

1. INTRODUCTION

1.1. This software is a comprehensive

1.2. Sharp MZ-80K

1.3. primarily

1.4. available.

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WDPRO

A Word Processor for the
Sharp MZ-80K and the Epson
MX-80F/T Printer, written
by Dr. B. R. Gladman.

Copyright: B R Gladman 1981

1.5. Two versions

1.6. are

1.7. supplied

1.8. with the

1.9. Sharp

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1.11. and the

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This software is supplied in the belief that it operates as specified but neither the author nor the supplier will be held responsible for any problems arising in or from its use. Two versions are supplied, WDPRO/S for the Epson fitted with the Sharp character set, and WDPRO/E for the Epson fitted with the standard ascii character set. The disc version of WDPRO requires a 48K MZ-80K.

THE SDOS WORD PROCESSOR

1. INTRODUCTION

WDPRO is a comprehensive disc based word processor for the SHARP MZ-80K and the EPSON MX-80 printer. While designed primarily for use with discs, a tape based version is available. WDPRO offers the following major features:

- 1.1. Full screen editing.
- 1.2. Block move, copy and delete.
- 1.3. Search, find and replace functions.
- 1.4. Comprehensive output formatting.

Two versions are supplied: WDPRO/E for the Epson printer with the standard ascii character set, and WDPRO/S for the Epson with the Sharp character set.

The tape version of the word processor is loaded in the usual way; if the word processor is supplied on disc it is loaded by first booting the disc and then typing "WDPRO/E" or "WDPRO/S" (less quotes and followed by CR) in response to the "A>" prompt from the SDOS disc operating system. These notes should be read carefully before using WDPRO.

2. THE KEYBOARD

Nearly all of the blue keys on the right of the keyboard are inoperative when using WDPRO. The remaining keys operate according to the following rules:

- a) Most keys repeat if held down.
- b) The alphabetic keys are normally lower case but capitals can be obtained by pressing the shift key with the key required. Pressing the shift and the sml-cap keys locks the keyboard in capital mode. Shift lock is released by pressing the sml-cap key.
- c) The numeric keys are operative in lower case mode only.
- d) The punctuation characters in the top row of the keyboard are obtained in upper case mode. To obtain those in the row below, press the break key and then the key required (this will also work for the top row). If more than one such key is needed, punctuation mode can be held for the next key by holding shift down while entering the current keystroke. Since "pi" in the upper row is rarely needed in word processing it has been replaced by a "?" to make the latter more accessible. Also the blue keys immediately to the right of the main keyboard give "[", "<", ":" and "@" in lower case, and "]", ">", ":" and "@" in upper case (top to bottom).

3. THE CURSOR KEYS

The cursor up, down, left and right, the delete, and the space keys operate as usual. The other cursor keys have the following effects:

- a) CR Commands which are typed on the command input line are executed by pressing CR. On its own CR is used to enter and leave screen edit mode.
- b) INST This key allows insertions. Normally when in screen edit mode, any characters entered will overwrite any which are already there. After INST is pressed however any character entered causes the characters at and above the cursor position to move up in order to make space for the new character. In addition to entering insert mode the INST key also enters a space character into the text area. A different cursor character is displayed to provide a reminder that this mode is operative. To return to normal mode press CR. On the command line INST simply makes room for a single insertion.
- c) CLR If pressed during a command input this key will delete and restart the entry. In screen edit mode it has a different effect - it moves the cursor to the top left position on the screen. If the cursor is already there it moves the screen "window" up through the text area until the beginning of the area is reached.
- d) HOME This key moves the cursor to the bottom left screen position in screen edit mode. If already there the screen "window" moves down through the text area. In command mode it moves to the start of the command line.
- e) SHIFT-BREAK This key combination is used to abort any command in progress with an immediate return to command mode (remember that "break" alone gives punctuation mode).
- f) SML-CAP In screen edit mode pressing sml-cap when in lower case causes the cursor and the screen "window" to be set to the top of the text being edited or entered. Pressing sml-cap when in upper case causes a return to lower case after which a second press moves to the top of the text.
- g) The blue key adjacent to the right hand shift key provides two additional cursor functions. When this key is pressed the cursor remains fixed but the text moves left under the cursor. If shift is pressed as well the text moves right under the cursor.

