple copies, data imported by 'colon commands' etc..

The preview occurs in the screen mode and colours as currently selected for editing.

Note:- That pressing BREAK whilst 'previewing' or 'printing' is liable to corrupt everything in memory.
If it is necessary to abort 'previewing' or 'printing' use the ESCAPE key.

There are two ways in which the 'preview' may be paused; holding down the SHIFT key whilst 'previewing', will halt the scrolling as long as the key is not released. Pressing SPACE once will halt scrolling at that point, and pressing a second time will start the scroll again.

8). Spool text:-

This option saves the formatted text to disc. According to the 'spool codes' option in the print menu, printer codes may be included or excluded from the file saved.

ESC-Edit mode:-

The ESCAPE key is used to toggle between the menu and edit mode.

*Commands:-

'Star commands' may be issued from the menu.
Users should beware of commands which will corrupt memory such as *COPY.

Entering BASIC:-

To enter BASIC or any other language, the appropriate 'star command' can be used. However, it is advisable to use the :KILL command to delete all other ROM packages prior to entering a non-ROM-LINK language ROM.
If BASIC is to be used for quick calculations, or such, this is not usually necessary.

If CTRL/BREAK is pressed and another language is entered as the highest priority ROM (e.g. BASIC), it will not be possible to re-enter the previously active package.

Colon Commands:-

ROM-LINK 'colon commands' may be issued from the menu. Most 'colon commands' supplied by INTER-WORD are for transfer of text to other ROM-LINK packages. These are detailed in later sections.

ADFS

Some 'colon commands are useful as general utilities.
Because any ROM-LINK program can access 'colon commands' in any other ROM-LINK program, most of the utility commands will be detailed in the manuals for the specific programs.

INTER-WORD offers two general utility 'colon commands'. Both of these are also in the INTER-SHEET program but they are duplicated in INTER-WORD for users without INTER-SHEET.

The utility commands are:

:CANCEL This command, usually abbreviated to :CAN.<RETURN> will cancel the current package completely.

Because its action is drastic, a safety-net prompt will be issued,

'Are you sure Y/N' before the package is actually cancelled.

When a package is cancelled an asterisk prompt appears, awaiting selection of a new INTER-WORD package, or in fact any other ROM.

Most commonly at this point, the '*IW<n>' command will be typed to enter the package which has just been cancelled.

All text will have been deleted and all options will be at their default state. Other packages in memory are left intact.

:KILL
This command should be used with extreme caution. After confirmation ALL packages in memory for ALL ROM-LINK programs are deleted irretrievably.

After use of this command, an asterisk prompt appears and awaits entry of an appropriate 'star command' to enter a language ROM perhaps *IW.<RETURN>

Accessing colon commands from other programmes:-

As stated, 'colon commands in other ROM-LINK programs can be used from INTER-WORD. INTER-SHEET provides a useful command :PRINT which takes a mathematical expression and calculates the result.

One example of it's use is to calculate average word length in INTER-WORD.

INTER-WORD shows the number of bytes used and the number of words typed. The number of bytes is not accurately the number of characters typed, but it is good enough for most purposes e.g. if the number of bytes used is shown as 1965 and the number of words is shown as 300 then the command

:PRINT 1965/300<RETURN> entered from the INTER-WORD menu, would show the result 6.55 i.e. an average of 6.55 characters per word.
This example requires the INTER-SHEET to be present in the machine.

Note:- The ROM-LINK menu accessed from 'edit mode' may be used to list all ROM-LINK packages currently in menu.

17. SAVING & SPOOLING

This sections details the use of menu options

1. Save entire test
3. Load text at cursor
8. Spool text

All these options perform a saving function.

Cassette Operation:-

INTER-WORD is not designed to 'save' and 'load' as effectively as it does on disc.

Although tape saving and loading is supported it only operates in a very rudimentary fashion. It should be possible to save and load text on the same machine though many of the safety checks are omitted on cassette.
e.g.
It is up to the user to ensure that files being loaded will fit within the available memory.

Filing system compatibility:-

INTER-WORD is designed to be fully compatible with the 'Acorn' DFS and ADFS. Provided that other alternative systems operate fully to 'Acorn' standards, they should operate perfectly within INTER-WORD.

Operation:-

The following description applies equally to options 1,2, & 8 unless otherwise stated.
This does NOT apply to cassette operation.

INTER-WORD is much more sophisticated than other programs when it comes to saving and loading. Most programs require the user to remember and enter 'filenames' whereas INTER-WORD shows them in a menu.
As soon as a 'save' option is selected, the current directory on the current filing system is interrogated. All 'filenames' and 'sub-directory names' are displayed in the menu.

Star Commands:-

'Star commands' may be issued without exiting the 'save' menu. Simply enter the 'star command' instead of a 'filename' and press RETURN. It is useful for commands such as *DR.1<RETURN>.

ADFS Use:-

The 'Acorn ADFS has a hierarchical directory structure.
A directory may contain sub-directories, which may in turn contain further sub-directories etc..
There are 2 noteworthy points in connection with the use of INTER-WORD together with such systems.

Selecting a directory:-

The 'save' & 'load' menus show the directory names among the 'filenames'.
Selecting a 'filename' will select the 'file' while selecting a 'directory' issues a *DIR command from the chosen directory and updates the menu to show the files within. SHIFT/cursor up will issue a *DIR command to move up one directory level.

Saving with new filename:-

To save a new 'filename' the user must type the 'filename' and press RETURN.

Filing systems usually allow 'drive' and 'directory' to be specified as part of the 'filename' though the syntax may vary.

Re-saving a File:-

To save and 'existing filename' the cursor keys may be used to move the highlight bar to any 'filename' shown; then pressing RETURN will use the highlighted 'filename'. As a safety-net, the warning message 'Replace old file Y/N' is shown when attempting to overwrite an existing file.

Replying with 'Y' will save the file, whilst any other response will not. If the file is 'Locked' INTER-WORD asks if it should be replaced. Confirming replacement, unlocks the file and saves the new version.

