The Disc Drive
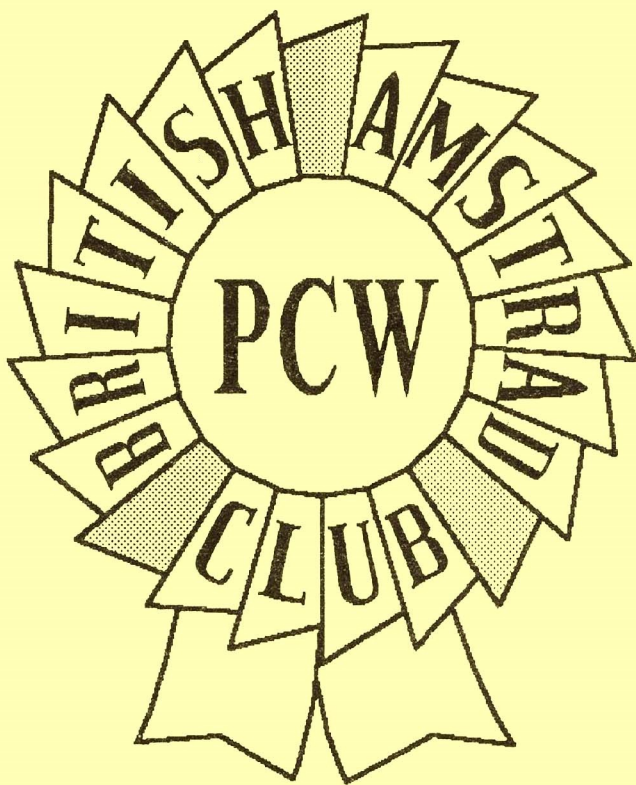
Issue 18 Summer 1998

The British Amstrad PCW Club magazine
for all PCW and PcW users

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Basic98
Basic98

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by R.P.Hill

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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
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Erratum

The article *Venturing into Comms*
by Geoff Hayes which appeared in
the Spring 1998 edition of the
Disc Drive had to be retyped
because the disc supplied was
unreadable on any of a number
of machines. Two errors occurred
due to my mis-reading of the poor
quality typescript which accom-
panied the duff disc. The Comms+
program comes, of course, from
SCA (not the CSA!) — not, I assure
you, a Freudian slip and, at the top
of the second column on page 11,
the sentence should read: 'When
using either CP/M 1.1$\underline{2}$ or 1.15 ...'.
My apologies.

Contents

The Disc Drive

The opinions expressed in *The Disc Drive* are not necessarily those of the Editor or the British Amstrad PCW Club. Whilst every care has been taken to ensure that all articles are accurate no liability can be taken for errors or mistakes.

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From the Editor's Desk

Hello and welcome to a fairly large Summer 1998 edition of *The Disc Drive*, full of information on your favourite range of Amstrad PCW computers.

We start off this time with an excellent piece of research undertaken by Stan Martin in cataloguing all the various magazines which have featured the PCW and others from the same stable. Can you help him complete the task? Daniel French continues his tutorial on BASIC and Ken Plumridge explains why his PCW is so dear to him, even though he has ventured out into the PC world.

John King shows how you can still run your PCW programs on a PC even after your trusty PCW has finally bit the dust (a long way off yet, we hope).

Steve shows how useful MD3 has been in his latest contract and then, starting on page 16, two articles on the PcW 16. How to handle a hard disc and how to print from *Route Planner* follow and then Clive Anderson tackles labels whilst Adrian Hooper continues with his BASIC conversion suite.

Readers cover a wide range of subjects in five pages of their letters and, who says that there's no new PCW software?: Reviews of *two* new products, cataloguing and on managing your many discs. This is followed by a most useful collection of hints and tips from the Disk Doctor, Dave Smith, on looking after those very discs. Savour and enjoy!

Mike Elliston

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Amstrad Computer Magazines

by Stan Martin

From 1986 to 1996 PCW users had initially four commercial magazines covering their machine. Gabriel Jacobs, first editor of *Amstrad PCW Magazine*, remarked in August 1987 "not even the most optimistic member of our production team would imagine that the magazine in its present form (nor, for that matter, any of its rivals) will be read by the generation which is today still in its nappies." Too true! Eventually, they all went, taking with them their letter columns, adverts, reviews, tips, news, leaving a void.

This void has been filled with many enthusiast and club magazines such as the one you are reading. These now-dead commercial magazines, full of still-relevant information, are well worth acquiring and reading. The history and lists below may be of use as well as of interest.

•

Computing with the Amstrad started in January 1985 covering the CPC machines. From April 1986 it had a PCW supplement *Business Computing with the Amstrad* which in May 1987 became *Computing with the Amstrad PCW, Vol.1, No.1* which in the next issue became an independent publication.

Computing with the Amstrad had covered both CPC and PCW but in June 1987 it abandoned the PCW and split into *Computing with the Amstrad CPC* and *Personal Computing with the Amstrad*, otherwise called *PC Amstrad*. This latter title became *Personal Computing* in April 1989, dropping the Amstrad connection completely; it ceased publication in May 1992.

