



# Word-Aid

THE UTILITY FOR

Wordwise Plus



**Watford Electronics**

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Manual written by David Fell and Matthew Rapier.



WORD-AID  
UTILITIES ROM  
WATFORD ELECTRONICS  
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WORD-AID  
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INTRODUCTION

Wordwise is one of the most popular word processors for the BBC micro, along with its more powerful companion Wordwise Plus. One of the advantages of Wordwise Plus over Wordwise is that it contains a powerful programming language. This is, in many ways, similar to Basic but does not feature Basic's line numbers. The careful use of this programming language enables the creation of numerous extensions to the features of Wordwise Plus itself; for example mail merging and label printing, etc.

As the standard version of Wordwise does not have this programming language, it cannot be used with Word-Aid. When linked with Wordwise Plus, however, we believe that you will find your word processing facilities greatly enhanced by Word-Aid's routines. This version of Word-Aid also requires that a DFS system be present, although you do not actually need to store data on the disc drive.

## GETTING STARTED

The Word-Aid ROM should be fitted in accordance with the fitting instructions sheets also provided with this package. On typing '\*HELP WORDAID' and Return, you will get a positive indication that Word-Aid is present.

Word-Aid can be entered by a sequence of holding two keys down and pressing and releasing the Break key. Hold down the Shift and Delete keys (for convenience, we suggest the right hand Shift key) and, whilst holding these down, press and release the Break key, in a similar manner to pressing a shifted character. Wordwise Plus will now be entered and Word-Aid will load. Note that Wordwise Plus is entered via a \*WORDWISE call during this process, and so users who enter Wordwise Plus via a different command (for example, \*XWORDWISE when using the Watford 32k RAM Card) should initially enter Wordwise Plus through their appropriate command, and then perform the loading operation detailed above.

Word-Aid can also be entered by a \* command:

\*WORDAID

This will perform the same start up sequence as pressing Shift-Delete-Break.

After the menu has been loaded and displayed, select the desired option from the menu, or press 'T' to return to the main text area. The Word-Aid menu may be called up at any time whilst it is loaded simply by pressing Shift and function key 4 (referred to as f4 from here on) i.e. Shift-f4. Each of the menu options is described in further detail below.

If you are already processing some text and decide that you wish to use Word-Aid, then make sure that there is no text in segments 4 and 5 as these are used by Word-Aid. Although no corruption should occur to text in any of the other segments, safety dictates that any essential text should be saved prior to the loading of Word-Aid via Shift-Delete-Break or \*WORDAID.

Options C and D of the menu return to the main text area automatically once they have finished. The other menu options all contain an exit option in their sub-menus. When applicable, pressing the letter 'T', (followed by Return if necessary) will abort the routine selected and return you to the main text area. This is useful if you have called a routine in error, or wish to cancel without pressing the Escape or Break keys.

## DESCRIPTION OF EACH UTILITY IN DETAIL.

There now follows an explanation of each utility within Word-Aid, with suggestions as to how they can be used or modified.

### a) 'Alphabetical Sorter'

This option is used to sort the main text area in to alphabetical order. The sort is performed on either individual lines or address groups (see the 'Address Finder' option later on for details of the format of an 'address'). The sorting is in ascending order, so that A comes before B etc.

To start the sort, press either the "S" key for a single line sort, or the "A" key to sort as address groups. Pressing "T" at this point terminates the sort routine and returns you to the main menu.

The address sorting option takes the text as address blocks and sorts these blocks as individual units, and not as the lines within the block. Only the first line of the block is used for the sorting. Each block is terminated by a single blank line.

When sorting, take care that the lines being sorted are not too long. The sorting procedure is intended for items such as indexes, not whole paragraphs of text. A sort on single lines will strip out any blank lines present within the text. Note that only text in the main area can be sorted, and that there should be no Tabs or embedded commands in the text being sorted or problems may occur (this is due to the way in which Wordwise Plus handles these).

