Word Processor Stored Commands

When typing documents, any line that starts with the right angle bracket character (>) in column one is not just stored as another line of text in your document. Instead, it is interpreted as a special command to the word processor. These commands are called "Stored commands" because they are stored away in each document that they are used in but are not printed.

Apart from rulers, the angle bracket is always followed by a two letter code that identifies the command. These command names are chosen to try and help you remember them so, for example, HE is HEader and FO is FOoter.

You may not realise this but you may already be familiar with "stored commands". If you have changed the layout of your text using a different ruler, or if you have added headers or footers from the Menu option (which just insert an >HE or >FO stored command) then you have already used stored commands.

There are two types of stored command, those that are acted upon immediately and those that only have any effect when the document is printed.

An example of an immediate stored command is >PA. This is the PAge break command and forces the next line that is typed to start on a new page. Normally, when you type, if you haven't changed the default settings, you will find that you can type 60 lines before the line that marks the end of a page appears. However, if you start a new line with >PA and then press [↵] you will find that the current page is finished and the cursor starts at the top of a new page after the page break bar.

An example of a stored command that is only acted upon when the document is printed is the >PO (Print Odd pages) command. This tells the word processor to only print the odd pages of your document and is useful if you want to print on both sides of some paper to produce a book or magazine. You print the odd pages on one side of the paper and then turn it over and run it through the printer again printing the even pages on the other side (using the >PE command). Because it is only acted on at print time, entering >PO on a new line has no obvious effect while you are still writing a document in the word processor.

Because stored commands are acted upon, rather than forming part of your document, the word processor does not count any line that starts with an angle bracket when it is calculating where one page ends and the next begins. Also, even if you have got bold, italic or underline showing on screen, lines starting with ">" are not affected by these things.

If you start a line with the angle bracket character the word processor checks to see if it is an immediate command that it should act upon when you press [↵]. If it recognises it as such then the correct action is taken and the line is also stored in the document. Otherwise it just enters the line into the document and no further action is taken at this time. When you subsequently come to print the document a second check is made for any stored commands. If, at this time a line is found that starts with an angle bracket but the two letters that follow are not a recognised command then it will stop printing and display the message:

```
>??
Unknown stored command
Press Stop to exit ...
```

A number of the stored commands just provide another way of setting the same options as found in some of the menus. When a stored command is used it over-rides the setting in a menu. For example, if you have set a page length of 66 in the Layout menu [Function][8 7] and then include a >PL 35 command in your document, the word processor will assume a page length of 35 not 66.

There are 60 stored commands that the word processor recognises. They generally fall into one of five categories.

There are those that are used for defining the page **layout** - setting the various margins, length of page, etc.

A collection of the commands are used for page **formatting** - adding header and footer text to each page when a document is printed, controlling the printing of odd/even pages, etc.

There are also commands that affect the operation of the **printer**. Allowing printer control codes to be sent directly to the printer and affecting whether micro spacing is used for example.

There are some **miscellaneous** commands. For example, you can use a stored command to add comments to your documents to

describe the contents for your own future reference but this will not print.

Perhaps the most powerful, but also the most difficult to understand stored commands are those that are used for **mail merge**. Mail merge is the name given to the process where you have a standard letter that is printed several times inserting a different name in certain places each time it is printed. If you have ever received a letter saying "Dear Mr *your name*, you could win £100,000. All you have to do Mr. *your name* is ...." then you have received a mail merged letter.

The following is an alphabetic list of all the stored commands with a short description of their function. This should be used when you just want a quick reminder of the command to use. Following this is a more detailed description of each command in sections divided as described above.

The list may look a bit daunting at first but do bear in mind that a lot of the commands are used for the complex subject of mail merge. You don't need worry about these unless you actually intend to use the feature.

