THE DISC DRIVE

Issue 17
Spring 1998
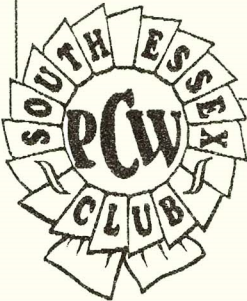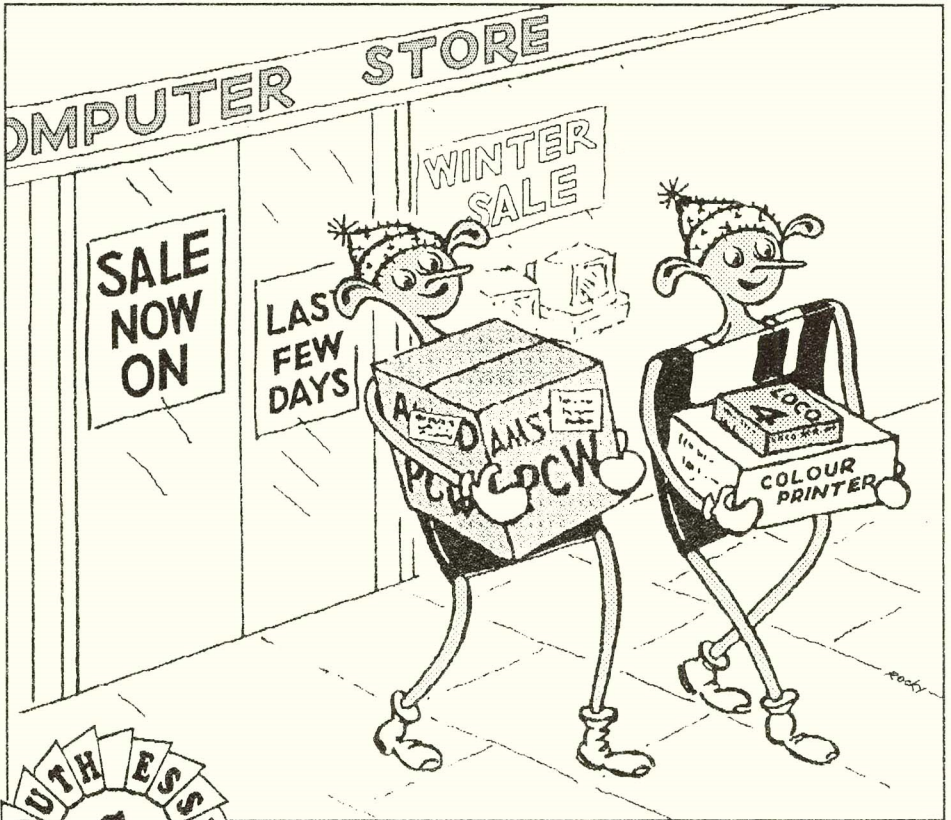
The South Essex PCW Club
Magazine for all PCW users

4

Basic98
Basic98
Basic98

AN EXTENDED
BASIC COMPILER
For 8-Bit
AMSTRAD PCWs

by R.P.Hill

Powerful...

Basic98 is actually three languages in one:

1. As you would expect, it can compile programs written in your Mallard interpreter.
2. It has a full Z80 assembler, and you can access code in the runtime library directly to convert your high level source into lightning-fast, full-blown machine code with confidence and ease.
3. Basic98 adds 185 commands and functions to the language giving, in addition to indexed filing, the following features:

Command line parameters	Direct keyboard access	All 12 trigonometric functions
Optional line numbers and labels	Bitwise string operators AND/OR/XOR etc	Preset ARRAY/ITEMs Array SORT/SEEK
Multi-line statements	Raster text plotting	INSERT$/REMOVE$/CHOP$
REPEAT/UNTIL	AT/CLS/VPT/VIDEO/ULN	PLOT/LINE/ARC/CIRCLE
CASE/OF/ELSE/CEND	System DAY/DATE/TIME	BOX/PLANE/ORB
PROCEDURE/FUNCTION	Turtle graphics	POLYGON/FIGURE/SPRAY
LET/INC/DEC/READ as functions as well as commands	Store or display sorted directories with optional file sizes	Print/move/copy/swap zoom/rotate screens and image files up to 256k
High precision maths up to 187 decimal places	Full support for CP/M+ password & time stamping	Print a file in the background while a program executes

Easy to use...

Basic98 comes with an integrated editor that can create and read an `infobase` of up to 4094 topics in up to 100 64k files. This has been used to create the 532k manual, which can be viewed in the lower half of the screen as you are writing a program. The manual is automatically re-opened, with the source code position, to explain any compilation or runtime error that occurs.

...Get control of your PCW!

To order Basic98:

Please state disk format required...	PCW8256 PCW8512	PCW8512 PCW9512	PcW9256 PcW9512+ PcW10	Send order/enquiry to: R.P.Hill, Wincheap, Canterbury, KENT. CT1 3RS
Disk set	4x3"	2x3"	2x3.5"	Please make P.Orders
Format size:	173k	706k	706k	or cheques payable to:
Set price:	£25.00	£25.00	£25.00	Richard Hill

Contents

South Essex PCW Club Committee

Secretary &	David Lalieu,	**Chairman &**	Mike Elliston,
Magazine	10 Sheridan Avenue,	**temporary**	96 Sparrows Herne,
Librarian	BENFLEET,	**Editor**	BASILDON,
	Essex SS7 1RD		Essex SS16 5EX
	01702 551618	**Public**	Nick Chaundy,
Treasurer	Martin Blackman,	**Domain**	2 Clickett Hill,
	13 Fulcher Avenue,	**Librarian**	BASILDON,
	CHELMSFORD,		Essex SS14 1NP
	Essex CM2 6QN		01268 454917
	01245 280781	**Ordinary**	Peter Hathaway,
Membership	John Harvey,	**Member**	52 Woodbrooke Way,
Secretary	25 Stuart Road,		Corringham,
	HARROW,		STANFORD-LE-HOPE,
	Middx HA3 7RB		Essex SS17 9DP
	0181 863 2449		01375 672759

From the Editor's Desk

As you will have seen from recent issues of the *Newsletter* Steve Massam has had to go off up North to undertake a contract in Edinburgh and I have been volunteered to take over as temporary editor of *The Disc Drive* in his absence. He must, however, be congratulated for the amount of work he put into producing the magazine each quarter, as I now find to my cost. The Winter 1997 edition was brilliant and the colour cover was a first in the club magazine field. Thanks go to Norman Bannister for his colour cover design and to LocoScript Software for the specially prepared colour advertisement.

The headline news in the PCW world is the latest release of LocoScript and, in particular, how well it works with Micro-Design in being able to import picture files which have been saved as Area files in version 3.33 of MD3.

I have taken a different approach to Steve in producing the magazine for this issue is being produced in LocoScript using MDAs for all the illustrations. For example, the heading above was set in **Invite** in MicroDesign, saved as an MDA and loaded in LocoScript as a picture file. Similarly the small swelled rules you will see in various locations, were drawn in MicroDesign as quite small images and loaded into LocoScript as MDAs.

I, for one, am most pleased with the result and congratulate LocoScript Software in recognising its competitor's picture file as a standard on the PCW and for working with that standard to make the PCW do what its designers never dreamed would be possible.

I should like to thank Norman Bannister not only for his judging the Club's recent design competition for us and producing his essay of comments on the entries, but also for all the work he put into scanning the winning items (in some cases several times until he had got them to completely to his satisfaction) so that his treatise could be accompanied by examples of the award winners' entries for all to see.

Mike Elliston

1997 COMPETITION COMMENTS

by Norman Bannister

Knowing that I intended not to take part in the recent 1997 Club Competitions, the Committee decided to ask me to be the sole **judge** of them. Although I agreed to do so, I had grave doubts as to my ability to judge other peoples' work, and I decided finally to apply the following three criteria to all the entries:

1) Visual impact, (which I prefer to call eye-catchingness),
2) Layout and balance, and
3) Quality of work(wo)manship.

Statistics! ..... The response to the competition was very poor indeed ..... there was a total of only 18 entries from a club boasting about 160 members – two local Full members submitted a total of five entries, and eight Postal members submitted a total of 13 entries between them. All of them were of very good quality.

Two entries were very complex designs, beautifully executed, and most intriguing, but were not accompanied by any text, and, regretfully, I was unable to place them in any of the categories which had been decided upon. ..... I have no idea who had sent them, but I hope they may be the subject of an article in *The Disc Drive* in the near future, so that we can all find out how they were produced.

There were no entries for the **Beginners Only** category, which left just 16 entries spread over only four categories.

The four Winners each received a certificate, signed by Mike Elliston, the club's Chairman, and a book token for £10.00, while the four Highly Commendeds each received a certificate and a book token for £5.00.

In the event, I did not have to judge the competition alone – Nick Chaundy very kindly took pity on me, and gave me his assessment and his suggestions as to Winners and Highly Commendeds, all the while insisting that the ultimate decision should be mine! My grateful thanks for your help, Nick. ..... It so happened that we were in complete agreement about the Winners, and had just two minor and very brief discussions about the Highly Commendeds.

Now, the four categories:

COLOUR
(3 entries).

Won by **Bill Heilbronn** of Leamington Spa, with a Christmas card printed in three colours and black, portraying a Father Christmas either practising Yoga or sky-diving, but very eye-catching, and I am informed, all produced in Loco-Script4.
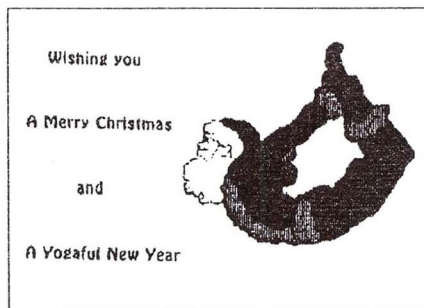
Bill Heilbronn's winning entry   Size A6

Monica Dickerson of Surlingham, Norwich was Highly Commended for a Christmas card in five colours and black, demonstrating very ably her article in the Autumn 1997 issue of *The Disc Drive*.

CARDS, HANDBILLS and POSTERS
(6 entries).

Won by **Steve Massam** of Southend, with a Christmas card in black and white, overlaid, subtly, with silver and gold LaserColor Foil, ... something with which Steve has had far more success than I ever had.
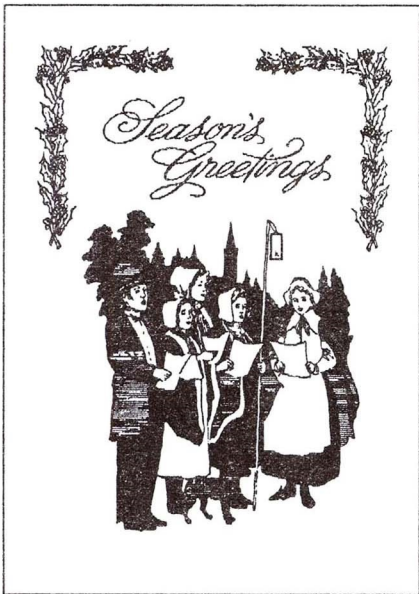
Steve Massam's Christmas card   Size A5

———

Ernie Ruddick of Yarm, Teesside was Highly Commended for his very striking, but simply laid out Programme for the Yarm Art Society.

BUSINESS STATIONERY
(2 entries).

