STYLOGRAPH

for the OS-9 operating system with MAIL MERGE and SPELLCHECK

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STYLOGRAPH USER'S MANUAL

AN OVERVIEW OF THE STYLOGRAPH WORD PROCESSING SYSTEM

The STYLOGRAPH text processing system is a very easy to use but powerful method of creating and printing text. It allows you to type text on a video terminal, modifying and correcting it as you go, and then print it out when the complete text is finished. The STYLOGRAPH system is cursor-orientated with dynamic screen formatting. Cursor-based editing means that you may work on any portion of the text by moving the cursor to that point. Dynamic screen formatting means that the text is formatted on the screen in the same way it will appear on the printed copy. The display is continuously updated to show you how the text will appear. This is a very important feature normally available only on very expensive commercial word processing systems. It significantly reduces the time that it takes to produce finished copy.

FULL FEATURE TEXT EDITING

There is a full array of commands to help in the creation and modification of the text. The text displayed on the screen may be moved up, down, left or right. Also, the cursor can be moved to any page or to any specified series of letters or words. The cursor itself can be moved left, right, up, down, to any tab position, or to the extreme left or right. Any block of text can be moved, copied or deleted. You may also do a global replace so that all occurrences of a given string will be replaced with or without a "prompt" asking you if you wish the item replaced.

OPERATOR CONVENIENCE

At the beginning of the text, the operator normally types in a few simple commands indicating the line length, left margin, and so forth, and then enters the header and footer as they should appear. After that point the operator need not worry about the formatting of the page since it is taken care of automatically. Words that extend beyond the end of the line are automatically removed and placed on the next line. Headers and footers are also automatically inserted so that the operator always knows what portion of the page is being worked on. Ghost hyphens can also be entered so that if the word falls at the end of a line, and a ghost hyphen has been inserted, the hyphen will automatically be added.

FLEXIBLE DISPLAY

A command allows you to view the formatting commands or make them disappear from the screen. Another command allows you to see which characters will be modified at printout by underlining, superscripting, boldface and so forth. A page status command allows of you to see the current format values and other useful information.

COMPLETE FORMATTING CONTROL

The text or individual lines may be centered, left justified, right justified, or right and left justified. Tabs can be set or cleared at any point. Spacing of the lines on the text is under complete operator control with end of page, spacing, and vertical tab commands.

POWERFUL PRINTING OPTIONS

Underlining is supported by TTY type printers. For those people who have specialty printers there are a variety of additional capabilities including:

operator controllable pitch

1.5 line spacing

BOLDFACE

superscript^1

subscript$_2$

underline, overline

Also right and left justification of text is accomplished by incremental printing and true proportional spacing is supported on the specialty printers.

OPERATING SYSTEM COMPATIBILITY

STYLOGRAPH is fully compatible with the powerful OS-9 operating system. Text prepared using STYLOGRAPH is directly usable by other software. (This significantly aids software development since cursor based editing allows full viewing of the text being worked on thereby reducing errors and decreasing programming time). The size of the file being edited is limited only by the capacity of the disk system. Files may be loaded into the text at any point making it possible to rapidly create made-up documents using portions of text that have been previously saved to a text file. Also, to complement this feature, any portion of a text may be saved to a text file for use at a later point. The printer output may also be directed to a disk file for later print spooling. Most disk operating system commands are directly accessible without leaving the STYLOGRAPH system.

COMPLETE INSTRUCTIONS

The manual is written so that people with little or no experience with computers can easily learn to use STYLOGHAPH in a few hours. A text file is included which demonstrates most of the features of STYLOGRAPH and allows the operator to practice most of the functions. The logical arrangement of the commands and the immediate display of the results greatly simplifies the learning process. The manual also contains instructions for limited modification of STYLOGRAPH for special applications.

INTRODUCTION

SYSTEM REQUIREMENTS

STYLOGRAPH, MAIL MERGE, and SPELLCHECK are designed to operate under the OS-9 operating system, either Level One or Level Two. With a Level One system, about 15k of user space remains after STYLOGRAPH is loaded, which is enough room for about 5 full A4 pages of text to be held in memory at once, (workfiles can of course be much larger, by making use of the "NEWS" command). A Level Two system will allow about 35k of user space, enough for about 11 pages of text.

The minimum system configuration you require is your Dragon Data computer, with at least 64k bytes of RAM, running the OS-9 operating system; a floppy disk drive; and a television, or preferably a monochrome monitor. (The monitor will generally give you a better picture than a television). you can certainly run STYLOGRAPH with only one disk drive, although two drives are more convenient.

You can use almost any printer with STYLOGRAPH, to print out your finished letters and documents. STYLOGRAPH comes already configured to handle a wide range of letter quality (daisy-wheel) printers, and allows you full use of facilities such as proportional spacing, underline, bold, subscripts and superscript. You can also use STYLOGRAPH equally well with a simple printer, (such as a matrix printer), with none of these facilities.

GETTING STARTED

PLEASE READ THIS SHORT SECTION VERY CAREFULLY BEFORE ATTEMPTING TO USE STYLOGRAPH. WE SUGGEST THAT WHILE YOU ARE LEARNING TO USE STYLOGRAPH YOU SHOULD MAKE USE OF THE COMMAND AND KEY ASSIGNMENT SUMMARIES AT THE END OF THIS MANUAL.

Note

In this manual, when we say that you should hit, for example, CONTROL-D, we mean that you should hold down the CONTROL key and hit the D key. (For the assignment of the CONTROL key on your keyboard, see the Key Assignment Summary at the end of this manual).

The STYLOGRAPH package from Dragon Data contains two items: this manual, and a single floppy disk. Because of the risk of inadvertently damaging the disk or deleting the files on it, you should NEVER use the disk for running STYLOGRAPH. Use the 'backup' command available on OS-9 to copy the original disk to a freshly formatted blank disk, and STORE THE ORIGINAL DISK IN A SAFE PLACE. Refer to the OS-9 User's Manual for instructions on how to use the 'backup' and 'format' commands.

Now place the new disk in drive d0 (drive zero). Change your execution and data directories to the new disk:

```
OS9: chx /d0/cmds chd /d0
```

On the root directory of the disk, which you can now inspect by

```
OS9: dir
```

you will find some sample STYLOGRAPH workfiles and three directories - CMDS, STY, and SYS. The CMDS (commands) directory contains the files that you need to run STYLOGRAPH. You can inspect it by:

```
os9: dir cmds
```

stylo	the word processing program - STYLOGRAPH
mm	the mail merge program - MAIL MERGE
spell	the spell check program - SPELL CHECK
spelladd	the program to add words to the spelling dictionary
spellsub	the program to remove words from the spelling dictionary
spelldcm	the program to decompile the spelling dictionary to a text file
spellcom	the program to compile a text file into a spelling dictionary
styfix	the program for customizing STYLOGRAPH
mmfix	the program for customizing MAIL MERGE

Plus a few of the commonly used OS-9 utility programs.

STYFIX and MMFIX are used to customize STYLOGRAPH and MAIL MERGE for your printer. The supplied STYLOGRAPH and MAIL MERGE have been configured for your Dragon computer with a simple matrix printer, (type 'P40' in the System Configuration section of this manual), on the parallel printer port '/p'. If you are using a different type of printer, such as a daisy-wheel, you can either specify the printer type each tin: you call STYLOGRAPH or MAIL MERGE, (see below), or you can permanently change the type that STYLOGRAPH and MAIL MERGE assume using STYFIX and MMFIX, (see the System Configuration section).

The STY directory contains files that are used by STYLOGRAPH, MAIL MERGE, and SPELL CHECK. These are the STYHLP help files used by STYLOGRAPH, the STYPS proportional spacing tables used by STYLOGRAPH and MAIL MERGE, and the DICT spelling dictionary used by SPELLCHECK.

The DICT dictionary is very large, and you may want to make a separate SPELLCHECK disk. The easiest way to do this is to make a backup copy of the STYLOGRAPH disk, and then delete all the files not associated with SPELLCHECK.

The SYS directory contains the OS-9 error messages file a 'errmsg', used by OS-9 when reporting an error (such as "Error #216 - Pathname not found").

Note that you must have the STYLOGRAPH disk in drive 0, as STYLOGRAPH expects to find certain files that it needs in the directory /d0/STY.

If you are using a Dragon 64 computer and (you be not already in the 51 characters by 24 lines mode, use the 'go51' command to change the screen format:

```
OS9: go51
```

GETTING INTO AND OUT OF STYLOGRAPH

You are now ready to try out STYLOGRAPH. All you need to do is type:

```
OS9: stylo
```

To exit STYLOGRAPH at any time and return to OS-9:

1. hit the ESCAPE key to enter the ESCAPE mode. (For the assignment of the ESCAPE key on your keyboard, see the Key Assignment Summary at the end of this manual).

2. hit the "/" key to return to the Supervisor mode, where you will see the main command menu.

3. use the "," key to move down the menu. If you have text that you wish to save, move to the line 'Save and Return', hit RETURN, and answer the questions STYLOGRAPH gives you. If you just wish to exit STYLOGRAPH, move to the line 'Return', hit RETURN and answer "Y" to 'Is the text secure' and 'are you sure?'

You can always return to the ESCAPE mode by hitting the ESCAPE key. You should also use the ESCAPE key to return to the ESCAPE mode when you want to exit from a HELP display. Don't be afraid to experiment - it's the quickest way to learn.

To try out the sample workfile, 'intro' use:

```
OS9: stylo intro #15k
```

The '#15k' is a request to OS-9, asking OS-9 to give STYLOGRAPH 15k bytes, (15360 bytes), of workspace. This is a reasonable upper limit on OS-9 Level One. On OS-9 Level Two, 30k would be a reasonable upper limit.

WORKING WITH TWO DISK DRIVES

If you have two disk driven, you can use a separate disk for your workfiles. Format a disk, put it in drive d1, and change your current data directory to that disk by:

```
OS9: chd /d1
```

If there is enough free space on your OS-9 system disk, you may find it more convenient to have the STYLOGRAPH programs on your system disk. To do this, copy the files in the CMDS directory of the STYLOGRAPH disk to the CMDS directory of your system disk. Refer to the description of the copy program in the OS-9 User's manual. Next make a directory 'STY' on your system disk, e.g.

```
OS9: makdir /d0/STY
```

and copy the files in the STY directory on your STYLOGRAPH disk to the new STY directory on your system disk.

WORKING WITH ONE DISK DRIVE

If you have only one disk drive, your text files will be on your STYLOGRAPH disk. This means that whenever your disk becomes full you must make a fresh STYLOGRAPH disk. The easiest way to do this is to take a second backup copy of your original STYLOGRAPH disk, and use it as a master disk for creating new disks using 'backup'. In order to make more efficient use of the disk spaces you might like to delete all the SPELLCHECK files, especially the DICT dictionary, which is very large, and have a separate SPELLCHECK disk. When you want to SPELLCHECK a text file, copy it onto your SPELLCHECK disk.

STARTING STYLOGRAPH

STYLOGRAPH can be started in three different ways. The first and most common way is to enter the STYLOGRAPH command followed by the text file that you wish to edit. The command line would look something like this :

```
OS9: stylo letter
```

This would cause STYLOGRAPH to be called and the text file by the name 'letter' to be loaded in. If no such file name exists on the disk then no file will be loaded but STYLOGRAPH will remember the name in case you want to use it when you save the file at a later time.

The second method is to call STYLOGRAPH specifying both an input and output file. A typical command line from OS-9 might look like this:

```
OS9: stylo letter1 letter2
```

This would cause the file by the name 'letter1' to be loaded by STYLOGRAPH. The file name 'letter2' would be remembered by STYLOGRAPH so you can save the file under that name when you are finished editing. If two files are listed when STYLOGRAPH is called, the first file MUST exist on the disk or an error will result.

The third method is to specify no file name at all such as:

```
OS9: stylo
```

In this case STYLOGRAPH is called but no file will be loaded into memory. This method is normally not used since you will usually want to save the file when it is completed. It can be useful when you want to create a short letter or memo and do not want to save it on the disk.

You should be aware that there is no absolute necessity for specifying files at all when calling STYLOGRAPH since files may be loaded or saved under any name at any time. You can look at the current input and output file names by using the PAGE STATUS command which is explained in the CONTROL COMMANDS section of this manual.

USING DIFFERENT PRINTERS

STYLOGRAPH must know what kind of printer you are using before it will work correctly. You may configure STYLOGRAPH for your particular equipment by using the "STYFIX" command which is included on your STYLOGRAPH disk. The operation of this command is explained in the a "Operating System Notes" section of this manual. You may also specify the printer on the calling

line. This portion of the command consists of a "+" sign, a "P" for printer, and a number specifying the particular equipment. The printer numbers are listed in the system configuration section of this manual. A command line for specifying a Diablo printer, printer type 0 (zero), would look like this:

```
OS9: stylo letter +P0
```

EXPANDING THE PAGE LIMIT

There is one additional option that may be specified on the calling line from OS-9. The maximum number of pages that STYLOGRAPH can work with can be changed. STYLOGRAPH defaults to a maximum of 22. This should be enough for most applications but in some circumstances where there are many short lines such as with a mailing list it may be desirable to increase the maximum number of pages. This maximum can also be set with the STYFIX command. If you have more pages in memory than STYLOGRAPH will allow, you will not be able to move the cursor beyond the last page even though the rest of the text will be visible on the screen. Also, STYLOGRAPH will prevent you from inserting text on the last line of the last page. To increase the number of pages by a calling line option you may use the "+Mx" option. The "x" refers to the number of pages. For example, the following line would increase the maximum number of pages to 35:

```
OS9: stylo letter +M35
```

HOW STYLOGRAPH WORKS

STYLOGRAPH is always in one of three operating modes. These are the ESCAPE, INSERT, and SUPERVISOR modes. Each mode has its own special characteristics. After calling STYLOGRAPH from OS-9 you are in the SUPERVISOR mode. In this mode all of the keys on the terminal have special meanings. A cluster of 12 keys on the right side of the keyboard is used to move the cursor around on the screen, move the screen up and down or change to one of the other operating modes. The letters on the keys have no special meaning since they are arranged to make their functions easy to remember and use. For example, to move the cursor left, right, up or down you will use keys that are arranged in the corresponding positions in the cluster. There are several keys on the left side of the keyboard that are used to find, replace, duplicate, and move portions of the text round. On these keys the letter signifies its function. So, for example, the "F" key is used to Find some part of the text.

In the INSERT mode STYLOGRAPH ants very much like a typewriter. This is the mode you will be in when you are typing (also called "entering") the text. There are several important differences, however. You do not have to watch for the end of the line and insert a carriage return since STYLOGRAPH automatically puts a word on the next line if it is too large for the previous line. Also, if you make a mistake, you can simply backspace over your mistake and retype it. The major difference between typing on a typewriter and using STYLOGRAPH is that there are also FORMAT COMMANDS that can be entered while using STYLOGRAPH. These commands are typed in like normal text and cause the appearance of the text to change in some way. For example, there are format commands that can change the length of the lines and the size of the margin. These FORMAT COMMANDS are displayed on the screen but do not appear on the printed copy.

The SUPERVISOR mode is used to start the printing and to interact with OS-9. In this mode the text is not displayed on the screen. This mode is menu driven and self-prompting. This means that you will be given a list of actions that you can take. After making your choice you may be asked one or more questions. This method of printing and interacting with OS-9 is very simple and takes almost no practice to use.

LEARNING THE SYSTEM

Most parts of this manual are designed so that very little knowledge of computer systems is needed to use it effectively. Some knowledge of OS-9 is needed, however, so that you can get STYLOGRAPH started and handle the disk files that are created. Normally it will take a person with reasonable typing skills only a few hours to start using STYLOGRAPH competently. The best way to learn to use

STYLOGRAPH is to sit down in front of the terminal and practice all of the commands as they are explained in the Tutorial at the end of this manual. After going through the Tutorial you should go through this manual to learn all of the functions not explained in the tutorial. A practice text with the name "INTRO" is included on the supplied disk. This is an ideal text to work with initially to show how STYLOGRAPH works. To load this text simply enter (type) the following command line from the disk operating system:

```
OS9: stylo intro
```

This file is the overview section of the manual. By using this file you can see how a STYLOGRAPH file looks on the screen and also how the printed output will look. When working with this file you need not worry about making mistakes or destroying it since you will normally not be saving it. You should experiment freely so you can become completely familiar with the system. After you have experimented with this text and are familiar with the STYLOGRAPH text processing system you should then try to start creating your own text files from scratch.

Another very useful feature of STYLOGRAPH is that it is virtually impossible to type too fast. Many times while you are entering text, STYLOGRAPH will be readjusting lines below the cursor. For example, if you type in something which causes a word at the end of the line to be bumped off to the next line, STYLOGRAPH will immediately start rewriting all of the following lines. You do not have to wait for this to be completed. You may continue typing and STYLOGRAPH will finish the rest of the screen without missing any characters that are being entered. The line that you are typing on will always be displayed correctly even though the rest of the screen may be in the process of being updated.

An important advantage that STYLOGRAPH has over most other word processing systems is that formatting is done on the screen. This makes learning the system especially easy since the effects of most of the commands are immediately visible. There are some differences between the display on the screen and the printed outputs however. Spaces between the lines (for example, if you are double spacing) are not shown on the screen. This is so you can view as much text as possible on the screen without scrolling up or down. The left margin is also not displayed on the screen. Several special printing characteristics such as underlining, proportional spacing, and so forth cannot be displayed on the screen because of limitations of the display device. Also it is possible to insert special printer commands in the text. These commands will, of course, not actually be printed out as text. but sent as invisible control sequences.