Command	Name	Type	Immediate
AV	Ask for Variable	Mail merge	No
BM	Bottom Margin	Layout	Yes
CE	CEntre	Formatting	No
CF	Close File	Mail merge	No
CO	COmment	Miscellaneous	Yes
CP	Continuous Printing	Formatting	No
CS	Clear Screen	Miscellaneous	No
CW	define Character Width	Printer	No
DF	Define data File	Mail merge	No
DM	Display Message	Miscellaneous	No
EA	End printing At page	Formatting	No
EF	Even page Footer	Formatting	No
EH	Even page Header	Formatting	No
EI	End If	Mail merge	No
EL	Else	Mail merge	No
EM	Even side Margin	Layout	No
EP	Even Page throw	Formatting	Yes
FF	Form Feed codes	Formatting	No
FM	Footer Margin	Layout	Yes

FO	Footer	Formatting	No
FP	Format whilst Printing	Formatting	No
HE	Header	Formatting	No
HM	Header Margin	Layout	Yes
ID	If Defined	Mail merge	No
IE	If Exhausted	Mail merge	No
IF	If	Mail merge	No
IN	Insert	Miscellaneous	No
IU	If Undefined	Mail merge	No
LS	Line Spacing	Formatting	Yes
MC	Microspace Code	Printer	No
MS	MicroSpacing	Printer	No
NC	Number of Copies	Formatting	No
NP	New Page after print	Formatting	No
OC	Output Code to printer	Printer	No
OF	Odd page Footer	Formatting	No
OH	Odd page Header	Formatting	No
OM	Odd side Margin	Layout	No
OP	Odd Page throw	Formatting	Yes
PA	PAge throw	Formatting	Yes
PE	Print Even pages	Formatting	No
PL	Page Length	Layout	Yes
PN	Page Number	Formatting	Yes
PO	Print Odd pages	Formatting	No
PP	Proportional Printing	Printer	No
RJ	Right Justification	Formatting	No
RP	RePeat	Mail merge	No
RU	Read variable Unconditional	Mail merge	No
RV	Read Variable	Mail merge	No
SA	Start At page	Formatting	No
SK	SKip	Mail merge	No
SM	Side Margin	Layout	No
ST	STop printing	Miscellaneous	No
SV	Set Variable	Mail merge	No
TM	Top Margin	Layout	Yes
UN	UNtil	Mail merge	No
WC	Write file Close	Mail merge	No
WF	Write File	Mail merge	No
WM	Write Message	Mail merge	No
WT	WaiT and display	Miscellaneous	No
ZM	Zero Margins	Layout	Yes

The following pages contain a more detailed description of each command listed above. The commands are grouped together according to the type of the command. Beneath the name of each command is a line described as "Syntax:". This shows exactly how you use the command in a document. For example, the syntax of the Page Length (PL) command is shown as:

Syntax: >PL *number*

The word *number* in italics means that whenever you use the PL command it should be followed by a number (not just the word "number"). In this case the number you give is the number of lines per page that you would like to use. To help you understand the syntax of the command, most descriptions include at least one example. An example of the PL command might be:

```
>PL 70
```

which tells the word processor that the paper you are going to print on has 70 lines.

Page Layout commands

Most of these commands duplicate the function of items in the Layout menu that is accessed by pressing Function and 7 while editing a document. Those layout menu entries apply to the current document and all subsequent documents that you write until you change the settings. The stored commands can be used to over-ride the settings for just one special document (for example, if you want to quickly print some labels but leave the Function 7 settings at their normal values).

BM Bottom Margin
Syntax: >BM *number*

The BM command is used to specify a value for the bottom margin which is the number of blank lines left at the bottom of each page after all the text (and possibly footer) have been printed. If you used the command:

```
>BM 3
```

The word processor would know that it must not print on the last three lines of the page. The reason you specify a bottom margin is because most printers cannot print right to the bottom of a page.

The printer usually loses grip on the piece of paper about 3 lines from the end of the page. Some laser printers are able to print right down to the very last line of a piece of paper but even there it is usually better to leave a margin at the bottom of the page as it looks more professional. If no BM command is used a value of 3 is assumed.

EM Even side Margin
Syntax: >EM *number*

The Even side margin command is followed by a number which tells the word processor how many characters from the left edge of the page it should start printing the even numbered pages in your document. You may notice that there is a SM command available which defines the Side Margin for every page. The EM and OM commands allow different side margins to be defined for left and right pages while the SM command applies to all pages. You would use the SM command when every page of your document is identical (for example a memo or a letter). However, if you were writing a book it is usual for the right hand, odd numbered, pages to have a larger side margin than the left pages. This is because the book is bound together at the left hand edge of the right pages. If you were writing a book you might include the following two lines at the top of the document:

```
>EM 8
>OM 12
```

This would mean that printing on the even numbered, left hand pages would start 8 characters in from the edge of the paper while the printing of the odd numbered left hand pages would start at 12 characters in from the edge. This would allow an extra 4 character margin on the right hand pages to allow for the book binding. A value of 5 is assumed if no actual >EM command is used.