Dareen Bridge of Huddersfield won with an outstanding, matching eight-piece set of business stationery, consisting of a Brochure, With Compliments-, Acknowledgement-, and Receipt-Slips, a Letter Heading with two different Continuation Sheets, and an Envelope.
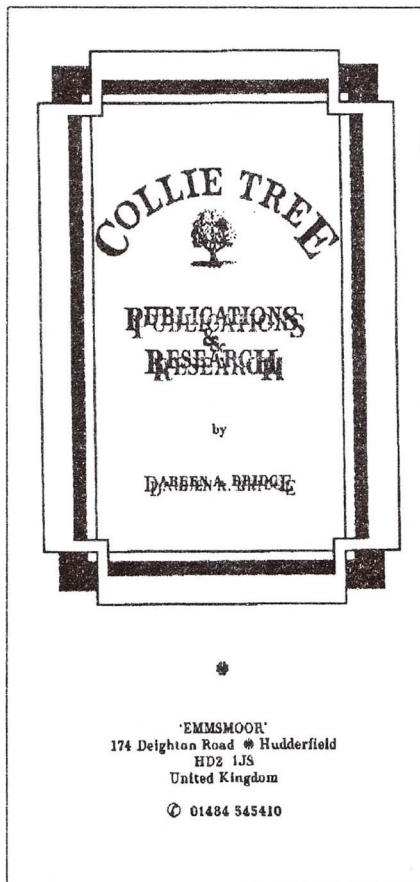
Dareen Bridge's brochure   Size ⅓A4

In addition, her work, particularly the brochure, shows many examples of an

expertise with Tweak, which, when I spoke to her after Nick and I had judged the entries, she called casually, 'doodling with Tweak'. I wish my *doodlings* with the program produced similar results, and I hope Dareen will find the time to submit an article about her experiences with Tweak for *The Disc Drive*.

Mark Carter of Binstead, I.O.W., was Highly Commended for his simple Letterhead topped by the black silhouette of a tree with an encircling description of the services he offers, (tree and chainsaw services), and with a very faint and delicate half-tone silhouette of the same tree occupying the remainder of the A4 sheet. It was this half-tone figure of the tree which made the whole sheet so eye-catching.

—

ACE

♠ ♠ ♠ ♠

EDITED BY DANIEL FRENCH

September 1997

Issue No 3
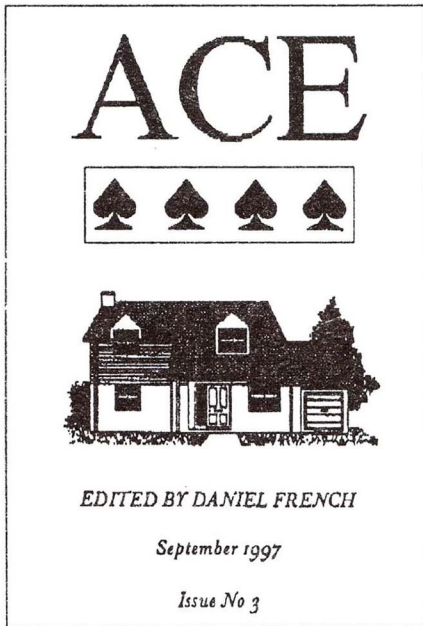
Daniel French's magazine cover Size A5

The Winner was **Daniel French** of Roehampton, (a schoolboy who joined the PCW Club only recently), for his eight-page, A5 magazine, *ACE*, with its eye-catching cover printed on cream-coloured paper. The material inside lived up to the promise of the cover, both for its varied subject matter, and for layout and presentation. Daniel has attended the last two club meetings, so he may be in process of becoming a Full member, instead of a Postal one, and, maybe, a future contender for editorship of *The Disc Drive*!

The Highly Commended prize went to **Steve Massam** of Southend, for his four-page, A4 newsletter of a gardeners' club, for the striking and eye-catching appeal of both the front and back pages.

———

So, that's it! All the entries were very good, but I wish there had been more of them. I would have liked to comment at greater length on a few minor criticisms ..... the trimming of some prints and cards could have been better, a number of spelling mistakes might have been spotted before the final printout, and clip-art or capital letters which had been enlarged, would have benefited greatly by a session in Zoom ..... but, overall, those criticisms are just nit-picking.I hope that next year we shall see far more entries in the December competitions.

My apologies for the inadequacy of the illustrations of the four winning entries and Dareen's 'doodles' ..... all

colour has been lost, of course, and the need to scan and then reduce the illustrations to the size of a couple of postage stamps has lost completely the appeal and delicacy of some of the entries – or, it could be that I just can't scan properly!

———

———

Some of Dareen Bridge's Tweak doodles

The Independent Eight Bit Association

The fourth edition of the Independent Eight Bit Association's *Directory of Eight Bit Services* has just been published. The Association is a voluntary organisation which works to promote the benefits of 8-bit computing and to put users in touch with sources of support. Membership costs a once only fee of £5 which includes a copy of the latest edition of the *Directory* and occasional newsletters, which are issued only when the Association has something to say. There is also a campaign to find some of the many 'lost' users of 8-bit computers.

The *Directory*, compiled by its editor John Walker from information from a very wide range of 8-bit sources, is an indispensable compendium for all users and fans of older computers as it lists clubs, magazines, publishers, suppliers, repairers and many other similar organisations, none of whom have to pay to be included. The *Directory* is also available to existing IEBA members for just £4. The group is so cost conscious that even the committee members pay for their own copies of the *Directory*!

Further information is available from the IEBA's Publicity Officer, Brian Watson, at 39 High Street, Sutton-in-the-Isle, Ely, Cambridgeshire CB6 2RA. Please enclose an A4 20p-stamped, self-addressed envelope for reply. E-mail: IEBA@spheroid.demon.co.uk.

Programming in Mallard BASIC: 1

by Daniel French

BASIC allows you to create software to take care of virtually any task imaginable. You could, for example, devise a program to produce invoices. Although there are programs available commercially for this purpose they do, of course, not produce exactly the result you may be looking for. The program is in charge and it tells you how to proceed. When you write programs for yourself you get to choose how things will go and thus you can tailor the program exactly to your requirements. This short series of articles will attempt to get you started with writing simple programs in Mallard BASIC.

Before anything interesting can happen, however, BASIC must first be loaded. It is supplied as standard with all models of the PCW (except the new PcW16). BASIC is booted by loading CP/M in the usual way by switching on the computer and inserting your CP/M disk into drive A. When the A> appears simply type BASIC and press return.

When the 'Ok' prompt appears you are in BASIC and can make use of the facilities contained within...

First Steps

The best way to see BASIC in action is to use it (in a very simple manner) as a calculator. The most important and simple command in BASIC is PRINT. It allows you to display messages and the answers to calculations on the screen. To give you a taste of a first program type exactly the following text at the Ok prompt:

PRINT 9+9   [and press return]

This obviously tells the computer to add 9 to 9. The result is displayed on the screen because of the PRINT command. Hopefully, '18' will appear on the screen, followed by the Ok prompt.

You can do more complex calculations but different symbols are used to represent the various functions. The asterisk (*) represents multiplication and the slash (/) is used for division. Try the following:

PRINT 9*9

The screen will display '81' and then the Ok prompt appears again. The computer has multiplied 9 by 9.

Line Numbers

All that we have done above is to use BASIC in what is known as its **Direct Command** mode. This is pretty useless as once you have typed something, you see the result, and that's it. If we introduce **Line Numbers** to a program, you can use it again. Programs with line numbers remain in the memory until the line is replaced with another or until a NEW command is issued. Entering NEW [followed by Return] at the Ok prompt wipes the current program from the memory. Now try this example:

```
10 PRINT 10*4
```

Note that the computer has not acted on your instruction yet. To make it do something with what you have typed, it is necessary to issue another command: RUN. This makes the computer act upon everything that has been typed. Type RUN [return] and the computer will work out the sum.

You can make the program do much more by inserting further instructions. Please note that line 10 from the previous program is still present in the memory and so will be re-used. This program will not run correctly if a NEW command is issued so *don't* do it! With *all other* examples it *is* necessary to issue a NEW command before starting a new program, otherwise errors will occur! Type the following;

```
20 PRINT 10*5
30 PRINT 10*6
RUN [return]
```

The computer should display:

```
40
50
60
Ok
```

This is a *real* program. Now is the time to make something more interesting happen! When you have run the program remember to wipe the memory clean with a NEW command as follows:

```
40
50
60
```

```
Ok
NEW [return]
Ok
```

Variables

Now we have used BASIC as a simple calculator, it is time to make it do something useful. Variables will make immediate sense to someone familiar with algebra as the following program shows:

```
10 A=4
20 B=2
30 PRINT A*B
```

Run the program by typing RUN and then pressing Return. The program will display the answer to the sum '4 multiplied by 2' because the **variable** 'A' has been assigned the value of 4 and the variable 'B' has been assigned the value of 2.

You can tailor programs to accept input from the keyboard and use it in the program. This is through the use of **variables** but also introduces a new command...

INPUT

The command INPUT takes some information from the keyboard and places it into a variable. The information contained within the variable can then be used to undertake more mathematical operations. Try the following:

```
10 INPUT A
20 INPUT B
30 PRINT A*B
```

Now RUN the program. The running of the program will look like this where the user input is encased in brackets:

```
? (3)
? (3)
9

Ok
```

What the program has done is multiply together the two numbers that you typed in at the question mark.

Multiple Calculations

Now, let us combine PRINT, INPUT and some variables together in this program which will show you something interesting:

```
10 INPUT D
20 S=D*3
30 PRINT S+17
```

Run the program. It will look like this. (Once again user input is shown in brackets.)

```
? (4)
29

Ok
```

As you can see, the program has taken the number you input and multiplied it by three. The result of this is stored in the variable 'S'.

The next line of the program (line 30) adds 17 to the contents of the variable 'S' and prints it on the screen. Using this method some very complicated sums can be calculated.

Troubleshooting

If something goes wrong during the above examples take a look below to ensure you've not missed something.
- Did you issue a NEW command before typing in a new example?
- Did you make any typing errors? If you made a mistake simply type the line in again.

If you have any other troubles or just can't figure anything out, give me a ring on 0181 876 9251 (London) during reasonable hours and I will do my best to sort out your problem over the phone. Let us leave it there for now. Using what you've learned so far try concocting a few programs to do more complicated sums. Next time, we will have a look at **strings**! Have fun!

_____

If you intend to do any serious programming in Mallard BASIC, or indeed BASIC98 or Lightning BASIC, then you should obtain a copy of the Mallard BASIC PCW manual while it is still in print. The manual came with the earliest versions of the PCW but now you have to buy a copy separately. You may pick up a copy at a bring-and-buy, a boot sale or in a secondhand bookshop but it is still available from LocoScript Software 01306 747757 for £14.95.

In addition there used to be sold a disc called JUMBO which was a collection of text files, each a page of information on a BASIC keyword. You could access this via the TYPE command in either BASIC or CP/M or you could import pages into your word processor. If you see a copy around grab it quick!

BASIC98 by R P Hill

A Review of this exciting new product by **Nick Chaundy**

BASIC98 is an extended BASIC compiler for Amstrad PCWs. It is now available and will run on all PCWs apart from the PcW16.

My first thought was to say that this product has been devised to extend the capabilities of Mallard BASIC but that would not do this work justice. BASIC98 is a totally new BASIC compiler in which you can create your own program applications. When compared with Mallard BASIC the .COM files produced via BASIC98 run much, much faster.

In addition to having a very efficient compiler BASIC98 contains an assembler which supports the full Z80 instruction set. As if that wasn't enough, BASIC98 provides 185 *additional* commands or functions (as compared to those offered by Mallard BASIC). The editor provided is also fast and efficient and can handle files up to 46K in size.

Just a couple of bugs came to light in the first *review* copy provided but these has been completely resolved in the current version 1.01. (These related to some corruption arising when linking DATA statements in PROCEDURE and FUNCTION, and the fact that VAL would not accept an optionally indexed string.) This reminded me of a valuable piece of advice given to me long ago–never buy version 1.0 of anything!