Whilst sorting individual lines, the current line is displayed on the screen. Note how the system speeds up as it works through the alphabet. Once a line has been sorted it is moved past a marker point so that the list of lines to be sorted gets shorter and shorter.

b) 'Transfer of text'

Wordwise Plus allows the transfer of text from the segments to the main text area very easily using the TYPE command from the main menu. For instance try ":TYPE SEGMENT(5)" and Return when Word-Aid is loaded, and the contents of segment 5 (normally the last routine or the menu text) will be copied into the main text area at the cursor position. However, Wordwise Plus does not support transfer in the opposite direction. You can perform the operation manually through the use of a temporary disc file, but this is not always convenient.

When called, this routine offers the user the choice of "C" (for a Complete text transfer), "M" (for transfer of Marked text), or "T" (exit). Both options "C" and "M" print the same prompts. Firstly, you are prompted for the destination segment. This cannot be either segments 4 or 5 as these are used by Word-Aid itself. Selecting one of these re-enters the text transfer routine.

Having ascertained the actions required, you are prompted whether you wish a temporary disc file to be used to speed up the transfer. If you choose to use a disc drive, then you will need to have sufficient spare space on the disc to store the temporary file that will be created.

Transferring a marked portion when not using disc drives will use 3 characters, { (displayed as one quarter), } (displayed as three quarters), and ~ (displayed as divide). None of these characters should appear in the text. The marked section is initially moved to the end of the main text using the ~ (divide) symbol as a marker to show where it must finally be replaced. If the symbol occurs elsewhere the passage could end up in the wrong position.

The { and } symbols are used to cope with Tabs and the pad character. The Tab character will not transfer directly via Wordwise Plus programs. Also, if the pad character is found by chance before a 'G' or a 'T' it will be transferred as an fl or as a Tab, and thus the text in the segment would not be a true copy of the original. The { and } symbols are used to replace the Tab and pad character before the transfer, and are then replaced once the transfer routine is complete.

If there is insufficient \$ (string) variable memory to perform the transfer you will get an error message to this effect. Refer to the section concerning the 'CLEAR' routine at the end of this manual.

The disc drive transfer option saves, loads, and then deletes a file called 'POIUYTR' for the text transfer; obviously you should make sure that you are not using a file by this name (unlikely!).

c) 'Chapter Marker'

When writing a large piece of text, it is quite frequent to decide that a given paragraph occurs at the wrong place; maybe it should occur a paragraph earlier or a few later. Wordwise Plus can move a marked paragraph (or any section of text) quite easily with function key f8. Marking the start and end of a paragraph is not normally a convenient process, which is where this routine comes into play.

To place markers at the start and end of a given paragraph, simply place the cursor somewhere within the paragraph and press Shift-f4 to get the Word-Aid menu. Selection of option "C" then causes the markers (if currently active) to be deleted and then placed at the start and end of the current paragraph.

The actual code for this option is part of the menu routine itself for convenience. However, it is marked in the menu routine, beginning with the line '.ch', and ending a few lines later with 'E.' You may want to part-save this section, and use it in other routines.



d) 'Disc Drive Select'

Various options in Word-Aid access the disc drives. With this call you can specify which drive is to be used for these operations. Note that if you select a different drive to the one which holds your text file, you should include the drive number when you save your text file or it will be saved into the newly selected drive.

The drive selected here is also used by the Label and Address printing routines. Once the Label printer and mail merger routines have been used, it is wise to check that the drive number, as displayed at the top of the menu screen has not changed. This could be caused by the variable holding the drive number being corrupted for some reason. Having said this, it has been protected as far as is possible. Error trapping has been included in this routine to prevent numbers outside the range 0-3 being entered. As with option C, above, the menu routine is marked as '.dr', and again ends with 'E.'. It can be modified and used in your own routines if desired.

e) 'Epson Printer Codes'

Another useful, but not often exploited, facility in Wordwise Plus is the ability to program the function keys for use during the editing process. This option provides a convenient way of programming these keys to some useful values; as will be detailed later. The routine can easily be modified for your own printer if necessary, although at present it is configured for the Epson and Epson compatible type printers as they are the most popular in the hobbyist market.

When the routine is called you will be presented with a screen menu showing function key numbers and their associated printer command sequences (in this case, the codes necessary to achieve various functions on Epson printers). This table is shown below for convenience. To program these options into the function keys press the Return key. Pressing any other key will cause the routine to abort and not alter the function keys.