You will find that almost any common text processing task can easily be accomplished using the STYLOGRAPH word processing system. Often a re-reading of the manual will help in devising new methods of making the word processing task easier. Every user of STYLOGRAPH eventually develops their own "tricks of the trade". For example, most people find that it is unnecessary to enter the header and the footer information at the beginning of each editing session since it is easier to create a file with this information already on it and then call it in at the beginning of each new text file.

ESCAPE MODE

The escape mode is a kind of "home base" for all of the various functions of the STYLOGRAPH word processor. It may be entered at any time simply by hitting the ESCAPE key on the keyboard. (For the assignment of the ESCAPE key on your keyboard, see the Key Assignment section at the end of this manual). This will cause the text to be displayed on the screen and allow you to do a number of important editing functions.

Many of the characteristics of the display will be explained later but it is important to understand the meaning of a couple of the characteristics from the start. The broken vertical lines on the right of the screen indicate that the line ends with a user-entered "RETURN". Lines that end with a hyphen at the far right of the screen are processor created lines, such as the headers and footers. and were not typed in at the place that they actually appear on the screen. The exact way in which the display is modified and created will become clearer as you become more familiar with the system. If there is no text in the memory of the computer, only the line indicating the first page and a single "RETURN" at the right of the screen will appear on the screen.

CURSOR CONTROL

There are five keys which control the position of the cursor on the screen. These keys are arranged in the shape of a cross to make it easy to remember their functions:

```
      I
    J K L
      ,
```

The centre key in this cross is the "K" key with the four keys "JIL," on the outside. The top key "I" moves the cursor up. The bottom key "," moves the cursor down, and the "J" and "L" keys move it left and right respectively. The "K" key is a special express key which moves the cursor from one end of the line to the other. Hitting this key once will move the cursor to the far left and hitting it twice will move it to the far right. You should practice moving the cursor to various parts of the screen so you can see how it works.

You will notice several important characteristics of the cursor. The cursor will only move to a portion of the screen in which a character (a character is a letter, number, punctuation, or space) has previously been entered, so that the cursor will sometimes unexpectedly jump rapidly from place to place. If you move the cursor to a portion of the text in which the lines are right and left justified, you will find there are some spaces that the cursor cannot move to. This occurs because these spaces were not actually typed in but were added by STYLOGRAPH to even out the lines. If you can move the cursor to a space it means that a "SPACE" from the keyboard was entered there. If you cannot move the cursor there, then no space character exists at that place.

You will notice that it is impossible to move the cursor off the top or bottom of the text. If you try to do this you will hear the error bell. (To find out what error you have made, hold down the "CONTROL" and depress the "N" key, once to display the error message and again to return to the ESCAPE mode). The cursor cannot be moved to the "processor created" lines at the top and the bottom of the page, (the header and footer), since these have been inserted by STYLOGRAPH and can only be changed by editing at the point where they were defined earlier in the text. The text will automatically scroll up or down if you try to move the cursor off the bottom or top of the screen.

The tab key can also be used to move the cursor. To move to the next defined tab location hold down the "CONTROL" key and depress the "T" key. This function is explained more fully in the section on CONTROL commands. Sometimes the TAB function will not cause the cursor to move. This means that a character does not exist at the next tab position.

SCROLLING UP AND DOWN

The four keys "UO.M" located in the corners of the cursor control keys are for scrolling up and down:

```
    U I O
    J K L
    M , .
```

The "U" key cause the whole screen to move up one line and the "M" key cause it to move down. The "O" and "." keys cause the screen to move up or down respectively by the size of the screen. These keys are useful for rapidly scanning through the text since new text will appear on the screen as rapidly as the terminal can rewrite the screen. The "O" key, for example, causes the text to be moved up so that the line that appeared on the bottom of the screen now appears on the top. The easiest way to remember the effects of the "O" and of "." keys is to keep in mind that moving your finger up to the "O" key causes the text to move up and moving your finger down causes the text to move down.

SCROLLING LEFT AND RIGHT

Hitting the "7" key causes the entire screen to shift 25 characters to the left and hitting the "9" key causes it to move 25 characters to the right. This is the way text is normally displayed. These commands

are useful when the lines are wider than the screen. If part of the text extends off the screen you will see arrows at the edge to indicate this. If there is text extending bar to the left of the screen there will be left pointing arrows fish on the left side. If the text extends off to the right side, you will see right pointing arrows ">" on the right side.

FINDING A PAGE

Every page, as it appears on the screen, has a serial page number. This number appears on the page boundary which will look like this:

```
---------- PAGE 5 ----------
```

This number is to help you keep track of your place in the text and to provide a convenient way of getting from one place in the text to another. To move to a given page hit the pop's key and a message will appear on the screen like this:

```
********** PAGE=
```

Type in the page number that you want and hit RETURN. If you enter a number which is larger than the number of pages available, the cursor will move to the last line and the error bell will ring. Thin provides a convenient way of mooing to the bottom of the text. Entering another he'd instead of a number will move the cursor to the beginning of the text in memory. As with virtually all other commands, you may hit the ESCAPE key at any time to return to the ESCAPE mode without taking any action.

The number that is used in the page command and which appears on the page boundary is called the "serial" page number. It is important to remember that the serial page number may not be the same as the "printed" page number. The printed page number is set by a format command that is explained later. The printed page number can appear in the header (top margin) or footer (bottom margin) of the page.

FINDING A STRING

A string consists of one or more characters. Words, phrases, numbers, or even single characters are called strings. You may move the cursor to any given string by using the "F" command. When you hit the "F" key a space will open up at the top of the screen and the following message will appear:

```
*** FIND {
```

Enter the string you want to find and hit RETURN. The cursor will then move to the next occurrence of that string and the following message will appear:

```
*** STOP (RET) OR CONTINUE (SP)?
```

This means that to stop and leave the cursor in its present position, hit the RETURN key. To continue on to the next occurrence of the string, hit the space bar. This allows you to move rapidly through the text to find a particular portion of the text. If the string does not exist below the cursor, the screen will return to normal and the error bell will ring. Remember that the FIND command will only search for strings below the cursor so if you want to search the entire text you must move the cursor to the top first using the "PP" command.

REPLACING A STRING

You may replace one string with another with the REPLACE, "R", command. This command is similar to the FIND command except that it will not only find the string but it will replace the string with a second string. When you hit the "R" key the following message will appear:

```
*** REPLACE {
```

Enter the string you want replaced, hit return, and the next message will appear:

```
*** WITH {
```

Enter the replacement string, hit RETURN, and the cursor will move to the next occurrence of the first string with the following message:

```
REPLACE (Y-N-A)?
```

To replace the string type in a "Y" for yes. If you decide not to replace the string, enter a "N" for no. If you want to replace all of the strings without being asked, hit the "A" for all. Unless you know exactly what you are doing you should not use the "A" option since you will not be able to see the strings before and after they have been replaced. After you have responded, unless you took the again option a message will appear asking you if you want to continue or not as it did with the FIND command:

```
*** STOP (RET) OR CONTINUE (SP)?
```

Hit the RETURN if you want to stop at this point and hit the space bar if you want to go on to the next occurrence of the string. As with the FIND command, this will only search for strings which are below the cursor. Again, remember that the ESCAPE key may be hit at any time if you want to go back to the normal display. The REPLACE function has one additional feature which may be useful if you want to replace or add CARRIAGE RETURNS. This could be used if you have an old text file, that was prepared using a line orientated editor: which has a number of RETURNS that must be removed. While using the FIND or REPLACE, the "|" character can be entered as a substitute for the RETURN. For example, to replace the "RETURNS" with a space, you would enter the "|" and a SPACE so the screen would appear as follows:

```
REPLACE {|}
WITH {
```

You could then go down through the text and selectively replace only those RETURNS that need to be removed.

The FIND and REPLACE commands can do a search for both upper and lower case characters by hitting CONTROL-U at the end of the string to find, instead of the RETURN key, as would normally be the case. At that point, the search would disregard the ease of the characters in conducting its search for the desired string.

MOVING A STRING

There are many times during text editing that you will want to move a string from one place to another. This is easily accomplished with the SAVE, "S" and WITHDRAW, "W" functions. To do this you must first set of a a marker at the end of the string. This is done by moving the cursor to the end of the string and entering two marker characters "}}" Do not worry about these unwanted marker characters appearing in the text since they will automatically disappear when you save the text. Now move the cursor to the beginning of the string and hit the "S" key indicating a SAVE. The text between the cursor and the markers will then disappear from the screen. Then move the cursor to the place that you want the text to appear and hit the "W" key to withdraw the text. This is a very useful command but it takes some thought and planning to use correctly since you must include the correct number of spaces and/or returns for the text to be formatted after you are finished. It is not a particularly serious matter if you have made an error, however, since the errors are normally easily correctable.

DUPLICATING A STRING

Duplicating a string is very similar to moving a string. This is an especially useful feature if a particular string occurs many times. By using this command you will not have to re-enter the string every time it is needed. To duplicate a string you must set a pair of markers and SAVE the string as you did when moving a string. The only difference is that when you want the string to reappear at the cursor you enter a "D" to duplicate the string. You may do this as often as you wish. The last place that you want to duplicate the string you must enter "W" to withdraw the text, thus leaving the SAVE buffer available for another SAVE command.

REMOVING TEXT

The easiest method of erasing (removing) a large portion of the text is to use the ZAP, "Z" command. To use this function, set a couple of markers at the end of the string that you want to delete and move the cursor to the beginning bf the string. Hit the "Z" key and a message will appear similar to this:

```
*** DELETE 345 CHARACTERS?
```

Answer with a "Y" for yes and a "N" for no. This message is so you can be sure that you are deleting the correct number of characters and will not accidentally delete a large portion of your text. There are a few other ways of deleting text but these will be explained later.

SINGLE CHARACTER OVERWRITE

One of the most common typographical errors to make is to hit the wrong key. STYLOGRAPH has a convenient way of correcting this in the ESCAPE mode. You can hit the "1" (number one) key and the next key you hit will overwrite the character that the cursor is on. This command is easy to remember because you are overwriting "1" character.

SINGLE CHARACTER INSERT

Another common typographical error is to simply miss a key. To insert just one character just move the cursor to the point where you want to insert the character, hit the up arrow "^" and the next key that you hit will be inserted in front of the character under the cursor. All of the characters under and to the right of the cursor will be bumped to make room.

SUPERVISOR AND INSERT MODES

You may enter the SUPERVISOR mode by hitting the "/" key and the INSERT mode by hitting the ";" key. There are separate sections in this manual fully explaining these modes.

INSERT MODE

The INSERT mode is the mode that you will be spending the most time in, since this is the mode that is actually used to enter text. Before entering text you must move the cursor to the point that you would like to start entering text. You then leave the ESCAPE mode and enter the INSERT MODE by hitting the ";" key once. At this point the cursor line will have a different appearance to make it easier to enter the text and to indicate that you are in the INSERT mode. The text to the left of the cursor will appear normally on the left but the text to the right will be put on the far right with a string of hyphens in between. The number of hyphens indicates how much room there is on the line before a word will be bumped down to the next line. On some terminals the shape of the cursor will also change or it may change from flashing to solid to indicate that you are in the INSERT mode.

When in the INSERT mode you can type in the text just as you would on a typewriter. If you make a mistake you may simply backspace over your error and continue typing. Use the BACKSPACE key to do this (For the assignment of the BACKSPACE key on your keyboard, see the Key assignment section at the end of this manual). You should not hit the RETURN as you approach the end of the

line since STYLOGRAPH automatically picks up the word at the end of the line and puts it on the next line if it is too long. All of the text, with the exception of the line you are typing will, as always, be formatted as it will appear on the printed copy.

RETURNS (these are equivalent to "carriage returns" on a typewriter) are only used when you want to start the next line at the beginning of the line. You would start a new paragraph or set up neatly arranged columns by starting the line with a RETURN. Any time you want some text to appear in a certain column of the page, such as in charts and tables, you must start out the line with a RETURN. The presence of the RETURN is always indicated by a broken vertical line on the far right of the screen.

There are a couple of things to keep in mind when placing the cursor before starting to enter text. If you are inserting text somewhere inside a line it makes the most sense to put the cursor on top of a space and then enter a apace as the first character. This assures that the words that you are entering will always have a space before and after them as they would normally have when you are done. If you are starting a complete new tine which starts at the left side of the screen, it is usually easiest to move the cursor to the previous RETURN and enter a RETURN as the first character. This will usually cause the next line to be completely empty and will reduce distracting Cursor movement On Some terminals.

CHARACTER MODS

While you are entering text you may specify that the characters you are entering will have some kind of modification when they are printed such as underlining, superscript, boldface, and so forth. These character modifications are done with "CONTROL" key combinations. To start underlining characters hit CONTROL-U and continue entering text. ('CONTROL-U' means 'hold down the CONTROL key and press the U key'. For the assignment of the CONTROL key on your keyboard, see the Key Assignment section at the end of this manual). When you want to stop underlining hit the UNMOD key. BOLDFACE works in the same way except that CONTROL-B starts the boldface.

There are five different kinds of modifications that can be specified: (1) underlining, (2) overlining, (3) boldface, (4) superscript, and (5) subscript. Any logical combination of the five can be specified by hitting the appropriate "CONTROL" keys :

Key	Function
U	underline
O	overline
I	superscript
K	subscript
B	boldface

As an example, you might want to have a superscripted character which you want to be in boldface with an underline. To do this enter CONTROL-U, CONTROL-I, and CONTROL-B, one after another. Then enter the character that you want modified. Now hit the UNMOD key to stop modifying characters in this way and continue entering text.

On some terminals the modified characters will appear in low intensity, indicating that they have been modified. On other terminals the characters will be indicated by a "reverse" field. You may look at the modification by using the "view" key (CONTROL-V). Enter CONTROL-V and all of the character modifications will be displayed. Hit the CONTROL-V key again and the display will return to normal. On the example just given in the previous paragraph, the modified character would be replaced by a "C" when the VIEW key is hit. The meaning of these characters is listed in the Viewed Character Modifications section of this manual or you can use the "ASSIST" command which will be explained later.

GHOST HYPHENS

You may enter normal hyphens as you are entering text and STYLOGRAPH will automatically break the word at the hyphen if it falls off the end of the line. The only potential problem with this is that if

you modify text at some later point, the hyphenated word might appear in the centre of the line with the hyphen still there. You would then have to remove the hyphen. One way round this problem is to insert ghost hyphens as you are entering text. When you come to a point, normally in a long word, where you think a hyphen may be needed, hit CONTROL-G. The hyphen will not normally appear on the screen at this point. You then continue entering text. The ghost hyphen will automatically appear and disappear depending on whether the word falls at the end of the line or not.

There are a couple of things to keep in mind about ghost hyphens. If you are using right and left justified text the hyphens are often not really needed. This is especially true if you are using a "speciality" printer version of STYLOGRAPH since the characters will be evenly spaced throughout the line. Also, it is often most convenient to go back through the text and insert ghost hyphens in the ESCAPE mode just before the final printout so you need not worry about inserting them while entering text.

LONG LINES

When you are working with lines that are wider than the screen STYLOGRAPH will always keep the cursor on the screen by shifting the line right or left if needed so you can see what you are typing. This means that at times the position of the line may be different from the rest of the screen. The line will return to normal when you go back to the ESCAPE made.

FORMAT COMMANDS

Format commands are entered while you are in the INSERT mode. These tell STYLOGRAPH how the text is to be formatted on the screen and at printout time. The format commands start in the first column with a comma followed by the command. The format command must *ALWAYS* be proceeded by a RETURN and followed by a RETURN. In many cases the format command is followed by a number or a character. There must always be a space between the command and the number or character.

Since these commands do not appear on the printout it is often desirable to view the screen without them. This is done with the FORMAT command (CONTROL-F). To make the format command disappear from the display press CONTROL-F. To return the screen to normal, press CONTROL-F again.

STYLOGRAPH starts out with format commands and values that are preset. These preset commands are called default values. For example, if you enter no format commands in your text, STYLOGRAPH will use the default value of 66 lines for the page length. To change the page length you must enter a format command. The normal default values are listed in the Command Summary section.

It is possible that format commands will be entered incorrectly. For example, you could forget to put a space between the format command and the number, which would be an error. In this case STYLOGRAPH would simply ignore the command altogether. The error bell will then sound whenever the cursor moves from the erroneous line to the next line, indicating that there has been an error.

Also, you will notice that many format commands require no numbers (also called format parameters). Even for those commands that need a number, you may omit the number and STYLOGRAPH will automatically use the smallest sensible number. So. for example, the following two format commands have the same meaning:

```
,ce
,ce 1
```

These are centring commands and in both cases will cause only one line to be centred.

A brief description of each of the format commands follows. Most of the commands are used at some point in the INTRO text file so you can see how they work. The best way to learn their use is to try each of them and then observe the result. Where a command needs a number, we have used an X to represent the number. Where a command needs a character as a parameter, we have used C to represent the character.

,ce X CENTRING

To centre a line or lines simply type in the centre command and enter the number of lines you want centred in place of the X. If you only want to centre one line you may omit the number. For example, the following two lines are legitimate centring commands:

```
,ce 4
,ce
```

The command on the first line would centre the next four lines and the command on the next line would centre only one. It only makes sense to centre a line which has been proceeded with a RETURN and which is followed by a RETURN so you will know exactly where the beginning and end of the line will be. The following lines are not legal format lines:

```
,ce4
 ,ce
```

The first command is incorrect because there is no space between the command and the number while the second is incorrect because it does not start in the first column.

,rj X RIGHT JUSTIFICATION

Right justification works exactly like the centring command except that the following line or lines are set to the far right of the page. The following would be legal right justification commands:

```
,rj 3
,rj
```

The first command would right justify three lines and the second would right justify one.