Now that the few teething troubles have been fully overcome we have what I can only describe as an outstanding product with some 532K of really comprehensive documentation on disk (which can be viewed in a "split-screen" mode

whilst working on a programming task). This greatly facilitates the frequent referencing of the Manual that will inevitably be required in getting to know the BASIC98 concepts and methods.

The graphics capabilities of BASIC98 are a vast improvement on what was possible within Mallard BASIC. For example, areas can be copied, swapped, zoomed and rotated. The possibility of fully indexed file handling is, for me, another huge bonus which overcomes more of the frustrating limitations of Mallard BASIC.

BASIC98 is not for the fainthearted. It will certainly help if you have some experience of programming in any BASIC language and if you are prepared to invest the time needed to become proficient in the skills required.

To fully review such a massive enterprise as BASIC98 would require at least a whole *Disc Drive* so, to allow room for the other contributors, I have confined myself to highlighting just a few of the strengths and problems which had to be overcome. There are a whole host of features that, for reasons of brevity, have to go unacknowledged. It is, I believe, a remarkable tribute to the enduring nature of the Amstrad PCW that Richard Hill has produced this monumental work which will open up a whole new dimension of creativity for anyone with an interest in programming on an Amstrad PCW. I would say that anyone with such an interest would be missing out greatly if they did not invest in this excellent package.

Venturing into Comms

Some snags with Mini Office Professional
by Geoff Hayes

There is not much choice for the PCW user with commercial communications programs. Until recently the only two still available were the Comms part of the Mini Office Professional or Professional Plus suites, or the Comms+ program from CSA and/or LocoScript Software. Again, until quite recently, Europress would swap 3" copies of the Mini Office master discs for 3½" copies at no charge but the company no longer sells or supports the program at all.

I recently bought myself a modem for my PCW 8512 to which I have fitted 3½" drives. I was somewhat bemused to find that when I connected it up I could not get a beep out of it when I loaded the Comms module of my 3½" disc version of Mini Office Professional Plus and tried to make contact with a bulletin board. Since I had been using the Spreadsheet module for some time with no problems this was a puzzle.

Hardware fault?

Initially I thought it was a hardware failure–either the RS232/CPS8256 Interface and/or the serial cable could be faulty–because I had seen the modem working at the previous owner's house but I persisted with the Mini Office Comms disc first.

I made a second working copy of the program disc but this didn't work either. Then I remembered having had a letter published in *PCWPlus* about making a 3½" boot disc from a 3" copy of the Desk

Top Publisher program, which also came from the same stable as Mini Office Pro. When using either CP/M 1.14 or 1.15 as the system file everything appeared to work correctly until I realised that the cursor had vanished. Was this a clever bit of anti-piracy programming?

On examining the 3½" MOP Master disc I read that that this is intended to be used on the 9256 and/or 9512+ machines, both fitted with a 3½" A: drive. It dawned on me that the program must have been amended to make it compatible with the upgraded internal CPU circuit board in these machines.

Mismatch

The fact is that, by adding a 3½" drive (an external twin unit in my case) to my 8512 and having used only the Mini Office Spreadsheet module, I had been lulled into complacency. The *Comms* module, in interacting with the serial signals, uses a different part of the circuit board to the other program modules in the suite. As with the missing cursor in the Desk Top Publisher program, there was a mismatch between the 8000 series circuit board and the program code.

Fortunately I have a 3" version of the Mini Office Pro Plus suite so I reasoned that if I wanted to use my 3½" external drive I had to make a 3½" copy of the 3" masters. I won't go into detail here but if you want a 3½" boot disc it is a round-about job involving making a copy of the CP/M 1.15 Master disc first, doing a lot

of deleting from the copy, then using PIP or NewSweep to copy individual files from the 3" masters. I did all this and *still* the Comms module didn't work.

Then it hit me! The 3" version was written to be controlled by the J14CPM3.EM<u>S</u> system file and the 3½" version by the J??CPM3.EM<u>T</u> system file. So I used Disckit to make a 3½" *180k* copy of a J14CPM3.EMS system disc, then did exactly the same with each of the 3" MOP master discs. When I booted up my 8512 from my newly made 3½" (180k CF2) J14CPM3.EMS Comms module disc and typed `COMMS` at the A> prompt I got the Mini Office opening menu at last!

Connected

After Configuring the RS232 from the available menu the big moment arrived: I cursored to Communicate, got the Chat Screen, typed the mandatory `AT D` preliminary code and then my own telephone number. The modem responded with the engaged tone but at least it worked. My perseverance had paid off and now I could experiment with external telephone numbers. I tried a bulletin board number and got the highly satisfying message on the screen: `CONNECT v42bis 2400` and I was through.

There was more head scratching as I strove to get familiar with the finer points of the Comms module but the essential lesson is that the 9256 and 9512+ version of Mini Office Comms will not work on an 8512 with 3½" drives (although it may work with a PcW10). If you have a 3½" twin disc external drive then the B: drive is always 720k (as it would be on an original PCW 8512) and you will have to

clearly distinguish your 3½" CF2 180k program discs from your 3½" CF2DD 720k data discs and ensure that you do not interchange your data discs and program discs.

There have been some significant improvements in the Mini Office Professional suite but, alas, the spell checker and thesaurus don't quite make the grade. This puts the suite at a considerable disadvantage when compared with the competition from which it has never recovered. However, the improvements make it of considerable interest to the communications user because files created in the other modules of the suite can be saved in ASCII format and sent as e-mail through the Comms module.

Data e-mail

Data from either the Spreadsheet module or the Database module can be saved as ASCII and merged with a Word Processor file and then be transmitted as e-mail making the overall suite extremely useful. Unfortunately, advances in communications technology in the commercial world led Europress to concede that this PCW program was no longer practical for serious use and it has been abandoned. Mini Office still has some advantages in the PCW field: for example, it shows on screen the parts of your text which will appear in italic, bold or underlined, just as they will when printed.

This is a salutary lesson in why programmers have have had such a frustrating time in keeping up with the many different versions of the PCW and PcW. This is presumably what motivated Locomotive to bring out the generic version of LocoScript in LocoScript3 format, to

---

reduce the the variations necessary to service the various models of the PCW. One could even suggest that the demise of the PCW was brought about because Amstrad brought out so many different models of the PCW making programming for the whole range no longer a commercial proposition.

Manual still available

At the time of writing brand new, remainded copies of the final edition of *All-in-One Business Computing* are still available at an attractive price: contact me or the Club Secretary for details. If you come across a copy of Mini Office Professional–or preferably the Pro Plus version–at a club bring-and-buy or at a boot sale but with no manual you can still get into e-mail with your PCW and a modem.

Modems are cheap

There is no need to buy an expensive modem for the PCW can handle data at up to 9600 baud and modems capable of 14,440 baud are quite cheap, for this standard has been superseded in the PC world. This will allow you to venture into the world of communications at a very reasonable cost indeed.

This article started as a pointer to some of the snags with Mini Office but this is, on reflection, a little unfair. It was my assumption that, after installing a 3½" disc drive upgrade to my PCW 8512, all that was required was to buy the 3½" version of the software, completely oblivious of the fact that the 3½" version was apparently written for the 9000 series of PCWs.

If any reader has similarly added a 3½" A: drive to their 8000 series PCW and wants to try Mini Office Comms I will gladly supply the written instructions on making a self-booting 3½" 180k disc to start the program upon receipt of a stamped self-addressed envelope sent to: Geoff Hayes, 6 Vale Royal Courtyard, Whitegate, Northwich, Cheshire CW8 2BA

Editor's Comment

In the above article Geoff solved his problem by copying files from a 3" disc onto a 3½" disc to fool a program into working as if it were running from a 3" drive.

With a number of both external and internal 3½" disc drives added to an 8256/8512 to replace (or be switched with) the original 3" drive it is possible to format a 3½" disc as if it were a CF2 (3" single sided) disc using Disckit.Com or LocoScript. This will format the 'first half' of *one side* (side 0) of the 3½" disc at 180k. There may also be a switch to allow you to similarly format the second side (side 1) *without turning the disc over*. As the PCW still thinks this is a 3" CF2 low density disc you should only use the **.EMS** version of either LocoScript or CP/M to make a self starting boot disc.

It is essential that you use an **.EMT** version of either LocoScript or CP/M to self start a PCW with a 3½" 720k CF2DD A: drive. You must *not* simply copy files from an old 3" Start of Day disc to a 3½" disc to start a PCW with a replacement drive: you can seriously damage the machine *and* you probably need the correct .FIB files too.

The Disc Drive
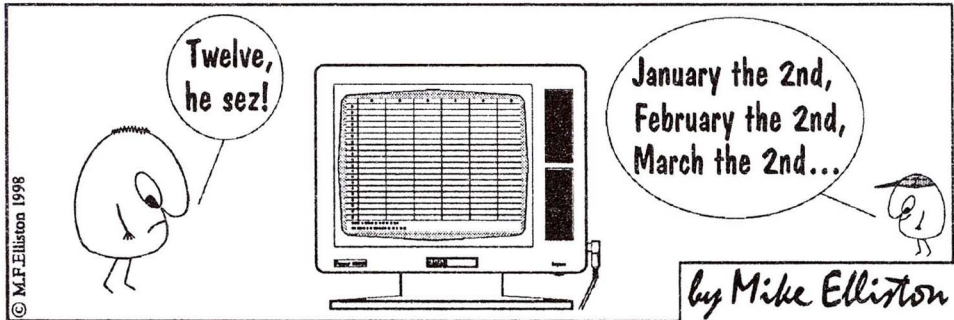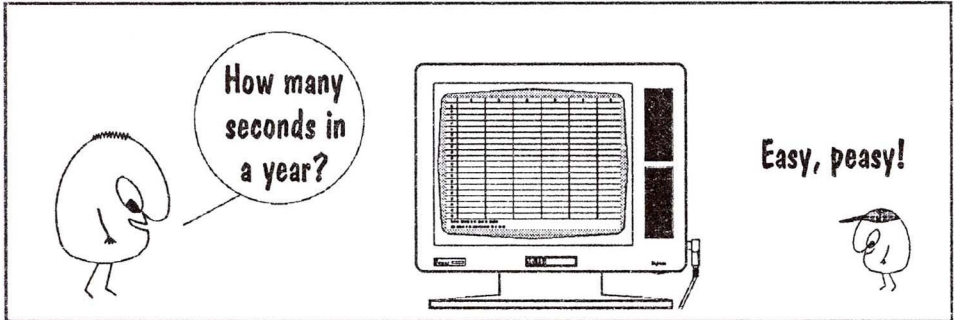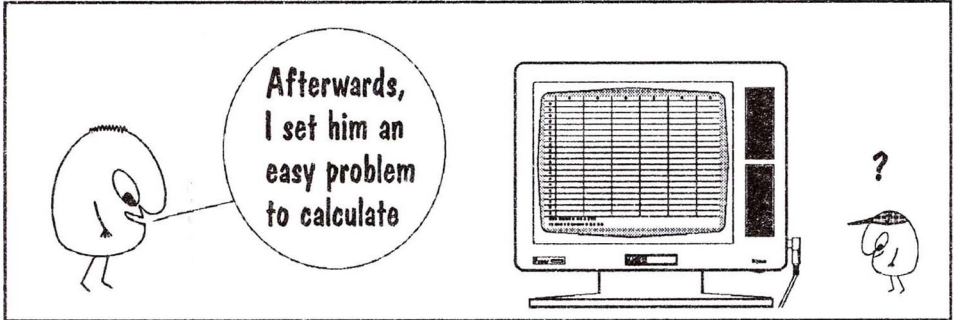
The Three Inch Thesaurus
by Mike Elliston

A couple of months ago the Club-night meeting was dedicated to a demonstration of LocoFile, how it can be used to manipulate datafiles of names, addresses, telephone numbers, etc., to assist in running a club membership list, how to make a catalogue of your records, CDs or even pianola rolls if you so wish!