FM Footer Margin
Syntax: >FM *number*

The FM command is followed by a number which defines how many lines at the bottom of a page should be reserved for printing the footer text in. This area is positioned after the main body of text on the page but before the bottom margin (the area which cannot be printed on -see the BM command). The Footer Margin area is only used if footers are defined using the FO, EF or OF commands.

The value used if no FM command is used is 2 if footers are enabled, otherwise it is zero.

HM Header Margin
Syntax: >HM *number*

The HM command is similar to the FM command except that it is used to specify the number of lines below the top margin (see TM command) but above the main page body that are reserved for printing the header text in. If no header is defined then a value of zero is used for HM otherwise it will assume the value 2. An example HM command might be:

```
>HM 3
```

This would reserve three lines at the top of the page (below the top margin) where header text would be printed.

OM Odd side Margin
Syntax: >OM *number*

The OM command is very similar to the EM command but acts on odd pages rather than even pages. For a description and example see the EM command. If no OM command is used then a default value of 5 is used.

PL Page Length
Syntax: >PL *number*

The PL command is used to tell the word processor how long the paper you are going to print on is. Most printers print six lines to the inch so by measuring a piece of paper you can work out how many lines long it will be. A4 paper is 70 lines long. Continuous, 11" paper is 66 lines long. A 1.5" label is 9 lines long and a 2" label is 12 lines long.

The word processor takes the value you give for page length and subtracts from this the value of top and bottom margins (BM and TM commands). These are the areas that cannot be printed on because the printer cannot hold the stationery. If headers and footers are being used then the word processor further subtracts the FM and HM values. The amount left is the number of lines in the main body of the page that you can enter text on.

When printing on continuous stationary such as fan fold 11" paper or labels the top and bottom margins may be set to zero and if no

headers and footers are used then the number of lines that the word processor will allow you to enter on each page is the same as the page length. Another way of putting this is to say that the actual number of lines that can be used on a page are:

PL - TM - BM (- HM if headers on) (- FM if footers on)

An example of the PL command might be:

```
>PL 9
```

This would tell the word processor that there were only 9 lines to each page (1.5" labels).

SM Side Margin
Syntax: >SM *number*

The SM command is followed by a number that tells the word processor how many characters from the left hand edge of the page it should start printing at. The SM command applies to all pages in a document. If you want to have different values for odd and even pages then you should use the EM and OM commands instead. If you do not give an SM command then a value of 5 is used.

TM Top Margin
Syntax: >TM *number*

The Top Margin is the number of lines at the top of a page where the word processor will not attempt to print. The reason for defining a top margin is that most printers cannot fully grip a piece of paper until it has been fed a few lines into the printer. Most printers will not be able to print on at least the top 3 lines of a page. However, if you use continuous paper (with holes up the edge) then the printer can print on every line so you could set TM to zero. However, documents look more professional if a few lines are left blank at the top and bottom of a page. If no TM command is given a value of 3 is assumed. If you were to use the command:

```
>TM 6
```

The word processor would leave 6 lines blank at the top of each page.

ZM Zero Margins
Syntax: >ZM

This command sets all margins to be zero. This can be useful if you are using continuous paper and want to print a draft copy of a document without having it correctly spaced out on each page.

Page Formatting commands

Several of these stored commands achieve the same effect as settings in some of the menus. For example, CP, EA, SA achieve similar effects to the settings in the menu you see when you press the [Menu] key at the print document screen. The stored commands only take effect for the document in which they appear while the menu entries apply to all documents until the settings are changed.