If a tone sounds during text entry this means that the text area is full. If this happens unexpectedly it may mean that there is spurious text at the top of your file (use sml-cap to see if this is so).

4. COMMAND MODE

On entry WDPRO awaits commands with the cursor on the command input line (headed by "WP>"). At this stage the upper part of the screen will generally contain rubbish which can be removed by typing "NEW" (less quotes) followed by CR (the text area is not cleared on entry in order to allow WDPRO to be loaded with a text already in memory). Pressing CR alone when in command mode enters screen edit mode, after which text can be entered into the text area. A return to command mode can be achieved either by pressing the shift and break keys or by pressing CR (twice if in insert mode). Note that all WDPRO commands can be entered in either upper or lower case. The commands which are available are described in the following paragraphs. In these descriptions command words are generally delineated by quotes but must be entered in response to the WP> on their own. Most commands can be aborted by pressing the shift and break keys simultaneously. The command "EXIT" will return from WDPRO to the monitor.

5. BLOCK COPY, MOVE AND DELETE COMMANDS

5.1. The "DEL" Command

The command "DEL" deletes a block of text. After typing this command screen edit mode will be entered with only the cursor keys active. The cursor is now moved (using any cursor movement keys including sm1-cap) to the first character in the block to be deleted, after which the CR key is pressed. This process is then repeated to mark the last character in the block, again pressing CR, after which the deletion will be performed.

5.2. The "MOVE" Command

This command allows text to be moved from one position in the text area to another, the block to be moved being specified as for delete. After this has been done the cursor is set to the position to which the block is to be moved.

5.3. The "COPY" Command

The command "COPY" is identical to MOVE except that the block is copied rather than moved.

6. SEARCH, FIND AND REPLACE COMMANDS

There four functions, "SHOW", "FIND", "REP" and "REPC" are available for finding and manipulating sequences of characters (called strings in what follows).

6.1. The "SHOW" Command

This command shows the position of a specified string. For example:

SHOW3/and/

will find the first three occurrences of the string "and",

stopping with the cursor flashing over each in turn. The CR key is pressed to proceed to the next occurrence. If present, the repeat number (i.e. 3 in the above) must be less than 256; if absent all occurrences are located. As usual the command can be aborted by pressing the shift and break keys. Note that, in this command and the other three commands described here, the maximum string length is 16 characters and the string delimiter ("/" in the above) can be any punctuation character, "SHOW3.and." giving the same result as above. The delimiter is not needed if it is the last character on the command line. Thus the command line: WP>SHOW3/and functions as before.

6.2. The "FIND" Command

This command is similar to SHOW except that the cursor is moved to the n'th occurrence of the given string at or above the current cursor position, where n is the count value. If the count is not present a value of 1 is assumed and the cursor is moved to the next occurrence. Thus the command:

FIND3/and/

will move the cursor to the third "and" at or above the current position. Edit mode will be entered automatically if the specified string is found (type CR if edit is not required). The FIND command can be used in combination with other search commands to skip over text. Thus the command line:

WP>FIND4/Fred/SHOW3/Tom

will move to the fourth occurrence of "Fred" and then show the next three occurrences of "Tom". Edit mode is not entered after "FIND" unless it is the last command on the line. All four commands described in this section can be combined on a single command line in this way. In such multiple commands, if the search string for any command is null then the last string previously defined on the line is used. Thus the command line:

WP>FIND4/Fred/SHOW1//FIND3/Tom/SHOW

will first FIND the fourth occurrence of "Fred" which it will then show. After this it will find the third occurrence of "Tom" and then show all subsequent occurrences. Note that a null string is shown by two adjacent delimiters ("//" above) which can again be omitted at the end of the command line.