Once the keys are programmed, they are called (when in Edit mode) by holding down the Shift and Control keys, and then pressing the relevant key. For example, to enter the sequence of characters to send underlining on, hold down the Shift and Control keys and press function key f0. You will then see the characters appearing at the cursor position, just as if you had typed them in.

Note that the 4 cursor keys and the Copy key can also be programmed in exactly the same way as the other function keys. This option programs the 4 cursor keys for those users who have the Watford Epson NLQ ROM installed. It will generate the most frequently used commands of NLQ type, and NLQ proportional type. The Copy key has been set to enter the sequence "EP LM6 LL68 DP35 JO". These are fairly typical heading codes used by the author at the top of standard text. Whilst the choice of 6 and 68 may seem strange, it is done for the following reason.

Epson printers can produce a number of standard different sized type faces, with a different number of characters per line. The enlarged type face takes up exactly twice as much width as the normal (pica) typeface, for example. If you use the commands with the LL and LM as listed below between paragraphs, you will find that although previewed text looks very odd, the printout will line up almost perfectly, with the left and right margins lining up quite accurately.

Pica	LM6	LL68
Condensed	LM10	LL116
Enlarged	LM3	LL34
Elite	LM7	LL82

It is quite simple to alter the routine for non-Epson compatible printers. Look at the table and you will see each function key line, with the command preceded by |!! which is the symbol for a green embedded start f1 and |!" for a white embedded end f2. Simply modify the lines as you wish, starting with the former and ending with the latter. When you have finished, save it on disc as your own printer routine.

#### Function Key Defaults

(f0) Underlining	ON
(f1) Underlining	OFF
(f2) Double-strike	ON
(f3) Double-strike	OFF
(f4) Condensed	ON
(f5) Condensed	OFF
(f6) Elite	ON
(f7) Elite	OFF
(f8) Enlarged	ON
(f9) Enlarged	OFF
(Left) NLQ	ON
(Right) NLQ	OFF
(Up) NLQ proport.	ON
(Down) NLQ proport.	OFF
(COPY) EP,LM6,LL68,DP35,JO	

f) 'Search and Display'

This option allows the user to search for a given string (often a word or group of words) within the main text area. There is no conversion performed between lower and upper case for the search and only precise matches are found (i.e. the number of spaces, etc., is crucial). Usage is very simple; enter the string that you wish to search for and press Return. (If you have called this routine accidentally and wish to exit, enter a single T and then press Return. Note that this means you cannot search for the single character "T").

Once a match is found, the text is displayed in 'preview' mode. This means that a few lines above and below the match are displayed as if the text were being previewed. If there is sufficient memory the text will be printed in 80 column mode with the word in 'reverse video' ie black on white. If there is not sufficient memory, then lower screen modes will be used, as is normal for previewing. Those who use Shadow RAM cards (such as the Watford 32k RAM Card) will always have the text previewed in 80 column mode, no matter how much memory is used. Other effects, such as the US and DS commands, will also affect the display.

When you have read the text displayed, press the Space Bar to continue. Word-Aid will then ask you if you wish to search for any other occurrences of your string. If you answer 'Y' the searching will carry on from the current position. This carries on until the end of the text is reached, or until the user answers 'N' to the question. At the end of the search, the number of matches found is displayed.

g) 'Remove Embedded Commands'

Occasionally, it is useful to be able to remove all the embedded commands from within a piece of text. This command goes through the text in the main text area and removes all its embedded commands. Text that follows embedded commands (for example, the text following the embedded CE command) will be left and not deleted.

Due to the way in which Wordwise Plus allows embedded commands to be strung together by entering the "green" code (f1) after a command without the terminating "white" code (f2), it is not really practical to write a routine to remove only certain embedded commands. If you wish to delete only certain commands, then you may find it easier to delete all the commands and then put back the ones that you still require.

The removal of the embedded commands is a fairly tricky process and can take a while on long pieces of text. When the removal process starts, a message is displayed on the screen to indicate that this is in progress.

Any spaces inserted after the CE embedded command will be left and must be removed manually. The user will probably know that to get a piece of text centred AND underlined with Wordwise Plus requires a space or pad character to be inserted between the CE and US commands. This routine will not remove these spaces and so they should be deleted manually if necessary.