CE CEntre
Syntax: >CE *text*

The CE command is followed by text on the same line which will be centred when the document is printed. You may wonder why you would wish to leave centring until the document is printed when you can always achieve the effect using [Shift][Tab]. Well, the main use is for when you are also using proportional printing and the positioning to centre the text will be dependent on the actual width of the characters used. Another use for CE is when the text that is to be centred is of variable length. This will occur when using mail merge and the text to be centred contains a mail merge variable. For example:

```
>CE Memorandum to &name&
```

might print as:

```
                Memorandum to Mr. Sugar
```

CP Continuous Printing
Syntax: >CP ON
or: >CP OFF

The CP command is always followed by the word ON or OFF and switches continuous printing on or off. When Continuous printing is on the word processor assumes that your printer is loaded with continuous (fan fold) paper that has tractor holes up the edges. It then sends every page of the document to be printed at once

without a break. When CP is switched to Off, the word processor assumes you are printing on separate, single sheets of paper so it pauses before each page is printed and allows you to load single sheets into the printer. Once the paper is in place and the printer is switched on-line you press the Space Bar to print the next page. If you print to a laser printer or other printer that has a sheet feeder you will probably want to tell the word processor that it is using continuous paper by using the CP ON command. The CP command has the same effect as the "Continuous printing?" switch in the print menu (accessed by pressing [Menu] at the print document screen)

EA End printing At page
Syntax: >EA *number*

This command tells the word processor the number of the last page you want printed. Normally it will print every page up to the last page in the document. The EA command may be used together with the SA command which defines which page to start printing at. For example, say you have a 10 page document and include the commands:

```
>SA 3
>EA 7
```

at the top of the document then, when it is printed, only pages 3 to 7 will be printed. It is also possible to select a range of pages to print using the settings in the print menu but they apply to all documents while the stored commands only apply to the document in which they are used.

EF Even page Footer
Syntax: >EF *text*

The EF command is used to define a line of text that will be printed within the footer margin area of every even page of a document. The simplest form of commands for putting in footers is the FO command which applies to every page. However, the EF and OF commands allow different footers to be applied to even and odd pages. This would be useful, for example, if you were writing a book and wanted to put the page number at the right hand end on the foot of every right (odd) page and the page number at the left on the foot of every left (even) page. An example of the EF command might be:


```
>EF Page %
>OF                                    Page %
```

Which would result in every even page having the page number on the left and the odd pages having the page number on the right. The "%" symbol has a special meaning in headers and footers. Instead of just printing the symbol it is filled in with the current page number as it is printed.

Once a footer has been defined the word processor will start to reserve the footer margin area for printing the footer in. Before then it would assume the footer margin were zero.

EH Even page Header
Syntax: >EH *text*

The EH command is very similar to the EF command except that it defines the header for every even page rather than the footer. Just like the EF command, once the EH command has been given the word processor will start to reserve the header margin area for printing the header text in. An example of the EH command might be to put the title of a book on the top of every left hand page. At the same time you might want to put the chapter title at the top of every right hand (odd) page:

```
>EH Fly Fishing by J R Hartley
>OH                                    Tying flies
```

EP Even Page throw
Syntax: >EP
or: >EP *number*

The EP command is like the PA command that forces a new page to be started. However, the EP command has a further function in that it will always arrange for the next page to be an even numbered page.

So, if the current page has an odd number it will just end it at the point the EP command is included and the next page will be the next even numbered page. However, if the current page were even numbered then, not only would it be ended, a whole, blank, odd numbered page would be inserted so that text would continue on the next even numbered page. This forces the next line to start at the top of a left hand (even numbered) page.

If the EP command is followed by a number then the EP command will only have any effect if the number of blank lines remaining on the current page is less than or equal to the given number. So, for example, the command:

```
>EP 10
```

will force the next line to start at the top of an even numbered page if there are 10 or less lines remaining on the current page.

FF Form Feed codes
Syntax: >FF ON
or: >FF OFF

The FF command is always followed by the word ON or OFF. It tells the word processor whether or not you would like it to send a form feed character at the end of every page that is printed. The form feed character (number 12) is a special character used by some printers to tell them to finish printing the current page and move to the start of the next page. It may be necessary with some laser printers to switch the FF command ON so that each page is followed by a character 12. If no FF command is used it is switched Off and no form feed characters are sent. After the command:

```
>FF ON
```

the word processor will send a form feed character at the end of each page. This has the same effect as the "Form feeds enabled?" setting in the print menu.