Towards the end of the evening, almost as a light-hearted respite, I pulled out a copy of the Three Inch Thesaurus to demonstrate how you could use someone else's datafile to your advantage and was amazed to discover how few people present were aware of this useful tool, let alone what it could do for your writing.

The Three Inch Thesaurus is a LocoFile datafile recorded on a high density disc, produced by Alan Giles who ran Three Inch Software to provide software for the PCW range (hence Three Inch). The Thesaurus is based on Roget's *Thesaurus of English Words and Phrases*, which was first published in 1852. Roget's idea was to organise the English language into 1000 sets of lists of related words based on their meanings.

Even though the book is now well over 140 years old, the contents are still quite pertinent and, while it does not contain modern technological jargon, it does contain words you might think were relative newcomers, such as 'broadcast' or 'shoplifter'.

In arranging his word lists, Roget made sure that words of opposite meanings were in adjacent lists and related topics were in nearby lists, so that when you look up a concept in the Thesaurus you are expected to scan nearby lists to find the precise word you want. He also put related words near each other in the lists and this explains the slightly unusual word order.

In the original printed book one had to to look up a word in the index at the back of the book to find the most likely list number, then search for related words in that list in the first half of the book. The advantage of using LocoFile with the Three Inch Thesaurus greatly simplifies this search as it jumps straight to the first list containing the required word.

Even though the Three Inch Thesaurus is distributed on a high density disc it can not include *all* possible word endings. To get round this it records the longest single variation of the word so, when looking for your perfect word, remember to try removing or changing the endings of the words given, to fit your needs.

Like all rules there is the exception and in this case it is that relating to words ending in '...ness', of which Dr. Roget was most fond. Such words have, in general, been left out of the lists in order to keep the size of the datafile to a minimum and you may wish to try adding '...ness' to some of the word-stems which are listed by LocoFile where this would give a better result.

Similarly, as with most dictionaries, many 'un...' words are not included; there are far too many of them and the opposite is usually fairly obvious to the reader. Rather, you are expected to consider adding 'un...' to the front of words on the list of *opposites*, having first searched for a word without the 'un...' prefix.

Why should I want to use a thesaurus? Well, if you do no more with your PCW than write letters to the bank manager or the gas company, then probably, in all honesty, you may not need it at all. But, if you are writing a novel, a cook book, the history of your family or your town, then you may well indeed find it would come in handy.

As an example, earlier on I used the word *respite* to indicate a change of pattern of the meeting. That may be a favourite word of yours and when you go back to re-read your novel about the rehearsal of a play and all the breaks that the company took you are likely to find that you have used the word *respite* half a dozen times on the same page and its use suddenly gets boring.

With the Thesaurus you run LocoFile, access the Thesaurus, search for *respite* and, lo and behold, up comes a page with a list of related words: *break, cessation, halt, interval, lull, pause, recess, relaxation, relief* and *rest*. You can pick whichever of this list appeals to you as suitable for the context and paste it in instead of *respite.*

This does mean that to use the Three Inch Thesaurus you must have a copy of LocoFile for your computer and you must have a high density disc drive free for the Thesaurus disc. (Incidentally, although it is called the Three Inch it does also come in three-and-a-half as well!) You will need to have either an 8512 with its 720k B: drive or the A: drive (or optional B: drive) on a 9512. (Before you can use the Thesaurus you must have installed Loco-File on your Start-of-Day disc as detailed in the LocoFile manual.)

In order to fit as many words on the Thesaurus disc as possible, a special disc format has been used, with extra sectors and tracks. This has the disadvantage that you can *not* copy it with either Loco-Script or DISCKIT.COM. Also, as the gap between sectors has been reduced, you must *not* attempt to write to the disc or you will seriously damage the datafile. Always leave the write protection holes on the disc open so that the computer can not write to it.

However, if you do have a hard disc you can copy the key file to your hard disc, preferably one of the user groups on A: and then, using LocoFile, add to and expand the datafile as you wish. Remember, however, that you can never copy it back to a floppy again but you could use the squeeze facility in NewSweep to copy it to another hard disc.

So how do you use this software? Obviously you must start up your PCW using your LocoFile Start Of Day disc. If the document you want to edit while using the Thesaurus is on a high density disc and you do not have a PCW with two high density drives, you must copy the file to drive M:, or a low density disc in drive A: of an 8512, using the f3=File, Copy option, in order to release your high density drive for the Thesaurus disc. (It can *not* be used in a low density drive.)

Insert the Thesaurus disc in the vacant drive and press f7=Disc change. You are then free to edit your document. When you come to need to look up an alternative word or phrase in the Thesaurus, press f1=Actions, cursor down or press R to Run LocoFile and Enter to use LocoFile. The first time that you use the Thesaurus in each editing session you will then be asked to select

the Thesaurus datafile to use. The datafile to choose on the floppy disc is called TREASURE. Cursor to this and press ENTER twice. (Next time you run Loco-File it will automatically select the last datafile you used.)

Press f5=Goto and type in the word whose alternative you seek, but without any variable word ending; if you were looking for *receiving*, just type *receiv* then press ENTER. LocoFile will take you to the first list containing this word stem. As words in the English language can often be used with a variety of meanings, this list may not be the one you want. Press PAGE to go down to the next list in the **Words** index. If you need to go back up to a previous list use the ALT+PAGE key combination instead.

When you have found a list with the required variety of meanings, you may still not see the word you want because some lists are spread over more than one screen. These are indicated by a suffix letter **a**, **b** or **c** at the end of the **List Number** shown on the LocoFile card. Similarly, the word you want may be on a list with a nearby List Number because the lists are arranged with similar *topics* grouped close to each other.

In this case, press f2=Index then [+] and ENTER to select the **Record Number** index instead. Then the keys PAGE and ALT+PAGE will move you between *related* screens or lists, rather than following the default alphabetical **Words** index.

If you need to switch back to the **Words** index press f2=Index then [-] and ENTER. You may, perhaps, wish to search for other lists containing a better word that you have found, in the hope of finding a more suitable alternative.

When you see the word or phrase you want to transfer into your document, move to the item containing that word. You can use the cursor arrow keys to do this; you may also find ENTER and/or RELAY, which step forwards and backwards from item to item equally useful. In addition, the SHIFT key used with any of the cursor arrow keys makes a large jump in the indicated direction.

To copy the chosen word simply press COPY, then EOL to move to the end of the item (or, indeed, any other movement keys to move to the end of what you want) then COPY and a phrase letter or block number to store the word or phrase in memory.

Finally, press EXIT and you are back into editing your document exactly where you left it. Now you can use PASTE to insert the new word into your text wherever you wish. Multiple exchanges can be done with FIND and EXCHANGE.

Remember, however, that if you have been working on a *copy* of your file on the M: drive (because the Thesaurus disc was in your high density drive) you must save the document to a floppy disc before turning the PCW off, otherwise you will lose all your hard work!

Some time back, in the early days of the PCW, there was a grammar checker for your text files. This ran under CP/M and was ideal for NewWord or Protext. To use it with LocoScript you had to export your documents to ASCII first. As the vast majority of people who use the PCW use nothing but LocoScript this is possibly why Grammatik, as it was called, never took off. The Three Inch Thesaurus won't check the grammar of your documents for you but it can certainly help them read a little more smoothly.

BASIC Listing

by Adrian Hooper

Welcome to the sixth part of my BASIC listing; this part is to be a Length Conversion program. It should be quite straightforward to enter all of the data below. I am afraid that a full tutorial is beyond the scope of this article, so I shall just give you a few pointers.

Start CP/M as usual and then type BASIC and press [RETURN]. Now simply enter all of the information exactly as shown below, pressing [RETURN] only after each line. (NB a new line starts with a line number).

When you have finished insert the disc you have saved the previous parts of this series on into the drive and type SAVE "LENGTH.CON" [RETURN] and then RUN "LENGTH.CON" [RETURN]. If you don't get quite the expected result check your listing carefully for errors.

If you have missed any of the parts, would like additional help, or wish to acquire a copy of the programs on disc (only 3½" at present and *only when all the tutorial has finished*) please phone me on 01761 436276 (between 6 and 9 pm).

```
10 LET Cl$=CHR$(27)+"E"+CHR$(27)+"H"
20 PRINT cl$:t$="Length Conversion Menu"
30 PRINT TAB(15);t$:PRINT TAB(15);STRING$(LEN(t$),"=")
40 PRINT:PRINT:PRINT "Press the appropriate number to identify the type"
50 PRINT "of conversion that you wish to carry out."
60 s1$="inch":s2$="foot":s3$="yard":s4$="centimetre":s5$="metre":
   s6$="mile":s7$="kilometre"
70 p1$="inches":p2$="feet":p3$="yards":p4$="centimetres":p5$="metres":
   p6$="miles":p7$="kilometres"
80 PRINT:PRINT:FOR i=1 TO 11:READ a$:PRINT i;" ";a$:NEXT
90 PRINT:PRINT:PRINT "Please type in your chosen type now: ":INPUT A
100 ON A GOSUB 120,140,160,180,200,220,240,260,500,520,110
110 IF A=11 THEN PRINT cl$:RUN "CONVERSE.BAS"
120 t1s$=s1$:t1p$=p1$:t2s$=s4$:t2p$=p4$:GOSUB 310
130 D=C*2.540008:GOSUB 340:GOSUB 280:RETURN
140 t1s$=s4$:t1p$=p4$:t2s$=s1$:t2p$=p1$:GOSUB 310
150 D=C*0.393699:GOSUB 340:GOSUB 280:RETURN
```

```
160 t1s$=s2$:t1p$=p2$:t2s$=s4$:t2p$=p4$:GOSUB 310
170 D=C*30.480092#:GOSUB 340:GOSUB 280:RETURN
180 t1s$=s4$:t1p$=p4$:t2s$=s2$:t2p$=p2$:GOSUB 310
190 D=C*0.032808:GOSUB 340:GOSUB 280:RETURN
200 t1s$=s2$:t1p$=p2$:t2s$=s5$:t2p$=p5$:GOSUB 310
210 D=C*0.304801:GOSUB 340:GOSUB 280:RETURN
220 t1s$=s5$:t1p$=p5$:t2s$=s2$:t2p$=p2$:GOSUB 310
230 D=C*3.28083:GOSUB 340:GOSUB 280:RETURN
240 t1s$=s3$:t1p$=p3$:t2s$=s5$:t2p$=p5$:GOSUB 310
250 D=C*0.914403:GOSUB 340:GOSUB 280:RETURN
260 t1s$=s5$:t1p$=p5$:t2s$=s3$:t2p$=p3$:GOSUB 310
270 D=C*1.09361:GOSUB 340:GOSUB 280:RETURN
280 PRINT:PRINT:PRINT "Press SPACE to return to menu"
290 WHILE INKEY$<>"":PRINT CHR$(7):WEND
300 x$=UPPER$(INPUT$(1)):IF x$=" " THEN RUN ELSE 290
310 PRINT cl$:t$="Program to convert "+t1p$+" to "+t2p$:PRINT t$
320 l$=STRING$(LEN(t$),"="):PRINT l$:PRINT:PRINT
330 PRINT"Please enter the length in ";t1p$:PRINT:INPUT C:RETURN
340 IF C=1 THEN pc$=t1s$ ELSE pc$=t1p$
350 IF D=1 THEN pd$=t2s$ ELSE pd$=t2p$
360 PRINT:PRINT C;pc$;" is equivalent to";D;pd$:RETURN
370 DATA " Inches to centimetres"," Centimetres to inches"
380 DATA " Feet to centimetres"," Centimetres to feet"
390 DATA " Feet to metres"," Metres to feet"
400 DATA " Yards to metres"," Metres to yards"
410 DATA " Miles to kilometres","Kilometres to miles",
    "Return to conversion menu"
500 t1s$=s6$:t1p$=p6$:t2s$=s7$:t2p$=p7$:GOSUB 310
510 D=C*1.61:GOSUB 340:GOSUB 280:RETURN
520 t1s$=s7$:t1p$=p7$:t2s$=s6$:t2p$=p6$:GOSUB 310
530 D=C*0.621:GOSUB 340:GOSUB 280:RETURN
```