Any text following the DH and DF embedded commands will also be left and must be removed manually. This is done deliberately because the heading/footer text may still be needed elsewhere. Also there is a danger that 'real' text may be erased if the routine is allowed to rub out anything other than an embedded command.

As a small aside, it is possible to alter the routine to see it in operation. Select the routine from the menu and press Escape when the routine prompts you to press a key to continue. If you then add the command DI.1 immediately below the G\$=G. command the text will be displayed as the embedded commands are deleted. (Note that with some versions of Wordwise Plus you should omit the 1 after the DI. - try the routine with and without the 1 to find out which one suits your version of Wordwise Plus).

## h) 'Multiple Copies'

A common occurrence, having prepared a document, is to wish to print a number of copies of it. Although it is quite an easy task to write a routine to perform this action, the routine provided here is already written to carry out this action, and includes some error trapping.

To make this feature really useful, there is also the option to include a BP (Begin Page) embedded command at the end of each print done. This is not always necessary on single copies, but is often required for multiple copies so that they start on new sheets of paper. Remember that the BP command will only start a new sheet if you have included an EP (Enable Paging) command in your text.

After each copy is printed, the screen will be cleared and then display how many copies have been printed so far. Finally you will be returned to the main text area.

## i) 'Continual Processing - File Selection'

Wordwise Plus can cope with text files of up to about 24k in size; if anything longer is required, it has to be split up into multiple files. When using Wordwise Plus for major writing applications, one can find that many files are needed to contain the required text. Keeping track and manipulating them is normally a process that involves a degree of note jotting etc. However, the 'Continual Processing' options of Word-Aid allow the user to easily keep track of a group of files forming a large document, and to print, preview, load and save them nearly as easily as a single file. The file select option allows you to select which file you wish to deal with (load/save), and the print/preview option (the next one) is used to take a group of files and to either print or preview them as if they were one big file.

For both of these options Word-Aid requires a file called FLIST, which contains the list of the files that form the large document. This must be loaded into a segment (for example segment 0) before it can be used; Word-Aid always accesses this list via a segment. Having loaded this text file into one of the segments, call up the 'Continual Processing: file select' option from the menu.

When called, this option prints out the segment selected for the FLIST and prompts for the user to enter a new segment if required (currently segments 4 and 5 are invalid options for the FLIST segment), or to press Return to keep the segment that is currently selected. Word-Aid will then check the segment specified to see if it contains a valid FLIST file. If it does not, then you will be informed of this and prompted to enter your choice again. This repeats until Word-Aid is satisfied with the segment specified.

Having verified that the segment specified is valid, Word-Aid displays a numbered list of the files names present within this segment. It then prompts the user to enter the number of the file that they require.

Having checked the required file number, Word-Aid then checks to see if there is any text in the main text area. If there is and it does not have a filename attached to it (the variable F\$ holds the filename for the main text area) then the user will be asked to supply one. If a filename exists (in F\$) the user will be asked if they wish to alter it. Press Return if you do not wish to alter the name present. Once a name has been finalised, and providing that there is some text there, it will be saved onto disc under the name specified. If a new filename is typed in, this will be added to FLIST (ie the segment previously selected), and then the old file (if any) will be saved, and the new one loaded. Finally the user will be returned to the main edit mode. Note that no error-trapping has been included for using the same filename twice.

This option is quite complex with a great number of different

possibilities. The best way to understand this option is to try it out.

At the end of the editing/typing session don't forget to save (FLIST).

FLIST is, basically, a list of files. All the files required to constitute the whole text must be specified in this list, and must be in the order required.



j) 'Continual Processing - print/preview'

The print/preview option takes a list of files from a specified segment and prints or previews all the files specified in the order in which they occur. This option complements the previous option in that it allows you to see as 'one file' the group of files you have just edited via the 'file select' option.

When called this routine first issues a warning to the effect that any text in the main area will be lost if you proceed so save it first if necessary. The routine can be aborted at this point by pressing T (or indeed any other key except 'P'). Assuming you wish to continue, it will then ask if you wish to preview or print, and whether you wish for either or both a pause (PA) command and/or a begin page (BP) command to be inserted between each file in FLIST. The PA embedded command has to come first because the BP command (minus f2) needs to be the last command in the text files for it to function correctly.