,ju JUSTIFY

The justify command causes the lines to be right and left justified. The line will not be justified if it ends with a RETURN. The text on this page was created with the justify command. If you are using a proportional spacing printer, the printed output will look slightly different than on the screen since the line is evened out on the screen by putting spaces between the words whale on the printed output all of the letters are evenly spaced apart. For printers without proportional spacing, (we refer to these as TTY printers). the lines will have the same spacing on the screen as on the printed output.

,nj NO JUSTIFY

This command will cause the lines to have a ragged right edge. It is only used if the **,ju** command has previously been used.

,ll X LINE LENGTH

The line length command changes the length of the line on the screen. The following two examples show the use of this command:

```
,ll 35
,ll 120
```

The first command sets the line length to be 35 columns and the second command sets it to be 120. After the second command the lines will be longer than the screen so the screen will have to be scrolled left and right to view some of the text. If the lines extend off the side of the screen there will be right facing arrows ">" on the right side.

,in X INDENT

The indent command causes all of the following lines to be spaced to the right by "X" spaces. This effectively causes the line length to be reduced also. Here are two examples of correct indent commands:

```
,in 7
,in
```

The first example causes 7 spaces to be added to the left hand side of all of the following lines. If the current line length in this example is 65, then the actual line length is now really 58. The second example causes the indent to go back to zero and is the same as entering ",in 0". The line length must never be reduced to less than 10 by this command.

,si X SINGLE INDENT

The single indent command is useful when you want to indent for only one line. You could, for example, use this command to create an indent at the beginning of every paragraph (although it would be easier to simply type in the spaces or use a TAB, or better still to use the paragraph formatting commands). This and the **,ppsi** command are the only commands that will accept a minus number. A minus number will cause the next line to be spaced back to the left by "X" columns. Before using a minus single indent you must be sure that there is enough room on the left side by using the "**,in**" indent command. The following two examples will show how this might work:

```
,si 6
,si -4
```

The first example causes the next line to be indented by 6 spaces and the effective line length to be reduced by 6. The second example causes the next line to stick out four columns to the left of the normal line and the line length to be increased by 4. For the second example to work, an indent of 4 or greater must have been set. This command with a negative parameter is very useful in conjunction with a tab for entering indented blocks of text in which the first line has a title in the margin, for example:

```
,in 10
,si -10
TITLE     This is an indented block of text with a title on the
          first  line. A 'tab'  was used  to move to the first
          word, 'This'.
```

,lm X LEFT MARGIN

The left margin on the printed page can be set to any value as long as the line length and the left margin do not exceed the width of the printed page. This command differs from the indent command in that it affects headers and footers as well as the text. Also, the margin does not appear on the screen but only appears on the printout. Use it to position the printed text on the paper to suit your printer.

,cs X CHARACTER SPACING

The character spacing can be set for those people who have versions for 'speciality' printers. The value X is the number of characters per inch. This value would normally only be set at 10 or 12 for "elite" and "pica" spacing respectively. Other values may be set for special applications but the error bell will sound as a warning that a non-normal value has been entered.

,ps PROPORTIONAL SPACING

Speciality printers and Centronics 737 and 739 printers support a special printing method called proportional spacing. What this means is that the characters are set in the line so that their widths are

adjusted for. This causes the printout to look "typeset". To do this kind of printing you must first have established a "STYPS" file in the "STY" directory of your disk, and a special printer wheel must be installed in your printer. The following section on the proportional spacing command presents some details not needed for elementary text processing; you may want to go on to other format commands until you need to know more about the **,ps** command.

Some printers. such as Diablo, Qume, NEC, and Centronics 737 are capable of true proportional spacing. This means that each character has a different width so that the placement of a character on the line is different for each character. When a text is proportionally spaced, an "i" will take less space than an "m".

Before STYLOGRAPH can operate with proportional spacing, it must know two characteristics of the type face. First of all, it must know the width of the character, and second. it must know the actual character to be output. The width of the character will vary from printer to printer and from one type face to another. Also, some printers require that the character that is output to the printer be different from the character seen on the screen. This is because the proportionally spaced characters are actually arranged differently on the print wheel than standard characters. For example, to print a proportionally spaced "x" on a Diablo printer, you must actually send it a "v". The correspondence between the standard character set and the proportional set is referred to as a "translation".

STYLOGRAPH obtains the character width and the translation from a proportional spacing file on the disk. This file should be named "STYPS". You will normally create this file by copying one of the STYPS files that are supplied on the disk. A table showing which supplied file is suitable for each printer is given in the System Configuration section. For example, to set up proportional spacing for the Diablo printers you would use:

```
OS9: copy /d0/sty/styps.d /d0/sty/styps
```

The STYPS file provided on the STYLOGRAPH disk is a copy of STYPS.D for the Diablo printers. Delete it with the 'del' command if you want to use a different file. Before STYLOGRAPH can correctly handle proportionally spaced text, it must first read in one of these proportional spacing files. The original STYLOGRAPH disk contains proportional spacing tables for different printers and the most common print wheels. For print wheels that are not supported you may create a new proportional spacing table by editing one of the existing tables. These tables are standard text files which can be edited by STYLOGRAPH. Each of these tables contains three rows of constants. Here is a partial list of one of the tables:

'r	8	'<
's	8	$7C
't	8	'{
'u	10	'?
'v	10	'0
'w	14	$7E
'x	10	'v
'y	10	'!
'z	10	'g
'{	10	-'u NEC ONLY
'|	10	'.
'}	10	'k
'~	10	'w
$7F	10	'p

The first column contains a list of the standard ASCII character set. The third column contains the character that must be output to get these characters. The middle column contains the number

increments required for the width of the character. Notice that there are two ways of specifying the characters. If the actual characters are used, the character is preceded by an apostrophe. The character may also be specified by it's ASCII code. This is indicated by preceding the hexadecimal number with a "$". Some of the third column characters are preceded by a minus sign. This is used only with the NEC printers, to indicate that the character is one of the 32 shifted characters on the print thimble, since the thimble actually has 128 positions.

When producing a proportional spacing table, several things should be kept in mind. First, the width of the character should be an even number for the Diablo, Qume, and NEC printers. This number should be double the width that is listed for these characters in the printer documentation. Second, characters which are printable but are not available from the keyboard must be entered with the ASCII code. Finally, it is possible, although very tedious, to create one of these tables without any documentation on the print wheel, by printing all of the characters from a text which is not set to proportional spacing. You can then figure out what the translation table must look like, and you may estimate the character widths. After a few trials of adjusting the translations and the widths it should be possible to get a satisfactory printout.

,nps NO PROPORTIONAL SPACING

This causes STYLOGRAPH to go back to the normal printing mode if proportional spacing has been set.

,pl X PAGE LENGTH

This command sets the length of the page in lines. It must be set to a number between 10 and 100. It is important to realize, when using this command, that the header (top margin) and footer (bottom margin) count as lines on the page so the page length must be set large enough to allow some text lines on each page. So, for example if you leave the page length at the default value of 66 and have 6 lines in the header and 6 lines in the footer, there will be a total of 54 lines or text on each page.

,pg NEW PAGE

You may start on a new page by the use of this command. This will cause the footer to be put at the bottom of the page and the next line to appear after the header on the top of the next page. Remember that pagination is automatic in STYLOGRAPH. You need only use this command if you want to force a 'new page', for instance when starting a chapter.

,pn X PAGE NUMBER

This command sets the page number which can appear in the header or the footer of the page as explained in the header and footer description. This command only affects the page number printed in the header or footer - it does not affect the serial page number which appears on the page boundary on the screen and which is used in the find page numbers escape command. Page numbering is automatic in STYLOGRAPH. You will normally only need to use this command if the text you are editing is part of a large: document, and is to be printed out separately. Note that MAIL MERGE will automatically continue the page numbering over a number or files if they are printed out together, so that the **,pn** command is not needed at the start of each file.

,tf TOP OF FORM

This is a command which has no effect on the display on the screen but causes a TOP OF FORM command to be sent to the printer. It is normally used with printers that are using special forms paper or are using a single sheet feeder. If used, it should be inserted at the start of the header so that a new sheet will be fed at the top of the page.

HEADERS AND FOOTERS

,hd DEFINE HEADER

,ft DEFINE FOOTER

,, END DEFINITION

These three commands are used to page. For example, the following set up the header and footer of the 5 lines will cause a simple three line header to appear at the top of all of the following pages:

```
,hd
INTRO
,,
```

This would cause the first line at the top of the page to be a space, the word "INTRO" to appear on the second line and another space to appear' on the third line. You may also cause the page number to appear in the header or footer by entering the characters ### at any point. When STYLOGRAPH sees these characters it will replace them with the page number. You may enter one or more of these characters at any place. STYLOGRAPH always replaces these characters with a left justified number and replaces the remaining "#" characters with spaces. You may also use any of the following formatting commands in a header or footer:

,ll line length

,ce centre

,rj right justify

These commands when used within a header or footer affect only the headers and footers and do not affect the rest of the text. This means that if you set the line length for the text you may also have to set the line length for the headers and footers to the same length. This also means that you may allow the headers and footers to extend beyond the normal right margin since the header and footer line lengths are specified separately from the rest of the text.

The following would be an example of how the headers and footers were set up for this portion of the manual:

```
,hd

,rj
FORMAT COMMANDS

,,
,ft
,ll 70

,ce
PAGE ###

,,
```

The line length for the headers and footers must be set separately rest of the text and can be different from the line length and the rest of the text. This allows the lines in the header and footer to extend out from the text on the rest of the screen. The header does not appear on the first page so the footer contains the line length since it will be the first one to be used by STYLOGRAPH.

,sp X SPACE LINES

Extra spaces between lines can be inserted by this command. The parameter "X" specifies how many lines are to be inserted. Spaces are not carried over from one page to the next so that all of the spaces

may not actually appear on the printout if you are too close to the bottom. The following are legal spacing commands:

```
,sp 22
,sp
```

The first command will cause 22 lines to be spaced on the page. If, for example, there are only 13 lines remaining on the page before the footer, then only 13 lines will be spaced. The second command spaces only one line.

,ss X SET SPACING

This particular command is for setting the spacing between the lines. It has the same function as single, double or triple spacing on a typewriter. Although the spaces between the lines do not appear on the screen, STYLOGRAPH does keep track of the line number on the page so that the headers and footers will be inserted in the proper places.

,vt X VERTICAL TAB

This command will cause the next line to be printed on the specified line number on the page. The following command would cause the next line to be printed on the 20th line:

```
,vt 20
```

If the present line number on the page is greater than 20, the error bell will sound and the command will be ignored.

,vs X VERTICAL SPACING

The vertical spacing between the lines can also be set using this command. As with the character spacing command it is only usable on those versions of STYLOGRAPH that support a "speciality" printer. The use of any value other than 4, 6 or 8 will result in a warning that a non-normal line spacing is in use. Remember that when using this command you must also change the number of lines on the page. For example, if you set the vertical spacing to 4 (this is equivalent to "space and a half" spacing on some typewriters) you must also set the number of lines on the page to 44 for a normal 11 inch page. This is because there will be 4 lines per inch and there are 11 inches on the page, making a total of 44 lines per page.

,nl X NEED LINES

There are some cases where you will need to be sure that a portion of text, such as table or illustration, appears on one page. The **,nl** command checks to see if there are enough lines on the page. If there is not, a new page will be started. Since STYLOGRAPH actually formats correctly on the screen, there is often no need to use this command since you can always readily see where you are on a page. Its primary purpose is to be used with the MAIL MERGE program when you may not have a chance to preview the text, and to protect your carefully arranged formats against future changes to the text or page size. See also the **,ppnl** command.

PARAGRAPH COMMANDS

,pp PARAGRAPH

This causes a new paragraph to be started. This will have no effect unless one or more of the next three commands have been set. It causes three things to happen. (1) The **,ppnl** value is checked to see that there are enough lines left on the page to start a new paragraph. If there are not, a new page

is started. (2) The number of lines, indicated by the **,ppsp** command, are spaced. (3) The first line is indented according to the **,ppsi** command.

,ppnl X PARAGRAPH NEED LINES

This has exactly the same effect as the **,nl** command except that it has its effect whenever the **,pp** command is entered. It is useful in ensuring that you don't get just one line of a new paragraph at the bottom of a page.

,ppsp X PARAGRAPH SPACE

This has the same effect as the **,sp** command except that it has its effect whenever the **,pp** command is entered. Remember that these spaces between the lines will not appear on the screen but will appear on the printout.

,ppsi X PARAGRAPH SINGLE INDENT

This causes a single indent of X spaces to appear whenever the **,pp** paragraph command is encountered. As with the **,si** command, the indent must have previously been set if the **,ppsi** is set to a negative value.

,bfs X BOLDFACE STRIKE

This controls the number of times that characters in boldfaced are printed. STYLOGRAPH initially starts out with the value set to 4. If you wish the boldface to be darker you may increase this value.

,padc C PAD SPACE CHARACTER

STYLOGRAPH uses the space character as a separator. That is, when the end of a line is reached STYLOGRAPH will break the line at a space. Also, STYLOGRAPH will add spaces between words, if justification is on, to make the text right and left justified. You may cause a space to be treated as a normal character rather than as a separator by using the **,padc** command. This command causes the character "C" when you enter it in your text to be printed on the printer as a space although it will be displayed normally on the screen. For example, let's assume that you have entered the following command:

```
,padc &
```

After this point the character "&" on the screen will be printed out as space on the printer. One common use for this is to prevent abbreviations and other strings from being broken at the end or a line. For example, you would not want someone's name and initials broken between the initials, with one initial at the end of one line and the other at the start of the next line. If you have J.&M.& Johnson, the line will not be broken up. On the printed output the "&" will be replaced by a space.

,mmc C MAIL MERGE CHARACTER

This command sets the character for the mail merge program. Its use is explained in the MAIL MERGE manual.

,pc C PRINTER CONTROL CHARACTER

This command sets the printer control character which allows special commands to be sent to the printer. If "C" is omitted, the printer control character facility is disabled. This should only be used by people who are thoroughly familiar with the ASCII protocol of their particular printer. Some printers allow special characteristics such as double height, double width, or other enhanced printing. This command allows those special commands to be embedded in the text. For example. the printer control character could be set as follows:

```
,pc \
```

This means that all sequences between two "\" characters will be sent to the printer. The sequences may be specified in three different ways; ASCII character, decimal number, or hexadecimal number. Each of these printer command characters must be separated by a space or a comma. ASCII characters are indicated by an apostrophe ' preceding the character. Decimal numbers are entered without any preceding character and hexadecimal numbers are preceded by a dollar sign $. A typical printer control sequence in a text might look like this :

This sequence \$1B,14\ will produce elongated characters on the Centronics 737 printer. The sequence \$1B,$14\ will select the condensed character set and the sequence \'a,'b,'c\ will cause the sequence "abc" to be printed on the printer.

There are three other commands that may be specified between the "PC" characters for special printer operations:

S stops the printer for changing printwheels, etc.

B backspaces one space for overprinting

Tx tabs printer to the "x" column

Presuming the command ,pc a has been previously executed, the following would be legal commands:

The \b\x e and x would be overprinted, the printer would stop here\s\ and could be restarted from the keyboard, and the numbers "12345" would appear in column 70\t70\12345.

Notice that these printer sequences are not taken into account when the line length is calculated for the screen, so the line with these sequences embedded will look longer than a normal line on the screen, but will be the correct length on the printer.

,* COMMENTS

There may be situations in which you will want to enter comments in the text which should not appear on the printed copy. For example, you may want to leave a reminder for the next person that will be working on the text. This could indicate the type of print wheel you want to be used or it could be a simple note about the purpose of the text. It is often a good idea to use these comment commands to document the history of the text and its various revisions. To enter these comments you need to enter the "**,***" on the left edge of the screen and follow of it with a comment. The comment must end with a return and cannot extend beyond the end of the line. This is not really a formatting command like the previous commands since it does not change the appearance of the printed copy. Typical comments might appear like this:

```
,* use a pica print wheel for this text
,* written 4/5/1775. Ben Franklin
,* revised 5/22/1975 Thomas Jefferson
```

CONTROL COMMANDS

CONTROL commands can be executed from either the ESCAPE mode or the INSERT mode. To execute a CONTROL command you must hold down the COMTROL key and press the designated key at the same time. Some of the CONTROL commands have already been briefly described.

CONTROL-P PAGE STATUS

The page status command causes the screen to be replaced with information about the current status of the text. The input and output file names, their status, a number of format parameters, and the room left in memory are all listed. To redisplay the text hit CONTROL-P again. Notice that many of the

formatting commands themselves are displayed here. This is a quick way of recalling these commands if you have forgotten them.

CONTROL-N NAME THE ERROR

Whenever the error bell sounds it means that STYLOGRAPH has encountered an error. If you want to see a description of the error just press CONTROL-N and the cursor line will be replaced with a description of the error. To return to the normal text do the command again or hit the ESCAPE key.

Most of the time the cause of the error will be obvious since the error usually is the result of something you have just entered. The error bell will also sound whenever the cursor passes a line in which there is a format command error. This can be particularly puzzling when using the FIND, REPLACE, or FIND PAGE commands since the error bell can sound whenever you are moving from one portion of the text to another. In this circumstance the only way to find the line that caused the error is to move the cursor back up through the text and then move the cursor down through the text until the bell sounds again.

CONTROL-F FORMAT DISPLAY/CONCEAL

The format lines can be displayed or removed from the screen by this command. This is useful when you want to look at the text without the format lines. There are some commands such as the FIND command that cause STYLOGRAPH to display the format commands.