When using option 1 (the primary 'save' option) it is possible to cut corners on re-saving under an existing name. Whenever options 1 (or 2 'Load') are selected, the 'filename' last issued by the option is highlighted.

This allows the file to be re-saved under the name simply by pressing RETURN.

Note:- At any time when a 'filename' is highlighted pressing the COPY key will copy it on to the input line. The user may then add letters or change it in some way to achieve the required 'filename'.

Spooling:-

Option 8 will 'save' a fully formatted version of the text.
If 'multiple columns' are in use, the spooled document will be in the same format.
Format settings such as 'centre', 'justification' etc.. are expanded to spaces as is necessary to save a formatted text.

Immediately upon selection of this option, a prompt, 'With codes ?' Y/N appears. This determines whether the embedded printer codes are included or excluded. If they are excluded, then the file produced will be suitable for loading generally, even into a non-ROM-LINK program. Such a format is also suitable for transmission over electronic mailing systems.

Spooled text can be loaded back into INTER-WORD but it is not very suitable. Spooled files have 'carriage returns' at the end of each line which prevents INTER-WORD from reformatting it in a useful way.

18. LOADING

This section details the use of 'Main Menu' options

(2) Load New Text
(4) Load Text at Cursor

Both of these perform loading operations bringing text into memory from the current 'filing system'.

It is advisable to first read the previous section. Many of the operation details are common to both 'saving' & 'loading'. When a file, previously saved by option (1), is loaded with option (2), the 'menu settings', 'page length, screen colours' etc., are reinstated as they were when the file was saved.
If a file from some other source is loaded, then it will attempt to interpret it as if saved by option(1) and may have some unwanted characters. Exactly what will happen, depends upon the source of the file; hence what special control codes it contains.

If the file is plain ASCII, without control codes, the text will be perfect.
If the file is from WORDWISE or WORDWISE-PLUS any embedded commands will be converted to simply the characters that make them up. These can then be deleted.

Loading a file with option (2) will of course delete any text already in the current package. For this reason, a safety-net prompt will ask you 'Are you sure Y/N' when this option is selected, if more that a few lines of text are to be overwritten. Pressing 'Y' loads the text.

When option (4) is used the incoming text is loaded starting at the cursor position, leaving existing text intact in memory.

If a file, saved by option (1) i.e. headed by menu related information, is loaded with option (4), then the heading information is stripped. Thus, a file 'saved' with option (1) may be 'loaded' with option (4) in order to retain current menu settings.

When either load option is selected a menu is shown containing all the 'filenames' within the current directory. Once the menu is displayed and the current directory is visible there are several methods which may then used to select and load one of the files.

If option (1) has been previously used to save a file from the current package this 'filename' (the 'current filename') is highlighted. To reload the same file, it is necessary only to press RETURN.

The cursor up and down keys may be used in the, by now, familiar manner, highlighting any 'filename' shown. Pressing RETURN will load the highlighted file.
The simplest way to specify a 'filename' is to type one or more letters which distinguish it from others files. As each letter or a filename is typed, INTER-WORD will see which of those listed in the menu matches.

If the letters entered are insufficient to distinguish between 'filenames' each having the same starting letters INTER-WORD will highlight one of them. Pressing RETURN will select this file.
If no 'filenames' in the list match the letters typed, none is highlighted and INTER-WORD will attempt (unsuccessfully) to load a 'filename' of the letters typed.

If a file is known to be in a directory other to that displayed, the user may either use the *DIR command to select the correct directory, or simply specify the directory in the 'filename' entered.

At any stage, when a 'filename' is highlighted, pressing the COPY key will copy it onto the entry line. the user may then alter it as required.

As usual, if the alteration matches any 'filename in the list, pressing RETURN will load it.

At any time during the entry of a 'filename', using the cursor up or down keys to display another 'filename', will delete any characters from the 'input line'.

Using ADFS:-

When using the 'Acorn' ADFS or a compatible alternative, it is necessary to initialize the disc system before attempting to load a file. This is most easily done from the menu by simply 'cataloguing (*CAT)' the disc.

Failure to initialize in this way will result in a 'Bad FS map' error.

Directory names are shown amongst 'filenames'. A 'directory' may be selected in just the same way as 'filenames' as described above. When one is selected, the menu is updated to show all the 'filenames' and any sub-directories which it contains.

SHIFT/'cursor up' will move up one directory level.

Loading WORDWISE-PLUS files:-

A file saved by WORDWISE can be loaded immediately into INTER-WORD.

Because embedded commands in WWPLUS are so different from the commands used to drive INTER-WORD they cannot be directly converted.

Any WWPLUS embedded commands in the text, when loaded, will still be found, with spaces replacing the f1 and f2 codes. It is preferable therefore to remove any embedded codes before loading the file into INTER-WORD .

19. PRINTING

Option 6 of the main menu is used to start printing. However, there are many associated points which require explanation.

This section simply binds together, information throughout the manual into one main point for reference.

Option (5) of the 'main menu' is used to access the 'printer set-up' menu as available from 'edit mode' from which most aspects of printing are controlled. If the menu, and it's associated code menu have not been examined, now is the time to look at them more closely.

Serial or Parallel Printers :-

An option is provided in the 'printer set-up' menu to select between the use of 'serial' or 'parallel' printers. This is easier used than in the more usual *FX5 command though this may also be used for unusual values such as *FX5,3.

When using a serial printer, it may be necessary to set the correct 'baud' rate to the particular printer in use. The default rate is 9600 baud but it can be set differently by use of a *FX8 command, described in the section covering the 'printer set-up' menu.

Multiple Copies:-

A number of duplicate copies of the text may be printed by setting the 'No. of copies' option in the 'printer set-up' menu.

Each time option (6) is selected to print, the specified number of copies will automatically be printed This will even make 'multiple copies' of the currently selected page range.

e.g. Setting the 'from page' and 'to page' options both to 2 and 'No. of copies' to 10 on the 'printer set-up' menu, will result in 10 copies of just page 2.