When all the options have been set, the routine will call and preview/print each file in sequence. The advantage of this system over manually printing each file separately is that the page numbering will automatically be carried over from file to file so you do not have to use the PN embedded command to get correct page numbers. You can thus easily see how long the complete set of files is, and what the total effect of any additions/deletions would be.

Note:

- 1) If the files specified already end with a BP embedded command then they will start on fresh pages anyway, so in this case answer NO to the BP question otherwise an extra page will be inserted.
- 2) Remember that in Wordwise Plus the BP embedded command is only effective once paging has been enabled with the EP embedded command. Consequently, if you have forgotten to include this, then inserting the BP embedded command will have no effect. The first file in the list should contain the fundamental formatting commands such LM, LL, JO etc. all of which will be carried over to the next file.

k) 'Address Finder'

One of the frequent uses which word processors are put to in 'real life' is the preparation and sending out of leaflets, letters, etc. to a large number of people, all of whom are present on a mailing list. The next three routines detailed are all associated with manipulating a mailing list and the preparation of 'personalised' letters.

This, and the next two routines, assume an address file constructed in the same manner. There should be no control codes or other peculiar commands in the file; it should be just a standard text file. It can be constructed with Wordwise Plus in the normal manner, but should not contain any green commands, Tabs etc.

The format of the address entries are as follows:

The first five lines are allocated as the name (first line) and address (next four lines). For example, the first five lines might be constructed as follows:

```
T. Bone Esq.  
1 The Road  
The Town  
The County  
Post Code
```

The sixth line is used to keep the salutation; the name used to greet the person at the start of the letter e.g.:

```
T. Bone Esq.  
1 The Road  
The Town  
The County  
Post Code  
Tom
```

The 7th and 8th lines have been included as spares and can be used for your own purposes; they are not normally used by any of the options in Word-Aid. As these two lines are not normally printed out they could contain information such as: completes contracts quickly, inefficient, catalogue sent last month, etc.

It is important that each 'address' block does consist of eight lines followed by a blank line, even if all the lines are not needed. To pad out the entries, the @ character on a line by itself should be used. When reading in lines from an address file, Word-Aid will substitute any line which is just an "@" character with a totally blank line. After each eight line entry, there should always be a blank line. Our complete entry might then be as follows:

T. Bone Esq.  
1 The Road  
The Town  
The County  
Post Code  
Tom  
Send catalogue next month  
@

The Address finding routine is used to search a specified address file, given a name, and to insert the corresponding address from the address file into the main text area. With large name lists, it is more frequent to remember the name and not the address; this is where this routine is most useful. Situations where you are being asked to find the address of "T Bone Esq", etc., can also be dealt with by using this routine.

Having selected this routine you will be asked for the complete opening line of the required name and address. This must be typed in as accurately as possible as any discrepancies will cause the match to fail.

Because of this restriction you should adhere to a convention on entering names. You must choose whether you will always, say, put a full-stop after each initial and which parts of the name will be in upper case. If the text you enter is different in anyway from that in the Address file then it will not be found.

Once you have entered the name of the person in question, Word-Aid prompts the user to supply the name of the disc file containing the names and addresses. Word-Aid then searches the specified file until a match is found, whereupon it will print that line with the following 4 lines containing the address at the cursor position in the main text area.

The time taken for the search obviously depends on where the match is located in the file, but as an example, the final address in a file of 50 was found in 7 seconds and the final address in a file of 125 was found in 19 seconds.

## 1) 'Label printer'

Having produced the 'personalised' letters, the next thing that is most likely to be required is a series of address labels to complement these letters. The label routine supplied will cater for most requirements. It allows for one or two copies of each label to be printed in either one or two columns. The width between columns and rows is variable, as is the left margin (used to align the left column of the label sheet). All these are entered immediately prior to the entry of the address file name.

After specifying all the options, the routine will search the disc for the specified address file and print the labels. The format of the file is explained in detail under the "address finder" section above. It is assumed that each name and address will be at least 5 lines long. All the names and addresses from the file are printed; there is no selective print option for the labels printer.