FO FOoter
Syntax: >FO *text*
or: >FO OFF
or: >FO ON

The FO command is used to tell the word processor what text you would like to have printed on the foot of every page. Once an FO command is used the footer margin area will be reserved for printing the footer text in and the footer will be printed on the bottom line of the footer margin area.

Once a footer has been defined it will appear at the foot of every page printed. However, you can disable footers on any pages you choose by using the >FO command followed by the word OFF. Any subsequent pages will not have a footer printed. If, later in the

document, the command >FO ON is used the printing of footers will be resumed.

If you just use the command >FO ON without having previously defined a footer then a centralised page number will be printed on the foot of every page.

If you want to include page numbers within a footer just put a "%" sign where you would like the number to be printed. It will be filled in with the correct value when the document is printed. If you want to include the "%" character in a footer use "%%" to print a single percent symbol.

FP Format whilst Printing
Syntax: >FP ON
or: >FP OFF

The FP command is followed by the word ON or OFF and specifies whether the document should be reformatted while it is being printed. If no FP command is used then it is assumed to be OFF. The FP command is used in conjunction with the RJ command. The RJ command switches right justification on or off in the section of document following it. If you have sections of the document where RJ is switched on and others where it is switched off then you should also use the FP ON command to ensure that the justified sections are properly formatted prior to printing.

HE Header
Syntax: >HE *text*
or: >HE ON
or: >HE OFF

The HE command is used in exactly the same way as the FO command except that it defines and controls the printing of a header text in the header margin area at the top of each page. See the description of FO for more details.

LS Line Spacing
Syntax: >LS *number*

The LS command defines the line spacing to be used when a document is printed. It has no effect on what you see on screen while editing. Normally line spacing is set to one so that lines are printed as you see then while editing. However, for manuscripts and scientific reports it is often necessary to have the lines double

spaced when printed and this can be achieved with the command:

```
>LS 2
```

The LS command will also accept half line feed values that end in .5 (1.5, 2.5, etc.). But only some printers will be able to space text in half line spacing values. The LS command has the same function as the "Line spacing" setting in the Layout menu that is accessed by pressing [&] while holding down [Command] when typing a document.

NC Number of Copies
Syntax: >NC *number*

This command specifies how many copies of the document should be printed. If no NC command is used the value of one is assumed. A command such as:

```
>NC 3
```

would result in three copies of a document being printed.

NP New Page after print
Syntax: >NP ON
or: >NP OFF

The NP command is used to switch on or off the printing of a blank page after a whole document has been printed. If no NP command is used the feature is switched OFF. The NP command is particularly useful when printing on continuous, fan-fold, paper as it moves the printer to the top of the next blank page after a document has been printed. This allows the document that has just been printed to be ripped off at the next line of perforations. The NP command has the same effect as the "New page after print?" setting in the print document menu.

OF Odd page Footer
Syntax: >OF *text*

For a full description see the EF command. The OF command works in just the same way as the Even page Footer command except that it defines the footer text for Odd (right hand) pages. A typical OF command might be:

```
>OF This is printed at the foot of all odd pages
```


OH Odd page Header
Syntax: >OH *text*

The OH command is similar to the EH command except that it defines the header to be used on odd numbered, right hand, pages.

OP Odd Page throw
Syntax: >OP
or: >OP *number*

The Odd Page throw command will cause the next line printed to start at the top of an odd page. If the current page is even numbered it will be at the start of the very next page. If the current page is already odd numbered then a blank, even numbered, page will be inserted so that the next line is at the start of an odd page. This would often be used when writing a book when you want to ensure that each chapter starts on a right hand page. If the OP command is followed by a number it will only take effect if the current page has that number (or fewer) blank lines remaining.

PA PAge throw
Syntax: >PA
or: >PA *number*

The PAge throw command will cause the current page to be ended and the next line of text will start printing at the top of the next page. If the PA command is followed by a number then it will only take effect if that number of blank lines or fewer remain on the current page. You can quickly insert a PA command into a document by pressing the [P] key while holding down [Command].

PE Print Even pages
Syntax: >PE ON
or: >PE OFF

The Print Even pages command, PE, when followed by the word ON will cause only the even pages of the current document to be printed. If the command >PE OFF is used then all pages will be printed.