CONTROL-V VIEW

This command will cause the character mods to be displayed rather than the characters themselves. You can find the meaning of these character mods by looking them up in the View Character Modifications section of this manual or by using the "assistance" command. To return the display to normal, press the CONTROL-V keys again.

CONTROL-A ASSISTANCE

If you forget a particular command you may get some "assistance" by hitting CONTROL-A. This will cause the screen to be cleared and a "menu" to appear. This is like a table of contents since it indicates your choice of other things to look at. There is a pointer on the left side of the menu. To choose an item on the menu you simply move the cursor up and down on the menu using the "I" and "," keys as you would when moving the cursor up and down on the screen. When the cursor is at the correct line, hit the "RETURN" key and the screen will be replaced with a list of the appropriate commands. The best way to learn the use of this function is to try the various items on the menu. You will notice that the disk will be accessed when you choose an item on the menu. This is because the various help tables are being read off the disk. For the command to work, the "STYHLP" files must exist on your execution disk. If the table does not appear, it means that the tables cannot be found on the disk.

The assistance command is especially useful while you are first learning the system. This command will cause a "menu" to be displayed on the screen. This menu is a list of different kinds of assistance you can get. Notice that there are three different lists of format commands. The horizontal commands affect the horizontal positioning of the text. The indent, line length, centering, and justification commands would be examples of this. The vertical commands affect the placement of the lines on the page. The page length, header, footer, and set spacing commands would be examples of vertical formatting commands.

DELETES

CONTROL-D SINGLE CHARACTER DELETE

This command deletes the character on which the cursor is superimposed. The cursor then moves to the next character. Remember that in the INSERT mode the cursor may not be directly on top of the character since the gap in the line has been filled with hyphens. In the INSERT mode the deleted character will always be at the end of the line or hyphens.

CONTROL-S WORD DELETE

The word that the cursor is sitting on and the following spaces, if there are any, will be deleted by this command. The cursor will then move to the first character of the next word. The RETURN is considered to be a word so that if the cursor is sitting on a RETURN it will be deleted by this command.

CONTROL-X LINE DELETE

This command will delete a line if it is bracketed by RETURNS. This means that if the cursor line was started by hitting the RETURN and ends with a RETURN, that line will be deleted. The RETURN at the end will remain in case you want to enter a new line. To delete the RETURN, do a single character delete. A series of lines can be deleted by alternately depressing the "X" and "D" keys while holding down the CONTROL key.

TABS

CONTROL-T MOVE CURSOR TO A TAB POSITION

The tab functions in STYLOGRAPH operate very much like those on a typewriter. The CONTROL-T command has a slightly different function in the ESCAPE mode than in the INSERT mode. In the insert mode the line must be started with a RETURN for it to work at all. If there is a RETURN at the end of the previous line, STYLOGRAPH will add the proper number of spaces to the line to move the cursor to the next valid tab position. In the ESCAPE mode the cursor will move to the next tab position only if there is already a character there. When STYLOGRAPH starts out, tabs are automatically set to every 8th character position. These may be removed or changed at will.

CONTROL-R SET A TAB

A tab will be set at the cursor position when the CONTROL-R keys are pressed.

CONTROL-Y CLEAR A TAB

If a tab has been set at the present cursor position it will be cleared by this command.

CONTROL-G GHOST HYPHEN

A ghost hyphen can be inserted anywhere in a word by moving the cursor to the appropriate position and hitting the CONTROL-G. The most logical use of this command is to scan the text. just before it is to be printed out, for lines that are short and are also followed by a large word. To cause the large word to be hyphenated simply move the cursor to the place that you would like to place the hyphen and press the CONTROL-G. STYLOGRAPH will automatically move the first part of the word to the previous line if it will fit. Ghost hyphens can also be entered when inserting text.

CHARACTER MODS

CONTROL-U UNDERLINE

CONTROL-O OVERLINE

CONTROL-I SUPERSCRIPT

CONTROL-K SUBSCRIPT

CONTROL-B BOLDFACE

These CONTROL commands are referred to as MOD (modifier) commands.. Characters MODS can be specified in either the INSERT or ESCAPE modes, although the method is slightly different for each mode. All of the modifications are specified with CONTROL keys. For example, underlining is done by holding down the CONTROL key and hitting the "U" key.

In the ESCAPE mode CONTROL-U causes the character at the cursor to be underlined and the cursor to move one character to the right. Note that the space bar can also move the cursor to the right in the ESCAPE mode. Therefore, to underline a series of words, but not the spaces between them, you can hold down the CONTROL key and hit the "U" key to underline the words and the space bar to skip between the words. All of the character mods work in this manner. If the character is already modified, the new modification will be added to it. Also, the UNMOD key can be used in the same manner to remove modifications of the character.

In the INSERT mode CONTROL-U causes all characters entered after this point to be underlined. This will continue until the UNMOD key is hit. After this point none of the entered characters will be modified. It is possible for a character to have more than one modification. If, for example. you wanted a word to be boldfaced and underlined, you would hold down the CONTROL key and hit the "U" key and then the "B" key. You would then type in word and then hit the UNMOD key.

Many printers can print these modifications but they cannot be displayed on the screen. The presence of these modified characters is indicated on the screen by some changes in the display. Normally these characters will be displayed in low intensity or in reverse field. You can examine these modifications by use of the VIEW control command. To do this you must hit CONTROL-V. This will cause all the modified characters to be changed to "symbolic" characters. The meaning of these characters is listed in the View Character Modifications section. The display will return to normal by hitting CONTROL-V again. The meaning of these symbolic characters can also be shown with the "Assistance" command.

SUPERVISOR MODE

The SUPERVISOR mode is entered from the ESCAPE mode by hitting the "/" key. This will cause the text to disappear from the screen and a "menu" to appear. This menu is a list of actions that you can take. The cursor and ">" symbol can be moved up and down with the "I" and "," keys the same as in the ESCAPE mode. You execute a command by moving the cursor to that line and then hitting the RETURN. You will then be prompted for any further information if it is needed. In many cases you will be asked for a yes or no response to a question. There may be an asterisk * beside one of the responses such as (Y/N*). The asterisk indicates that you may give that response by hitting the RETURN. This will be the most common answer to the question, so you can hit the RETURN in response to most of the questions.

EDIT

This command has the same effect as hitting the ESCAPE key. It causes STYLOGRAPH to go back to the escape mode so that the text is displayed on the screen, and you are ready to edit the text.

PRINT

This command will cause the current text in memory to be printed out on the printer. When this command is executed you will first be asked if you want to change the printer. STYLOGRAPH normally uses the parallel printer port called "/p". If you want to use a different printer port, such as "/p1" the serial port, you should answer "Y" to the first question. STYLOGRAPH will prompt you for the name of the printer port. If you want to use the serial port, you would respond with "/p1" (If OS-9 does not recognize the name you have entered. (because a device descriptor of that name has not been loaded into memory), OS-9 will display "Error #221 - Module not found". Note that if you forget the "/" at the start of the printer name, your text will go to a disk file with that name.)

Next STYLOGRAPH will ask you if you want to stop for new pages. This is in case you are not using continuous feed paper in your printer and need to hand load each sheet. When the printer has stopped to allow you to load a new sheet you will see another prompt on the screen. You may resume printing by hitting any key except the "ESCAPE" key. The "ESCAPE" key will cause the printing to stop.

STYLOGRAPH will then ask if you want to print all the pages. If you answer "N" you will then be asked for the numbers of the first and last pages that you want printed. Remember that these numbers refer to the serial page numbers, as displayed on the screen, and not to the numbers that appear on the printout.

SAVE AND RETURN

This command is a time saver that allows you to save the text file and then return to OS-9. It operates exactly like the SAVE command except that after it is done, STYLOGRAPH is exited and you will be back in OS-9. If all of the text has not been read in from the disk, STYLOGRAPH will automatically read in the remaining text and send it to the output file. This is the ONLY way you will be able to permanently save text files which are larger than memory, or if you have dumped any of the text to an output file; if you attempt to execute a simple SAVE command (see below) when the file is still open, STYLOGRAPH will give you an error.

SAVE

The save command causes the text in memory to be saved to a disk file. You will first be asked if you want to save the file under the present file name. The present file name will be the same file name that was used when STYLOGRAPH was first called. If you do not want to save it under this name, or you did not give a name when you called STYLOGRAPH, you will be prompted for the file name. If you also specified an output file name when you initially called STYLOGRAPH, the output file name will be used by the SAVE command. This command will be prohibited if there are any files still open. This is to prevent you from erroneously saving part of a file when you intended to save the whole file. If files are open and you only want to save part of the text, you must use the SAVE TO MARK command.

If there is already a file by that name when the SAVE command is executed, STYLOGRAPH will rename the old file by adding ".BAK", (for backup), to the name. If there is already a backup file by that name, STYLOGRAPH will ask you if you want the old file deleted. You may answer with a "Y" or "N". If you answer "N" no action is taken.

SAVE TO MARK

This command may be used to save a smaller portion of the text. For example, you may have a certain paragraph or part of one text that you will also be needing in another text. To save the portion simple enter two marker characters "}}" at the end of the block of the text and then move the cursor to the front of the text. Then execute the SAVE TO MARK command. After using this command you will normally want to go back and delete the "}}" characters.

RETURN

This command allows you to return to OS-9 without saving the file. To be sure you are not making a mistake, STYLOGRAPH will first ask you if the text is secure (that is, is there a copy on the disk?) before returning you to OS-9.

LOAD

This command causes a text file to be loaded into memory at the position of the cursor. The command will prompt you for the name of the file you want to load. Remember that when STYLOGRAPH is first called from OS-9, the file name on the command line will be loaded automatically, so normally it will not be necessary to use the LOAD command.

The LOAD command provides a convenient way of producing made-up documents. Separate parts of a manuscript can be created and saved to disk files. At a later point any assortment of files that exist in disk files can be loaded to create a finished manuscript. This could be used for legal documents and form letters in which identical parts of a text are used in many different documents.

ERASE

All of the text an memory is erased with this command. To be sure you are not destroying a valuable text, STYLOGRAPH first asks you twice if you are sure. You must answer "Y" to each question before the text is erased. This command should, obviously, be used with caution. This command will be prohibited if any files are open.

SPECIAL

This command has the opposite function of the TTY command. It allows you to go back to printing on a speciality printer after having printed on a TTY type printer.

TTY

You can set STYLOGRAPH to act as if it were outputting to a TTY type printer (such as a simple matrix printer) by the use of this command. The printed output will then appear without many of the special effects such as boldface and proportional spacing. This command is useful if you also have a high speed line printer and would like to get a rapid printout of the text. This command is equivalent to selecting printer type 30 when you call STYLOGRAPH from OS-9.

PASS

This command allows you to pass a command to OS-9. You will be prompted for the command line. You can execute any OS-9 command, provided there is sufficient memory available. When the command is finished, hit ESCAPE to return to STYLOGRAPH. Note that the 'chd' and 'chx' commands will have no effect on STYLOGRAPH's own data and execution directories.

SPOOL

This command is similar to the PRINT command except that the output is directed to a disk file. This allows the text to be printed out at another time using the 'copy' command under OS-9, (e.g. 'copy file / p'). You will be prompted for the name of the output file.

WHEEL

This command loads in a proportional spacing table. STYLOGRAPH will load in a proportional spacing table at startup so this command is normally only used if the print wheel is being changed. The proportional spacing table that is usually loaded in is named "STYPS" You will first be asked if you want to load a table by this name. You will be prompted for a different name if you wish.

NEW

This command is for working with files that are too large to fit in memory in one go. STYLOGRAPH can only work on text that is in the memory of the computer. If the text will not fit in the memory, then part of it will be kept on the disk. There are two files that this excess text is kept on, the input file and the output file. When STYLOGRAPH is called, it first loads in text from the input file until memory is nearly full. You may then edit and work on this portion of the file until you are ready to go on to the next portion of text. You will then use the NEW command to dump your present text to the output file and bring in some more text from the input file. Notice that once you are finished with a portion or text and have dumped it to the output file, you cannot then go back and work on it during this editing session. This means that you may only use the NEW command to go forward through the text.

The NEW command actually consists of two different steps, "dumping" and "filling". "Dumping" consists of sending the present text in memory to the output file and "filling" consists of bringing text into memory from the input file. You will be given a choice of doing either or both of these operations. You may use the "PAGE STATUS" command to see if either or both of the files are open. The input file is open if there is still text in it which has not been read in to the memory. The output file is open whenever a portion of text has been dumped to the output file.

When dumping text, all of the text above the cursor page is dumped to the output file. Therefore, if you are finished working with pages 1-5 you may put the cursor somewhere on page 6 before executing the NEW command. If you put the cursor on the first page, no text will be dumped and you will see a message indicating that the cursor is on the first page. If you are dumping text for the first time, you will be asked if you wish to use the present file name. If you do not, you will be asked for a new file

name. Also, if there is an old backup file of that name, you will be asked if you want to delete the old backup file. There are occasions where you will want to dump text to the output file but will not want to do any filling. You might do this to create more free space in memory to do additional editing. For example, you might want to make room for additions to the text at some point. Also, you might want to make room to load in another file or make a large block move. Remember that you can only print out text that is in memory, so you might want to print the text before dumping it.

Text will be filled from the input file if there is any remaining. The new text will be added to the bottom of the present text in memory. STYLOGRAPH will leave a little room in memory so you can do some additional editing. Working with text files larger than memory is a great convenience but it should be done with caution. Having a large text in one file greatly increases the chance of losing the text, either through a power failure or a disk error. If you are working with a large text file it makes sense to always keep a recent copy of the text on a backup disk so that you can always easily recover from such an error. In many cases it makes more sense to break a large text into several smaller sections, such as chapters, and then print out all the files together using the MAIL MERGE program. This simplifies editing and decreases the chances of losing a large text file.

SYSTEM CONFIGURATION

CONFIGURING STYLOGRAPH FOR YOUR PRINTER

STYLOGRAPH is supplied configured to work with the parallel printer port ("/p"), and a simple matrix printer, type P40 in the table below. If you are using a different port or a different type of printer, there are two ways of informing STYLOGRAPH. You can specify the printer type when you call STYLOGRAPH, for example:

```
OS9: stylo letter +P0
```

and specify the printer port name by answering "Y" when STYLOGRAPH asks "Different printer? (Y/N*)". Alternatively, you can permanently reconfigure STYLOGRAPH using the STYFIX command.

STYFIX COMMAND

The "STYFIX" command is normally used to set up three different characteristics of STYLOGRAPH; the printer port name, the printer type, and whether it loads up a proportional spacing table when it is first called. It can also set the maximum number of pages that STYLOGRAPH can work on. The normal method of operation is to first establish STYLOGRAPH in your execution directory, by placing your STYLOGRAPH disk in drive 0, and entering:

```
OS9: chx /d0/cmds
```

Next, change your data directory to be your execution directory: e.g.

```
OS9: chd /d0/cmds
```

You should then execute the following command:

```
OS9: styfix stylo
```

The STYFIX command is menu driven and self prompting. Simply enter the number of your choice and answer the questions. You must consult the table below for the particular number of your printer. When entering the name of the printer port, remember that it must start with a "/". After you have specified the printer type you may return to OS9 and your copy of STYLOGRAPH will be correctly configured for your particular printer and terminal. Don't forget to change your data directory back again, e.g.

```
OS9: chd /d0
```

PRINTER TYPES AND CHARACTERISTICS

This table lists the various printer types handled by STYLOGRAPH, and gives the associated numbers for use when calling STYLOGRAPH, or when using STYFIX.

Type	Proportional Spacing file	Printers of this type
P0	STYPS.D	All DIABLO, all C.ITOH, NEC 3515, 3525, 5515,5525,7715, 7725, QUME SPRINT, 5/xx or 9/xx
P10	STYPS.N	NEC 3510, 3520, 5510, 5520, 7710, 7720
P20	STYPS.7	CENTRONICS 737/739
P30	none	TTY (matrix) printer with backspace capability
P40	none	TTY (matrix) printer without backspace capability

NOTES

1. P0, P10, and P20 type printers will support: Underline. Overline, Boldface, Superscript, Subscript, and proportional spacing.

2. P30 type printers will support: Underline, Overline, and Boldface, but no proportional spacing.

3. P40 type printers support no character modifications and no proportional spacing. Most matrix printers are of this type.

SUMMARY OF STYLEGRAPH COMMANDS

ESCAPE COMMANDS (USED IN ESCAPE MODE)

J	cursor left
L	cursor right
I	cursor up
K	cursor left and right to end of line
U	scroll up one line
M	scroll down one line
O	scroll up one screen
.	scroll down one screen
1	overlay one character with next key hit
^	insert next key hit
7	scroll left by 25 columns
9	scroll right by 25 columns
;	enter INSERT mode
/	go to SUPERVISOR mode
S	save text from cursor to marker
W	withdraw saved text
D	duplicate (without withdrawing) saved text
Z	zap (delete) text from cursor to marker
}}	set marker (two required)

P   move to page N

F   find character string
     responses: space - go to next;
             return - stop

R   replace first character string with second
     responses: Y   - replace string;
           N   - don't replace string;
           A   - replace all occurrences (no prompt);
          space - go on to next;
          return - stop

CONTROL COMMANDS (USED IN ESCAPE AND INSERT MODES)

CONTROL-A	help
CONTROL-P	page status
CONTROL-N	name the last error
CONTROL-W	delete word
CONTROL-D	delete single character
CONTROL-X	delete line (bracketed by returns)
CONTROL-F	display/non-display format commands
CONTROL-R	set a tab
CONTROL-T	move to tab
CONTROL-Y	clear a tab
CONTROL-G	insert a ghost hyphen
CONTROL-V	view/hide character modifiers
CONTROL-U	underline - in escape mode, underline a character. In INSERT mode, underline following characters until UNMOD hit.
CONTROL-O	overline - same as underline
CONTROL-I	superscript - same as underline
CONTROL-K	subscript - same as underline
CONTROL-B	boldface - same as underline
UNMOD	end/remove mods - in ESCAPE mode, removes all mods from a character. In INSERT mode, returns to unmodified character entry.