The distance between two rows of labels is measured from the top edge of the first label to the top edge of the second label; the measurement units are printable lines. As most printers print at 6 lines per inch, this distance can be easily calculated. If the rows are 2" apart, the amount to enter would be 12. Similarly the distance between the two columns (if any) is measured from the left hand edge of each label and is best discovered by trial and error on some spare paper. The left hand margin moves the entire printing to the right, and ensures that the print head is aligned on the left hand column properly.

### NOTE:

- 1) If for any reason this routine is aborted wrongly, it may leave the address file open on the disc. This can be closed by typing :CLOSE#0 followed by Return from the Wordwise Plus menu.
- 2) There is no reason why special printing commands should not be inserted into the routine itself using the normal VDU commands, (or from the main Wordwise Plus menu) so that the printer produces, say, condensed or elite typeface.
- 3) This routine is the longest on the ROM, and involves opening two channels to the address file. Along with this, the complexities of the task required necessitate many variables being used, most of which will be emptied when the routine is completed.
- 4) A compromise has always to be struck between the length of a routine to make it both 'user-friendly', short and fast. It is hoped that a suitable balance has been found, but apologies are given if the screen requests appear brief.

m) 'Mail-Merger'

For those unfamiliar with the concept of mail-merging, it is one used extensively by catalogue mail-order companies. Using a list of names and addresses with the mail-merging routines allow 'personalised' letters to be generated automatically from one 'master' letter.

Selecting this option from the menu produces a list of options including selections for the first six lines of the address entry. Entering a number between 1 and 6 enters an embedded command in to the main text area at the current cursor position. This embedded command will be used when you select the print option to produce the relevant line from each address entry. Note that the requested information can only be inserted at the time of printing because it is variable; changing for each entry in the address file. The reference to the line is, however, constant.

To start the printing, press the Space Bar; you will then be prompted to enter the name of the address file that you are using. Having checked that this file exists, the mail-merger routine performs a number of 'prints' on the text in the main text area. For each place where Word-Aid has entered the appropriate embedded command it will extract the correct entry from the address file and substitute it in the text.

The finished result of a Word-Aid mail merge will be formatted correctly because Wordwise Plus does not format the text surrounding the embedded command until the replacement text has been read in, and hence Wordwise Plus takes this new text into account when formatting. This is one of the main attractions of mail-merging with Wordwise Plus; the fact that variable data can be inserted into a master piece of text with no obvious blank spaces left and all formatting etc. automatically being adjusted correctly.

NOTE: It is important that the first line of the 'master' should be either a blank line (ie press Return before starting to enter anything) or a line of embedded commands followed by an f2 and Return. These commands would normally be the EP, LL, LM, PL, and JO commands. The Mail-Merger may not function correctly if this is omitted.

For more experienced users, the mail merger routine can be customised quite easily. By entering segment 5 when the mail merger code is loaded there and altering the occurrences of the "@" symbol in the appropriate tests, it is possible to specify what string should be used to indicate a blank line. Changes produced can only really be saved onto disc for later recall using a specially altered version of the menu to work from disc drives. Production of this is basically a question of transferring all the relevant files to disc and removing the \*ROM commands from these files. A disc version of Word-Aid is available from Watford Electronics and further details

are available upon request.

More data lines can be included in the address file by altering the program as follows. Add the following line at the end of the Mail-Merger menu:

```
P." 9) Line name      (J$)"
```

then adding the following to the .se routine (after the I\$ section):

```
J$=GLF$#X%  
I.J$="" TH.E.  
I.J$="@ " TH.J$=" "
```

and finally finding the line U.Y%<57 (very close to the end); increase the 57 by for each line added - alter to 58, 59 etc. for the addition of one or two extra lines. The modified routine can then be saved on disc for use elsewhere. Note the line I.J\$="@ " TH.J\$=" "; this is one of the tests for the character to be treated as a blank line.

Below is a sample data file in the correct format for the Address finder, Label printer, and Mail-merging routines. You will notice that some addresses have the @ symbol where the postcode isn't known, and in this example the 7th line has been used to store the date when the various people were last contacted. Note that the very last line of the complete file (in this example after the @ line following the word January) MUST end with a Return.