Single Sheet Stationery:-

Use of single sheets as opposed to continuous stationery is easily provided for.

The text must be in paged form ('printer set-up' menu Continuous/Paged) with the 'page length' set accordingly ('page layout menu', 'Lines per page').
Note:- If the first sheet is 'headed' paper, a number of blank lines should be left at the start of the first page of text.

To cause printing to be suspended at the end of each sheet, while the next sheet is inserted, the 'pause between pages' option in the 'printer set-up' menu should be set to 'On'. The causes a halt at the end of each page until the user presses a key to indicate that it may continue.

Some printers may have an automatic 'print feeder' attached. This will feed a new sheet of paper each time one is required. If this is the case, then a pause between pages is not required. Most auto-feeders will feed the next sheet when a 'form feed' character (often abbreviated to 'FF' ASCII code 12 decimal) is sent to it. This is the most reliable method and is provided for by INTER-WORD.

With the 'send form feed' ('printer set-up' menu) option set to 'On' an 'FF' character is sent after the 'footing' of each page. It is necessary to have the 'footing' in the correct position in the 'bottom space' for this to work, even if the 'footer' is blank.

Multi Column Printing:-

With the 'No. of columns' option in the 'printer set-up' menu set to a number between 2 and 5 inclusive.
Text is printed in that number of adjacent columns on each page.
This will NOT operate while in MULTI-FILE mode.

Each column is taken from the contents of each subsequent page

e.g. with 3 columns of text, the first page printed will show the text from pages 1,2 and 3 and the second page will show pages 4,5 and 6 and so on. Pages will be constructed according to the current settings of the 'page-layout' menu so that the current 'top' and 'bottom space' are printed at the top and bottom of each 'multi-column' page, and numbering within footers according to the number of pages actually generated.

Option(7) may be used for previewing multi-column text which cannot be seen during 'editing'.

The width of each 'edit mode page' remains the same when printed in multi-columns therefore it is necessary to reduce the width of each page controlled by rulers, so that the total width of the adjacent columns will equal the required printed width. The width of each page includes its left margin.

A further margin, set by the 'column indent' option in the 'printer set-up' menu is also added between each column. 'Column indent' is a margin printed in from the left of each column, even if only one column is being used.

Printing the Marked Section:-

If markers are set within the text, when the print option is selected. A prompt 'Print marked section?, allows printing of just the marked section in isolation.

Note 1:-
It is not possible to print or preview just the marked section in 'multiple columns'
Any embedded printer codes, as entered from the 'embedded command' menu, which occur prior to the marked section, will still be sent to the printer. This will rarely have an adverse effect and is rather, more of an advantage.

Note 2:-
It is important to ensure that the printer paper is correctly positioned with the top of the sheet immediately opposite the print head for printing with paging to be correct.

When using a tractor feed mechanism which 'pulls' the paper through the printer, it may be necessary to turn the paper up to the first full page, in order to start printing on the first line of the first sheet. This is an unfortunate effect of current printer design rather than an reflection on INTER-WORD's capability.

Note 3:-
 'Automatic perforation skip' a feature provided on most printers is sometimes turned on with an internal switch when the printers are supplied. This is NOT required when using INTER-WORD and should be turned off (see the printer manual). If it is left 'On' there will probably be a occurrence of 6 or 7 blank lines appearing in the print-out, but not on the screen.

20. FUNCTION KEYS

The INTER-WORD function keys have predefined operations, but may also be programmed in the normal way.

User defined strings (*KEY):-

Using the normal '*KEY' command the function keys may be programmed with strings of characters. The characters are then generated by holding down SHIFT/CTRL and pressing the appropriate function key.
Programmed keys can be equally useful in INTER-WORD's 'main menu'.
Whilst in the 'main menu', pressing only the function keys will generate the programmed strings. A pair of commands such as:

*KEY0*IW.0|M<RETURN>
*KEY1*IW.1|M<RETURN>

could be used to give single key commands which swapped between INTER-WORD package 0 and package 1.

Note :- the pair of symbols '|M', indicate the code for the RETURN key. This is an 'operating system' convention.

'Edit Mode' Function Keys:-

Whilst in 'edit mode', all the function keys perform a fixed operation (in addition to programmed strings discussed above).
Some operations are performed by pressing just a function key whereas some are performed by holding down the SHIFT key at the same time. The action of each key is described below.

Status Menu f0:-

Pressing f0 will access the 'status menu'. this is also the menu from which all other menus are accessed.

Embedded Command Menu f1:-

This will display the 'embedded command menu'. If no 'embedded command' exists at the current cursor position, then this key may be used to set one.

If an 'embedded command' already exists at the cursor position, the menu will show the exact details of all the settings.

An 'embedded command' is shown in the text by inverting the 'ink' and 'paper' colour of the particular character in the same way as a single 'marker' is indicated.

Full details of 'embedded command' settings are given within the specific section.

Insert Ruler f2:-

Pressing f2 will insert a 'ruler' into the text at the beginning of a current line.

Insert Marker f3:-

This key is used to 'mark' a section of text.

Pressing the key once, inserts a single 'marker'. Pressing it a second time at a new position, inserts the second 'marker' and inverts the 'marked section'. Pressing it again will remove the previous markers and set a new first 'marker' at the current cursor position.

Note:- Pressing CTRL/R will delete any markers set in the text.
Further details may be found in the section devoted to 'marked sections'.

Text Alignment & Justification:-

INTER-WORD allows text to be aligned with the ruler 'left margin', 'centred' between margins, aligned with the 'right margin' or 'justified' between the margins. Each of these options is set by defining an area in which the alignment type applies. Any text later entered within the area, is also arranged similarly.

All of the following options may be set on a 'marked section' using separate options in the 'marked section' menu. The following function keys will operate on the currently marked section only if the cursor is currently positioned within the 'marked section', otherwise these keys will operate on the 'current paragraph' at the cursor.