The reason for only printing even pages is so that a book or magazine can be printed on both sides of some sheets of paper. First the odd pages are printed. Then the paper is turned over and the even pages are printed on the other side of the same paper.

PN Page Number
Syntax: >PN *number*

The number following the PN command sets the number that the current page will have, subsequent pages will be renumbered accordingly. For example, if the command:

```
>PN 10
```

is used on a page then that page will be page 10 and the following page will be 11 and so on. The PN command is useful when writing separate chapters of a book and you want to ensure that the next chapter's page numbering continues on after the last page of the previous chapter. Page numbers can be made to appear on the printed pages by including the % symbol in either a header of footer definition.

PO Print Odd pages
Syntax: >PO ON
or: >PO OFF

When the PO ON command is used only the odd pages of a document will be printed. Using the command PO OFF will return things to normal so that all pages are printed.

As described under the PE command. The PE and PO commands are used together to first print the odd and then the even pages of a document on either side of the paper to be printed.

RJ Right Justification
Syntax: >RJ ON
or: >RJ OFF

The RJ command can be used to switch on or off the right justification of text in specific areas of a document. The lines following an RJ ON command will be justified while those following an RJ OFF command will have a ragged right margin. For this command to operate correctly the document should be reformatted during printing. This is accomplished by using the FP ON command. The setting of right justification for a whole document can be switched on or off using [Command][J] or setting the option in the configure menu that is accessed by pressing [Function][5] while editing.

SA Start At page
Syntax: >SA *number*

The SA command is used to define which page number printing should start at. Together with the EA command this allows only specified sections of a document to be printed. See the description of EA for more details.

Printer commands

CW define Character Width
Syntax: >CW *number*

This command is used to set the character width for micro spacing. Possible examples are as follows though these are not necessarily correct for all printers.:

```
>CW 10      (elite characters)
>CW 7       (condensed)
>CW 14      (condensed enlarged)
```

MC Micro space Code
Syntax: >MC *code code...*

This command defines the sequence of codes that will move the print head by the smallest possible amount. The word processor uses this to evenly space the words in a line of justified text. A typical example use of the command might be:

```
>MC 27 "L" 1 0 0
```

Which will mean that every time the word processor wants to move the print head by the smallest possible amount it will send the above sequence. The actual sequence of codes used is dependent on the printer being used.

MS micro spacing
Syntax: >MS ON
or: >MS OFF

The MS command turns micro spacing on or off. When micro spacing is on the word processor will evenly distribute the extra space on each line that is justified. Normally it tries to distribute extra, whole, spaces along the line to perform the justification but

micro spacing allows it to properly divide the extra space between every word and leads to a more professional looking result.

However, the ability to use micro spacing is dependent on the printer that you use and it may be necessary to give the correct CW and MC commands before it can be used successfully. For some printers you only need an MS ON command but this all depends on which printer you choose in the second screen of the Print document menu.

OC Output Code to printer
Syntax: >OC *code code...*

The OC command is used to output codes to a printer. Normally, when you want to send special codes to a printer you just put a word in bold or italic or whatever and the word processor arranges to send the correct sequence of codes to the selected printer to achieve the effect. However, there may be other effects that a printer can produce by sending it codes. You can use the OC command to put such a sequence of codes in your document. For example, when using an Epson compatible printer:

```
>OC 27, "S", 1
```

will send the codes that switch it into subscript printing while

```
>OC 27, "T"
```

will cancel the effect. See your printer manual for a list of the control codes that it understands.

PP Proportional Printing
Syntax: >PP ON
or: >PP OFF

The PP command switches proportional printing on or off. Normally it is off if no PP command has been used. When PP is switched on the word processor no longer assumes that all characters are the same width when printed. Instead it will use its knowledge of the width of individual characters to produce a better justified appearance. For this to work the printer should be sent a code to switch it into a proportional font. This can be achieved by using the style menu "P - Proportional" entry to put the necessary code in your document. A quicker way of entering the code is to press [Command][P]

followed by [Command][P]. Whether proportional printing works correctly may depend upon your printer.