Watford Electronics  
250, High St  
WATFORD  
Herts  
WD1 2AN  
Mr Jessa  
May  
@

The Micro User  
Europa House  
68 Chester Road  
Hazel Grove  
Stockport SK7 5NY  
Mike  
August  
@

Computer Concepts  
Gaddesden Place  
HEMEL HEMPSTEAD  
Herts  
@  
Mr Moir  
January  
@

n) 'Number/delete/renumber'

Some people prefer to write Basic programs from within a word processor. The method of performing this is to include \*BASIC and AUTO as the first two lines of the file. Once the file has been edited as necessary, it is saved and then \*EXEC FILE is typed in to EXEC the file. This method is very nice, for it allows all of the facilities and power of a word processor to be brought to bear on the editing of the program. There are, however, occasions when it is necessary to have the program numbered at the time of writing (which it is not normally the situation when editing via a word processor). To do this numbering manually at the same time as writing the program is an awkward task prone to errors, and it is for these occasions that this routine has been designed.

Word-Aid assumes that you want each line number to rise in increments of 10. You can choose to number or renumber from the present cursor position until either the first blank line is found, or until the End of Text. This makes it simple to renumber just a section by adding a blank line after it.

To start numbering place the cursor somewhere on the first line to be numbered and then call this routine. Numbering will start at line 10, and increase with increments of 10 per line. If, however, a line number is found at the start of the current line, then this number is used to start the numbering (the number is rounded up to the nearest multiple of 10), but the increment used is still 10.

The numbering routine deletes any line numbers it finds at the start of the line before adding new ones, making renumbering very easy indeed. The deletion routine simply removes any line numbers again either to the first blank line or until the End of Text.

The option to SPOOL the file with a new filename is for those who then intend to EXEC the file back into Basic. Once this has been done the program can be SAVED or RUN as appropriate. However it must be remembered that when spooling Wordwise Plus assumes a default line length of 70, so if your program lines are longer than this, you must set the LL command at the top of text. The maximum LL is 180, so the numbering routine will error trap if it finds a line longer than this.

For those interested in modifying the routine; to stop the routine 'rounding up' to the nearest 10 find and delete the line:

```
I.G%>0 AND H%>0 TH.G%=G%+(10-H%)
```

Similarly if you want to change the amount by which each line increments, find and modify the line  $G\%=G\%+10$  to, say,  $G\%=G\%+1$  to increment by 1.



Finally, if you want to see the routine working, find the line I%=ASC(I\$) and immediately above it, insert on its own line DI.1 (with a few Wordwise Plus versions miss out the 1). This slows down the routine a lot but it allows you to see the routine in action.

Please note that the routine deals only with numbers at the start of the line; in other words it cannot cope with GOTO statements etc (some would say a good thing - to encourage structured programming). If you have any program lines that refer to others they must be altered manually once the routine is finished.

o) 'Clear segment/text area'

As the name implies, this routine will clear any segment (except 4) or the main area of any text. As a precaution, it asks for confirmation first, just in case it has been called in error. After deletion you will be returned to the main text area.

\* Commands.

You can enter normal \* commands from the Word-Aid menu in just the same manner as you can from the Wordwise Plus menu. You must be careful not to execute a command that will corrupt memory before ensuring that your text is safely saved onto disc. Also, you can enter one \* command immediately after the execution of another, just as with the normal Wordwise Plus \* commands.

## \$ variable memory

There are situations, fortunately rare, when problems can arise due to the \$ (or string) variable memory being allocated to other tasks. Two occasions when problems can arise are as follows.

1) Earlier in the manual, in the 'Transfer Text' option, a situation was mentioned whereby an error message could be returned warning the user that there was insufficient \$ variable memory to perform the routine. This can be quite a problem as there are only just over 600 bytes available to \$ variables, and the GLT\$ function requires 255 bytes free to operate. The remainder can easily get filled up if routines are used that don't clear the long variables after use.

2) If you have trouble loading and running a particular routine, it almost certainly means that some of the variables have been corrupted, usually A\$ or B\$. This is either because a routine has been aborted wrongly, or because another routine from elsewhere has been used. If A\$ and B\$ are corrupted, they may be cleared from the main Wordwise Plus menu by typing :A\$="" Return and :B\$="" Return. Any routines that had not been working should now work.