A paragraph is defined as text which lies between 2 'carriage return' characters. It is important to realize that the use of these keys differs from the near equivalent options which will only work on the 'marked section'.

Align Left f4 :-

This is the default arrangement for all text. I causes all text to start directly underneath the ruler's 'left margin' indicator.

Centre f5 :-

Although this function will operate on entire blocks of text, it is only sensible to use it on lines which each end in RETURN (shown when the 'preference menu' 'screen codes' option is set 'On').

As characters are entered within a centred region, the line is continually re-centred. The effect may seem quite unusual at first, but is easier than having to manually re-centre text with a command whenever it is changed.

Align Right f6 :-

The last character on a line of text which 'aligned right' is always directly below the ruler's 'right margin' indicator.

As with the 'centre' option it is only reasonable to use this arrangement on lines which each end with RETURN. It will operate on lines without RETURN's but the effect is of little use.

As usual, any characters subsequently entered into the 'right aligned' region cause the line to re-format continuously. This has the effect of moving all of the line to the left of the cursor, one place further left, with the new character inserted at the cursor.

The right-hand end of the line remains directly under the 'right marker' at all times.

Justify f7 :-

Justified text is padded with extra spaces between words within the line so that the first and last words in each line are directly beneath the 'left' and 'right-hand' margin marker respectively.

The spaces inserted to fill out a line are not stored in memory as they are on some wordprocessors so that text storage space remains the same for 'justified' text.

New characters entered within the 'justified' region, cause the line to continually re-format, showing the line 'justified' at all times.

Because of the extra time taken to handle 'justified' text, it may be advisable to turn 'justification' 'On' only when text is completed prior to printing.

Style changes:-

Several 'styles' of text can be shown on screen. there is the normal style, a 'Bold' style, an 'underline' style and a 'dotted underline' style.

The following function keys may be used to set each of these styles in the region of text at the cursor. These functions will operate on the current 'marked section' only if the cursor is currently positioned on the 'marked section'. Otherwise they operate on the paragraph at the cursor

.i.e. all text between 2 RETURN characters. Obviously, for precise style change on say, just one word, it is necessary to mark that region.

Pressing CTRL/Z will mark just one word at the cursor after which a style change may be applied by pressing the appropriate keys whilst the cursor is on the 'marked' word.

All of these 'style' changes are available in the 'marked section' menu, except that they only operate on a 'marked section' not on the current paragraph.

Underline SHIFT/f4 :-

The region of text at the cursor as defined above, is underlined. Any text entered within the region is also underlined.

The 'Normal' style must be selected in order to remove the 'underline'.

Bold SHIFT/f5 :-

The region at the cursor will be emboldened. New text entered within the region is similarly shown is 'bold style' characters.

The 'Normal' option should be selected to reverse the effect.

Dotted (SHIFT/f6):-

The region at the cursor will be shown as a 'dotted underline'. This is intended as a general style for which the user may define any printer effect. The default printer effect is defined as italics for an Epson or compatible printer.

Note:- some printers may not have the ability to show italics.

Any text subsequently entered within the region, will also be shown with 'dotted underline'. 'Normal' style should be selected to reverse the effect.

Normal SHIFT/f7 :-

This will cause the text in the region of the cursor to be re-set to normal character style. This has the effect of clearing all of the previous three character styles.

OPERATIONS ON MARKED TEXT

Delete marked section f8 :-

As with the equivalent option in the 'marked section' menu, this will delete the currently marked section of text.

If no section is marked, an appropriate error message is displayed but no harm is done.

If the section being deleted is larger than 255 characters in size, a warning message prompts the user to confirm, in order to avoid the large scale accidental deletion.

Copy Marked Section f9 :-

As with the equivalent option in the 'marked section' menu, this will copy the currently 'marked section' of text to the cursor position.

Move Marked section f9+f8:-

Although no single function key is provided to move a 'marked section' of text from it's current position to the cursor, it is easily achieved by copying the 'marked section' and then deleting the marked section.

Of course if the 'marked section' is large it will be necessary to confirm with the 'deletion' operation.

21. Using ROM-LINK

In order to understand how to use ROM-LINK commands correctly it is necessary to understand just what the ROM-LINK system is.

This section simply provides the user with background information on the ideas and operational techniques behind the ROM-LINK system.

Users already familiar with ROM-LINK through other programs in this suite, need not read this section. The next section describes the INTER-WORD 'colon commands' provided for data transfer.

Many so-called integrated programmes, allow transfer of data only by saving the data on disc and re-loading it from another program. On the whole this is both slow and inconvenient.

The system is designed to bring true integration. Not only can data be passed by file in the usual manner, but it can also be transferred in memory.

With a set of data from one ROM-LINK program in memory, another ROM-LINK programme can be used immediately without saving the data on disc. The second program can ask the first for some or all of the data.

It is then transferred in memory for use by the second programme. It fact more than one set of data can be handled by the same ROM-LINK programme, allowing as many as 16 packages of data to be held in memory by one or more programmes at the same time.

Each set of data belonging to a programme is referred to as a 'package'.

There could be for instance 5 separate spreadsheets in memory at the same time, but all used by the same programme. Only one 'package' is actually used at one time but any other can be selected for use and data can be read from any other 'package' into the current one.

The term 'package' is used throughout the descriptions in ROM-LINK manuals.

It must be remembered that this refers not to a programme, but to 1 set of data, of which there may be as few as 1 or as many as 16 in memory at once.
Each 'programme' implements a common handling of ROM-LINK commands.

All ROM-LINK commands are preceded by a colon to distinguish them from any other commands. They are often called 'colon commands'.

'Colon commands' are provided for the transfer of data and are simple utilities.

Exporting and Importing:-

Only one package of data is active at any one time. Other 'packages' lie dormant in memory, waiting to pass their data to the active package or to be themselves selected as the 'active package'.

Most of the ROM-LINK programmes will recognize commands which request some or all of their data to be exported.

There will usually be a variety of commands for transferring different amounts or different types of data, as is the case with INTER-WORD.