FORMATTING COMMANDS

Default values are shown in square brackets [ ].

Table 1. Vertical formatting commands

,PL N	Set page length to N lines per page [66]
,PG	Force a new page
,PN N	Set the printed page number to N
,TF	Send TOP OF FORM to printer
,HD	Start header definition
,FT	Start footer definition
,,	End header or footer definition
,SP N	Space N lines (print parameter)

,SS N	Set line spacing to N (print parameter) [1]
,VT N	Vertical tab to Nth line (print parameter)
,VS N	Vertical spacing, lines/inch (print parameter)
,NL N	Need N lines on same page, (to keep a block of text on one page).

Table 2. Horizontal formatting commands

,CE N	Centre N lines
,RJ N	Right justify N lines
,JU	Justify
,NJ	No justify
,LL N	Line length of N characters [screen width -1]
,IN N	Indent N spaces from the margin until next ,IN command
,SI N	Indent one line N spaces (N can be negative)
,LM N	Set left margin on printer to N spaces [0]
,CS N	Character spacing, N characters/inch (print parameter)[12]
,PS	Start proportional spacing
,NPS	Return to non-proportional spacing, normal spacing

Table 3. Paragraph formatting commands

,PP	Start a new paragraph
,PPNL N	Paragraphs need N lines on same page
,PPSP N	Space N lines on new paragraphs
,PPSI N	Indent N spaces on first line of paragraph

Table 4. Misc. Formatting commands

,BFS N	Boldface strike N times at printout
,PADC C	Pad character C for non-paddable spaces on printout
,MMC C	Mail Merge character C
,PC C	Print character C for delimiting printer control strings
,*	Comment line

VIEWED CHARACTER MODIFICATIONS

	Command	**As seen on screen in viewing mode**
Underline	CONTROL-U	_____
Overline	CONTROL-O	55555555555555555555555555555555
Boldface	CONTROL-B	33333333333333333333333333333333
Superscript	CONTROL-I	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Subscript	CONTROL-K	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

Displayed mod characters

```
_ Underline
3 Boldface
4 Underline, Boldface
```

```
5 Overline
6 Underline, Overline
7 Boldface, Overline
8 Underline, Boldface, Overline
A Superscript
B Superscript, Underline
C Superscript, Boldface
D Superscript, Underline, Boldface
E Superscript, Overline
F Superscript: Underlined Overline
G Superscript, Boldface, Overline
H Superscript, Underline, Boldface, Overline
a Subscript
b Subscript, Underline
c Subscript, Boldface
d Subscript. Underline, Boldface
e Subscript, Overline
f Subscript: Underline, Overline
g Subscript, Boldface. Overline
h Subscript, Underline, Boldface, Overline
```

A STYLOGRAPH TUTORIAL

This short set of exercises is designed for the person who is inexperienced with computers and who will be using STYLOGRAPH. The commands that are introduced here are only a few of the many commands that are available through the STYLOGRAPH word processing system. They are, however, the commands that are most often used, and those that you will need immediately for practical everyday uses like letter or report typing. As you go through the tutorial, sit down at the computer terminal and follow the directions. This will let you become accustomed to typing on the video terminal and also give you some idea of the way STYLOGRAPH operates. When you are done with the tutorial, it is a good idea to go back and read the manual through to get an idea of the other capabilities of the STYLOGRAPH system.

A. THE TERMINAL

There are a few differences between the typewriter that you have used in the past and the screen and keyboard that you will be using with STYLOGRAPH. This section is designed to make you aware of those differences.

Important

In this manual and tutorial, we make frequent references to certain special keys, such as RETURN, ESCAPE, and CONTROL. On your keyboard these may be named differently. Refer to the Key Assignments Summary At the back of this manual for a guide to these special keys on your keyboard.

First of all, you will notice that the letters on the terminal are set up exactly the way they are on the typewriter. However, there are some extra keys with special functions that you should notice, because those functions are important to the working of STYLOGRAPH:

1. The CAPS LOCK key: This key is somewhat like an upper-shift lock on a typewriter, except that it only locks the upper-case for letters; the numbers and punctuation on the keyboard are unaffected by it. You usually turn the upper-case on and off by hitting the key. This is a very useful key when you want to type in capital letters, as it leaves everything else on the lower case level.

2. Auto-Repeat function: Many video terminals will repeat the letter, number, or punctuation that you are typing if you hold the key down. Some terminals do not have this feature, but rather, have a REPEAT key which will produce this function if held down at the same time as the key that you want repeated.

3. CONTROL key: The control key is something like a shift key on the typewriter, except that it normally produces no real effect on the letters typed on the video terminal. The CONTROL key. however, is used extensively in STYLOGRAPH and you should try and locate it on the video terminal you're using. It's usually somewhere on the left side of the keyboard. To enter, for example, CONTROL-D, hold down the CONTROL key and hit the D key.

4. ESCAPE key: The ESCAPE key does not appear on a typewriter, but is important to the workings of STYLOGRAPH. It will be used in STYLOGRAPH extensively.

5. RETURN key: The carriage return is located in the same place as on a typewriter. You will find, however, that you will use it much less than you have when you typed in the past. This is because STYLOGRAPH will automatically move words to the next line for you if they are too long to fit on the current line you're working on.

B. TERMINOLOGY

Before you begin working through the STYLOGRAPH tutorial, there are a few words that will be thrown around quite a bit with which you will have to be familiar.

1. Character: a "character" is any of the letters, numbers, or symbols available on the keyboard. Since the computer codes all characters in numerical form, it has no real idea that letters are a different kind of symbol from punctuation marks, so it's easier to refer to all of them as "characters".

2. String: a "string" refers to one or more characters together. The computer does not know English (or any other human language, for that matter), and so the string or characters "v7iu3e:d,q" makes as such sense to the computer as the string "elephant". Naturally, only the second string of characters is intelligible to us, but the computer doesn't know that. So, it is easier to think of a paragraph sentence, word, or any part thereof, as a string. Usually, the term will be used when you are trying to perform some operation on it, such as "moving a string" or "duplicating a string".

3. Edit: "editing" something on a computer is no different from editing a typewritten piece of material, except that it's much easier. When you type something, and it gets edited, you usually have to retype it. Not so with your computer word-systems, like STYLOGRAPH. Here, you see the information as it will be printed out so that you can catch any typing errors, misspellings, etc. Your first print-out is usually error-free. but even if it isn't, it's no problem to go back and re-edit it, and get another printout in a matter of minutes.

4. Text: the word "text" as used in word processing, isn't much different from the word's normal English usage in sentences like "The text of the letter was long". It simply refers to written information that you can work on, or edit. If you are thinking like a computer, you can envisage "text" as a lot of "strings" put together.

5. Mode: a "mode" is a certain way of doing things, a kind of "system". STYLOGRAPH has three separate "modes" or systems, each of which is used to perform different types of tasks on the text you wish to edit. These are the "SUPERVISOR, ESCAPE, and INSERT" modes, and they will be discussed in more detail below.

6. Disk: a "disk" is a piece of flattened magnetic tape: much like cassette tape, on which the computer can permanently store information and retrieve it at a later time. Disks are needed because the information that is stored directly in the computer will disappear when you turn the computer off. Therefore, you must "save" your text to the disk before turning the computer off.

7. File: a "file" is how information is stored on a disk. It is much like a file in a filing cabinet, in that it is stored in an organized way for later retrieval. But the disk system of the computer can do many things with a file: it can be listed, printed out, processed, copied to other disks, etc., in only a fraction of the time it would take for a secretary to do it. The only real difference is that a disk file tends to contain less information than a "file" in the real office-life sense. For example, one disk file may contain only one letter, or only one report.

8. Cursor: A "cursor" is a little marker which tells you where you are in the text. On typewriters, the platen moves from right to left to tell you where you are on a line. On a computer: the cursor moves from left to right to tell you "where you are" on the screen. On some video terminals, the cursor is a solid block, while on others it can be a blinking block or a simple line underneath the letters. You will need to identify the cursor on your terminal and move it around to use STYLOGRAPH.

C. STARTING THE SYSTEM

Now that you're somewhat familiar with the terminology and equipment that will be used with STYLOGRAPH, we'll get you started on your first lesson.

First of all, you must get your computer running. Refer to your computer manual for this. When you have the OS-9 prompt

```
OS9:
```

remove the system disk from drive 0 and put in your STYLOGRAPH disk. Change your execution and data directories to this disk by typing:

```
OS9: chx /d0/cmds; chd /d0
```

If you are using a Dragon 64 and you are not already in the 51 characters by 24 lines screen mode, go into that mode with:

```
OS9: go51
```

To start the STYLOGRAPH system, all you have to do is to type in the STYLOGRAPH program name "STYLO" and the name of the file that you will be working on. To get you going, enter

```
OS9: stylo lesson1
```

What this will do is first. load in the STYLOGRAPH word processor, and second, tell STYLOGRAPH that the name of the text file you will be working on is "LESSON1" At this point, you will be in one of the three "modes" of STYLOGRAPH, the SUPERVISOR mode.

D. THE SUPERVISOR MODE

If everything is working correctly, you should now see a list of tasks, or "options" in front of you on the screen. The tasks should have names like "EDIT", "PRINT", "SAVE AND RETURN" and so forth. Don't be worried about how long the list is; you'll only be using these three commands in this short tutorial. This list is called a "menu". It is like a restaurant menu because it shows you what is available, and allows you to make your selection. Now, all you have to do is to tell it what you want to do. Notice that to the left of the list is a pointer-like symbol; you need to move the pointer to the task you want STYLOGRAPH to do, and then hit the RETURN key. You can move the pointer down by hitting the comma (",") key, and you can move it up by hitting the "I" key. (We know that this makes no sense at all right now, but bear with us. It soon will). Move the pointer around a little to get used to it. What you want to do now is to EDIT some text, so move the pointer to EDIT, and hit RETURN.

At this point, you should see something like this on your screen:

```
-------------------- PAGE 1 --------------------
                                               |
```

You are now in another "mode" of STYLOGRAPH, the ESCAPE mode. The ESCAPE mode is designed to display the text that you're working on and to allow you to do some things to the text. However, because there is no text to work on yet, the screen will be pretty empty. In order to enter some text, you have to go to the third mode of STYLOGRAPH, the INSERT mode. We will return to the ESCAPE mode a little later. To get into the INSERT model you only have to hit the semicolon key (";").

E. THE INSERT MODE

Now the screen should look like this:

```
-------------------- PAGE 1 --------------------
-----------------------------------------------|
```

All you need to do now in order to enter text is to type it in, as if you were typing normally. Before you start typing, however, you should know two things about entering text into STYLOGRAPH:

1. You don't have to hit the RETURN key to move to the next line. In fact, STYLOGRAPH keeps track of how many spaces are left on the line. and will automatically put the word you are typing on the next line if it doesn't fit. The number or dashes on the line you are typing let you know how many spaces are left on the line.

2. If you make any mistake as you are typing, you can simply backspace over the error and retype it. All computer terminals have a backspace key, like typewriters.

Now, to show you some of the features of STYLOGRAPH, type in this sample bit of text:

```
-------------------- PAGE 1 -----------------------
Type in this sample text to demonstrate what kinds of
things STYLOGRAPH can do. Typing is made much easier
because STYLOGRAPH allows you to type in material as
you go along and automatically puts words on the next
line if they are too long.-------------------------|
```

You may be wondering what you do use the RETURN key for. You use it if you want to start typing in text on a new line. This is for new paragraphs, skipping lines, or any other time that you don't need to finish a line. For example, of you now hit a RETURN and type another line in the sample text, it will look like this:

```
----------------------- PAGE 1 -----------------------
Type in this sample text to demonstrate what kinds of
things STYLOGRAPH can do. Typing is made much easier
because STYLOGRAPH allows you to type in material as
you go along and automatically puts words on the next
line if they are too long.                           |
    This text should start on the next line because you
have hit a carriage RETURN----------------------------|
```

You will notice that when you hit a carriage RETURN, STYLOGRAPH signifies it with a vertical mark on the right hand margin.

Now that you can enter text into STYLOGRAPH using the INSERT mode, there are some other things that you can do in the INSERT mode which will make your typed work come out formatted perfectly. When you type on a typewriter, you can set margins. The same thing is true of STYLOGRAPH; you can set margins using a set of format commands that are entered in the INSERT mode like regular text, but do not appear on the final printed copy.

Each of the format commands requires a line all for itself. You will have to hit another RETURN to enter the commands. Right and left margins are set separately. You can set the left margins by entering a:

```
,lm 12
```

on the line. Note that the comma MUST be the first character on the line. (there must be no preceding spaces), there MUST be no gap between the comma and the command "lm", and there MUST be a space between the command and the numeric parameter, "12". What this will do is set the start of the left margin at 12 spaces in from the left boundary of the paper. Of course you don't have to use 12, the left margin can be set at 10, 8, or any other number you please. Usually 10 or 12 are the standards, however. The command will not appear on the print-out of the text.

Right margins are set a little differently, but use the same restrictions as for the left margin command. The right margins are set by allowing a certain line length for each line. If you only allow a certain number of spaces per line, this will naturally set the right margin. To set the right margin, hit another RETURN and enter:

```
,ll 48
```

Your text should now look like this:

```
---------------------- PAGE 1 ----------------------
Type in this sample text to demonstrate what kinds of
things STYLOGRAPH can do. Typing is made much easier
because STYLOGRAPH allows you to type in material as
you go along and automatically puts words on the next
line if they are too long.                              |
   This text should start on the next line because you
have hit a carriage RETURN
,lm 12
,ll 48
-------------------------------------                   |
```

Notice that the line of dashes does not extend all the way to the end of the screen. This is because you have set the right margin with the **,ll** command. Naturally, your line length need not be 48; it can be anything, although 65 and 75 are the usual standards.

One of the most frustrating jobs in typing is centring titles on a page. This is easily done with another STYLOGRAPH format command, however. The centring command looks like this:

```
,ce
```

Enter the command, hit a RETURN, and type in the following lane:

```
        Presto! This line is centred.---------------|
```

Now hit the RETURN, and presto! the line is centred. The **,ce** command may be followed by any number, and STYLOGRAPH will automatically centre that next number of lines. For example, the command

```
.ce 5
```

will centre the next five lines of text. Again, remember that you need to follow the restrictions of the margin commands that the command start in the first space of the line, and that the command be preceded by a comma.

Along with centring, you often have to put things on the right margin. Examples of this (it's called "right justification") are the return addresses and dates of business letters, and the page numbers of reports. A STYLOGRAPH format command will also do this for you automatically. In your sample text, type in:

```
,rj
```

followed by RETURN, and then:

```
December 19, 1943-------------------    |
```

followed by another RETURN. This should result in the date being placed against the far right margin:

```
                                        December 19, 1943  |
```

As with the **,ce** command, you can follow the **,rj** command with any number, and STYLOGRAPH will automatically right-justify that many lines of following text. Your entire text should look like this now:

```
Type in this sample text to demonstrate what kinds of
```

```
things STYLOGRAPH can do. Typing is made much easier
because STYLOGRAPH allows you to type in material as
you go along and automatically puts words on the next
line if they are too long.                              |
    This text should start on the next line because you
have hit a carriage RETURN
,lm 12                                                  |
,ll 48                                                  |
,ce                                                     |
            Presto! This line is centred
,rj                                                     |
                                   December 19, 1943|
```

There is one last INSERT mode feature of STYLOGRAPH that will be described in this tutorial. The "header" and "footer" features let you set the top and bottom margins for the pages. They are also very useful if your letter or report extends beyond one page long, and if certain things will have to be printed on the top or the bottom of each page.

STYLOGRAPH lets you specify what you want printed, or how many lines to skip, on the top or bottom of every page *once*, and then will automatically do it for you as each page is printed out. Things that are printed at the top of the page are called "headers" and things that are printed at the bottom of the page are called "footers". In combination with the **,rj** and **,ce** commands, you can do some very fancy formatting. You can define a "header" with the following commands:

```
,hd

,,
```

Anything placed between the **,hd** and **,,** will be repeated at the top of every page of text. So, for example, if you entered the following chain of commands (remember to follow each of the with a carriage RETURN):

```
,hd                                                     |
                                                        |
,rj                                                     |
19/12/43                                                |
,,                                                      |
```

It would cause the date "19/12/43" to be printed out on the edge of the right margin at every page of the text printout. Too see this work, enter the chain of commands, and then enter the following command which will skip to another page:

```
,pg
```

After a RETURN, your entire screen should look something like this:

```
----------------------- PAGE 1 -----------------------
Type in this sample text to demonstrate what kinds of
things STYLOGRAPH can do. Typing is made much easier
because STYLOGRAPH allows you to type in material as
you go along and automatically puts words on the next
line if they are too long.                              |
    This text should start on the next line because you
have hit a carriage RETURN
,lm 12                                                  |
,ll 48                                                  |
,ce                                                     |
```

```
                    Presto! This line is centred
,rj                                                            |
                                         December 19, 1943|
,hd                                                            |
                                                               |
,rj                                                            |
19/12/43                                                       |
,,                                                             |
,pg                                                            |
---------------------- PAGE 2 ----------------------|
                                                              -
                                                   19/12/43 -
                                                              -
----------------------------------------------------|
```

The three dashes which appear on the right margin edge of the top of page 2 signify that these three lines are indeed, a header. You could now add additional text if you wanted. The "footer" command is essentially the same, except that the command looks like this:

```
,ft
,,
```

and that any material entered between the **,ft** and the **,,** would be printed out automatically at the bottom of the page. In practicing a footer, we will introduce one more nice feature of STYLOGRAPH: the automatic page numbering. By using the symbol "#" in any header or footer of a STYLOGRAPH text file, the page number will replace the symbol in the final printout. For example, enter the next set of commands (again, following each with a RETURN):

```
,ft                                                            |
                                                               |
,ce                                                            |
PAGE #                                                         |
                                                               |
,,                                                             |
```

and following these commands with another **,pg** command, Page 2 of your text will look like this:

```
---------------------- PAGE 2 ----------------------|
                                                              -
                                                   19/12/43 -
                                                              -
,ft                                                            |
                                                               |
,ce                                                            |
PAGE #                                                         |
                                                               |
,,                                                             |
,pg                                                            |
                                                              -
                        Page 2                                -
                                                              -
---------------------- PAGE 3 ----------------------|
```

STYLOGRAPH will automatically increase the page numbers by one every time you go onto a new page. Note again the dashes in the right margin of the footer, signifying that it is put there by the footer command, and not by you.

