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Part-timer's progress

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In this paper I will take as my text these few words:

VÆRMELDINGEN
På **Østlandet** blir været mye bedre
imorgen. Snøbyger på **Årdal** og ***Æretveit***.

Not that there is anything special about them — in fact some may recognise them as a mini weather forecast — but they encapsulate what I need from my equipment, that is the ability to produce, as neatly and easily as possible, text not only in English but in another language — in this case Norwegian — that requires a number of additional characters. Apart from these extra characters Æ, Ø and Å, I have included underlining and bold print for good measure and, to save getting lost on the way, I propose to return to this as a sort of benchmark when describing my progress from portable typewriter to word processor.

In the beginning, life was simple and for a small sum my first portable typewriter was supplied modified to include the three Norwegian letters, but at the expense of six other characters. Underlining was no problem of course and bold type had hardly been thought of. Life as a young naval engineer involved a good deal of travel and for twenty years my spare time translation activity required no more than this simple arrangement of modified portable typewriter, carbon paper and a generous supply of Tippex.

That is not to say that technology had been standing still. The electric portable became available but this seemed to offer only a marginal improvement in type quality in exchange for much complexity and

potential unreliability. So I decided to do nothing.

Then the golf-ball arrived bringing with it the promise of beautiful presentation, the ability literally to lift off any mistakes, and the possibility of choosing from a wide variety of typestyles and foreign or other special characters. Being more settled by then, and able to consider a piece of proper office equipment, I was tempted, but the high initial cost and the thought of the maintenance problem posed by all that electro-mechanical complexity finally made me decide to do nothing once again.

But the micro seemed to change all that. With nothing mechanical to go wrong — apart from the keyboard, the cassettes or disk drives that might be needed for storing the finished product, and of course the printer — here was inherent reliability combined with editing facilities, special character sets; in fact with 'mod. cons.' of every sort limited only by one's own ingenuity and that of the word-processing software writer.

Now at just about that time my engineering work was bringing me more and more into contact with computers and I could feel a growing need to get to grips with one at first hand. And that is when it all really began.

I ordered a BBC Model B and, although I planned to use it with cassette tape for storage to begin with, I asked for the optional disk interface to be fitted just in case. At the time the BBC microcomputer was only available to order, and after a long wait at that, so I broke what I would call the first rule of computer buying, namely *see the system working, doing exactly what you want it to do,* before you buy it.

As a result, when it finally arrived, it took almost a week of handbook reading, telephone calls and a fifty-mile round trip to the nearest agent before I could get the machine to run. There was nothing wrong; it was just that I was trying to read in from a cassette while the computer (having been fitted with a disk interface) was looking — unless told otherwise — for an input from a disk.

At that early stage there was no word-processing software available and perhaps that was just as well because it takes time to get used to a microcomputer. The handbooks are thick and inevitably contain terminology that is hard to understand unless one has already been initiated. I got as far as writing simple programs in BASIC (the language that most microcomputers use, although their particular dialects vary) and this was to prove useful later.

This initial learning was done using simply the BBC microcomputer with a television set as the display. This was fine but I could see that a higher resolution screen would be needed if eighty characters per line were to be legibly displayed. Even more pressing was the need for a printer, if only needed at this stage to keep a record of what I was learning in the way of programming.

So I acquired a fairly high-definition colour monitor and an Epson

dot-matrix printer. The monitor made a big difference and the printer too proved to be ideal. But with the characters being made up from dots selected from a 9 X 7 matrix one could not expect letter quality, or even the so-called 'near letter quality' (NLQ) that many dot-matrix printers can now provide. Nevertheless, by combining three of its print modes (expanded, condensed and emphasised) a very neat semi-bold print could be achieved.

I mention this to illustrate the usefulness of some programming ability if one is using a microcomputer like the BBC model because, in order to set up the printer to produce, say, semi-bold print, one needs to type in three different commands each involving perhaps five or six keystrokes, and then type in three similar commands to revert to normal print. Much time could be saved by writing a short program allocating these sets of commands (and any similar ones for accents, underlining, calling up foreign character sets etc.) to the special function keys that most micros have.

A typical short program sets up the function keys on a BBC microcomputer for my own particular needs: that is a Norwegian character set, a left margin of six spaces, a line length of seventy characters, underlining, underlined enlarged print, emphasised print and so on, ending up with a command to run the Wordwise word-processing software (which had by then become available in the form of a plug-in chip) to make the system ready for use.