For instance, the spreadsheet programme INTER-SHEET offers commands such as GETBOX to return the result from a single spreadsheet box and GETBOXES which allows an area of boxes to be transferred with one command.

At any time, the 'active package' may ask any dormant 'package' for any of its data by using the 'colon commands' implemented in the ROM which holds the dormant package. For instance, with a dormant spreadsheet 'package' and an active INTER-WORD package in memory, The INTER-WORD package may request data from the dormant spreadsheet.

The spreadsheet 'package' is temporarily 'woken' and processes the command. The data is passed to the 'active package' which remains in control. Only he 'active package' can request data; the 'dormant package' exports the requested data, and the 'active package' imports it.
It should be understood that the 'dormant packages' are only used when specifically requested to supply data.

Because there may be many 'packages' in memory at the same time, it is necessary to distinguish between them, otherwise a request for a spreadsheet 'box' might get a result from all the dormant spreadsheet 'packages'.

Each 'package' is given a unique identity consisting of the name of the program to which it belongs, and a 'package number' between zero and 15 inclusive. For instance INTER-WORD0, INTER-WORD1 and INTER-CHART0 may all exist at the same time.

Whenever a request for data is made, the name of the 'dormant package' must be specified. These names can be abbreviated usually to the first 2 letters of the name and a 'full-stop' plus the package number. For instance, IW.1 and IS.11

Utility Colon Commands:-

INTER-WORD has two utility commands described in the main menu section.

You can make use of utility commands in other packages as well; for instance INTER-SHEET offers several useful 'colon utility commands' all of which can be used by INTER-WORD.

Whenever a 'colon command' is entered, the ROM-LINK programme in use will execute the command if it can. If it fails to recognize the command, it will offer it to other ROM-LINK programs present in the machine (regardless of whether they have yet been used).

If the command is recognized by another ROM-LINK ROM, it will execute the command and return control to the ROM from which it was issued. If the command is not recognized, then a message 'Bad ROM-LINK command' will be issued.

22. INTER-WORD Colon Commands

INTER-WORD offers a variety of 'colon commands' for exporting data. Any active ROM-LINK package may issue the INTER-WORD 'colon commands' to request data from a dormant INTER-WORD package.

The general syntax for a 'colon command' to import data is:

colon, followed by the package identity number, followed by a second colon, followed finally by the command itself.

Some of the commands require further data following them which will be detailed below for INTER-WORD 'colon commands' or in the respective manuals, for others.

This is not as complicated as it may at first seem; in fact much of the information can often be abbreviated or omitted. The initial colon and package identity, may only be specified if another package of the same type exists in memory.

For instance:
A fully specified command to get boxA1 from INTERSHEET0 would :ISHEET0:GETBOXA1<RETURN> but if no other INTERSHEET package exists in memory, then the 'package' may be omitted thus
:GETBOXA1<RETURN>

Furthermore, 'colon commands' may be abbreviated in the same manner as 'star commands' to the fewest number of letters to distinguish it from all other 'colon commands'. A shortened command name must me followed by a 'full-stop'. e.g. The above can become simply :GETB.A1<RETURN>
When it is necessary to specify a 'package identity', the name of the 'package' may be abbreviated in the usual manner. e.g. INTER-WORD0 can become IW.0, INTERSHEET IS. etc..

INTER-WORD 'colon commands' may be abbreviated in the same way.
A complete list of commands implemented by INTER-WORD is detailed below.

Where a parameter is specified as 'string' a series of characters is required. Note that this may include special characters specified in the normal 'operating system' convention e.g. |M specifies a control character.

These codes are the same as those used by the *KEY commands. All commands which import data use a ROM-LINK pointer, perhaps best imagined as an invisible cursor.

Initially this is set to the top of the text, but a specific :MOVETOP command should be issued before relying on it's initial position. Thereafter, commands which transfer data, move the ROM-LINK pointer as each character is transferred

Similarly, data transferred is taken from the specified package starting at the ROM-LINK pointer position.

Several commands are provided for moving the ROM-LINK pointer specifically, to the required position.

If an attempt is made to import data from a package in which the ROM-LINK pointer has already reached the end, an error message will be displayed and any printing or previewing which may have been in progress, will halt.

:IW.<n>:GETTEXT Transfers all text from INTER-WORD 'package N'

This moves the ROM-LINK pointer to the start of the specified 'package' before starting to import, and afterwards, leaves it at the end of text as would be expected

:IW.<n>:GETMARKED
Transfers all text from the currently 'marked section' into INTER-WORD 'package' N.

The ROM-LINK pointer is left immediately after the marked section following the data transfer.

:IW.<n>:GETTO"string"
This command will transfer all text up to, but not including, the character, or string of characters specified. e.g.

:IW.1:GETTO "|M"<RETURN>

Will import all characters up to the next RETURN from INTER-WORD 'package' 1.

The ROM-LINK pointer is left after the specified terminator string.

:IW.<n>:MOVETOP
This command instructs the ROM-LINK cursor to be moved to the top of the text in the specified INTER-WORD 'package' <n>.
Note that entering a 'package' also sets it's ROM-LINK pointer back to the top of the text.

:IW.<n>:MOVEAFTER"string"
Moves the ROM-LINK cursor to the first character immediately after the specified string.

*IW.<n>:MOVEFORWARD(number)
This will move the ROM-LINK cursor forward from it's current position by a number of characters. The 'number' parameter is optional indicated by the parenthesis, and if omitted, defaults to 1 character position. The maximum number which can be specified is 255.

:IW.<n>:GETCHAR(number)
This command will transfer a number of characters from the ROM-LINK cursor position onwards. As above the omission of a parameter will be interpreted as 1 character, the limit being 255.

Special Codes in Imported Data:-

By default, all text imported will have any special codes such as 'rulers', style changes etc.., stripped. This is so that other ROM-LINK 'packages' are not feed codes only meaningful to INTER-WORD specifically.