Important

You don't need to use the **,pg** command when you get to the bottom of the page. STYLOGRAPH also keeps track of the number of lines on the page and will automatically skip to a new page when you run out of lines. You can see the usefulness of this if you've ever ended up typing on the very bottom of a sheet of paper because you forgot to keep track of yourself.

Now that you have practiced a little with the INSERT mode, let's move back to the ESCAPE mode, and see what kinds of tricks can be done there. All you need to do to get back into the ESCAPE mode is to hit the ESCAPE key. This will remove the dashes that you see in the INSERT mode.

F . THE ESCAPE MODE

The escape mode is designed to display the text you have entered so that you may easily work on it. To "work" on any particular part of the text you will need to move the cursor to it (remember "cursor"'?). The cursor is moved by using four keys on the right side of the keyboard:

```
            I
         J     L
            ,
```

Each of these keys will move the cursor in a different direction. You can remember the direction of each key if you just remember the position of the keys: Left and Right movement is controlled by the "J" (left) and "L" (right) keys, while up and down movement is controlled by the "I" (up) and "," (down) keys. While this might seem awkward at present it will become very easy to move in and around your text after only a few hours experience with STYLOGRAPH.

Now while you are in the ESCAPE mode, use the cursor movement keys to move back to the top of the text you have just entered. You probably need only to use the "I" and "J" keys at this point. You may hear a beep or bell if you have been moving the cursor around and it has run out of room in the direction you were going. You can either come to the "top" (beginning) or "bottom" (ending) of the text, but you haven't done any damage. Practice moving the cursor around to different places in the text you have entered. It's very important that you know how to direct the cursor around to various parts of the text, because cursor position is a crucial feature in executing many commands in the ESCAPE mode.

Once you have mastered this, it's time to show you some of the more useful features of the STYLOGRAPH system. One of the most powerful commands in the ESCAPE mode is the "Find" command. Place the cursor at the start of the text, and hit the "F" key. This will cause the following to be printed on the terminal:

```
*** FIND {
```

At this point, if you enter any string (remember string?) that is located anywhere in the text you have entered. STYLOGRAPH will search for it, find it, and move the cursor to it. For example, enter the string "typ" and hit the RETURN. The cursor should now be placed in front of the word "type" in the second sentence of the text you have entered, and another message should have appeared:

```
*** STOP (RET) OR CONTINUE (SP)?
```

What STYLOGRAPH wants to know now is whether you want to keep looking for the string "typ", or stop at this string. If you want it to stop here, you can hit the RETURN. If you want it to keep looking for the string you have specified, hit the space bar. If you do hit the space bar, you will find that the cursor has been moved to the next occurrence of the string "typ", the word "typing" in the next sentence, and the stop-or-continue message has reappeared. If you hit the space bar again, it will go to the third occurrence of the "typ" string in the text; namely, the word "typed" in the next sentence. If

you hit the space bar again, the error bell/beep will ring, telling you that the string does not occur again anywhere in the text after the word "typed" in the third sentence. Note that STYLOGRAPH searches for strings from the position of the cursor at the time of the command down to the bottom of the text. Any occurrence of the string above the cursor when you give the "FIND" command will not be found.

A powerful variant of the "FIND" command is the "REPLACE" command, which will find any string, and replace it with any other specified string. Place the cursor at the top of the text again. Now, hit the "R" key. A message will appear:

```
*** REPLACE {
```

Now enter a string; for example, let's replace the word "allows" in the text with the word "lets". Simply enter the word "allows" and hit the RETURN. At this point the screen should look like this:

```
*** REPLACE {allows}
*** WITH {
```

Now enter the word "lets" and again hit the RETURN. At this point, STYLOGRAPH will search for the string "allows" and place the cursor at it. You will also be asked whether or not you want to change it:

```
*** REPLACE (Y-N-A)?
```

"Y-N-A" is an abbreviation of "Yes-No-All" If you answer "Y" then it will replace "allows" with "lets". If you answer "N" then it will go to the next occurrence of "allows" in the text (since there is no next occurrence here, it will ring the bell) and ask you the same question. If you answer "A" it will replace all of the occurrences of "allows" that it finds in the text with the string "lets". You usually should not use the "A" option, because STYLOGRAPH will not show you all of the changes it makes. Nevertheless, you can see what a nice feature this is if you have ever misspelled a word or name consistently throughout a letter or report; now all you have to do is tell STYLOGRAPH to REPLACE it with the correct spelling.

You often have to underline words when you type letters or reports. One more command that you can use from the ESCAPE mode will do this for you automatically when you have a printout made of your text. For example, if you wanted to underline the word "Stylograph" in the text passage you have entered, simply move the cursor to the first letter of the word, either by moving it manually with the "I", "J", "," and "L" keys, or with the "FIND" function. Now all you need to do is to hold down the CONTROL key and hit the U (for Underline) key for each letter you want underlined. You will notice that this operation changes the display of the letters you have "underlined" to tell you that something has been done to the letters when you look through the text again. Now when you have the text printed out, the work "Stylograph" will be underlined.

There are two other ESCAPE mode commands which come in handy when you are working on a letter or report and you want to make some simple changes. Both of these commands are used to remove unwanted letters or words from the text. To erase single letters or spaces from a text, all you have to do is position the cursor at the letter, and then hit CONTROL-D (for delete). This will cause the letter to disappear, and the rest of the text will "move up" to fill in the gap left by the erased letter. Try this on any letter of the text that you have entered. A similar command is used to delete entire words from the text; to do this, simply place the cursor at the word you want erased, and hit CONTROL-W (for word). Again, the word will disappear, and the rest of the text will move up to fill the gap left by its disappearance. Note that any punctuation symbols not separated from the word by a space will also be deleted. When you use these commands, be careful, because if you hold the keys down for any length of time longer than needed for one letter or word, you may delete more than one.

Now you know all the commands you need to enter text to format it perfectly and to edit any typing errors you have made and missed earlier. It's time to take a look at the printed copy, and to go back to the SUPERVISOR mode. To do this: just hit the slash "/" key.

G. THE SUPERVISOR MODE (Again)

The "menu" should have reappeared now. As before, to request any of the tasks on the menu, position the pointer next to it. Let's print out the text you've entered by using the "I" and "," keys to move to the PRINT command. Make sure that your printer is correctly connected up to your computer. We are assuming that you are using a parallel printer ion the parallel printer port "/p1". Once you've done that, hit the RETURN. This will cause STYLOGRAPH to ask you some questions that you needn't worry about right now:

```
Different Printer (Y/N*)?
Stop for New Pages (Y/N*)?
Print all Pages (Y*/N)?
```

For the present time, just hit the RETURN key for each of them, and the text should be printed out on the printer. Once this is done, you should notice that on the printout, the format commands should not be visible, the headers and footers are properly executed, and that the text appears as it did in the ESCAPE and INSERT modes. If any of these is wrong, go back to the portion of the tutorial where instructions were given for it, and see what went wrong, correct it using either the ESCAPE commands or INSERT mode, and print it out again. Once the text is printed out, the pointer on the SUPERVISOR menu will again be positioned at the EDIT option. You can return to edit the text further by simply hitting the RETURN as before. If the printout is satisfactory. you can save the text permanently on a disk by positioning the pointer to the SAVE AND RETURN option. At this position, hit the RETURN again, and you will hear the disk run for a short time and then the screen will clear showing the OS-9 prompt:

```
OS9:
```

If you look at the contents of the disk, using the 'dir' command, you should find that a file named "LESSON1" exists on it. This is the text file you have created with STYLOGRAPH and this tutorial. In order to work on it further, simply repeat the command you used to create the file in the first place:

```
OS9: stylo lesson1
```

This will again activate the STYLOGRAPH system, load in your text file, and put you in the SUPERVISOR mode. where you may EDIT, PRINT, and SAVE the file again.

We hope that this course has been useful. You should read the entire manual in order to get a good idea of the many other features of STYLOGRAPH. You will eventually find word processing a very easy and efficient way to edit and print documents; in fact, after you have mastered it you will undoubtedly wonder how you ever got along without it.

MAIL MERGE USER'S MANUAL

INTRODUCTION

The MAIL MERGE program is designed to fulfill three different needs for people who use STYLOGRAPH. First of all, it is designed to merge file of "variables" such as names and addresses into a STYLOGRAPH text file so that form letters and so forth can be printed. Secondly, the program allows a number of text files to be appended together at printout time so that page numbers and headings can be continued from one text file to another. This allows longer manuscripts to be edited as, smaller, easy to handle text files but be printed as one document. Finally the MAIL MERGE program can print multiple copies of the same file. In multitasking environments. this can be especially useful since a long printout or any file can be started and run as a background task while you are busy doing other tasks.

OPERATION

PRINTING OF TEXT FILES

To simply display a text, use a command line like this:

```
OS9: mm intro
```

This causes the file "INTRO" in your current data directory to be listed on the screen. Normally, you will want to list the file to a printer. If you have a printer on the parallel port "/p", you might try:

```
OS9: mm intro >/p
```

The output is directed to the parallel printer device "/p". While the text is being printed you may stop the printing by hitting the "SPACE" bar on the terminal. The printer will then stop. You may restart the printing by hitting the "SPACE" bar again or you may stop it altogether by hitting the "RETURN" key.

To print out several text files in succession, the file names are listed one after another as follows, (assuming that you have files "TEXT2" and "TEXT3"):

```
OS9: mm intro text2 text3 >/p
```

The three text files will then be printed out as if they were one file. When editing the files "TEXT2" and "TEXT3" you may want to add your normal header and footer to the start of each file so that you can see what the text will look like while you are editing it. At a minimum you will probably want to at least specify the line length for the second and third files while you are editing them. You should *not*set the page number using the ",pn" command in the second and third files since this will be taken care of automatically by the MAIL MERGE program. The successive text files could even be broken off in mid sentence although, ideally, the next file will start off on the next page or at least the next paragraph.

MAIL MERGE AS A BACKGROUND TASK

MAIL MERGE can be run as a background task, that is, MAIL MERGE can be printing out while you are entering further commands to OS-9 and running other programs.

Because MAIL MERGE is looking for SPACEs being sent to it to pause printing, if you want to run MAIL MERGE as a background task you must redirect its input to come from a device other than your keyboard. Otherwise it will "eat" the characters you are trying to type in for the next task you want to run. A simple way to do this is to redirect its input to come from the printer that its output is

going to. The printer will not normally send data back to the computer, so MAIL MERGE will never be unexpectedly paused. For example, to print file "INTRO" as a background task you could use:

```
OS9: mm intro >/p </p &
```

">/p" means 'send the output to the printer port /p', "</p" means 'take input from /p', and the "&" on the end means 'run as a background task'. OS-9 will respond with the process number of the background task. e.g.:

```
&004

OS9:
```

You would use this number to abort (stop) the printout:

```
OS9: kill 4
```

Some versions of OS-9 have the device descriptors for the printers set to be non-sharable, that is, it is not permitted to have two paths open to the same printer at once. This is to prevent two users sending data to the same printer at the same time. If your version of OS-9 is set up like this, the above example would give you an "Error #209 - Module busy". To overcome this, you must set the input to come from a different device, for instance another printer port, or the 'null' device, if your system has this. For example:

```
OS9: mm intro >/p </p1 &
OS9: mm intro >/p </null &
```

SPECIFYING COMMAND LINE OPTIONS

FORM LETTERS

To allow data items to be inserted into a text file you must use the "+D=" option. A typical use of this feature of the MAIL MERGE program is to produce personalized form letters in which the names and addresses are a part of a data file. The actual nature of these files is explained later. The calling line might look like this:

```
OS9: mm letter +d=names >/p
```

In this case the file "LETTER" will be printed out and will take information from the data file "NAMES". The data file is always specified by the data option prefix "+D=". Only one data file may be specified. The MAIL MERGE program will continue printing copies of the file "LETTER" until all the data in the data file is used up.

MULTIPLE COPIES

Multiple copies may be printed using the "+C=" option:

```
OS9: mm intro +c=5 >/p
```

This would cause five copies of the file "INTRO" to be printed out.

SPECIFY PRINTER

The MAIL MERGE program may be set to format its output for a particular printer on the calling line by using the "+P=" option (or you can use the "MMFIX" program to configure MAIL

MERGE permanently for your printer). The printer types are the same numbers that are used with STYLOGRAPH. The program defaults to a simple matrix (type 40) printer unless this option is specified. To specify a NEC printer the command line would look something like this:

```
OS9: mm intro +P=10 >/p7
```

This configures your printer as type 10 only for this call-up of MAIL MERGE. Use "MMFIX" for a permanent change.

Important

You should notice the slight difference in the syntax between MAIL MERGE and STYLOGRAPH when specifying the printer type:

```
OS9: mm intro +P=10
OS9: stylo intro +P10
```

The various printer codes are listed below:

CODE	PRINTER
0	Diablo Type: All Diablo, All C.ITOH, NEC 3515/25, 5515/+25,7715, 25, Qume Sprint, 5/xx or 9/xx
10	NEC 3510, 3520, 5510, 5520, 7710, 7720
20	CENTRONICS 737/739
30	TTY (matrix) printer with backspace capability
40	TTY (matrix) printer without backspace capability

SINGLE SHEET PAPER

Normally, the whole file will print out regardless of the number of pages, stopping only to prompt you for input when you have requested for it in the text file. If you wish to insert a new sheet of paper between pages, use the "+S" option; then your approval will be requested before each new page is printed.

PRINTING PART OF A FILE

The final option is the page number option "+N=". This will allow you to print only a few pages of text. For example, if you wanted to print out only pages 8 through 120 the command line would look like this:

```
OS9: mm text +n=8-10 >/p
```

Pages 8 to 10 will be printed. This will allow you to print out only a few of the pages if you had to edit some errors that existed in a previous printout. If you specify only one number in this option, the printing will start on that page and continue to the end. The page numbers used in this option refer to the printed page number which is set by the ",pn" command and not to the serial page numbers which appears on the page breaks in STYLOGRAPH.

If you wish to use more than one option in the command line, just separate them with spaces. For example:

```
OS9: mm letter +D=names +P=10 >/p
```

SPECIFYING VARIABLES IN THE TEXT

STYLOGRAPH has a formatting command ",mmc", which sets the mail-merge character. After this command, that specified character may be used to enclose MAIL MERGE "variables". This command look like this is in STYLOGRAPH file:

```
,mmc \
```

After this point the "\" character will be the mail-merge character and cannot be used for anything else. This character may be changed to another or removed as follows:

```
,mmc @
,mmc
```

The first command changes the mail-merge character to a "@" and the second causes there to be no mail-merge character.

Whenever MAIL MERGE encounters this character, it removes the two bracketing mail-merge characters along with any intervening text and inserts an item from the data ("+D=") file. The text might look like this:

```
,mmc @
@name@
@address@
@address2@
@address3@

Dear @greeting@:

This letter is to inform you that we are taking your wife, children,
home, computer, and all other possessions from you for using
unstructured programming methods.

                        Sincerely,
                        B. Pascal
```

The data file might look like this:

```
G. C. Fortran
123 W. 33rd
Antarctica
South Pole
Mr. Fortran
O.BASIC
Axis 1
Island 3
North Pole
Mr. BASIC
```

MAIL MERGE would then print two letters substituting the information from the data file. Notice that the items in the data file are simply separated by carriage return, and that the are five lines of entry for each letter. You are responsible for ensuring that there are the same number of lines of data requested as are supplied. Sometimes you have to be a little clever. For instance, if mode of your customers have four-line, you will have to enter a blank fourth line for three line addresses. The data file can be created by STYLOGRAPH (or any other text editor) as a normal text file. However, normally the

data file will be created by some sort-merge program or data base management program such as RMS, for greater efficiency.