Good luck! Adrian Hooper, RADSTOCK.PCW user group

Snippets and *Top Tips*

Further to the article on the Three Inch Thesaurus I am now advised that it can be obtained on either 3" or 3½" discs for £14.95 from Three Inch Software which can be contacted on 01908 690704. ●

Did you know that the latest version of LocoScript now includes a word counting facility which works independantly of LocoSpell? You don't even need to have a dictionary loaded for it to run! ●

Please ensure that you mention that you saw their advertisement in *The Disc Drive* when replying to advertisers. It lets them know that their publicity is working and they are more likely to place an promotion here in the future. ●

The Amstrad PcW16 is currently on sale in Dixons in Basildon town centre at £129.99 without a printer. If you want a bargain, go for it. It can't get much lower than that, can it? ●

We need to know what you, the readers, want to see in *The Disc Drive*. Are you an expert in a certain field, hiding your light under a bushel, or are you a tyro who happens to have discovered a technique that you've never seen in print elsewhere?

Either way, drop us a line and let everybody learn about it. If you've thought about venturing into Protext or Cracker, NewWord or SuperCalc or even merely considered upgrading to Loco-Script2 put pen to paper (preferably, write it up on disc) and see your name in these columns. ●

PrintMaster is a very popular graphics program on the PCW; it's great for letter-heads and invitations. Especially good are the French-folded Christmas or birthday cards where the sheet of paper is folded into four, but *they* don't come out too well on your printer, do they?

That's because the program originated in America where they use different paper sizes from us. If you're over sixty you probably think of paper as foolscap; if you're a decade or so less you've got used to the metric sized A4 which is correctly 297 mm deep by 210 mm wide but is often referred to as 11¾" x 8¼".

However, our American cousins use sizes peculiar to the States and their equivalent to A4 is (understandably) called *letter* which is only 11" deep but is 8½" wide. PrintMaster assumes that you are using American paper and that it will be only eleven inches long. So cut about ¾" (19 mm) off the bottom of your sheet of A4 before you feed it into the printer and you should get much better results without that great gap at the bottom of the sheet.

You can balance the edge margins a little better, too, by putting the paper into the printer about ⅛" (3 mm) away from the side lay-gauge so that the program centres the design on the 8½" paper it expects! ●

If you want to draw a horizontal line across the column or page in LocoScript simply key in [+]UL then [+]RA and end the line with [-]UL. It will look a lot better than a typed row of hyphens with those little gaps between them. ●

Readers Write...
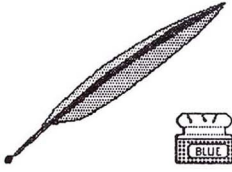
Dear Mike,

I was very chuffed to receive in the post yesterday the Winner's Certificate for the multicolour section of the Christmas PCW competition. I shall have great pleasure in spending the Smith's voucher, probably on books.

It is a source of great regret that there is no PCW club like your own in this area; the nearest are in Birmingham or Oxford. I am a bit too involved in other activities to be able to start one myself locally, even if I were sure that there were enough aficionados to give it the support.

Anyway, it is nice to be a member, albeit at a distance, of your own group and I greatly enjoy reading and contributing to your excellent journal.

With best wishes,

Bill Heilbronn   Leamington Spa

Keyboards used on other PCWs

Over the last two or three years queries have been raised, either seen in print or aimed directly at myself, regarding the feasibility of using the keyboard issued, say, with a 9512 on a 8256 or *vice versa*. The answer is 'Absolutely no problem!'

In fact any PCW keyboard will work, without any alterations, on any PCW system (except the PcW16). Using three of my PCWs (8256, 9512 and 10) with their keyboards, plus two extra keyboards (from a 9256 and a 9512+) I encountered no difficulties whatsoever when swapping keyboards between machines even when eventually fulfilling every permutation. However, one problem was encountered when testing a brand new 9256 keyboard; it would not do anything when the Enter key was pressed until I realised that the Enter key and one of the cursor keys had been interchanged during assembly.

To summarise the situation: All keyboards as supplied with the PCWs 8256, 8512, 9512, plus the PcWs 9256, 10 and 9512+, have 82 keys and a 4 pin DIN plug fitted as standard and are fully interchangeable but it should be remembered that whilst keyboards from the other PCWs have identical layouts, keyboards originally supplied with the 9512 and 9512+ have keys marked with the quarter [¼], three-quarters [¾] and vertical bar symbols [|] and the equivalent keys on all the other keyboards carry the open [{] and close [}] curly braces and section [§] symbols. All of these symbols will only operate correctly when used with the appropriate machine.

If anyone disagrees with these findings please contact the undersigned so further tests can be undertaken.

John King   Rainham, Essex

Readers Write...

PcW10 Power Pack Problems

Have you bought a Power Pack from Locomotive Software? If thinking of doing so, or if you are having problems with one, this story may well be of interest, especially if you own a PcW10.

Wanting to be able to run a colour printer with LocoScript 4 we realised we would have to increase the memory from 512K to 1024K so on the 19th February 1997 we purchased a Locomotive Power Pack.

It didn't work. On making use of the Ramtest facility on LS4 we discovered that there was a fault with the Power Pack fitted but not when it was removed.

On the 24th February we returned the Power Pack. I then received a letter dated 26th February informing me that the Power Pack received was incorrect for the PcW10. A new Power Pack was then sent to me on 4th March.

At the same time we purchased an Epson Stylus 200 colour printer as recommended by LocoScript. The Power Pack was working, the new printer was working, but all was not well. I was experiencing the strangest of problems with the LocoSpell dictionary. It would suddenly query words which I knew it had listed and offered weird and wonderful alternatives never before seen in a dictionary. I would then be locked out of the document being checked, not at all funny if you haven't already saved it. In fact we still have a sticker above the screen reminding us to save and continue!

During my struggles to resolve this problem Steve received the most frantic of phone calls (I still wonder at his patience) and he was very helpful, but was unable to find anyone else with similar problems to mine with LS4. When speaking to Locoscript after discovering problems with the original Power Pack, they had made me feel that the fault lay with my machine and not their goods, so I was wary of seeking their help.

However, on 9th June, I wrote to Mr Howard Fisher and explained the problems I was experiencing. A very prompt reply was received from Julie Yeaman offering advice on resolving this problem. I was informed that the difficulties I had had were not reported by any other users and the problem could be either a corrupted dictionary or a fault with my PcW.

She suggested that I sent a copy of my start of day disc and an example document in order that they could try to recreate the problem. As the problem was intermittent and not confined to any particular document, I felt that this would prove difficult. However I deleted the dictionary file from my discs and made fresh copies, but the problems continued.

During these frustrating months Steve had kept suggesting that I tried running the system without the Power Pack. As Locoscript had assured me that the Power Pack had been checked and that Ramtest showed no faults I hadn't, but finally I did so. No prizes for guessing, but yes, no more problems with LocoSpell!

On the 5th September I returned the Power Pack with a letter outlining the attempts I made to find where the problem lay and that I had come to the conclusion that the fault was in the Power

Pack. I asked for a replacement, which was duly sent, with assurances that it had been checked and was without faults. It was like turning the clock back, I had exactly the same problems with this as with the one returned back in February. Presumably it didn't like PcW10s but it definitely wasn't without fault.

Once again I returned the Power Pack and told them that these problems were turning what was an enjoyable hobby into a nightmare and I would prefer this time to be refunded for the Power Pack, as was originally offered in their letter of the 26th February, as the product was not giving the satisfaction I desired. I also enclosed my Locoscript 4 Master Disc to be updated to Release 2.

Again the response was quick, but hardly reassuring. I was thanked for my 'enquiry' and informed that the Power Pack was faulty and that a tested replacement was enclosed. Apart from a short apology for any inconvenience, there was only one further response to my letter, an updated LS4 Master Disc which didn't even have updated instructions!

Quite frankly, I believe I've been treated very shabbily by Locoscript and if it wasn't for the Club, I would still be believing I had a faulty machine.

Elspeth Bairstow   Denbighshire

The above letter was copied to LocoScript Software for comment and the following is a response received the next day from Linda Haynes, Office Manager for LocoScript Software:

Thank you for the opportunity to respond to the letter from Elspeth Bairstow.

We cannot agree that Mrs Bairstow was 'treated very shabbily' by our company. Over a period of eight months she wrote to us four times concerning problems she was experiencing with her PcW. All the information she gave us indicated memory problems, either with her PcW or with the additional memory added through the Power Pack, or with the connection to the Power Pack.

The first Power Pack that she received appears to have been from a batch with chips that would not operate within the PcW10's tight timing tolerances. The chips within the Power Pack operate within tight tolerances because of the timings in the electronics in the Power Pack. This tolerance is tighter for the PcW10 than for other models of PCW.

Differences in the manufacture of the chips means that each batch of Power Packs may vary, especially as the far less tolerant PcW10 is concerned, and this cannot necessarily even be picked up during testing. Her Power Pack was replaced with one from a new batch suitable for use with a PcW10.

Some two to three months later Mrs Bairstow wrote to us again as she was still experiencing the same problems, albeit intermittently, plus new printing difficulties. The advice given, to replace the LocoSpell dictionary, run a RAM test and to supply a sample on disc was accurate and correct.

Mrs Bairstow wrote to us three months later, this time returning her Power Pack. This was tested as working but, nevertheless, replaced with another tested Power Pack and the suggestion made that the expansion port be cleaned. This latter Power Pack was returned five weeks later, tested as faulty

---

and duly replaced. As we did not hear from her again we assumed that she was no longer experiencing these problems.

The problems certainly appear to be with the memory; although they point to a faulty Power Pack it is hard to see how three successive Power Packs could all be faulty, especially as two of them were tested before dispatch and one of them following return. It is possible that the trouble lies with the actual connection made between the Power Pack and the PcW; this, of course, can be a fault on either side of the connection point and not necessarily a fault with the Pack.

If the PcW's power supply is suspect the extra load on the machine's power supply made by any add-on can cause memory faults to occur. It is impossible to test for this as such faults can only show up when the PCW is running an extra load, for example when the disc drives are running, and so may not be detected by the RAM test. Unfortunately, without the benefit of a hardware specialist's report we can only speculate on the cause of the problems with Mrs Bairstow's PcW.

Although we would prefer to get her system working correctly, we are happy to refund Mrs Bairstow for the Power Pack. It looks as though, in striving to get the Power Pack working, we missed her request for a refund and we will most certainly issue a refund if that is what she would prefer. In fact, on reading through all the previous correspondence, missing her request for a refund appears to have been the only way in which we could be accused of not responding swiftly and helpfully to each of her letters that we have received.