6.3. The "REP" and "REPC" Commands

The "REP" and "REPC" commands are used to change character strings in the text area. The command:

REP3/Sir/Madam/

will replace the next three occurrences of "Sir" in the text area with "Madam". If the repeat count is absent all occurrences will be replaced. Thus: a) REP/left/right/ will replace all occurrences of "left" with "right", and b) REP/Tom// will remove all occurrences of "Tom". The conditional

replace command "REPC" is similar to "REP" except that each time the search string is found in the text it is shown to the user by flashing the cursor. Pressing the Y key will perform the string replacement and then continue the search; all other keys continue the search but do not perform the string replacement. As indicated earlier these functions can be combined with each other or with "FIND" and "SHOW" on a single command line. Thus the command line:

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WP>FIND4/and/REP//&/
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will find the fourth "and" in the text and then replace this and all subsequent occurrences with "&".

7. LOADING AND SAVING TEXT

7.1. The "SAVE" Command

This command, followed optionally by a / character, and then a file name, will save the current text on disc (tape in the tape version). The file name must not be greater than fourteen characters in length; while it can contain lower case characters, these will be converted to upper case before the name is used. As an example, the command line:

```
WP>SAVE/Textfile
```

will save the current text using a file name "TEXTFILE". If saving to disc, the file name with "SAVE" must not include any ? or * characters - if it does an error will occur. If you are using the tape version of WDPRO the command "VERIFY" can be used immediately after saving to check the recorded tape in the usual way (remember to rewind the tape first).

7.2. The "LOAD" Command

To load a text into the text area the command "LOAD" is used, followed by a file name as described above. The text from the file will be appended to any text which is already in the text area - if necessary the text area can be cleared before loading by using the "NEW" command. When loading from disc the file name with "LOAD" can contain ? characters which will match any characters in corresponding positions during the disc directory search. Also, if a disc file name is terminated by a * character, the first file found with a name which matches the characters before the * will be loaded. if no name is given the first file encountered will be loaded.

7.3. Disc Drive References

The disc load and save commands will normally use the disc from which the SDOS system has been booted - to load or save to another disc drive the file name entered must be prefixed by a character in the range a-d followed by a "."; thus: SAVE/b.text will save a file named "TEXT" on disc drive b. The letters a-d correspond to drives 1-4 respectively.

8. ADDITIONAL COMMANDS IN THE DISC VERSION

If you are using the tape version of WDPRO you can ignore this section.

8.1. Saving and Loading Using Tape

The commands "TSAVE" and "TLOAD" are used to save and load from tape. The file names with these commands must not contain ? or * characters. Immediately after writing a tape it can be verified by using the command "VERIFY".

8.2. Listing the Disc Directory

The command "LIST" will list the files stored on disc using the screen prompt area. After six names have been displayed WDPRO pauses to allow inspection - to continue press CR or shift-break to terminate. A listing to the printer can be obtained with the command "PLIST". Both these commands can be followed by a file name which can contain a reference to a disc drive as well as both ? and * characters. Thus "LIST" will list all files on the default drive while "LISTb" or "LIST/b" will list all files on drive b. The command: LIST/b.let* will list all files on drive b whose names begin with the string "let"; the command: LIST/a.??? will list all files on drive a with three or less characters in their names; the command: LIST/a.??text will list files on drive a with 6 character names ending in "text". File names with ? or * characters which can identify more than one file are known as ambiguous file names.

8.3. Erasing and Protecting Files

This "ERASE" command, followed by a file name which may be ambiguous, will erase all files from disc whose names match that given. Thus: ERASE/b will erase all files on drive b. If the command issued might remove more than one file from disc (i.e. the name given is ambiguous) you will be asked to confirm the operation by pressing the "Y" key. As a further guard against inadvertent erasure the command "LOCK" followed by a file name will mark the specified file on disc so that it cannot be deleted. If the name is ambiguous the first file which matches the name given will be marked. The command "UNLOCK" reverses this process.