If the codes ARE required when transmitting one INTER-WORD 'package' to another, any of the above 'colon commands' may have the character C appended

The 'C' stands for codes and indicates that codes should be included when transfer takes place e.g. the command

:IW.0:GETTEXT (C)<RETURN>

will return all text from package 0 to the current package, including 'rulers', 'style changes' etc.

Embedded Colon Commands:-

Using the 'embedded command' menu f1, it is possible to embed data importing 'colon commands' within text.
The effect of this is that when the text is printed, the commands are executed at the exact point in the text at which they are embedded.

They will therefore, import data from another package, and place it temporarily where the embedded command occurs.

Any text imported during printing or previewing is formatted according to the current ruler at that point etc.

When multiple copies are printed or previewed each copy will re-issue the 'colon command', causing the ROM-LINK pointer to work gradually through the text in the source package.

Perhaps the commonest use is to import one address for each copy of the same letter from a package containing a list of names & addresses.
See Appendix A for further details of 'mail merging'.

INTER-WORD Utility Commands:-

There are 2 general utility commands provided by INTER-WORD, both also exist in the INTER-SHEET ROM but are duplicated in INTER-WORD for the benefit of users who do not have INTER-SHEET in their machine.
Both commands should be used with care, since their effect is to delete large amounts of data irretrievably.

:CANCEL :-
This is used to delete the 'current ' package completely.

Afterwards the user is effectively left in limbo in no particular 'package.
The operating system prompt appears and the user should then select a ROM, usually the same or a different 'package'. See the example below.

Because the effect of :CANCEL is so drastic, a safety-net prompt 'Are you sure Y/N' forces the user to confirm the action before it is carried out.

The usual case in which :CANCEL is used is to delete all text in the current 'package' re-set all menu options to the default setting.

In this case it is to end up in the same package but with no text. This means cancelling the current 'package' and then selecting it again.

To do this from 'package 0'enter the following from the 'main menu'

:CAN.<RETURN>

and INTER-WORD will respond with the safety-net message asking for confirmation. Press 'Y' to confirm the action which leaves the cursor on a line with just an asterisk as a prompt.
Type:-
        *IW.0<RETURN>
to re-enter the 'package from scratch.

:KILL:-
    When it necessary to delete ALL ROM-LINK 'packages' currently in memory, the :CANCEL command would be rather tedious. Instead the :KILL command is provided to delete ALL 'packages' in memory at once.

Like the :CANCEL command it forces confirmation and leaves the user with just an asterisk prompt.

It is then necessary you to enter a 'package' name and number or a command to enter some other language, such as *BASIC.

Note that it is advisable to use the :KILL command before entering a non-ROM-LINK 'package'. This deletes all traces of the packages and allows a clean entry into another ROM.

23. EMBEDDED COMMANDS

'Embedded commands' are those which are stored in the text, in order to achieve some particular effect at exactly that point.

Rather than show them on screen at all times, INTER-WORD hides them so that the screen format remains intact. It does this by storing the commands where they are entered but only indicating their position instead of showing the whole command.

When an 'embedded command' is put underneath a character, the character hiding it is shown reversed in the same way as 'single markers' is displayed.
Function key f1 is used to insert an 'embedded command' at the current cursor position.

In keeping with other INTER-WORD operations insertion of an 'embedded command' is menu driven. The user needs to press f1 and make a selection, rather than having to memorize complicated command words.

Although it is possible to select more than one option from the menu to be inserted at the same position, it is more usual to select only one.

Moving on to a reversed character which indicates a hidden 'embedded command' and pressing f1, displays the menu, showing any options which were set at this position. It may the be changed, further options set, or deleted.

Deleting an 'embedded command' is the first option in the menu. This will delete all options shown on the menu, existing at the cursor position.

They cannot be removed in the same way as text (by using the DELETE key) because they do not occupy a space on the screen, but they CAN be deleted as part of a 'marked section'.

Note that deleting the character at which the 'embedded command' is stored with a single DELETE key will simply move the 'embedded command' to the character now occupying the same position. This can cause 'embedded commands' to get stacked, but only the last is shown if the menu is displayed.

Options concerned with 'headings' and 'footings' are shown on the second half of the menu. These are discussed in more detail in the next section.

Remove Command:-

This option should be used to delete the 'embedded command' at the current cursor position.

If more than one option is set at the same point, they will ALL be deleted (in the unusual case where 'embedded commands' are stacked on the same character position, only the 'embedded command' shown on the menu is deleted.

A second command under the first would then become visible.)

Control Codes:-

Printer 'control codes' can be 'embedded' at any point in the text.

The code should be entered under this option as decimal numbers, each separated by a comma. Although three printer effects may be placed anywhere in the text, represented on the screen as Underline, Bold and Dotted, any other printer codes must be inserted specifically as 'embedded commands' using this control code option

e.g. if the character is to be printed in subscript mode then 'embedded commands' would be used. One 'embedded command' to turn the subscript 'ON' would be inserted on the character and one to turn it 'Off' would be inserted after the character.

'Control codes' only have any effect when printed (they may also be included in spool files)

Star "*":-

Star commands, for the operating system or other ROM's, may be inserted as 'embedded commands' with this option.

The line should be entered following the 'star' and should conform to whatever syntax is defined for the command in the appropriate manual.
Obviously, commands which corrupt memory would do just that, destroying the text in memory, therefore avoid commands such a *COPY, *COMPACT etc..

Colon ':'

Colon commands used for importing data during printing, may be 'embedded' within the text. Their usual syntax should be used; for instance the command :IW.2:GETMARKED .

Every time the text is printed, this command will import the 'marked section' from INTER-WORD 'package 2' printing it within the text at the position of the 'colon command'.

For more detail, refer to the previous section.

Pause:-

Occasionally, it is necessary to cause printing to 'pause' at one or more specific points in the text.
The most frequent use is for halting on an unusual character while the printer daisy wheel is changed and this usually implies another pause to change back.