Having got that far one might expect plain sailing. But not quite. Going back to the 'mini weather forecast', with the BBC microcomputer in the editing mode, not only do the printer commands appear embedded in the text (Norwegian character set, start underlining, end underlining, start emphasised print, end emphasised print and so on), but various symbols appear in place of the Norwegian characters. This is because each key on the standard computer keyboard has a particular eight-bit signal associated with it and the only way to get the dot-matrix printer to print, say, Norwegian characters is to tell it to translate the standard signal for the key in question, in this case 'close curly bracket', into the special print signal needed to print 'A with circle', and so on for the other special letters required. Not as bad as it sounds and one soon gets used to it and one can simply label the key tops concerned.

By pressing the appropriate key on the BBC microcomputer the text can be previewed *more or less* as it will be printed. All of these embedded editing commands disappear and the formatted text alone is displayed. I stress 'more or less' because the underlining is not shown and the Norwegian letters are still shown as symbols (in fact a different set again, due to a quirk of the BBC micro). Never mind, one can get used to it and the result on paper is quite reasonable.

Things then went smoothly for a while until I realised that I really did need a letter-quality printer and that meant a daisy wheel. To cover those odd jobs like forms where one really needs a typewriter (and as a fallback in case any problem arose with the computer) I decided to go for a daisy-wheel typewriter equipped with the necessary electronics built in to allow connection to a computer. There was only one then available, the Olympia ESW 103. Not cheap at about £800 (after bargaining) but very satisfactory.

So now I had (in exchange for the best part of £2,000) a word-processing system with dot-matrix or daisy-wheel output selectable at will. But what about the 'weather forecast' using the daisy-wheel printer? Of course the standard print-wheel had no Norwegian characters but what about more basic facilities like bold print and underlining?

The typewriter had a bold print key but I never did manage to sort out the special commands that the BBC microcomputer would need to send to start and stop bold printing. Underlining was a problem too but in a different way. The ESW 103 has no 'automatic underlining', that is to say underlining is done simply by backspacing and printing the underline letter by letter like one would on a manual machine. So to achieve underlining under computer control, it was necessary to insert as many backspaces as necessary followed by the same number of underlines. This worked well enough but all the extra commands made the display look even less like the finished product and it upset the line length setting since the computer saw a backspace as just another character.

And what about the Norwegian characters? Simply ordering and fitting a Norwegian daisy wheel was not a good answer because such a wheel is designed to match a Norwegian keyboard and this is very different from the usual English keyboard layout. Some twenty keys need to be relabelled and this hardly helps to achieve smooth error-free typing. And it looks even worse on the display which of course knows nothing of what one is doing to the keyboard and printer. I have tried it using a Swedish wheel, which is different again and requires a whole new lot of key labels. The screen display was barely intelligible and very hard work. Definitely not recommended.

One answer to the problem of producing daisy-wheel print in, say, Norwegian, on a system like this is to go back to basics, much as one does with a manual machine, and have a standard daisy-wheel professionally altered by replacing little-used characters by the new special characters required. Not cheap, especially as it is worth using a metal rather than a plastic wheel, but it works well and involves a minimum of key labelling.

Before leaving the BBC microcomputer let me mention the business of storing the finished product. The internal memory is largely taken up by the word-processing software, leaving space for about five pages of text

before the system starts to protest. So one has to store text outside the machine (the internal memory is cleared anyway when the microcomputer is switched off). I used cassette tapes but these are cumbersome, slow and not all that reliable, so it really has to be disks.

When I was just about settled with the BBC system, and was considering the purchase of a twin disk drive, two new circumstances arose. The first was that a new job was going to mean less time at home and the second was that an unexpected windfall meant that I could re-equip for convenience and pleasure of use without having to justify it on productivity grounds.

My first move was to look at lap computers that I could use, say, on the train or more generally while travelling, with the intention of dumping the text into the BBC system on return home for final editing and printing. The Tandy Model 100, together with two virtually identical machines from Olivetti and NEC, seemed possible but the forty-character line length was less than ideal and no supplier seemed interested in proving to me that the link-up with the BBC microcomputer really would work.

Then quite by chance I saw the Epson PX-8, beautifully made, with an eighty-character line length and the ability to work with eight different character sets including all three Scandinavian languages. And it was of course designed to be fully compatible with Epson printers so that, simply by selecting a particular language, both the PX-8 display and the printer worked with the appropriate character set.