8.4. Disc File Name Properties

Before describing further features of WDPRO it is worth summarising the features of disc file names:

- a) The file name can optionally be separated from the associated command with a / character.
- b) It can optionally be prefixed by a disc drive reference which is a character in the range a-d followed by a ".".
- c) A disc drive reference on its own is a character in the range a-d terminated by CR, a preceding / being optional.

- d) File names must be at least two characters, the maximum length being fourteen characters (not counting any drive reference).
- e) In all commands except SAVE, the file name given can contain ? or * characters. In the search of disc file names a ? will match any character at a corresponding position; with a * character a match will occur if all characters before the * agree.
- f) A null file name will match all disc file names. In "LOAD", "LOCK" and "UNLOCK" the first file which matches will be used; in "ERASE", "LIST" and "PLIST" the operation will apply to all matching files.

8.5. Using the SDOS Disc Operating System

To return to the SDOS disc operating system when in WDPRO use "EXIT" to enter the monitor and then reboot the disc to enter SDOS. You will need to know a small number of SDOS commands in order to create new discs for use with WDPRO. When in SDOS a list of the files on a disc can be obtained by typing "DIR" (default drive), or "DIR" followed immediately by a letter A, B, C or D (giving the files on the specified drive, eg. DIRB for drive B, 2). Assuming that a master disc is on drive A, the command:

A>INIT:B,10,LETTERS

will initialise a new disc on disc drive B (2) - when using SDOS be careful not to issue this command accidentally. The new disc will have a volume number of 10 and a name of "LETTERS". If drive B is specified as here, drive A must contain a master disc. If drive B is being used as the system drive then the INIT command must specify drive A. Note that the volume number must be less than 256 and the name must be less than 16 characters in length. To copy any files onto the new disc from the master, use the SDOS command:

A>COPY:filename,B

which will copy the specified file from drive A to drive B, keeping the same name. For example:

A>COPY:WDPRO/S,B

will copy WDPRO/S. The other SDOS command files INIT and COPY can also be copied in this way to create a new master disc. You should do this with the disc supplied in order to avoid wearing it out. Note that the command:

A>COPY:filename1,B.filename2

will copy the file accross but with a new name "filename2". The SDOS system has a number of other commands which you do not need: GO, RES, ENT, LOAD, SAVE, DEL, REN and SET. You should avoid entering these while in SDOS (DEL is particularly dangerous since it can delete all files if not used properly).

9. TEXT OUTPUT AND FORMAT COMMANDS

The command "PRINT" is used to output the text to the line printer. A number following PRINT outputs this number of copies of the text. If a double spaced draft is needed use the command "DRON" before using "PRINT"; the command "NORM" returns to single spacing.

In order to format this output the text can contain a variety of format commands which will now be described. All format commands are introduced by a control character which is normally "/". This character always introduces a command and cannot be used elsewhere; however it can be changed if necessary by using the command: /=ch where ch is the new control character (thus: /* will make * the control character). The control character followed by a space is a "do nothing" command. In the following descriptions the character "n" will be used to represent a number in the range 0 to 255; thus /Ln means set the left margin at position n on the line, for example /L10. When a number follows a command in this way, it is terminated by another control character, by a non-numeric character, or by a space (in this case all subsequent spaces will be skipped until a non space character). In nearly all commands the character after the / will be alphabetic, upper and lower case having the same effect. The format commands will now be described - they will be more easily understood by studying their use in the examples provided at the end of this note.

9.1. Setting Margins and Page Format

These commands have the following effects:

- /Ln The left margin is set so that the first character on the line is at position n counting from 1. It is set to 1 on entry and has a maximum value of 140.
- /Rn The right margin is set so that the last character on the line is at position n. It is set to 80 on entry and has a maximum value of 140.
- /In This sets the amount by which the first character on the first line of each paragraph or subparagraph is inset. It is inoperative if paragraph numbering is in use (discussed later). It is set to 3 on entry.
- /Nn This sets the number of lines per page (total including space for the title and page number if present). It is set to 66 on entry.
- /Kn This sets the page number and is one on entry. It is automatically incremented after each new page.
- /Wn This is not used in the current version of WDPRO but is reserved to set the page width.