To try and solve these two problems, there is printed below a very simple routine which will clear all \$ variable except F\$. As this holds the current text filename, this is preserved. The routine is loaded into a segment, say segment 8, and then called in the normal manner; Shift f8 in this case. In addition numeric variables A%-D% are cleared. The \*FX210,0 resets the 'beep', and \*DISC restores the disc filing system. Thus if something does happen and the variables become so corrupt that the routines will not load from the menu under any circumstances, use this routine.

A\$=""  
B\$=""  
C\$=""  
D\$=""  
E\$=""  
G\$=""  
H\$=""  
I\$=""  
J\$=""  
K\$=""  
L\$=""  
M\$=""  
N\$=""  
O\$=""  
P\$=""  
Q\$=""  
R\$=""  
S\$=""  
T\$=""  
U\$=""  
V\$=""  
W\$=""  
X\$=""  
Y\$=""  
Z\$=""  
A%=""  
B%=""  
C%=""  
D%=""  
\*FX210,0  
\*DISC  
DISPLAY

## APPENDIX

These are some technical details on the operation of Word-Aid that may be of use to those wishing to modify the Word-Aid routines for their own purposes.

It was decided to use segment 4 for the menu, and segment 5 as necessary for the routines. This avoided the most common segment areas of 0, 1, 8, and 9. There are continuous processing routines available which use a list of files (FLIST) in a specified segment. In an attempt to be consistent with these, options i) ('Continual Processing- File Select') and j) ('Continual Processing - Print/Preview') allow for a choice of segment. This is explained in more detail in the appropriate sections of this manual.

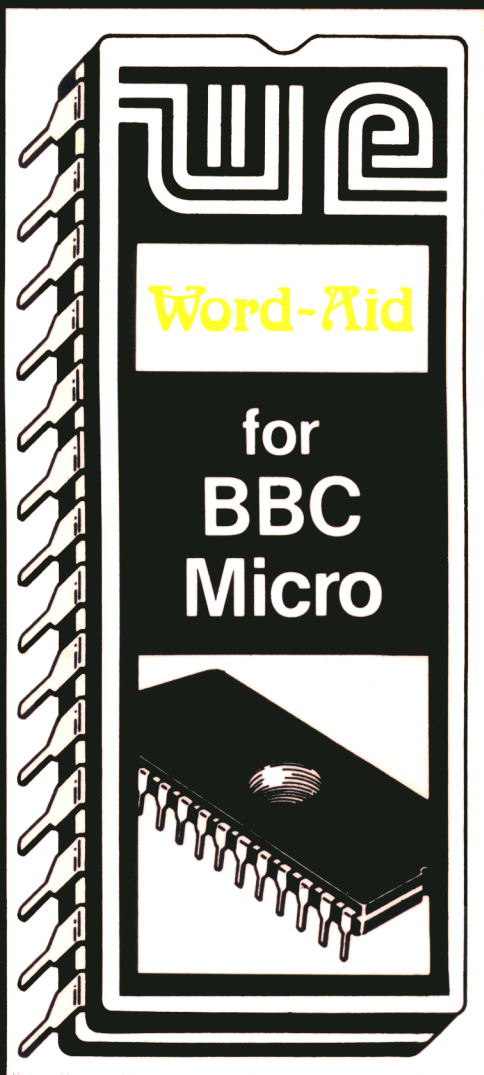
Routines which are not part of the menu program itself are loaded into segment 5 as required. Once a procedure has been executed (but not deleted) you can either recall it direct from segment 5 with Shift-f5, or from the menu again with Shift-f4.

The design of the menu is such that if you make a copy of it onto disc (deleting all references to the ROM filing system - i.e. \*ROM) you can then use it to create your own menu of routines from disc. The main menu loads a file of routine names called LIST into segment 5 to displays the menu. Each file is then called by the letter corresponding to its position (ie Alphabetical sorter is 'A' and Search and display is 'F'). You could very easily modify this to call your own routines. Note that option 'c' is reserved for 'Chapter marking' and option 'o' for deleting text so that these cannot be used for other purposes so easily..

The main menu is stored using the \*ROM filing system with the name MENU. All the routines contained in the EPROM have been condensed and abbreviated as much as possible. This saves text memory space and allows more to be squeezed onto the EPROM. This has the disadvantage that the routines are very difficult to understand and modify for your own purposes. Where applicable, some hints have been given for further development.







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