THE MYCOLOGIST GUIDE TO PERSONAL COMPUTING

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MAKING WORDS MAKE SENSE

You may well think that your trusty mechanical typewriter can continue to do the job of committing your purple prose to paper, but do not underestimate the value of a **word processor**. It is not simply an electronic mimic of a typewriter. Certainly, one of its functions is to drive a **printer** to produce a paper copy of your document, but even the simplest word processors can be used for completing tasks which *are not possible* with a conventional typewriter. The **word-processing program** could include a **spelling checker, thesaurus**, and even **punctuation** and **grammar checkers**, and the latest **'personal managers'** manipulate your text in ways that can produce new and unexpected i.e. *original* prose constructions.

More of that below; first consider the basic word processor. A word processor converts text into **computer codes**. Striking a particular key on the keyboard sends an electrical signal to the processor which converts the character that key represents into a **8-bit binary code word**. A total of 256 binary codes are available but only about half of them are required to encode upper and lower case versions of the Roman alphabet, numerals and punctuation characters. Which code relates to which of these standard keyboard characters is itself standardised in the **ASCII-code** (American Standard Code for Information Interchange) so that, for example, code 65 is capital A, code 32 is a space, code 122 is a lower case z, etc. These codes have to be standardised between pieces of software and between various peripheral devices (like monitor and printer control circuitry) as well as between computers. Usage of codes between this set (the **'high-ASCII'** codes) is more variable. One printer designer might use a block of codes to provide an italic fount, whereas another may use the same codes for graphics characters. A text file prepared for the former will not print properly on the latter. Word processors have to use some of the binary codes for formatting. For example, a command for centring text which you issue by pressing a particular combination of keys, and other commands for underlining, indenting, justifying, etc. The more facilities, the more such command codes used.

Depending upon the computer you use and the purpose for which you produce text, you may find yourself using a word processor which came 'free' with the machine, one which you bought for a few pounds from a shareware or public domain collection, or one which costs many hundreds of pounds. A guiding principle which applies at any point in the computer maze is that you get what you pay for. A 'free' or cheap program is bound to be less sophisticated than one of the very expensive commercial giants

like **WordPerfect, Wordstar, MS Word** or **Manuscript**. Note that I said less *sophisticated*, not necessarily less *useful*. Your needs may be met by a simple word processor which enables basic text entry and correction, re-arrangement of blocks of text (called **'block moves'**), the ability to search for particular words (= **character strings**) and then do something like replace them (= **search and replace**) with a different string, or stop and allow you to review the text around the target word or phrase.

I think that the most important consideration in deciding a program to use is how easy it is to get the text *out* of the program. There are two aspects to this. Obviously the text needs to be printed, therefore you must make sure that your program will adequately use your printer. Less obviously, but potentially more important, is that you *must* be able to output the text from your existing program in a way that is accessible to other word processors. These other word processors may be used by your friends, or collaborators on a joint project, or your publisher, or even yourself if you decide to upgrade to a program with more facilities. Most (but by no means all) of the software designed for commercial office use can read desk files generated by other similar programs but few of the cheaper ones include such facilities. The problem is lack of standardised usage of control codes for formatting; so what might mean 'embolden the following character' to one program might mean 'insert Greek beta' to another — or even 'delete all that follows'!

Any program you use (whether word processor, data base or other) should be capable of printing an **'ASCII text file'** onto floppy disk. This is a file which contains *only* the ASCII binary codes. To produce it the program must remove all of its own unique control codes but the outcome is a file which can be read by any other computer program with the minimum of disruption.

Word processors are important aids to writing; by easing the technical task of putting words onto the page they permit the writer to concentrate attention on the content of his composition. This should mean that the quality improves. But they can lead the writer into bad habits — once you have some text on disk it is a terrible temptation to use it time and again.

There are two other types of program which are designed to ease the task of writing. One is the outliner. With this program you produce an outline of your document in the form of a hierarchy of headings. The program allows the headings to be shuffled and changed in level and all the time any text 'underneath' the heading goes along with it automatically. You can open out a section (or indeed the whole document) to see all the text, or collapse any section so that just the headings show. A more recent innovation are the **personal managers** — programs like **Lotus Agenda** and Symantec's **GrandView**. These combine word processing and outlining with other text manipulation routines to produce programs which allow the writer to enter text in a disorganised series of notes which the program can then sort in any of a variety of ways. In a sense they handle text like a spread sheet program handles numbers. These programs promise to revolutionise the way we deal with the written word; or at least that is what their advertising claims. An alternate view is that they are solutions looking for a problem!