All the above commands can be entered at any point on a line,

the new values being used on the next and subsequent lines.

With the left margin command only there is a special facility: issuing /L followed by a space or /LO sets a temporary left margin for subsequent lines at the current position on the current line. This temporary margin remains in force until an /Ln command sets a new margin position or until a line termination command is issued (these are described later). This facility eases the type of format used above in this section. Note that the left and right margin values lie between 1 and 140 giving a maximum line length of 140 characters. If these values are exceeded, or the right margin is set at or left of the left margin, printing will be terminated with a "Format error" message.

9.2. Format Control Flags

There are seven commands available in WDPRO to switch a variety of facilities on and off. All commands of this type have three forms:

/D+ /D- /D

where D is used as an example. The first form turns the specified facility on, the second turns it off and the third inverts it. The facilities controlled by these flags are:

D	double width characters
U	underline
E	emphasised characters (if available)
J	right justify text (see below)
C	centre text on line (see below)
G	output page numbers
Y	output title on each page

When J is set, spaces will be inserted between the words on each line to provide a neat right hand margin. Note that justify will operate with a mixture of single and double width characters on each line if your printer allows this. When C is set, each line entered will be adjusted to have equal portions either side of the page centre line (note that C overrides J and is not itself a line terminator). Note that if either T or H commands are used to set a line position (see later), then any justification or centring is applied to the remainder of the line only. The title to be output by the Y command is set using "[..title../z]", for example:

/[Audit Summary/z]

will give the title "Audit Summary" at the top of each page. Entering the title in this way automatically turns the title on (i.e. /Y+ is not needed after title entry). Note that the title can contain T, H, S, D, U, E, J and C control commands, but the standard control character "/" must be used and the title must be terminated by /z as shown above. It can only occupy a single line. Page numbers are output at the foot of each page. All the commands described in this section can occur at any position on a line.

9.3. Direct Printer Output

The X command allows character codes to be sent directly to the printer and is useful for sending special printer control sequences. It has the form:

/Xn,n,... ..n,n

which is terminated by a space, the numbers in the sequence being sent as codes to the printer. The command can be issued at any line position but the codes output may destroy any formatting in progress.

9.4. Line Formatting Commands

Three commands are available in this category. The command /S followed by a number, for example /S7, will output the specified number of spaces. Any spaces which overflow the current line are ignored. The command /H followed by a number will move to the specified print position on a line. If the position is already above that requested, the current line will be terminated and the desired position will be set on the next line. Character positions on each line are numbered starting from 1. WDPRO allows up to 9 horizontal tab positions to be set using the command:

/An,n,n,....n,n

with nine or less numbers. After these have been set the command /Tn (n between one and nine) will move to the n'th tab position, either on the current line, or on the next line if already above this position. The command /T followed by a space character or /T0 will move to the next tab position above the current position. If a tab command is issued with J or C in effect, justification or centring will take place between the highest tab position used and the end of the line (this being true also of the /H command). The results of a /T command will be unpredictable if it uses any tab positions which have not been set. Care must also be taken to ensure that no tab positions are used which are outside the left and right hand margin settings since such positions can never be achieved.

9.5. Text Insertion from the Keyboard

It is often desirable to enter a small amount of text from the keyboard into the output during printing. For example, if the same letter is being sent to several people it is convenient to enter each person's name from the keyboard while each copy of the letter is being printed. This can be achieved by placing the command:

/(Prompt)

in the text at the point where keyboard input is required. When this is encountered during printing WDPRO will prompt you for input by sounding a tone and outputting the string between the round brackets (this string must be 16 or less characters long). For example, when the format command: /(Name) is

encountered, WDPRO will sound a tone and prompt you with: "Input: Name". At this point text entered at the keyboard will be put immediately into the printed output. Note that this input must fit on the line currently being formatted, any excess being lost. Note also that format commands are not recognised during keyboard input. After keyboard input, printing will continue from the character following the closing round bracket of the format command.