It is important to note that the 'pause' will occur immediately before the character under which the 'pause command' is hidden.
To insert a 'pause command' at the cursor position, the option should be set to 'YES' in the menu.

Force New Page:-

When starting a new chapter for example, it is usual to leave the end of the current page blank and restart at the top of the following page.

This option, when set to 'Yes' will insert an 'embedded command' into the text at the current cursor position. This command is a slight exception to the rule insofar as it is not shown by 'reversal' of the character, instead its position is obvious causing following text to be shifted to the start of the next page.

Any text subsequently entered above the command, will continue to fill the page, but a new page is always forced at the point of the 'embedded command'.

The 'embedded command' can be deleted by positioning the cursor anywhere on the 'forced' blank lines and using the 'remove command' option.

It will be noticed that there is always a 'force new page' at the end of INTER-WORD text. This causes the final page always to be completed, even when the text entered falls short.

Conditional New Page:-

This option may be used when a table, or even a particular paragraph, will not fit wholly on the end of a page and is split across a page break.

If a table is say 10 lines long, this command should be used with a setting of 10. The setting simply defines the number of lines which are to be kept together as a single block.

Page Number ?????:-

Anywhere within a page of text, selecting 'yes' to insert this command will insert the current page number at the cursor position.

This does not simply type the current page number into the text but in fact stores an 'embedded command'. If the number of the page changes, so too does the number displayed by this 'embedded command'.
It will be inserted in a 'heading' or 'footing' to show the correct page number on every page.
An 'embedded' page number is NOT highlighted by reversing text because it is obvious where the command is.

It also differs from other 'embedded commands' in that it may be deleted using any of the delete keys, as if it were normal text.

Current Heading Number:-

This shows the number of the heading currently being used and also allows it to be set.

If a different heading is to be used for the current and following pages, it's number is set by this command and 'embedded' in the text.

Note that only on the following line will this heading number come into force as the current one, and only at the start of the next page will the heading start being used (i.e. to use heading No.3 on page 2 the number must be changed during page 1.

Current Footing Number:-

As above, except applied to the footing number.
However the footing number WILL apply to the current page, since the command will be set before the footing occurs.

Heading=Marked Section:-

This option is used to assign a line of marked text to be forced under the heading number current at this point in the text.

Note:- A change of number in the 'embedded command' menu does not take effect until the following line.

Footing=Marked Section:-

As above but assigns to the current footing number.
For more details about 'headings' and 'footings', refer to the next section.

NOTES:- 'embedded commands' provide the user with great flexibility, access to 'star' commands, colon commands, printer codes and so on.

Such flexibility allows the careless user to play havoc with the system.

INTER-WORD for technical reasons, is only designed to allow a maximum of approximately 250 STORED characters per screen line. Obviously with a limit of 120 PRINTED characters a line this is not likely to be a problem in normal use.

However 'embedded commands' are included within that length.

If the user inserts several 'embedded commands' within one line, each with long 'star', 'colon' or 'printer' commands within them, unpredictable results may occur and an appropriate error message may be issued.

Older word-processors such as WORDWISE, relied very heavily on 'embedded commands'. Because INTER-WORD shows the finished document layout on screen, 'embedded commands' are used far less often.

24. HEADINGS AND FOOTINGS

Headings and footings are lines which appear in the top and bottom space of every page.
A frequent requirement is to have a line of text appear on the top of every page as a title and perhaps, a page number on the bottom of every page.

Up to 60 different 'headers' and 'footers' can be defined, each being assigned with a unique number.
In practice it is likely that only 2 or 3 will be required. It is possible to specify which of these will be seen by putting an 'embedded command' in the text.
e.g:- If an 'embedded command' specifies the current 'header' number to be 4, then 'header' No.4 is displayed in the top space on following pages.
At any point in the text, further 'embedded commands' may be inserted to select a different 'header' or 'footer' number and text may be assigned to the current 'header' or 'footer' number at any time.

It may seem strange at first, but the 'header' and 'footer' numbers are common to each other, that is to say that 'header' No.5 and 'footer' No.5 refer to the same thing. If a line of text is assigned to 'header' No.6, it will also be used in a footing wherever No.6 is specified as a 'footer' number.

Therefore, envisage just one list of numbers 1 to 60 each of which may have a line of text assigned to it.

At any stage in the document, one of these lines can be displayed as a 'header' or 'footer' or both.

Once the 'header' and 'footer' numbers are decided, it is a simple matter to define the text to be used.

This is done by entering a line of text in the normal manner and 'MARKING' it using f3. If the current 'header' No. is 4, from the 'embedded command' menu on a previous line, selecting the 'Heading=Marked Section' option from the 'embedded command' menu will assign the marked text as 'header' No.4.

When the 'header' or 'footer' is defined, the line of text is stored in memory, together with a copy of it's current 'ruler'. This means that the line used need not remain amongst the text of the document itself, and can be deleted once assigned.

It is often a good idea to retain any definitions at the END of the text, not deleting them until the document is finished. This simply makes it easier to make changes to the definitions should the need arise.

Current Heading/Footing Number:-

The 'embedded command' menu has 4 options relating to 'headers' and 'footers'.

The first 2 show the current 'header' and 'footer' numbers being used for each respectively.

By default 'header'/'footer' No.1 is used for 'headers' and No.2 is used for 'footers'.

No.1 is predefined as nothing i.e. a blank line
No.2 is predefined as a centered line containing the word 'Page' and a paged number 'embedded command'.

Either of the lines may be replaced by one of the user's choice, or others may be added.
At any point within the text 'embedded commands' may be inserted selecting a new 'header'/'footer' number to be used on following pages.

When changing the 'header' or 'footer' number, the change does not come into effect until the following line. Therefore ensure that the cursor is moved on to the following line before attempting to assign a 'marked section' to a new number. Thus when the number has been changed, the new 'header' will not be used until the next page, whereas a new 'footer' will be used at the end of the current page.

Defining the Heading/Footing Line:-

The second 2 options are selected simply by pressing RETURN while highlighted.