Indeed, as PCWs are getting older, we are finding that more and more people are experiencing difficulties when fitting add-ons, such as Power Packs, to their PCWs to use them in a more advanced way. It is with this in mind that we are happy to offer refunds within a reasonable time scale.

When lightning strikes...

About a dozen years ago, just after I bought my first PCW8256, I visited a Computer Fair (or perhaps it was an Ideal Home Exhibition at Earl's Court) and was sold a Bowthorpe Surge Protector plug, bright red and the size of a fat 13 amp three-pin electrical plug. I fitted this to my PCW in place of the supplied power plug and each time I have moved on to a newer machine this anti-surge plug has replaced the fitted plug. I thought no more about it and indeed had forgotten it was there until this morning.

I was typing up some letters when it started to rain gently outside. The sky was overcast and getting darker when, all of a sudden, there was an almighty crash; the radio went off, the lights dimmed and the house shook! It was followed only moments later by an almighty boom. No need to count the seconds between the lightning and the thunder to see how far away was the storm for the house had been hit by lightning.

As I say, the radio went off, the lights had dimmed to almost nothing; thank Goodness the television hadn't been on. And the computer? There it was, purring away, screen still glowing, LocoScript still running, as if nothing had happened! And then I remembered the anti-surge

plug; it was a little warm but it had worked. Maybe I did cost me eight quid all those years ago but it was worth its weight in pure gold now.

Thank you, Mr Bowthorpe, whoever you are, for saving my computer from frying.

George Inch   Loughton, Essex

The Hard Facts

I know that in using a Vortex System 2000 hard drive with my PCW9512 I entered a very small minority but I do find it most useful for storing programs that require large amounts of space such as MicroDesign3 coupled with its sister programs The Network, MicroDisplay, Font & Shade Designer, Tweak3 and a dozen or so discs full of clip art; no searching for discs or disc swopping needed.

The aforementioned Creative Technology masterpieces sit happily on one of the four drives into which my hard drive has been divided and this set-up works well. Along comes Locoscript4 (release 2) with its ability to import MDA files. *Must have it*, and soon it was acquired. However if I am to use it, I will need to perform major surgery on my Micro-Design MDA files. Unfortunately, on boot-up LS4 searches all the drives and loads all MDA files into memory automatically.

Contact was made with LocoScript Software who recommended that if I do not want the picture files copied to drive M: then I should rename the picture files which have the MDA extension to any-thing I like. Should I do this of course it will still have to be something that MicroDesign will recognise.

With over 250 MDA files (for MD3) stored away, most of which have only recently been converted from CUT and MD2 Area files to MDA files for use with LS4 (which required many days of toil to accomplish) it's a task beyond comprehension. Should I delete all my picture files from the hard disc and then reload them in the old formats I will still have to convert them, as and when need-ed, to MDA (for MD3) to use with LS4.

Surely it would have been far simpler for Locoscript Software to design the program with the option to import files rather than make it an automatic occur-rence? Can anyone please suggest a way out of my predicament?

John King   Rainham, Essex

Editor's Comment

LocoScript copies all files ending in .DCT (dictionaries), .DAT (LocoFile data-files), .@FT (LX font files where FT determines the typeface name), .#FT (other printer font files), .FIB (files which *fib* to the PCW and make it think that 3½" drives are 3" drives!) and, of course, .EMS (Early Morning Start-up) or the more recent .EMT files, to the M: drive so that they are available for use much more quickly and when you swap discs.

LocoScript 4 assumes that you will be wanting to use .MDA (MicroDesign Area files) that it finds on your discs for illust-rations in documents in the current session so it automatically loads those to the M: drive too.

The only way to prevent this happen-

ing is to rename all the .MDA files to have a different file extension. I would suggest that John renames all the .MDA files on his hard disc to .MAD files; I know it sounds crazy but there is a method in this madness!

On the assumption that he has both `RENAME.COM` and `SET.COM` in user group 0 on the A: drive enter the following at the A: prompt in CP/M:
`SET RENAME.COM [SYS]`.
This will make `Rename.Com` a System file that acts on all files in all user groups. Then `REN *.MAD=*.MDA` in each user group where he has .MDA files stored will rename them all to .MAD in one go. (Please don't use LocoScript to rename 250 files!) He is never going to use more than a few Area files at any one time and he will surely remember that they are now .MAD files?

If you intend to use an Area file in LocoScript 4 then you can either use `f3=Files, Rename` to change it back to an .MDA for the current session or, if you are already in a document, you can use `f1=Actions, Disc Manager` and then rename the Area file as above; `Exit` will get you back to the document edit screen again. Naturally, if you have an Area file that you use every day, for example in your letterhead, then leave it as an .MDA and it will load every time.

If you intend to use an Area file in MicroDesign press `f1 LoadAREA` as usual but before you press `Enter` to continue use `f7 Rename` to rename your chosen Area file from .MAD to .MDA and then MicroDesign will find and load it as usual. Remember to rename it back to .MAD afterwards or LocoScript 4 will find it and copy it into the M: drive when next you start up in LocoScript.

Test printing LocoScript4 Colour printing on a Matrix printer

A comment made recently suggested that other PCW users have had problems, as well as me, in combining Matrix and Colour printing instructions on one disc.

I resolved this problem in order that I could create birthday cards, etc., by experimenting on the built-in matrix printer (much cheaper) and then printing the final copy on my colour printer.

I chose three fonts suitable for cards that I had available for *both* printers, Old English, Park Avenue and Nadianne, and then set up a Template.Std in six groups as follows. The templates for Groups 0, 1 and 2 were created using the three fonts for the matrix printer whilst the templates for groups 4, 5 and 6 used the same fonts but for the colour printer.

The Groups were then renamed so as to distinguish both the font and the printer to be used, e.g. OldEng.Mat, ParkAve.Col, etc.

Using the first matrix group I created a document and experimented until it was as I required and when it was correct I copied it into the appropriate Colour group.

I then accessed Document Setup via F1=Actions and then, using F6=Printing, I changed the default printer from Matrix to my colour printer. The fonts are, of course, already as required.

Returning to Edit, I put in the colour codes in the text and exited to Print, not forgetting to tick the colour printing instruction and telling it to change to the intended colour printer: the result was text in perfect colour!

Elspeth Bairstow   Denbighshire

Printing an address label on a Canon bubblejet– a mission impossible?

It is a great nuisance that the Canon bubblejet BJ-10 and similar printers can not print onto A4 envelopes *or* onto address labels. Here is a way around that problem but it does, of course, mean that we have to cheat!

You start off with a roll of adhesive peel-off address labels mounted on backing paper. Now I hope that you left a length of the backing paper somewhere safe last time you removed some labels, for this is where you need a 210 mm (or 8¼ inches) length of the backing paper cut off neatly and squarely at each end of the strip. (This is the same width as A4 paper.)

Take a spare sheet of A4 paper, feed it into the printer and print out the name and address that you will be wanting to print onto the label, at the top of the page, using your usual margin settings, etc.

Now lay the strip of backing paper with the glossiest side uppermost over the printed sheet of A4 so that the top and the left hand edge align. You can now see where you need to position a new address label on the backing sheet so that it lines up precisely to cover the printed name and address. *Gently* stick down a blank label in position on the backing strip.

Feed the backing strip, complete with blank label, into the bubblejet printer sideways as if it were the top of a sheet of A4 paper and print off the name and address as before. When you have got it right, mark the backing strip with a felt pen, or similar, around the label so that you can use it again without having to do another trial print each time. Mark the top

edge of the backing sheet and put a note on it so that you remember what it's for (and don't throw it out by accident!)

Et voila! It's done. Peel off the address label and you can triumphantly stick it onto the largest of envelopes. Man outwits machine again!

Anne Attlee London N3

What Millennium bug?

Whilst your PCW is extremely unlikely to go wrong on or about 1st January 2000 some software such as SuperCalc may give some strange results if you include date functions in your calculations.

You can, however, fool the program into thinking it is still operating in the 20th century by setting the date as being in a year prior to 2000 but with the same starting day. Unless you really need to use the year part of the date in your calculations it will make little difference to you. The first few years of the next century convert as follows, those in bold in the left hand column being leap years:
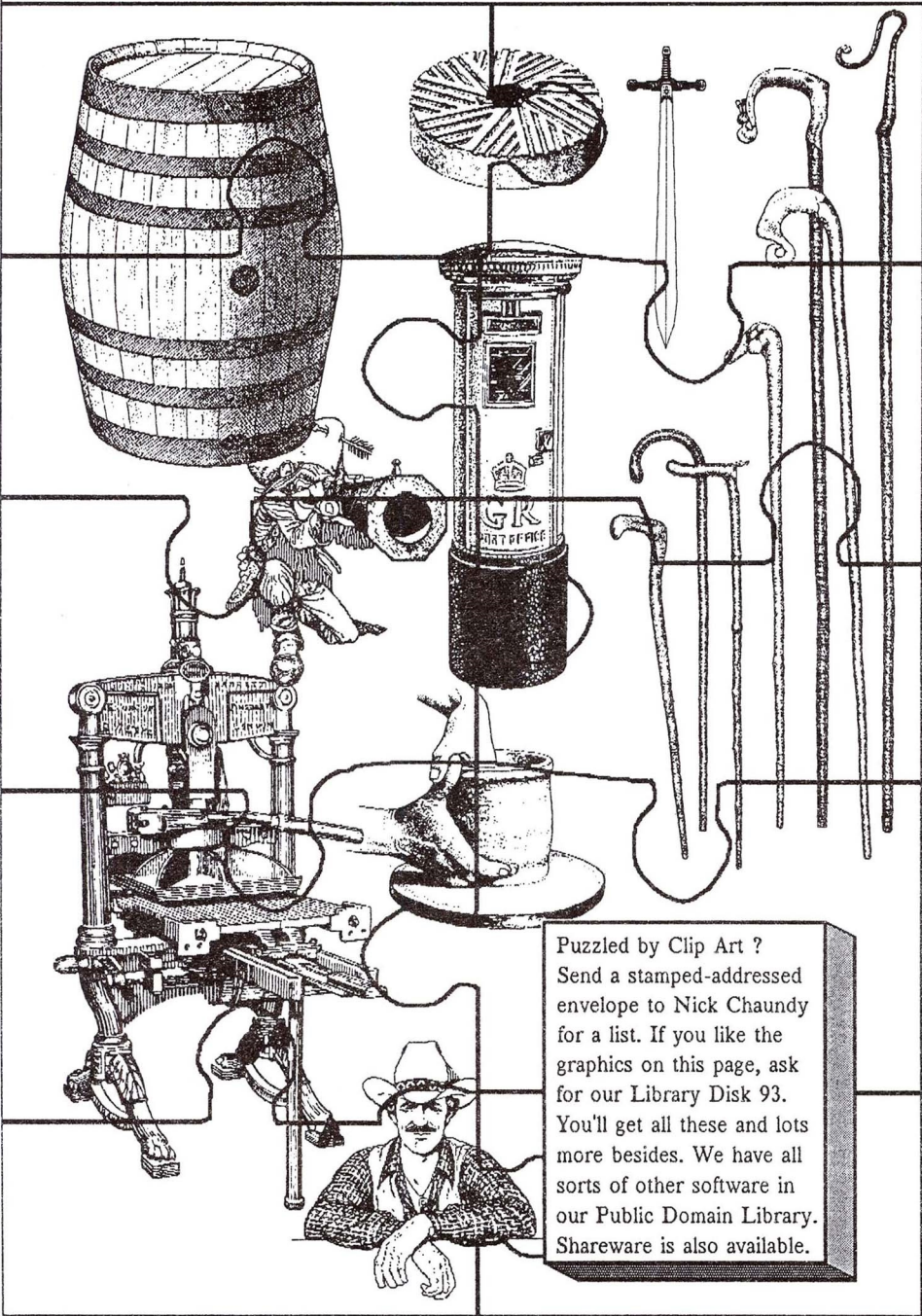
2000 = 1972	2001 = 1990
2002 = 1991	2003 = 1997
2004 = 1976	2005 = 1994
2006 = 1995	2007 = 1990
2008 = 1980	2009 = 1998
2010 = 1999	2011 = 1994

This is also a novel way of using up any of those old calendars you have lying around the shelf!