9.6. Line, Paragraph and Page Commands

Unlike the commands described so far, those described in this and the next sub-section will immediately terminate the line on which they are encountered, any right justification being suppressed. The command /Z is the end of text signal and must be set at the end of the text to be printed - failure to do so may cause an error. The command /Fn will output n empty pages containing only the title and page number if these are operative. /F or /FO will move to the top of the next page. The command /Mn will output n blank lines, any above the maximum number of lines per page being ignored. /M followed by space or /MO terminates the current line without justification and starts a new line. The command /Vn will move to the n'th line on the page unless this line has been passed in which case a new page command will be issued (note however that printing on the new page will start at line 1, not line n).

9.7. Paragraph Facilities

WDPRO offers comprehensive paragraphing facilities. First of all, the command /P followed by a space terminates the current paragraph and starts a new one with a single blank line in between. If the /In command has been used to set an indent, characters on the first line of the new paragraph will be inset by the amount specified. Normally paragraphs will not be numbered but if /P+ is used rather than /P the new paragraph, and those which follow, will be numbered automatically starting at 1 (note that numbering overrides the indent facility). After /P+ has been issued, each /P will start a new paragraph with the next number in sequence. The command /Pn is available to set the paragraph number to a different value if required (unlike other /P commands, this command does not itself start a new paragraph or line). The command /P- turns off automatic paragraph numbering.

If a /P+ command is issued when /P+ is already in effect, this will start a sequence of numbered sub-paragraphs. These will be inset from the left margin by an amount determined by the /Bn,n,n command described later and will be numbered in the sequence 1.1, 1.2, 1.3 etc. (assuming a main paragraph number of 1). The command /P is now used to obtain each new sub-paragraph, a return to main paragraph level being effected with /P-. This /P- command returns to paragraph level with a blank line output but it does not start the next numbered main paragraph - if this is required /P must be issued as well. While at sub-paragraph level, the /Pn command can be used to set the sub-paragraph number if that produced automatically is not appropriate. By using a third /P+ a further level of sub-

paragraphing can be produced with numbering in the form 1.1.1, 1.1.2, 1.1.3 etc. As usual each new second level sub-paragraph is obtained using /P with /P- being used to exit from this level and /Pn to set the number if desired. The command /Bn,n,n inputs three (or less) numbers which determine the indent for sub-paragraphs. The first number is the alphabetic paragraph indent (discussed below), and the second and third numbers are the indents for the two levels of numeric sub-paragraphs. These indents are cumulative.

WDPRO offers a second type of sub-paragraph with alphabetic labelling in the form a), b), c) etc. This is obtained by issuing the command "/Pa", after which each new /P will give a new alphabetic sub-paragraph, /P- being the cancellation command as usual. The sub-paragraph letter can be set in the range a-j by using the /Pn command with n between 1 and 10 (1=a, 2=b etc.). Note that for this type of sub-paragraph the indent (set by /Bn described above) must be three or greater (6 or greater if double width characters are in effect). Note also that alphabetic sub-paragraphs can be used within numeric ones. If tab commands are used within sub-paragraphs care must be taken not to access a tab position left of the left sub-paragraph margin or right of the right margin since such positions are not possible (if this is done, a continuous sequence of new lines will be generated by WDPRO).

10. FURTHER INFORMATION

To illustrate the use of WDPRO annex B lists two portions of the text used to set out this document. Studying these should give a good idea of how WDPRO commands are used.

ANNEX A - WDPRO COMMAND SUMMARY

In the following summary the commands will be listed in upper case although they can be entered in either upper or lower case or a mixture of both.