SYNTAX

In most cases the names between the markers will have no importance since the data will usually be pulled off the file one at a time. There are two major exceptions however. The first exception is that the names can be reused so that the data will reappear. The second exception involves the use of predefined variables. These predefined variables are as follows:

VARIABLE	OPTION	DESCRIPTION
DATE		date in "July 4, 1776" format
	E	date in European "4.7.76"
	M	date in military "4 JUL 76"
	N	date in numeric "07/04/76"
#		number register
	1	single digit
	2	right justified in 2 spaces
	3	right justified in 3 spaces
	+	increment number
	-	decrement number
	+=	set number equal to value
*		second number register (with same options)
<		get variable from screen using prompt
^		read a variable without prompting
TIME		time as "01:15 PM"
	24	24 hour "13:15"
	S	seconds "01:15:27"

Here is an example of a letter using the same input variable as before:

```
,mmc |
|date|
        |name|
        |address1|
        |address2|
        |address3|  |^greet|

        I am sure that you, |greet|, will be |<magnitude|
        interested in the following list of items:

        |* + =101|. Overdrawn accounts
        |* +|. Unpaid bills
        |* +|. Accounts receivable

        The time is now |time S|

        Within 24 hours of this time you will be hearing from our bill
        collector Boris about these items. You should be |magnitude|
        concerned. He will be stopping by your residence at |address1|,
        |address2|, |address3| to talk about these matters.
```

While this is being printed a prompt will appear on the screen like this:

magnitude?

Assuming that you answer with the word "extremely" the letter should look like this:

```
July 19, 1981
G. D. Fortran
123 W 33rd
Antarctica
South Pole

I am sure that you, Mr. Fortran, will be extremely interested in
the following list of items:

101. Overdrawn accounts
102. Unpaid bills
103. Accounts receivable

The time is now 01:15:27.

Within 24 hours of this time you will be hearing from our bill
collector Boris about these items. You should be extremely
concerned. He will be stopping by your residence at 123 W 33rd,
Antarctica, South Pole, to talk to you about these matters.
```

Note the use of the predefined variable, "date", for which the current date on your computer is substituted. Note the use of the "^" in front of the first "greet". "Greet" is used later in the letter - it takes on the value already read. The "*+=101" sets the number register to "101". The when the "*+" is again encountered, that register is incremented to "102", and then "103". The second time "address1", "address2" and "address3" are referenced, they take on the same value they were assigned the first time through. "Magnitude" is also a repeated value, although the second time it is used, it does not have to be preceded by a "<", as it has already been entered from the keyboard.

There are two files, named "LETTER" and "NAMES" on the STYLOGRAPH disk supplied. You can use these files to become familiar with MAIL MERGE. If you are still not sure how to run MAIL MERGE, turn to the chapter MAIL MERGE TUTORIAL, where this same information will be illustrated with plenty of examples.

SYSTEM CONFIGURATION

When you receive your STYLOGRAPH diskette it will have the following files:

Name	Function
INTRO	A text file, the introductory entrygraph for the STYLOGRAPH manual; included here for demonstration purposes. This file contains intentional misspellings for demonstration of STYLOGRAPH SPELLING CHECKER.
LETTER	A text file, demonstration form letter as per the MAIL MERGE TUTORIAL section of the MAIL MERGE manual.
NAMES	A text file, the data file for use in demonstration of the above LETTER file.
MM	The MAIL MERGE program, (in the CMDS directory)
MMFIX	The MAIL MERGE configuration program (in the CMDS directory). This program is only used to set up the printer type.

Normally, the only thing you will need to do to the MAIL MERGE program is set up for the particular type of printer you are using. This is done by the "MMFIX" command as follows:

```
OS9: mmfix /d0/cmds/mm
```

You will then be prompted for the number code of your type of printer. The various printer codes are listed in the SPECIFY PRINTER section. If you wish to abort this command you can respond to the prompt by entering "RETURN" instead of a printer code number. If you have entered a correct number the default printer type will be automatically set for your copy of MAIL MERGE.

PROPORTIONAL SPACING

If you are using proportional spacing with MAIL MERGE, you must have the STYPS file in the STY directory of the disk in drive 0, as explained in the STYLOGRAPH manual.

MAIL MERGE TUTORIAL

If you are using MAIL MERGE successfully already, you can skip this chapter. If you are having problems with MAIL MERGE, go over this chapter carefully.

Suppose you want to write a letter to your mother. Using STYLOGRAPH, you compose the following letter:

```
Dear Mother,

    I miss you. Send money.
,rj
Love, John
```

You then save this letter onto your disk using some obvious file name, like "MONEY". Every time you need more of that green stuff, you type the following command while in OS9:

```
OS9: mm money >/p
```

After executing this command, the letter shows on your printer.

Now, no doubt this is a fine letter, and since mothers have soft hearts, it will probably have its effect. However, it is a rather specific letter, addressed only to one person (you could always try someone else's mother) and for only one specific purpose. To take advantage of the real power of form letters, we will have to employ some additional options as per the examples supplied on the MAIL MERGE disk.

On your data disk you have a file name "LETTER", which is reproduced below so that we can discuss it:

```
,LL 65
,LM 10
,MMC \

,RJ
\date\

re: Election of \edate\

Mr. \pres1\ \pres2\
White House
```

```
Washington D.C.

Dear Mr. \pres2\

As a loyal member of the \party1\ party, I wanted
to write and tell you how pleased I was to learn
that you have received \vote1\ electoral votes. I
hope you won't mind having \vpres1\ \vpres2\ of the
\party2\ as your vice president. \^\ \^\ I am sorry
that I am so late in replying but I have been \<Busy\.

Sincerely,

Millard Filmore
```

We will discuss this letter in detail, explaining each of the options, but it might be easier to absorb if you merely printed out this letter with its sample data file on you own printer, and observe how each of the options function. To do this, use the following command:

```
OS9: mm letter +d=names >/p
```

Each time you are prompted with the message, "Busy?", type in some appropriate word (like "typing", "sleeping", or maybe even "working").

Let's go over these options in detail:

\date\	When the computer sees this, it supplies the current date entered in its memory ("today's date").
\edate\	The computer prints the first line it finds in the data file in place of this "variable".
\pres1\	The computer picks up the second line in the data file, calling it "pres1" and inserts it at this point in the printout.
\pres2\	The third line of the data file becomes "pres2" and is inserted in the data file.
\pres2\	Here we see an interesting feature of MAIL MERGE: Once a variable has been used, MAIL MERGE remembers the name of that variable, and if it is encountered again, that same variable is used again.
\party1\	The next variable after the one named \pres1\ is used. Note that only one line of the data file was used when the last two variables (both with the same name, "pres2") were printed.
\vpres1\	Obviously, since this variable is spelled differently from "pres1", the next line in the data file is used (rather than using the previous variable "pres1").
\vpres2\	Again, a new line is taken from the data file and inserted in the printed text.
\party2\	Another line is taken from the data file.
\^\	The next line in the data file is skipped. This has the effect of a carriage return in the printed letter. This might be useful if you have constructed a very large data file and then changed your form letter so you did not use all the data. This way, you only need change the form letter once, and you don't have to change the data for each customer in your data file. It is also useful if you decide to write multiple text files using the same data file (for instance, a form letter and an envelope addressing text file run off the same data file - example below.)
\<busy\	The "<" tells the computer that the user (you) must be prompted for the next input. The message "Busy?" will appear on your screen and the printing will stop until you type in the desired input.

With a little thought, you can see how you might create many letters, with varying subject matter, addressed to different people. The best way to learn is to enter the STYLOGRAPH program and compose your own letter. Using the techniques described above, first compose the "form" letter (make sure you have the ",mmc" character at the beginning).

When you have a suitable form letter prepared, save it with some descriptive name (such as "letter1").

Now create your own data file. For each variable that appears in the form letter, create a line of data. When you have entered all the data for a particular variable, hit the carriage return to signify the end of that variable. Do not enter data for the predefined variables (like "date"), or for repeated variables after their first appearance. Also remember that variables preceded by "<" will be supplied by the user when the letter is printed out, and must not be included in the data file.

When you have exactly the number of variables in your data file that you request in your form letter, your job is done. You can create as many "letters" within the data file as you wish. For instance, suppose one printing of your form letter requires 10 variables. Your data file may contain any multiple of that (in this case, 10, 20, 40, 70, 90, etc.) If you have an odd number, however, you will get an error on the last letter that is printed. For example, if in our last example, you supply 93 variables instead of 90, the computer will print out nine letters, and then generate the error, "out of data" because you only allowed 3 variables for your last letter. You will get into trouble even if your "odd" line is just a blank line following the data (say, on the 91st line of the file).

Now save your data file (under some name like "names") and you are ready to execute the "mm" command on your files.

Let's cover some more examples of what MAIL MERGE can do. Suppose you have composed the text file below (called "form1" for the purpose of this example):

```
,mmc \

,rj
\date\

\name\
\address1\
\address2\
\address3\

Dear \name\:

It is \<complaint-compliment\, because now we are \<our
action\. As you know, our new address is at \address\,
\our city\. \<message\, so please be sure to \<their action\
as soon as possible. We will be seeing you very soon.

Respectfully

John Calvin
```

This form letter is written so that it may create a very sociable letter, or a letter of complaint, depending upon what responses are input by the user at printout time. For example, let's visit two groups of user input which could cause the letter to have a very different meaning. Note that only the variables preceded by a "<" will be listed in the two groups below:

Input Variable	Sociable letter	Angry letter
complaint/compliment	so sad	too late
our action	leaving you	suing you

Input Variable	Sociable letter	Angry letter
message	We miss you	We have a good lawyer
their action	write	contact yours

As you can see, one form letter may serve many purposes, taking on different meanings as dictated by the user during printout. A data file which may be used with this letter is included (named "data1" for the purpose of this example):

```
Mr. Jones
17 Acacia Avenue
Sheffield
SH21 7GH
82 West Road
York
Bill and Jane
111 Mulberry Lane
London
SW12 3AB
Greener Pastures
The other side of the Mountain
```

Perhaps you can visualize how the variables fit into the text file just by studying these two examples. If not, copy the form letter and the data file onto your disk, and use the "mm" command to have them printed out, as follows (assuming you used the same names as in this example when you copied these files onto your disk):

```
OS9: mm form1 +d=data1 >/p
```

Suppose we introduce another file which can use the same data file as illustrated above. We can use this text file to do the envelope addressing for each form letter we have created (called "form2" for this example):

```
,mmc /
,sp 7
,rj 4
                        /name/
            /address1/
            /address2/
            /address2/
            /postcode/
/^/
/^/
```

To use this text file with the original data file, you would enter the following command:

```
OS9: mm form2 +d=data1 >/p
```

Note that this text file will first space down seven lines (so it is not writing the address along the top of the envelope). Then the first four lines in the data file will be printed out (right justified). Finally, the next two lines in the file will be skipped, since they are not relevant to the envelope addressing.

USING MAIL MERGE WITH RMS

If you have the RMS database management system, you can use it very effectively to create the data file for MAIL MERGE when you are printing form letters. Assuming that you have all the relevant

names and addresses entered into an RMS data file called "ADDRESS.RMS", you can use the RMS REPORT program to produce the MAIL MERGE data file. For example, you might have four fields in your "ADDRESS" file, called, (in "ADDRESS.DIC", the specification file for your RMS data file), NAME, ADDRESS1, ADDRESS2, ADDRESS3. You would then create a report specification file, "MAIL.REP", using STYLOGRAPH, such as:

```
L 1,1;
P NAME@1;
P ADDRESS1@1;
P ADDRESS2@1;
P ADDRESS3@1;
```

The "L 1,1;" tells REPORT not to paginate the printout. The command

```
OS9: report address mail >data
```

will produce a text file "DATA" containing all the names and addresses in the "ADDRESS.RMS" file. Use the "I" and "E" commands of REPORT, or an index file and the "X" command, if you want to include only some of the names and addresses. The data file is then ready to be used by MAIL MERGE. A suitable letter might be:

```
,mmc /

/name/
/address1/
/address2/
/address3/
,rj
/date/

Dear /name/,
I am sending you a circular letter to show you what STYLOGRAPH, MAIL
MERGE, and RMS can do together.

Yours sincerely,
A. User
```

You could print this with:

```
OS9: mm letter +D=data >/p
```

which would produce a letter for each person in your "ADDRESS.RMS" file.

Experiment with using MAIL MERGE and RMS together - they can really streamline your paperwork, and help you avoid errors. For example, a standard invoice letter together with the "prompting keyboard index file" version of the "X" command in RMS REPORT allows you to rapidly make out invoices with a minimum of effort, and the minimum room for error. MAIL MERGE can automatically print out the two copies you require of each invoice as well. Using a computer in your business is all about improved efficiency and presentation. Flexible programs such as MAIL MERGE and RMS allow you to achieve these benefits and still retain you own style of working.

SPELLING CHECKER USER'S MANUAL

INTRODUCTION

The STYLOGRAPH Spelling Checker is a fast, reliable, and easy-to-use software tool that greatly enhances the usefulness of the STYLOGRAPH Word Processing System. The Spelling Checker allows even an inexperienced user to eliminate spelling errors from a text file. Although it is recommended that this manual be studied thoroughly before using the Spelling Checker, many people will be able to use it with little instruction. The Spelling Checker operates in a totally self-prompting fashion which simply means that whenever any action is of required on your part, a message will appear on your screen stating what action is required and what your options may be. You merely call the program and indicate the name of the text file to be checked. Spelling Checker then scans through the entire file and compares each word to a Standard Dictionary. Next, it refers to a Supplementary Dictionary (created by the user) that contains any additional words (such as peoples' names, names of cities, or technical terms) that might not exist in the Standard Dictionary. It then displays on the user's screen (or printer) a count of the total number of words in the file, the number of different words it contains, and the number of words that may have been misspelled. It also lists in a convenient, tabular form all the words that it considers to be possible misspellings. Some of these words are likely to be actual misspellings that should be corrected. Others, however, may be rare words that are spelled correctly but are not in the dictionary; you may wish to add these colds to the Supplementary Dictionary (as explained below) if they are words that occur frequently in the text files you will be checking in the future.

At this point, the Spelling Checker enters an interactive Review process, where the user decides which of several options to select. If no spelling errors have been detected, the program simply ends and returns the user to OS-9.

If possible errors have been detected, the user has the option of either exiting the program or of continuing with a word-by-word review of the possibly misspelled words. If the Exit option is selected, the user is returned to OS-9. If the user decides to proceed with the Review, he may choose to exit the program at any point in the Review.

During the Review process, each possibly misspelled word is displayed along with a set of options that may be selected for each word. The options may be selected by a single keystroke from the terminal. These options include:

- Ignoring the word (leaving the word intact in the text file)

- Adding the word to the Supplementary Dictionary

- Flagging the word (placing a special character, normally a "<" next to the word in the disk text file so that it may be located easily with the STYLOGRAPH Word Processor)

- Displaying the word surrounded by its original context in the text file (to help determine what word was intended)

- Changing the spelling of the word, so that all occurrences of this word will be corrected automatically in the text file

- Exiting the Spelling Checker to return to OS-9

As each word is displayed, the user has the option or ignoring it, adding it to the dictionary, flagging it or selecting it for Display-in-context. The Display-in-context option allows the user to see the questionable word in its context before deciding what to do with it. When all the words have been presented, the Spell Checker goes through the words that have been selected for Display-in context,

showing each on the screen with some of the surrounding text. After the word is displayed, the user has the choice of ignoring it, adding it to the dictionary, or flagging it. In addition, the user has the option of changing the word to a new spelling. If the change option is selected, the user is asked to type in the new, correct spelling for the word, which is then substituted in the text file for the old, incorrect spelling. If you select the change option, be sure that the new spelling you enter is the correct one!

After the Review is complete, the Spelling Checker automatically creates a new text file that incorporates all the spelling changes and flags that the user has requested. (If no changes or flags have been selected, then no new text file will be created). It also adds any new words to the Supplementary Dictionary that the user has indicated. At this point, the program is finished, and control returns to OS-9. If flags have been added to the text file, the user may wish to edit the file immediately with the STYLOGRAPH Word Processor. STYLOGRAPH's Find feature provides a convenient way to locate all the flags that have been added, so that appropriate action may be taken on them. If no flags have been added, then no further editing is necessary; the text file should now be free of any spelling errors.

It is important to note that each word in the original text file need be dealt with only once in the Review process. For example, once a word has been Flagged, all occurrences of the word will be Flagged in the text file; the user will not be bothered with that word again. Furthermore, all of the user options may be selected with a single keystroke, so the Review process proceeds quickly and efficiently.

The Standard Dictionary supplied with the STYLOGRAPH spelling checker is among the most complete and accurate computerised dictionaries available. The large vocabulary of 42,000 words includes all of the common words normally encountered in English text. It includes the names of the days of the week, months of the year, countries, states and most large cities, common first and last names, and other entries not found in all dictionaries. It also includes all of STYLOGRAPH'S formatting commands, so these do not appear as typographical errors to the Spelling Checker. The dictionary has been prepared with great care to ensure that it is complete and error-free. They have been cheeked against a dictionary of common misspellings to ensure that all the most likely misspellings are doubly certain to be detected.

The Standard Dictionary is supplied to you in compacted form to reduce the amount of disk space it occupies and to reduce the time required for the program to read it from disk. A combination of sophisticated compression techniques have reduced the dictionary to less than one quarter of the size it would take up if it were supplied as an ordinary text file. As a result, the Standard Dictionary cannot be listed on your terminal, nor can it be edited using STYLOGRAPH. However, for those users who might wish to convert the compacted form of the dictionary to a normal text file, a special decompression utility program (called SPELLDCM) has been furnished for this purpose and is described later in the manual.

Most users will wish to add words to the dictionary to customize it for their own purposes. For example, technical terms, special abbreviations or codes, and names are popular candidates for inclusion. These words may be conveniently entered into the Supplementary Dictionary, usually called "supp" in the STY directory of the disk in drive 0. The supplied Supplementary Dictionary is empty; it is there to receive words the user may wish to add to it. The user may add an unlimited number of words to the Supplementary Dictionary. This may be done easily in either of two ways. The first is simply to use the Add-to-dictionary option during the Review process of the Spelling Checker. The second is to edit the Supplementary Dictionary using STYLOGRAPH. The Supplementary Dictionary is simply a text file that can be listed or edited like any other file. As this dictionary grows, however, it will occupy more disk space and will take longer to read. To anticipate this possibility, a utility program called "SPELLADD" has been furnished with the Spelling Checker to merge your Supplementary Dictionary with the Standard Dictionary. In this way, all the speed and space advantages of the compacted dictionary format will apply to the words you have added to the dictionary. Of course, additional words may be added to the Supplementary Dictionary at any time.