Frederick Eagles Epping, Essex

Puzzled by Clip Art ?
Send a stamped-addressed
envelope to Nick Chaundy
for a list. If you like the
graphics on this page, ask
for our Library Disk 93.
You'll get all these and lots
more besides. We have all
sorts of other software in
our Public Domain Library.
Shareware is also available.

From Typewriter to Word Processor

by Mike Elliston

The first computers were people, not machines; men (and occasionally women) who computed or calculated calendars or astronomical tables or indeed any other mathematical calculations using abacuses, slide rules or tables of logarithms. Similarly type-writers were people (nearly always women) who used typing machines in offices in the middle of the last century. Nowadays we would call the operators typists and the machines typewriters.

Computers did not appear as mechanical devices until the early years of the 1940s; they looked like a telephone exchange and filled a large room. Their development was spurred on by the war and the need to decode military ciphers (in the UK) and to undertake calculations for the construction of the atom bomb (in the US).

There were many improvements in typewriters in the first half of the twentieth century mainly because of the need for manufacturers to devise means of by-passing other peoples' patents. The earliest machines typed only in capital letters until the invention of the shift key enabled typing in both uppercase and lowercase. The change from key-bars to a type cylinder (the precursor of the modern golf-ball type-ball) permitted the operator to change from one typeface to another.

As mainframe computers progressed small programs called editors (or line editors) were written by programmers to write text messages into their programs and to edit the programs themselves. These could only amend one line at a time but soon grew into word editors or word processing programs with the enhancements of word-wrap and pagination. Thus one could write and print letters and other documents on mainframe computers at an early stage but the quality of the output was severely limited by the printers then available.

Dedicated word processors came into general use in about the middle of the 1960s. They were not computers as we know them; they had one function only– the production and printing of letters and other documents. The advantage was that documents could be stored on a magnetic medium and retrieved for reuse. However they were not cheap and ran just one program under one operating system both written by one manufacturer. Exchange of data from one make of word processor to another was not possible.

Personal computers

The major impetus came with the construction of the first personal computers in the middle of the 1970s. Not only were these to bring down the price of computing but the foresight of Gary Kildall in writing CP/M meant that programs written for one make of machine could be run on another with little or no change. The first generally available program for these kit computers was probably Visicalc, a simple spreadsheet from Dan Bricklin, but WordStar and other word processing programs soon followed. The programming language BASIC allowed users to write their own programs too.

Why were word processors so successful in popularising the personal computer and why were they to finally kill off the manual typewriter thirty years later? Without doubt the main advantage was that the document could be edited over and over again in memory before it was ever committed to print. Word-wrap was automatic; there was no need to press Return at the end of every line. Words could be changed, lines could be moved about, whole pages could be swapped *and* changed back again if desired.

Automatic word-wrap

Automatic word-wrap allowed the line lengths to be changed with ease, far more of a fundamental change from the use of the typewriter than is obvious at first sight. There are still those who hit Return at the end of every line because that is what they had to do on a typewriter. There are still those who put two spaces after a full stop or a comma. Why? Because that is what they were taught (erroneously) when they learned typing. No, word-processing is not simply typing on a glass typewriter; its a far more powerful tool.

Documents can be saved to disc and re-loaded for editing again. Most programs create a back-up copy of the file with the .BAK extension before saving the new version. This allows you to change you mind and recover the earlier edition if required. You can spend an inordinate amount of time on a word processor producing a document, simply because the powerful facilities are there. But all the work you do is only in temporary memory until saved to disc. Can you remember what you wrote or amended ten minutes ago if the mains flutter? I doubt it. So save and continue every ten minutes. Are you confident that the disc you are using is in perfect condition? If not make sure that you keep a back-up copy of all your work on another disc.

Moving your text around was impossible on the typewriter. The Cut, Copy and Paste keystrokes changed all that. Cut allows a block of marked text to be totally removed from the document whilst Copy will store it in a temporary memory area instead. Paste will reposition that stored text somewhere else in the document, or if required, in another file instead. Find and/or Exchange enables you to search for a word or phrase and, if you so wish, substitute another instead.

Most word processors have the facility to switch from Overwrite to Insert and back again, extremely useful when making corrections. Nearly all have an Undo function too. If you didn't mean to make that last change then you can undo it (but only the last mistake, not the one before).

Tabulation

The Tab (short for tabulate) is one function that has been inherited from the typewriter. On that machine it moved the carriage or print head so that numbers could be typed at the same column for a tabular work. That was a simple tab; several could be set up at fixed points across the page. Those in a word processor are far more versatile offering simple tabs as above, but also centre tabs, right tabs and decimal tabs too. These will position the text centrally on the page or column, at the right hand side of

the page, or centred about the decimal point in numerical columns such as monetary values. Note that a Right Tab is *not* the same as justification.

Another very powerful tab facility is the paragraph indent. Instead of tabbing every line so that it is set in from the main margin by a predetermined width the whole paragraph can be set to be indented by this amount, useful when trying to highlight a part of the text such as a lengthy quotation. Right Align is not quite the opposite. This throws text to the right hand margin, for example the date at the top of a letter, but again this is not justification.

Underlining is also a function which was inherited from the typewriter as a simple form of enhancement i.e., to make a word or phrase stand out. Whilst you can put a few words in a heading in capitals, typing a paragraph of words in capitals makes them impossible to read. Underlining capitals will also make it difficult to read so leave underlining for lowercase text only, if you do need to use it at all. Underlining is a bit *passe* when there are far better ways of emphasising text with a word processor.

Emphasis

Words can be typed in **Bold** with the appropriate keystrokes. On early versions this simply meant that the print head passed over the paper twice and typed the second pass a pixel to the left so that the vertical lines were fattened up. If you have a printer which can cope with downloaded fonts like real printing then the program will switch to properly designed bold characters instead. Similarly there is the facility to set *Italics* on to emphasise,

for example, a foreign word or phrase. Previously the dot matrix printer was sent a signal to slant the dots making up the letters printed on the page but downloaded fonts give italic letters more like humanist writing as is intended.

Typing chemical or mathematical formulae on a typewriter was a pain, especially if the text called for items like H_2O or a^2+b^2. Previously the cylindrical platen had to be rolled up or down half a line before the number was typed and then rolled back to, hopefully, the same alignment. Now the Subscript and Superscript codes make life so much easier. The alphabet now consists of far more than just the letters of the alphabet and characters like π or θ are a keystroke away.

Proportional spacing

Almost all typewriters had fixed-pitch characters where every letter was the same width, whether an M or an i. Only a few of the last generation could print in *proportional* width letters where, like printers' type, each letter was as wide as the design required. Newcomers to word processing often confuse justification with proportional letters. Justification is where the spaces between words on each line are adjusted so that both left and right margins align vertically. Where the printed matter aligns vertically to the left hand margin only, the text is unjustified with a ragged right margin. It is also possible to set the text with a ragged left margin, aligned vertically on the right, but this often produces an unhappy result. A paragraph can be set so that it is centred around a vertical axis but this usually means adjusting each line individually.

Word processing packages keep a note of where the cursor is on the screen and where the text will be on the page. They therefore know how many lines have been typed and, like word-wrap on each line, where to insert a page-break so that the text doesn't run off the bottom of the page. You can, if you wish, force a page-break where you like, for example where a chapter ends. Any typing beyond this point will start on a new page.

If we assume the usual A4 size of paper and the normal setting of six lines to the inch then that sheet is approximately 70 lines deep from top to bottom (11.69" divided by 6). However most printers need to leave space to grip the paper when printing very near the top or bottom and allocate six lines at the top and three lines at the bottom as unusable, leaving 61 printable lines.

Page numbering

One awful bugbear when using a typewriter for typing a long document such as a book was placing a title line or header at the top and positioning a page number at the bottom as a footer. They never seemed to end up in the same place on every sheet. But word processors make headers and footers so easy. Of those 61 lines the top two or three can be assigned to a header and the bottom two or three to a footer, both of which you only need to set up once. The system will repeat your header and footer at the top or bottom of each sheet automatically positioning the text in the 55 lines or so left between them.

But headers and footers are much more versatile than that. They can be set up so that the first page is different from all the others (e.g. for your letterhead), so that left and right pages alternate (as chapter and volume titles in a book) or so that the last page differs from the rest ('The End'). As with the main text, lines can be set left, centre or right and the trick for drawing horizontal lines given elsewhere works wonders to separate headers or footers from text.

The magic comes with page numbering. Never again do you have to type page numbers at the bottom of each sheet (and then adjust them when text is inserted or deleted). Simply put a Page Number code in your footer and you never need worry about them again. Better still Page Number # of Last Page Number ## will give you 1 of 6, 2 of 6, etc. throughout you document. These codes can also be set left, centre or right as you wish.

Standard templates

Once you have got the layout of your page correct with your address in a header on page one only and with page numbering in a footer except on page one, or whatever variation you like, won't it be a pain if you have to set it up again for the next session or document. No need— simply save this as a template and next time you wish to start a new file select this as the template for this new letter. All the layout settings from last time will be ready and waiting for you to type into. If this is to be the second chapter of your masterwork you can even set the page numbers to start to count from the end of chapter 1 (but don't forget that right hand pages are always odd and left hand pages even—you may need to leave a blank sheet to start on an odd-numbered page).

For the simpler set-ups the available typefaces are those built into the printer supplemented by adding bold, italics or underlining. The more expensive printers have several typefaces in Read Only Memory, for example Courier, Roman, Sans, etc., and your w.p. package should allow you to select which to use from inside the program. The printer control setup will almost certainly give you the options to feed in a new sheet, eject a finished sheet or simply move a few lines down the page. (Feeding in a new sheet may only work automatically if a sheet feeder is fitted to the printer.)

Downloading fonts

However if your program is powerful enough and you have enough memory you will be able to 'down-load' fonts from the computer (as well as, or instead of, using fonts built into the printer). Again, depending on how powerful the system is, these fonts or styles of typeface can be made to print in a variety of sizes, as printers' type, rather than just to one fixed height. These will be described in point sizes, the system that printers use to measure type sizes. There are 72 points to the inch so printing at the default of six lines to the inch may be considered as 12 point (where it is measured from the top of the tallest character to the bottom of the lowest descender as on p or q).

These fonts, which imitate metal type-faces, will be proportional designs with the M perhaps four times as wide as the i. If you want these to appear correctly on the printed page you must remember to set the Character Pitch of the letters to Proportional or they will continue to print in vertical columns as in ordinary type-writing. As these faces vary in height the line depth settings of 5 or 6 lines to the inch will no longer make sense–change it to automatic and let the program sort it out. It may sound obvious to say that the larger the face you set in the wider the letters will be, but on the down side it also means that you will get fewer characters per line. Don't be surprised if word-wrap starts sooner than expected.

This is the point at which the boundaries between word processors and desk top publishing start to move together. The latest version of LocoScript for the PCW allows you to import a picture but you use an earlier version you can still certainly make simple boxes and grids with the +, | and - characters, and I've seen some excellent borders formed from Greek or Cyrillic characters–a bit of ingenuity goes a long way.