<u>Command</u>	<u>Brief Description</u>
EXIT	Return to monitor.
NEW	Clear the text area.
FINDn/string/	Find the n'th occurrence of the given string (first if n is absent).
SHOWn/string/	Show the next n occurrences of the given string (all if n is absent).
REPN/str1/str2/	Replace the next n occurrences of string 1 with string 2 (all if n is absent).
REPCn/str1/str2/	As above but wait for user confirmation of each replacement using the Y key.
DEL	Remove text from text area.
COPY	Copy text within text area.
MOVE	Move text within text area.
LOAD/filename	Append the text from the specified file to that already in the text area (disc or tape depending on WDPRO version being used). The filename can be ambiguous.
SAVE/filename	Save the text in the text area in a file with the specified name (disc or tape depending on version). The filename cannot be ambiguous.
VERIFY	Verify recorded tape.
PRINTn	Output n copies of the text in the text area to the printer.
DRON	Set for double spaced output (draft).
NORM	Return to normal, single line spacing.
TSAVE/filename	Save the text in the text area on tape with the given filename (disc version only).
TLOAD/filename	Append text from tape to that already in the text area (disc version only).
LIST/filename	List all files on disc whose names match that given. For example: LISTa - list all files on drive 1. (disc version only).

PLIST/filename	As above but to printer (disc version only).
ERASE/filename	Erase all files from disc whose names match that given (disc version only).
LOCK/filename	Protect the named file from erasure (disc version only).
UNLOCK/filename	Remove protection (disc version only).

Text Formatting Commands

/space	Do nothing.
/=ch	Set "ch" as new command character.
/Z	End of text marker.
/Ln	Set left margin at position n.
/Rn	Set right margin at position n.
/In	Set indent at start of paragraph.
/Nn	Set the number of lines per page.
/Kn	Set page number to n (next output is n+1).
/D /D+ /D-	Double width characters onn/off.
/U /U+ /U-	Underline on/off.
/E /E+ /E-	Emphasised characters on/off.
/J /J+ /J-	Right justify on/off.
/C /C+ /C-	Text centering on/off.
/G /G+ /G-	Start/stop page numbering.
/Y /Y+ /Y-	Start/stop page title output.
/[title/z]	Set page title
/Xn,n...,n	Output codes to printer.
/An,n...,n	Set 9 or less tab positions.
/Tn	Move to tab position n, or next tab if n is zero or absent.
/Hn	Move to position n on line.
/Sn	Output n spaces.
/ (Prompt)	Insert from keyboard into printed output, prompting user with the text between the round brackets.
/Mn	Terminate current line and output n blank lines.
/Vn	Move to line n on page.
/Fn	Terminate current page and output n blank pages.
/P	Start a new paragraph or sub-paragraph.
/Pn	Set paragraph or sub-paragraph number.
/Pa	Start alphanumeric sub-paragraph.
/P+	Start paragraph or sub-paragraph numbering at next level.
/P-	Terminate a level of alpha or numeric paragraphing.
/Bn,n,n	Set sub-paragraph indents (alpha, numeric 1 and 2).

ANNEX B - EXAMPLES OF UNFORMATTED TEXT

Example 1

/i0/b8,8,8/19/r73/d+/e+/c+/u+THE SDOS WORD PROCESSOR/u-/c-/d-
/g+/j+/u+/p+/e-INTRODUCTION./u-/m1 WDPRO is a comprehensive disc
based word processor for the SHARP MZ-80K and the EPSON MX-80
printer. While designed primarily for use with discs, a tape
based version is available. WDPRO offers the following major
features:/p+Full screen editing./p Block move, copy and delete./p
Search, find and replace functions./p Comprehensive output
formatting./p-=/fTwo versions of the package are supplied:
WDPRO/E for the Epson printer with the standard ascii character
set, and WDPRO/S for the Epson with the Sharp character set.fmi
The tape version of the word processor is loaded in the usual
way; if the word processor is supplied on disc it is loaded by
first booting the disc and then typing "WDPRO/E" or "WDPRO/S"
(less quotes and followed by CR) in response to the "A>" prompt
from the SDOS disc operating system. These notes should be read
carefully before using WDPRO.f=//u+/pTHE KEYBOARD./u-/m1 Nearly
all of the blue keys on the right of the keyboard are inoperative
when using WDPRO. The remaining keys operate according to the
following rules:/pa Most keys repeat if held down./p The
alphabetic keys are normally lower case but capitals can be
obtained by pressing the shift key with the key required.
Pressing the shift and the sml-cap keys locks the keyboard in
capital mode. Shift lock is released by pressing the sml-cap
key./p The numeric keys are operative in lower case mode only./p
The punctuation characters in the top row of the keyboard are
obtained in upper case mode. To obtain those in the row below,
press the break key and then the key required (this will also
work for the top row). If more than one such key is needed,
punctuation mode can be held for the /u+next/u- key by holding
shift down while entering the current keystroke. Since "pi" in
the upper row is rarely needed in word processing it has been
replaced by a "?" to make the latter more accessible. Also the
blue keys immediately to the right of the main keyboard give "[",
"<", ":", and "@" in lower case, and "]", ">", ":", and "@" in
upper case (top to bottom)./p-/p