Some users may even want to delete certain words from the Standard Dictionary. While most users will not need to do this, a utility program called "SPELLSUB" is included to serve this function. This might be useful to the person who, for example, does not want certain spelling alternatives (e.g. British or American spellings) to be allowed or who does not wish particular "slang" words to exist in the dictionary.

One final precautionary note must be made. Although the Spelling Checker will detect all genuinely misspelled words, it cannot detect a correctly spelled word that is used improperly. For example, if the word "principle" is used when "principal" is meant, the Spelling Checker will not detect the misspelling. Both "principle" and "principal" are legitimate words, and although their meanings are different, there is no way that the Spelling Checker can determine which of the two you intend.

This concludes the introduction to the STYLOGRAPH Spelling Checker. The following sections contain more detailed operation on the use of the Spelling Checker. We recommend that you read through this Operation section of the manual at least once to become familiar with the requirements and various options of the program. Since the program is simple and self-prompting, a single, careful reading may be all that is necessary.

OPERATION

1. Using the Spelling Checker

To use the Spelling Checker command the user will normally type in the name "spell" followed by the name of the file that is to be checked. For example, if you want to cheek a file called "INTRO" you would type in the following lines from OS-9:

```
OS9: spell intro
```

A filename must be supplied; if none is given, an error message will appear and the program's execution will' be terminated. If the user wishes the output of Spelling Checker to be routed to a printer rather than to the terminal, he may redirect the output using OS's redirection facility. For example:

```
OS9: spell intro >/p
```

Most of the user prompts and messages will still be directed to the terminal, but the list or possibly misspelled words will appear on the printer, along with the summary information about the number or words in the text file.

At this time, Spelling Checker will scan the text file. Following this, it will compare the words in the text file against the Standard Dictionary, whose filename is DICT. The dictionary must be in directory STY on the disk in drive 0. The time required for scanning will of course depend on the size of the file being checked. Messages will appear on the user's terminal indicating what the program is doing at each stage of its operation. The Spelling Checker can abort its operation during this phase if any of the following conditions arise:

1. The text file cannot be found

2. The Standard Dictionary cannot be found

3. The file contains too many different words. so that Spelling Checker's storage capacity has been exceeded.

The first two conditions are self-explanatory and may easily be corrected by ensuring that the required files exist with their correct filenames. The third condition, which most users will never encounter, indicates an "overflow" problem has been encountered in processing the text file. In this case, the text file must be divided into smaller sections using the STYLOGRAPH word processor. Normally, any file that STYLOGRAPH can manage will be processed without overflow by the Spelling Checker. With unusual files in which each word is different from all others, an overflow can arise. This is most likely to happen if Spelling Checker is used to check long lists of names, technical terms, or even to check a dictionary. Using smaller text files or expanding the amount of memory available will solve this problem quickly. For example:

```
os9: spell intro #15k
```

After scanning the text file and processing the Standard Dictionary, the Spelling Checker will look for the user's Supplementary Dictionary, whose name is "supp" in the STY directory of the disk in drive 0. If it is not found, the user will be prompted (asked) for an alternative filename for this dictionary. If you have no Supplementary Dictionary, just hit RETURN.

If the file exists under a different name or drive, supplying the correct file specification will allow the Spelling Checker to process the user's Supplementary Dictionary. If a carriage return is entered in reply to the prompt, the Spelling Checker will assume that no user Supplementary Dictionary exists, and so it will check the text file against the Standard Dictionary only.

2. Text File Information Display

After the text file has been scanned and the dictionaries have been processed, some useful information will be displayed on the user's terminal, including the total number of words in the text file and the number of different (or unique) words it contains. The program considers a word to be any contiguous (unbroken) string of letters (upper case, lower case, or mixed) that is at least two letters long. (A single letter is not treated as a word, since a single letter cannot be misspelled!) Any space, hard-hyphen, numeral, punctuation mark, or other printable character is treated as a delimiter (or breaking point) between words. Apostrophes are not considered as delimiters; instead, they are ignored, as though they were not present. Similarly, special "control characters" that may have been placed in the STYLOGRAPH Word Processor (to indicate Character mods like underlining, boldface, soft-hyphen, etc.) are ignored, so the user need not worry about them or even be aware of their existence.

The Spelling Checker will then display on the user's terminal a listing of all the words it considers to have questionable spelling. If no possible misspellings have been detected, the program will automatically terminate and control will return to OS-9. If possible errors have been found, they will be listed in a convenient, tabular form or five columns, followed by a count of their number. At this point, some users day decide to exit the program rather than to proceed with the Review process which follows. If the user has routed the Spelling Checker's output to a printer, this list of possibly misspelled words will be available as hard copy to be scanned at a later time (for checking in a conventional dictionary, for instance).

3. The Review process.

At this point in the program, the Spelling Checker will sort through its list of possibly misspelled words and print them on the user's terminal one at a time, along with a list of five options from which the user may choose. For example, given the misspelling "occassion", the user will see displayed:

```
OCCASSION (I*/D/A/F/X)?
```

At this time, the user simply enters one of the five indicated letters (no RETURN is necessary), and the appropriate action will be taken, as described next. (Note that the questionable word will be displayed in upper case only, with no hyphens or apostrophes, regardless of the word's appearance in the actual text file. At this point, the Spelling Checker is concerned only with spelling, and this is what it is asking about.)

The Ignore Option

The first choice "I", is the ignore option. Entering the letter "I" will cause the Spelling Checker to ignore this and all following occurrences of the word "occassion". The asterisk following the "I" simply indicates that this is the "default" option; merely entering a RETURN instead of the letter "I" will cause this option to be entered. In selecting the Ignore option, the user is indicating that the spelling of the word is acceptable but that the word should not be added to the Supplementary Dictionary. This option will be useful for rare words or abbreviations that are correct but unlikely to occur in any future files.

The Display-in-Context Option

The second choice, "D" is the Display-in-Context option. This indicates that the user wishes to see the word displayed in the context in which it occurred in the original text file before acting on it. When

this option is selected, no immediate action will be taken by the program. It will delay its display of the word in context until the entire list of possibly misspelled words has been reviewed. At that time, all the words selected for display will be presented in context, one at a time, with a full list or options provided for each, including the Change option.

It is important to note that the Display option provides the only way for the Change option to be specified. In other words, the user is not permitted to change the spelling of the word without first viewing it in its actual context. This is a deliberate restriction in the program that is intended to prevent the user from changing the spelling of a word without an appropriate measure of caution.

The Add-to-Dictionary Option

The third option, "A" allows the user to Add the displayed word to of the Supplementary Dictionary. The actual addition takes place at a later phase of Spelling Checker's operation, but this is of no concern to the user. In addition, the user will not be bothered with this word again during the Review process; the Spelling Checker assumes that this word is spelled correctly, and it will accept all further occurrences of this word in the current text file, as well as in later text files.

The Flag Option

The fourth option, "F" causes all occurrences of the displayed word of to be flagged in the text file, after it is written to disk following completion of the remainder of the program. The normal (or default) flag character is the left arrow (<) appended to the end of all occurrences of the word in question. Thus, if the word RYTHM is selected for flagging, it will appear as RHYTHM< (or as rhythm< if it appears in lower case) in the text file when the program is finished.

After the suspect word his been checked in a conventional dictionary, it is a simple matter to edit the text file with the STYLOGRAPH word processor and find all occurrences of the Flag character (<) with the Find function. If some character other than the left arrow is preferred, the program asks for an alternative Flag Character, which the user simply enters in response to a prompt. This option will be most useful in situations where the user cannot determine the correct spelling of a word or name at the time of the Review and so must wait until some later occasion to verify its spelling.

The Exit Option

The fifth and last option, "X" allows the user to exit the Spelling Checker and return to OS-9. This is a useful feature for the user who is interrupted and so cannot complete the entire Review. Selecting this option voids any actions that were taken by the user on the preceding words; the text file will be left intact, in its original state. The user may then use the Spelling Checker on the current file at some later time.

4. The Display Process

When the Review is completed, the Spelling Checker displays all words that have been selected for Display-in-context. Each selected word is displayed surrounded by its context in the original text file. This display will show the text exactly as it occurs in the original file, preserving upper and lower case, hyphens and apostrophes. For example, if the selected word is "jumpes" the Display-in-context might look like this:

```
The quick brown fox jumpes over the lazy dog
```

The Display-in-context contains about 64 characters, with the selected word appearing near the center of the display. An upward arrow points to the last letter of the selected word, allowing it to be located quickly. If any RETURNS occur within this range of 64 characters, they will be replaced by the STYLOGRAPH RETURN marker (a broken vertical line). If the selected word occurs at the very beginning or end of the text file, or if its immediately preceding or following context contains a long series of spaces or RETURNS, obviously this will affect the appearance of the context display.

After the selected word is displayed in its context, a prompt will appear that looks like this:

```
(I*/A/F/C)?
```

These symbols indicate the four options available to the user for acting upon the selected word. As explained before, "I" indicates Ignore (the default option), "A" indicates Add to the Supplementary Dictionary, and "F" indicates Flag the word in the text file. These options operate exactly as specified in the previous section of the Review Process.

The "C" option allows the user to Change the spelling of the word in the text file. If this option is selected, the user will be asked to enter the new spelling for the word. The user should then enter the correct spelling, being careful to enter it accurately in upper or lower case as appropriate.

It should be noted that if a word contains STYLOGRAPH Character Mods (such as underlining or boldface), it cannot be Changed, since the Spelling Checker is not able to handle these modifications. Instead, following a warning message, the Flag option will be imposed automatically. In this case, the user will have to correct these modified words with the STYLOGRAPH word processor. By the same token, no character mods may be introduced when the correct spelling is entered. Following entry of the new, changed spelling, the user will be prompted by the message, "ARE YOU SURE (Y/N)?", at which time entering Y (for Yes) or N (for No) is expected. If N (No) is entered, the user will have another opportunity to enter the correct spelling. Once a change is entered, all further occurrences of the changed word will be corrected automatically.

5. Updating the Text File and the Supplementary Dictionary

After the preceding four phases of the Spelling Checker have been completed, the altered text file (containing flags and changed spellings) will be written to disk (if any alterations have been made), and the user's Supplementary Dictionary will be expanded (if required) to include any words added to the dictionary. Note that these actions will be taken only as necessary. In other words, if no flags or changes have been specified, no new text file will be created; if no words have been selected for addition to the dictionary, no additions to the Supplementary Dictionary will be made. If a new text file is to be created, the user will first be warned of any current backup file that might be deleted in the process. If no backup file exists. or if the user indicates that a backup file may be deleted, the original text file will be renamed as a backup file and the corrected file will be written to disk as a text file.

6. Using the Utility Programs

The following utility programs are for manipulating the Standard dictionary file. In most cases they will not be used at all. However, there are some users who may wish to make changes to the dictionary or are curious about the makeup of the dictionary. The following utilities will allow you to compress and decompress the dictionary and to add and subtract words from it. Notice that once the dictionary has been decompressed it is simply a list of ASCII characters separated by RETURNS. This decompressed file can then be worked on by other software packages such as BASIC09, data base management, or sort/merge programs.

SPELLDCM - Dictionary decompression

This program will take the compressed dictionary file and output the normal ASCII character strings to the user's terminal. To look at the words in the dictionary you could enter the following line from OS9:

```
OS9: spelldcm /d0/sty/dict
```

This will cause all of the words in the dictionary to be listed out to your screen. If you do this you will notice that all of the words are in alphabetical order. You will also notice that all of the letters are in upper case and that there are no spaces or punctuations in the file. By redirecting the output of this program to a disk file you can create an text file of the dictionary. For example:

```
OS9: spelldcm /d0/sty/dict >dictionary
```

This could take several minutes to do and there must be plenty of disk space available since the decompressed file will be four times the size of the compressed file. You could even rename the resulting file to the name "DICT" so that the Spelling Checker would use the new file as the normal dictionary file. This is not recommended since the decompressed file would take up unnecessary disk space and cause the Spelling Checker to run much more slowly.

Note

The decompressed version of the dictionary supplied is over 400k bytes in size, and will not fit on a mini-floppy disk, (unless double-sided, 80 track).

SPELLCOM - Dictionary compression

This program will take a normal ASCII text file and create a compressed file. For maximum compression the text file should be in alphabetical order. This program could compress a file that has been decompressed by the above program. Also, the supplementary dictionary could be compressed to speed up the operation of the Spelling Checker. This will mean that new words cannot be added to this dictionary, however. There may be some situations in which this may be desirable since you may want to prevent people from making unauthorized entries to the supplementary dictionary. This is particularly true of multi-user systems in which many different people will be using the dictionary, and not all of them will be good spellers. This precaution would reduce the chance of misspellings being added to the dictionary.

The normal syntax of the command is as follows:

```
OS9: spellcom dict4 dict5
```

This would cause the text file "DICT4" to be compressed and output to the file "DICT5". The size of the resulting file will be less than 50% of the original.

SPELLADD - Add words to the dictionary

This is the program that is normally used to add words to the Standard Dictionary. If the Supplementary Dictionary gets to be very large you may want to add it to the Standard Dictionary using this program. With the original dictionary file "DICT" renamed to "DICTOLD" the command line would look something like the following:

```
OS9: chd /d0/sty
OS9: spelladd dictold supp dict
```

The "DICTOLD" file must be a compressed file, which should be in alphabetical order. The "SUPP" file must be an uncompressed (ASCII text) file which may be in any order. All of the characters should be in upper case and should not contain any characters other than letters "A" through "Z". Any other characters that are encountered will simply be regarded as separators so that the string "ALPHA=BETA" will appear as separate words "ALPHA" and "BETA" in the dictionary. The new words will be added in the correct alphabetical sequence. Before you add any words to the Standard Dictionary you should check them all carefully to ensure that they are correct. Once incorrect words are added to the Standard Dictionary, it is very unlikely that their existence will ever be discovered. You should also remember that everyone has a few words that they consistently misspell, so that they will look correct to them when they are checked. Consequently, all of the words should be checked by someone else or be looked up in a dictionary before they are added to the Standard Dictionary. The list of words to be added must be no longer than about 3,000 words. If the list is too long, the program will terminate with an error. In that case, the list must be split into shorter sections and added one at a time.

SPELLSUB - Remove words from the dictionary

This utility will remove words from the Standard dictionary. This need will rarely arise, but the utility is included for completeness. It could be used to shorten the dictionary or to remove misspellings that

have inadvertently been added to the dictionary. Assuming that the dictionary to be shortened is called "DICTOLD" the command will look like the following:

```
OS9: chd /d0/sty
OS9: spellsub dictold /d1/mydir/wrong dict
```

This will cause all of the words in the file "WRONG" to be taken out of the file "DICTOLD". The dictionary file must be a compressed file that is in alphabetical order. The third name (WRONG in this example) must be a list of uncompressed (ASCII) words separated by RETURNs. The last name on the line ("DICT" in this example) will be the name of the new file, which will have the words omitted.

Appendix A. KEY ASSIGNMENT SUMMARY FOR THE DRAGON 64

On the Dragon 64 the CLEAR key is used as the CONTROL key, where reference is made to the CONTROL key, use the CLEAR key. For example, CONTROL-D is achieved by holding down the CLEAR key and hitting the D key.

Key Name or Symbol	Key Used on Dragon 64
CONTROL	CLEAR
RETURN	ENTER
ESCAPE	CONTROL-BREAK
BACKSPACE	<-
CAPS LOCK	CONTROL-0
UNMOD	CONTROL-Z
^	CONTROL-7
[	CONTROL-8
]	CONTROL-9
\	CONTROL-/
_	CONTROL--
~	CONTROL-3
|	CONTROL-1
Keyboard Abort	BREAK
Keyboard Interrupt	SHIFT-BREAK

ESCAPE

CONTROL

OVERWRITE 1

1	2	3	4	5	6	◄SCROLL 7	SCROLL▲ 8	SCROLL▶ 9	∅	*	=
--		~				INSERT 1 [	[	]	CAPS LOCK ON/OFF	:	— (UNDERLINE)

BREAK   ESCAPE

WITHDRAW / REPLACE / FIND / DUPLICATE

Q | W DELETE WORD | E | R SET TAB | T TAB | Y CLEAR TAB | U UNDER-LINE | I SUPER-SCRIPT | O OVER-LINE | P PAGE STATUS | @ |

SCROLL▲ | CURSOR▲ | SCROLL▲ | PAGE #

↑   (UNDERLINE)

SAVE / ZAP

A ASSIS-TANCE | S | D SINGLE DELETE | F FORMAT DISPLAY | G GHOST HYPHEN | H | J | K SUB-SCRIPT | L | ; | / |

◄CURSOR | CURSOR▲ | ▲CURSOR | CURSOR▲ | INSERT | SUPER-VISOR

↓ (RUBOUT)   ENTER

CONTROL

SHIFT | Z UNMOD | X LINE DELETE | C | V VIEW MODS | B BOLD FACE | N NAME ERROR | M | , | . | SHIFT |

CURSOR▼ | SCROLL▼ | CURSOR▼ | SCREEN▼

SPACE BAR

→   ←

IN EDIT MODE:
SHIFT ←— = DELETE LINE
      —→ = RUBOUT CHARACTER

Cleglen 84—4797