There are other features which can be added to your word processing package; if you are lucky they may already be included. These include the obvious spell checker and with some the thesaurus. Mail-merging is another function which can be extremely useful if you send out the same letter to many clients or customers. Some packages permit limited arithmetic calculations to be performed, valuable for invoices or estimates. On the new PCW16 is 'WYSIWIG' or What You See Is What You Get. Here bold type or italic type shows bold or italic on the screen; if its a larger size then it appears bigger on the monitor too. This is not available on any of the present PCW packages as far as I am aware but Mini Office goes some of the way. We all know that the power of the PCW is still vastly underestimated by the vast majority of the computer world anyway. •

Alladink, 43 High Street, Eyemouth, Berwickshire TD14 5EY 01890 750965
Basic98, R P Hill, 84 Wincheap, Canterbury, Kent CT1 3RS
Berkshire Amstrad PCW Users Club, 121 Bullbrook Drive, Bracknell, Berks RG12 2QR
Cirtech (UK) Ltd, Monksford Stables,
            Newtown St Boswells, Melrose TD6 0RU 01835 823898
Comsoft, 10 Mackintosh Court, Wellpark, Glasgow 01415 544735
Crawley PCW Club, 6 Downsview Crescent, Uckfield TN22 1TG 01825 763563
Creative Technology (MicroDesign) Ltd,
            10 Park Street, Uttoxeter, Staffs ST14 7AG.............. 01889 567160
Dave's Disk Doctor Service Ltd 01892 835974
Hastings & Eastbourne PCW Club, 5 Beach Towers,
            West Parade, Bexhill on Sea, East Sussex TN39 3HS 01424 214529
Hereford Computer Club, PCW Group, ... 01981 250886
Ink King, Crendon House, Crookhorn Lane,
            Soberton, Southampton, Hampshire SO3 1RD 01489 877818
Instant Recall, David Landers, Brinkburn Gardens Cottage,
            Longframlington, Morpeth NE65 8AR 01665 570662
LocoScript Software, 10 Vincent Works, Dorking, Surrey RH4 3HJ 01306 747757
Midas Charity Ink, 5 Nelson Road, Brixham, South Devon TQ5 8BH 01803 853144
North Wales Computer Club, YMCA Building, Queens Drive, Colwyn Bay
Office Land, 10 Sterte Close, Poole, Dorset BH15 2AT 01202 677958
PCW Today, 150 Oxford Road, Middlesbrough, Teesside TS5 5EL 01642 823117
P D Blake, 32 Sample Avenue, Beverley, E Yorks HU17 9DW 01482 864230
Philosoft, 57 Llwyn-Onn, Penderyn, Aberdare, Wales CF44 9XY 01685 813978
Pinboard Computers, 9 Bondor Business Centre,
            London Road, Baldock, Herts SG7 6HP 01462 894410
Radstock.pcw User Group, 40 Kilmersdon Road,
            Haydon, Radstock, Bath BA3 3QN 01761 436276
Scotwest.pcw club, 32/34 Carfin Street, Motherwell, ML1 4JL 01698 732403
S D Microsystems, POBox 24, Attleborough, Norfolk NR17 1HL 01953 483750
                                            .... 07000 SDMICRO
Solent PCW Services, 20 Masefield Cres, Waterlooville, Hants PO8 8JS . 01705 268780
South Essex PCW Club, 10 Sheridan Avenue, Benfleet, Essex SS7 1RD 01702 551618
Teesside PCW Users Group, 8 Knyaton Greenvale,
            Stockton on Tees, Cleveland TS19 7RW 01642 580018
Three Inch Software 01908 690704
Widmore PCW Club, 44 Mount Pleasant, Biggin Hill, Kent TN16 3TR 01959 573072

If you've been left out or if the contact is wrong, please let us know!   E&OE

Cor, strike a light, guv!

The following story comes from one of our hardware specialists based upon a phone conversation between a panicking customer and his computer engineer:

Engineer: Hello, sir. How can I help you?

Customer: I've got a problem with my computer.

E: Yes, sir, but can you be a bit more precise. Exactly what are the symptoms?

C: Well, the screen's gone off and I can't type any more letters into my word processor.

E: Yes. Is anything else wrong as well?

C: Well, the keyboard's stopped working, too.

E: OK. Let's go through it step by step. How old is the computer?

C: About five or six years old, but it's never given me any trouble before.

E: And what program were you using when it stopped working?

C: LocoScript 4. I installed it about two weeks ago. Release 2, the latest version, but it's all been OK so far.

E: Well I don't think that LocoScript 4 will make your machine stop suddenly, especially if it's been OK till now. What else is wrong. Can you see a faint red glow from the disc drives?

C: No, they're not working either. My disc is still in the drive. Is it OK to take it out?

E: Yes, I think it would be a good idea to remove any discs just in case they get damaged. Now let's go over the machine again. Have you any memory packs or other add-ons on the back of the PCW?

C: Yes, a RamPak and a scanner and a mouse and something else, but I can't remember what that's for.

E: Well, you do have rather a lot of equipment plugged into your machine. Perhaps you've overloaded the power board? Anyway, make sure that they are pushed onto the expansion port properly. Perhaps you'd better click off the power switch to be on the safe side first. Have you done that?

C: Yes, I felt that click off.

E: Good. By the way, was the printer going.

C: No, that had stopped humming and the little light went off, too.

E: This sounds more and more like a power supply problem.

C: Is that serious? Will it cost me a lot of money to fix?

E: Well, let's try the more obvious things first before we give you an estimate for a new power board. Can you check the power plug at the wall socket; has the fuse in it blown? Have you got any spare fuses handy?

C: I can't see the power socket. It's under the computer desk, at the back, next to the filing cabinet and it's a bit dark down there.

E: Well, sir, may I suggest that you turn on the lights so you can see it a bit better!

C: Sorry, but I can't turn the lights on at the moment. We're having a power cut just now!

Last Post

Just a line to let you know how pleased I was to see the superb quality and content of the Winter 1997 issue No. 16 of *The Disc Drive* and the excellent front cover by Norman. Norman who? I wonder. Does he wish to remain anonymous?

Ernie Ruddick Teesside

Norman Bannister comes from Grays in Essex and has been a member of the club for nearly seven years. He attends the club meetings in Basildon nearly every month and is an active member behind the scenes. He is has completely mastered MicroDesign3 and the other programs from the Creative Technology stable and was winner in the design competition in both 1995 and 1996. Because of this he chose to stand down from entering in 1997 (because he might be putting others off from submitting items) and instead was volunteered to be the judge for the 1997 competition.

He is the author of the piece on p.3 *ff* commenting on the results and produced the scans of the winners' work that illustrate that article. You will also have seen his 'Local Landmark' pages in earlier editions of *The Disc Drive* with his own excellent drawings of, for example, the Queen Elizabeth II Bridge in the Summer 1997 issue. He has drawn all the 'Ram and Rom' covers for *The Disc Drive* since

at least issue No. 10 and designed and printed many of the earlier issues of the Club's *Newsletter.* Ed

Praise ...

I'm chuffed, I'm delighted and I'm very surprised... Thank you for the most impressive Highly Commended certificate, in itself an advert for what the PCW can do. The voucher will be redeemed for something I can use on my Amstrad; I'll enjoy the excuse for browsing around to see what's available these days.

Monica Dickerson Surlingham, Norfolk

Perhaps I should have mentioned earlier that Norman Bannister designed and printed both the Winners' and the Highly Commended certificates too! Ed

... Praise ...

The Christmas edition of *The Disc Drive* was very good indeed, the best yet, in fact.

Brian Watson Sutton-in-the-Isle, Cambs

... and more praise!

I was delighted to see that *The Disc Drive* is going from strength to strength.

Brian Dorricott Lowestoft, Suffolk

What else can I say but a great big 'Thank You' to both Steve Massam and Norman Bannister for producing that colourful Winter edition of *The Disc Drive?* Ed

---

8

DO YOU NEED HELP & ADVICE ON PCW-RELATED SUBJECTS?

The BERKSHIRE AMSTRAD PCW USERS CLUB brings to its members all the help and advice that you could possibly need, *PLUS* many special offers and discounted items. Other advantages include a FREE members lending library of PCW-related books and magazines. *FREE* 7 day per week *HELPLINE* open from 8.00am to 10.00pm. *FREE* machine loan while yours is being repaired. *FREE* fitting of parts/upgrades, etc (you only pay for the parts). *FREE* monthly newsletter containing even more special offers. *FREE* monthly draw offering a £5.00 voucher to the winner.

Some of our *SPECIAL OFFERS* include 10 X 3" reformatted discs for ONLY £9.20 inc P & P.

10 X 3½" New DSDD discs for ONLY £3.25 inc P & P

9512 complete systems with 3 month warranty for ONLY £75.00 (plus £12.00 delivery)

512k Rampac memory upgrades for ONLY £30.00 inc P & P.

We are the *FASTEST GROWING PCW* club in the UK today. Why not become part of it and begin to benefit from our services? Membership costs a MERE £12.00 per year (just 25p per week) so why not join us NOW? Send your payment to (the ever amiable) Ed Harris, 121 Bullbrook Drive, Bracknell, Berks RG12 2QR making monies payable to the 'Berks Amstrad PCW Club'. Or send a LARGE stamped SAE for club details.

Note: All offers are subject to availability. On-going special offers are made to new members upon joining – details will be announced prior to joining.

Tel/fax 01344 428938: e-mail ed@lentil.demon.co.uk

WE ARE THE BUSINESS!

PCW SYSTEMS BOUGHT DEAD OR ALIVE. All hardware/software required. Good part exchange given on upgrades etc.

the
BERKSHIRE AMSTRAD PCW CLUB

topical !

There is only one PCW

totally !

There is only one PCW Today

top !

The No.1 Amstrad magazine

today !

Loco Script 4 UPDATE

Version 4.10/4.11

Even more features are now included in LocoScript 4!

As well as colour printing, pictures and newspaper columns, you can draw shaded boxes, change the size and position of pictures already in your documents and produce mirror images of your pictures. And we've made it faster too.

If you haven't already moved up to LocoScript 4, now's the time to upgrade - LocoScript 4 is still just £39.95 (£29.95 if you return your LocoScript 3 master disc). And if you have an earlier version of LocoScript 4, return your master disc and £5 to upgrade to the latest version.

Complete ink-jet printer package for just £135!

If you're unhappy about your existing print quality, take advantage of our special offer - LocoScript 4, Printer Support Pack and the Olivetti JP170 monochrome ink-jet printer.

All for £135 including VAT and delivery. (£125 if you return your LocoScript 3 master disc and £99 if you return your LocoScript 4 master disc). If you have a PCW8256/8512 or PcW9256 you may also need the Power Pack at an extra £50.
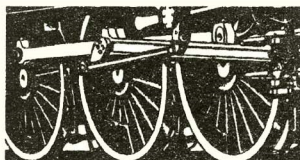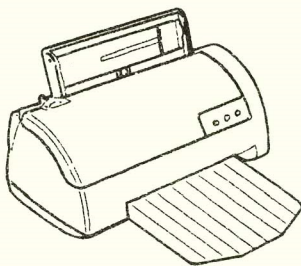
LOCOSCRIPT SOFTWARE

10 Vincent Works, Dorking   RH4 3HJ
Phone: 01306 747757; Fax: 01306 885529
www.locomotive.com

For more information and to order call our sales team on 01306 747757

Note: To use an external printer with LocoScript 4 you need either the LocoScript 3 or LocoScript 4 Printer Support Pack. To print in colour you need a suitable printer and the LocoScript 4 Printer Support Pack. The JP170 is colour upgradeable, but this option is not supported by LocoScript 4. The Power Pack normally costs £59.95 unless purchased together with a printer package.