Example 2 (control character is £)

£p£u+TEXT OUTPUT AND FORMAT COMMANDS.£u-£m1 The command "PRINT"
outputs the text in the text area to the line printer. In order
to format this output the text can contain a variety of format
commands which will now be described. All format commands are
introduced by a control character which is normally "/". This
character always introduces a command and as a result it cannot
be used elsewhere; however it can be changed if necessary by
using the command: /=ch where ch is the new control character
(thus the command: /* will make * the control character). The
control character followed by a space is a "do nothing" command.
In the following descriptions the character "n" will be used to
represent a number in the range 0 to 255; thus /Ln means set the
left margin at position n on the line, for example /L10. When a
number follows a command in this way, it is terminated by another

control character, by a non-numeric character, or by a space (in the last case all subsequent spaces will be skipped until a non space character is found). In nearly all commands the character after the / will be alphabetic, in which case it can be in either upper or lower case. The format commands will now be described in detail - they will be more easily understood by studying their use in the examples provided at the end of this note.

fb8,0,0fp+fu+Setting Margins and Page Format. fu-fm1fa15,22

These commands have the following effects:

- fm1ft /Lnftfl** The left margin is set so that the first character on the line is at position n counting from 1. It is set to 1 on entry.
- fm1ft /Rnftfl** The right margin is set so that the last character on the line is at position n. It is set to 80 on entry.
- fm1ft /Inftfl** This sets the amount by which the first character on the first line of each paragraph or sub-paragraph is inset. It is inoperative if paragraph numbering is in use (discussed later). It is set to 3 on entry.
- fm1ft /Nnftfl** This sets the number of lines per page (total including space for the title and page number if present). It is set to 66 on entry.
- fm1ft /Knftfl** This sets the page number which will be incremented before being output thus being set to 0 to number from 1 upwards. It is set to 0 on entry.
- fm1ft /Wn ftfl** This is not used in the current version of WDPRO but is reserved to set the page width.

fm1 All the above commands can be entered at any point on a line, the new values being used on the next and subsequent lines.

fm1 With the left margin command only there is a special facility: issuing **/L** followed by a space or **/LO** sets a temporary left margin for subsequent lines at the current position on the current line. This temporary margin remains in force until an **/Ln** command sets a new margin position or until a line termination command is issued (these are described later). This facility eases the type of format used above in this section.

fpfu+Format Control Flags. fu-fm1

There are seven commands available in WDPRO to switch a variety of facilities on and off. All commands of this type have three forms:

- fm1fc+/D+fs10 /D-fs10**
- /Dfc-fm1** where D is used as an example. The first form turns the specified facility on, the second turns it off and the third inverts it.

The facilities controlled by these flags are:

- fm1ft Dft** double width characters
- ft1 Uft** underline
- ft1 Eft** emphasised characters (if available)
- ft1 Jft** right justify text (see below)
- ft1 Cft** centre text on line (see below)
- ft1 Gft** number pages
- ft1 Yft** output title on each page

fm1 When J is set, spaces will be inserted between the words on each line to provide a neat right hand margin. Note that justify will operate with a mixture of single and double width characters on each line if your printer allows this. When C is set, each line entered will be adjusted to have equal portions either side of the page centre line (note that C overrides J and is not itself a line terminator).