Miscellaneous commands

CO COmment
Syntax: >CO *text*
or: >>> *text*

This command can be followed by any text so that it appears in the document but will not appear when printed. This can be used to add a descriptive reminder at the start of a document to remind you later what a document contains. It can also be used to include annotations. For example:

```
>CO This is chapters 2 and 3 of my book on quantum mechanics
>CO Draft number 3  - 11th March 1992
```

Or,

```
>>> Must send memo to Mr. S about the carrying case
```

CS Clear Screen
Syntax: >CS *message*

The CS command will be interpreted when you come to print a document. It will cause the screen to be cleared and then any text on the CS command line will be displayed on the screen. The CS command would normally be used when mail merging to clear the screen and display an explanatory message about the data that is being asked for by subsequent AV commands. The CS command could be used more generally to print on the screen a description of the document that is being printed. For example:

>CS Printing the second part of the stored command chapter

DM Display Message
Syntax: >DM *message*

The message on the line following DM is displayed on screen during printing. Several DM commands might be used after a CS command to display a multiple line message on screen during printing.

IN Insert
Syntax: >IN *document_name*

The Insert command is very powerful. For example, if you write a book (or even a single chapter) in several sections, each contained in a separate document you can produce a master document that just includes a number of >IN commands to print all the various bits together. For example:

```
>CS Printing the whole book
>IN "Stored cmds"
>IN "title page"
>IN "contents"
>IN "Chapter 1"
>IN "Chapter 2"
>IN "Appendix"
>IN "Index"
```

The advantage of printing a book in this way is that the page numbering, headers, footers and margins defined in the first document will apply through the book unless over-ruled by a subsequent stored command.

The IN command could also be used to build a document from standard paragraphs. You could keep each standard paragraph in a separate document and then build a final document by just using a few IN commands. For example:

```
Dear Mr Smith
>IN "thank you"
>IN "widget info"
>IN "contact us"
Yours sincerely,

Mr Bloggs
```

ST STop
Syntax: >ST *message*

The ST command causes printing to stop as soon as it is encountered. If a message is included on the >ST command line then that will be displayed on the screen. The ST command would usually be used when using the conditional printing facility provided by mail merge commands.

WT WaiT and display
Syntax: >WT *message*

The WT command causes printing to be stopped temporarily and any message included on the WT command line will be displayed on the screen. Printing will resume when any key is pressed. An example of this might be:

```
>WT Make sure printer is loaded with 1.5" labels...
```

This would be placed right at the start of a document. When the document was printed the message would be displayed allowing the user to put the right sort of paper into the printer before printing commences.

Mail merge commands

Mail merge is an extremely powerful feature of the word processor but unfortunately this inevitably leads to a certain amount of complication. The following is just a short description of each of the mail merge stored commands. Following this is a description of the basics of mail merging but in a book this size it is difficult to include every aspect of such a large subject.

AV Ask for Variable
Syntax: AV *string identifier number...*

This is used during mail merging and causes the word processor to stop while the document is being printed and ask for a value to be typed in which is then given to a variable.

The meaning of the various parts of the command syntax are: *string* is the prompt displayed on the screen, *identifier* is the name of a variable into which the entered value will be stored and *number* is the maximum length of the input that will be expected.

An example might be:

```
>AV "Enter today's date", date
```

or

```
>AV "Type an invoice number", invnum, 6
```


This command would stop and print the text in quotes and then wait for the user to type in a value. Only 6 characters would be allowed.

CF Close File
Syntax: >CF

This closes a document file that was previously opened by the WF command. The ability to write to a document is used when you want to capture what has been output from a mail merging session into a document as well as just printing it.

DF Define data File
Syntax: >DF *document_name*

File is just a boffin word for document. This command is used to tell the word processor which document it should use to read the data for a mail merge operation from. A typical file (document) might include a list of names and addresses which would be used to print multiple copies of the same letter to different people.

EI End If
Syntax: >EI

The EI command is used after a list of commands that will only be executed if the condition in a preceding IF command has been met. There are various forms of IF command - ID, IE, IF and IU. A typical conditional sequence might be:

```
>IF town = "York"
As a resident of York we think you may be particularly
interested to hear of our weekly meeting held at York
Minster.
>EI
```

EL Else
Syntax: >EL

The ELse command is used to end the section of commands and text to be included if an IF condition is met and to start a section of commands and text that will be used if the IF condition was not met. It would finally be terminated with an EI command. For example:


```
>IF telno = ""
As you haven't got a telephone please contact us by post.
>EL
Please call us as soon as possible on 0708 123456
>EI
```

ID If Defined
Syntax: >ID *identifier*

A check is made to see if the variable *identifier* has been defined. Only if it has will the following section up to the next >EL or >EI command be used.