The options assign the currently 'marked' line of text to be the current 'header' or 'footer' according to the current number set for each.

A line of text can be stored as a 'header'/'footer' for any existing number; in any case it replaces the previous definition, or it may be a new number.

Example Footings:-

Heading and footing lines may contain any of the usual 'embedded commands' e.g.: In order to change the 'footer' to show page numbers in the form "99" i.e. without the word 'Page' before it, follow these simple steps:-

1. Press f1 to display the 'embedded command' code.
2. Choose a new footing number

e.g. set the current 'footer' number to 4 and press ESCAPE to exit the 'embedded command' menu.

3. Move the cursor down one line (create a blank line if there is not one already) by pressing RETURN and moving back on that line.
4. Press f1 to display the 'embedded command' menu.
   Select the PAGE NUMBER option 'yes' and press ESCAPE to exit
   The current page number will be shown at the cursor position.

5. Press f4 to centre the page number
6. Mark the line in the normal way, move to the next line.

Finally press f1 and select the option 'Footing=Marked Section'.

Moving down the text will then show that the footing has changed to show just the page number

MAIL MERGING

Mail-Merging is the name usually given to the process of combining a standard letter with each of a list of names and addresses. Automatically the letter is printed with one of the names & addresses.

This is a straight forward exercise in INTER-WORD once the underlying principles have been understood.

It is important to read section 22 (INTER-WORD colon commands) before proceeding.

The 'colon commands', which import data into the current package are the mainstay of the 'mail-merging' process.

In general it is necessary to use 2 INTER-WORD packages to achieve 'mail-merging'.
One of these holds a list of names and addresses, and whatever information may need to be included. The other package holds a standard letter.

The standard letter must have one or more 'embedded colon commands' at any point at which data is to be inserted. Once this is set up the number of copies is set as required and printing can go ahead.

For each copy printed, one of the names & addresses will be read and included in the standard letter.

The rest of this section goes through the necessary steps in more detail as a typical example.

Step by Step Mail-Merging:-

Starting afresh having just switched the computer on, create 2 INTER-WORD packages by entering from BASIC *IW.0<RETURN> and from the menu then enter *IW.1<RETURN>.

The first of the 2 packages will be used to hold the standard letter, while the current package will be used to hold a list of names and addresses.

Press ESCAPE to enter the 'edit mode' (you may wish to set preferences for screen codes etc. at this point).

Usually when 'mail-merging' there will presumably already be a list of names & addresses on file which would now be loaded.

Given that this is a first example it is necessary now to type in a few names & addresses for trial purposes.

First press CTRL/f4 to display the page layout menu and turn 'paging' 'Off'. This will avoid the page break lines and top and bottom spaces which would otherwise get in the way.

Names & addresses can be in any one of a number of formats, but for this example, each line of an address will start on a new line, and a blank line will be left between each address. This blank line allows INTER-WORD to distinguish one address from another.

An example is given below
Ensure that the first line of the first name and address starts on the first available line.

Computer Concepts,<RETURN>
Gadesden Place,<RETURN>
Hemel Hempstead,<RETURN>
HERTS.,HP2 6EX.<RETURN>
<RETURN>
Mr J.Nessa,<RETURN>
The Corner Shop,<RETURN>
Watford High Street,<RETURN>
HERTS.<RETURN>
<RETURN>
and so on.

Notice that the blank line is just a carriage return character and that the character immediately before it is the carriage return on the previous line.
In short this allows one name & address to be specified as 'all text up to a pair of carriage returns'. This will be referred to later.
Next switch back to INTER-WORD package 0 by typing *IW.0<RETURN> from the main menu.
Either load a letter (menu option2) or:-Enter edit-mode by pressing ESCAPE and type a simple letter into memory, omitting the recipient's address and any space required for it.
When the letter is complete decide where the address should be inserted and in edit mode, move the cursor to that position. leave a blank line above and below the address position. Exact adjustment can be done later.

Press f1 to display the 'embedded command' menu. Move the inverted bar down the menu by pressing the 'cursor down' key until it highlights the line starting with a colon.

Now type IW.1:GETTO"|M|M"
This will get all text from the current ROM-LINK pointer up to a pair of 'carriage return' characters. As described earlier, the 'carriage returns' separate one address from another.

Press ESCAPE to exit from the menu, remaining in 'edit mode'

Moving the cursor from the current position will now leave behind an inverted square. This indicates the 'embedded command' just entered. Moving back onto that square and pressing f1 again will show the colon command embedded in that position.

Press ESCAPE to exit the 'embedded command' menu again.

Press ESCAPE to enter the 'main menu' and select option.5 ('printer set-up').

Change the number of copies to match the number of addresses stored in INTER-WORD package 1 (normally the number of names and addresses that have been loaded into INTER-WORD 1, although entering a higher number will not matter because INTER-WORD will stop when it reaches the end of the text.
Now, whilst still at 'main menu' type

:IW.1:MOVETOP<RETURN

This will make sure that the ROM-LINK pointer is of the name and address list.
As a check prior to printing, menu option.7 can be used to preview the result on screen. If this is done, it will be necessary to use the :MOVETOP command to move the ROM-LINK pointer back to the start of the list.

Finally, use option.6 to print the results.
If it is necessary to halt printing before completion just press ESCAPE. The will operate normally and will leave the ROM-LINK pointer at the position reached so far.

To continue from the same point, simply select menu option.6 again without using the ':MOVETOP' command.
This is only a general description, so it may be necessary to use knowledge gained from previous sections, to, set the correct page length, printer type, single sheet stationery etc..
Because all the names and addresses have to be loaded into INTER-WORD there is only room for about 200 to 250, leaving perhaps about 3k for the letter, which will normally be enough.

To cope with larger 'mail-merging' lists it will be necessary to divide the list into memory sized chunks, to work within the memory constraints, or use the ROM-LINK compatible data-base INTER-BASE.

By using INTER-BASE it will to be possible to work from a name & address list on disc rather than in memory.