The supplier also offered to link the PX-8 both to the BBC microcomputer and separately (if needed) to my Olympia daisy-wheel printer. And then a further complication. I happened to see an advertisement for a new Sony Word Processor. It seemed to be beautifully designed and it had a full A4-sized display with the text displayed in black on a pale blue background.

A visit to Sony UK in Staines convinced me that the Series 35 Word Processor outclassed any micro-based system that I had seen. It looked good, it felt good and the more I tried it the more I appreciated the amount of thought that must have gone into the design of the software. The display itself, with very high-definition characters, exactly like a typeface complete with serifs, was an absolute eye-opener after working with, or trying, so many computer displays.

And so the die was cast. I agreed to buy both systems on condition that Epson and Sony suppliers got together to ensure that I could feed work done on the Epson across into the main Sony machine for display, final editing, printing and storage.

The hardware involved comprises the PX-8 (normally on the move in my briefcase), the Sony keyboard and twin 3.5 inch disk drives, the full page display and the Diablo 630 printer. This is the fastest of the range of

printers offered as part of the Sony system and I have it on a separate table to isolate the rest of the system from the shaking it would otherwise get from the printer.

Returning to the Epson PX-8, this needed no extra programming since it came with built-in communications software, plenty of internal memory (some fifty pages of text) and a so-called 'portable' version of WordStar. Using WordStar is a story in itself. It certainly offers every facility but it does involve learning a whole lot of coded commands.

So take just one as an example, deletion of a paragraph. With WordStar the sequence is:

Cursor to start of paragraph — cursor keys
Mark start of paragraph — Control KB
Cursor to end of paragraph — cursor keys
Mark end of paragraph — Control KK
Delete marked block — Control KY

In contrast the same process on the Sony Series 35 involves simply:

Position cursor anywhere in paragraph
Delete — Paragraph — Execute

With the PX-8, I have some of the more difficult-to-remember commands printed on a card where I can see it as I work.

Returning to my original 'mini weather forecast', when typed into the Epson, the Norwegian letters are there, but the liquid crystal display cannot show either bold print or underlining. If I were going to print out directly using an Epson printer, I could achieve both bold print and underlining just by using the appropriate WordStar commands. But since I want to transmit the text to the Sony Word Processor (which does not understand WordStar) I need to find another way.

I have to type in 'less than' and 'greater than' symbols where I want to begin and end underlining, and a rather odd sign (which replaces the dollar sign when the Norwegian character set is being used) to start and stop bold print. I could have used any characters and it was just that these are ones that I rarely need. Having chosen them, it only remains to tell the Sony Word Processor to translate these particular symbols into the appropriate printer instructions when receiving text from the Epson PX-8.

The same sort of translation ensures that a Norwegian 'A with circle' displayed on the Epson (but which is actually transmitted as a bracket symbol) is turned back into an 'A with circle' on the Sony display. It may sound complicated but this is easily incorporated into the Sony Communications System disk and (in my case at least) at no extra cost.

The same applies to coping with different daisy wheels. As any one who has used a variety of daisy wheels can confirm, their sequences — that is which letter is positioned on which petal of the daisy wheel — vary enormously, especially when foreign character sets or scientific symbols have to be included. No problem with the Sony system, though. You just let your supplier know the wheels you want to use and the system disk he supplies you with will do the rest. The result is that you always get exactly what you key in (or transfer across from another machine as I do from the Epson) and the screen will always show exactly what you are going to get on paper.

The ‘mini weather forecast’ on the Sony display really is just as it will appear in print.

With time so short I will not say any more about the Sony Series 35, apart from briefly mentioning two facilities which I do use quite a lot. There is what Sony call a ‘steno’ document on which one can enter up to sixty or so words or phrases so that, by depressing any key followed by the steno key, one can call up the appropriate word or phrase. If necessary each key can call up a block of text of any size up to a full A4 page.

For technical translations I find it easiest to keep a separate steno document disc for each different job and, if I cannot remember the steno glossary for the job in hand, that is where the other special facility comes in useful. A single keystroke splits the screen into two half pages, each equivalent to a normal VDU 24-line display.

The working document occupies the top half and any other document (or page of the working document) can be displayed on the bottom half. By keying V and the steno key, I can, for example, enter the entire ‘mini weather forecast’ complete with underlining, bold type etc. One could equally well display a technical glossary, say, and one can work on either half page and copy or move text from one half page to the other.

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