IE If Exhausted
Syntax: >IE

When mail merging data is read from a data file document and is used to fill in the various mail merge variables. Several similar letters may be printed in this way but it may be useful at the end of the print run to perform some other action. This can be achieved using the IE command. The block of text and commands following an IE command up to the next EL or EI will only be performed if the data file is exhausted. Say, for example, that for each letter that was printed you had a variable called "count" recording the number printed. At the end you could include the following:

```
>IE
>CS Mail merge finished. &count& copies printed.
>EI
```

IF If
Syntax: >IF *condition*

If the *condition* given in the IF command is met then the subsequent block of text and commands up to the next EL or EI is used. This is an extremely powerful command and allows many different kinds of conditions to be tested for. See the more detailed description of IF in the chapter on Mail Merge below.

IU If Undefined
Syntax: >IU *identifier*

This tests to see if the variable *identifier* is defined. Only if it is undefined will the following block of text and commands up to the next EL or EI be used.

RP RePeat
Syntax: >RP

The RP command is used to start a block of text and commands that will be used repeatedly. The end of the block is marked by a UN command which also sets a condition that must be met for the repetition to cease. The following very simple example will print the numbers 1 to 10:

```
>SV count=1
>RP
&count&
>SV count=count + 1
>UN count > 10
```

RU Read variable Unconditional
Syntax: >RU *identifier, identifier...*

The RU command will read data from the data file document that has been identified by the DF command and assign the data it reads to each identifier listed. The RU command reads unconditionally so that it is normally used with data files where every entry has the same number of fields. An example might be:

```
>RU name, address1, address2, address3, dummy
```

RV Read Variable
Syntax: >RV *identifier identifier...*

The RV command is used to read values from the data file and assign them to the list of variables. RV reads from the data file until it finds an empty field. It then stops reading and assigns a null value to any unfilled variables named on the RV command line.

SK SKip
Syntax: >SK *condition*

If the given condition is true then the printing of the current document is terminated. You could for example read a long data file but only print out letters to people whose name was Smith using:

```
>RV name, addr1, addr2, addr3
>SK name <> "Smith"
....
```

The "<>" means "not equal".

SV Set Variable
Syntax: >SV *identifier = expression*

The SV command is used to set a variable, *identifier* to be equal to the result of an expression. The expression is formed using the arithmetic operators +, - , /, *. (/ means divide and * means multiply).

The expression is evaluated in the order that the items in the calculation are encountered. It is not possible to change the precedence of expressions as parentheses cannot be used. If a variable name appears in an expression its contents will be used if it is numeric. Complex expressions can be formed by the use of temporary variables to hold the intermediate result.

```
>SV temp = value1 + value2 + value3
>SV average = temp / 3
```

The above achieves the same effect as the expression:

average = (value1 + value2 + value3) / 3

UN Until
Syntax: >UN *condition*

The UN command is used at the end of a block started with the RP (RePeat) command. All the text and commands between RP and UN will be used repeatedly until the *condition* in the UN command becomes true.

WC Write file Close
Syntax: >WC

The WC command closes a write file that has been opened by the WF command.

WF Write File
Syntax: >WF *document*
or: >WF ON
or: >WF OFF

The WF command is used to open a file (document) that will have messages written to it. This allows the output of a mail merge run to be written to a file as well as being printed. The WF command used with either ON or OFF to start or stop the writing of data to a file. A very simple example might be:


```
>WF "Write test"
>WF ON
This is a line of text that will be written to "Write Test"
>WF OFF
This line will be printed on the printer.
>WF ON
This is the second line written to the file.
>WC
```

If you print this document it will create a new document called "Write test" containing two lines of text. The middle line will only be printed on the printer.

WM Write Message
Syntax: >WM *message*

This command is used to write messages to the document file that has been opened using the WF command. The WM command will still write to a file even if the WF OFF command has been used.