Computing with the Amstrad CPC became *CPC User Computing* in September 1988. In December 1988 it ceased independent publication and merged with *Amstrad Computer User* from January 1989.

•

Amstrad Computer User started in 1985 with a combined Jan/Feb issue to cover CPC machines. It ceased publication in February 1992. but it had a PCW supplement called *Amstrad Business Computing* which ran from December 1985 to August 1986. This supplement split off in September 1986 with the title *Amstrad Professional Computing* covering both the PCW and PC1512 machines. In August 1987 the PCW part became a separate publication, *Amstrad PCW Magazine*. *Amstrad Professional Computing* continued but specialising in PCs. This ceased publication sometime between 1991 and 1994 but I cannot be more precise. Does anyone know of its fate? Please write to the Editor if you have further information.

•

The first two issues of *8000 Plus* contained a supplement called *PC Plus* covering primarily the Amstrad PC1512. This then became an independent magazine which is still published today.

•

Throughout the table volume numbers are shown in italics, thus *1 / 2* is vol.1, no.2.

Computing with the Amstrad PCW

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987					1	2	3	4	5	6	7	8
1988	9	10	11	12	*2/1*	2	Merged with *Amstrad PCW Magazine*.					

Putting your Amstrad to Work

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1986									---1---		2	3
1987	*2/1*	2	3	4	5	6	7	8	9	Re-launched as *Your Amstrad PCW*		

Your Amstrad PCW

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987										*1/1*	2	3
1988	*2/1*	2	3	4	5	6	7	8	9	10	11	12
1989	*3/1*	2	Merged with *Amstrad PCW Magazine*									

Amstrad PCW Magazine

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987								*1/1*	2	3	4	5
1988	6	7	8	9	10	11	12	*2/1*	2	3	4	5
1989	6	7	8	9	10	11	12	13	14	15	16	17
1990	18	19	20	Apr	*3/10*	11	12	*4/1*	2	3	4	5
1991	6	7	8	9	10	11	12	*5/1*	2	3	4	5
1992	6	7	8	9	10	Re-launched as *PCW User*.						

PCW User

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1992						Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1994	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	Jan	Re-launched as *Locoscript User*										

Locoscript User

	Jan	Feb	Mar	Apr	May							
1995		Feb	Mar	Apr	May	when it ceased publication.						

8000 PLUS

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1986										1	2	3
1987	4	5	6	7	8	9	10	11	12	13	14	15
1988	16	17	18	19	20	21	22	23	24	25	26	27
1989	28	29	30	31	32	33	34	35	36	37	38	39
1990	40	41	42	43	44	45	46	47	48	49	50	51
1991	52	53	54	55	56	57	58	59	60	61	62	63

re-titled **PCW Plus**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1992	64	65	66	67	68	69	70	71	72	73	74	75
1993	76	77	78	79	80	81	82	83	84	85	86	87
1994	88	89	90	91	92	93	94	95	96	97	98	99
1995	100	101	102	103	104	105	106	107	108	109	110	111
1996	112	113	114	115	116	117	118	119	120	121	122	123
1997	124	when it ceased publication.										

PCW Plus circulation (ABC)

Year	Jan-Jun	Jul-Dec
1986	- -	n/a
1987	23,180	24,214
1988	28,365	28,004
1989	30,583	29,688
1990	27,021	25,009
1991	27,188	27,206
1992	26,757	24,346
1993	19,556	16,335
1994	14,012	not given
1995	not given	6,964
1996	not given	not given.

Until issue No.119 in August 1996 *PCW Plus* magazine continued to publish the figure of **14,012** for the first half of 1994 (which was now some two years out of date) thereby obscuring the rapid fall in circulation. The true monthly figure of **6,964** for the period July-December 1995 was published for the first time in issue No.120 of September 1996. Doubtless, the circulation continued to drop during 1996 leading to the closure of the title following issue No.124 in January 1997. Circulation figures for the various rival magazines shown on this list were never published.

Programming in Mallard BASIC: 2

by Daniel French

Hello and welcome to the second part of this Mallard BASIC tutorial. The first section, published in *The Disc Drive* issue No 17, dealt with Numerical Variables, simple INPUT commands and multiple calculations. This second article deals with String Variables among other things. This has been written on the assumption that you have already booted up your PCW and loaded BASIC.

Loading BASIC is a simple matter: just switch on your computer and insert your CP/M master disc (or better still, a backup copy!) into drive A:. When the A> prompt appears type BASIC and press [Enter]. After a message about Mallard BASIC with Jetsam and a copyright notice, another prompt will appear–the Ok prompt. This tells you two things: 1) that you are in BASIC and 2) that BASIC is ready to accept commands.

String Variables

As you probably know, last time we looked at variables which hold numbers. This time we will look at variables which hold strings of text and some of the differences between the two.

Number variables can be called anything you like. Names such as 'A', 'B', 'Apples', 'PCWs', 'DiscDrives' are all perfectly valid. Other variables, such as string variables, can contain the same characters but end with a special identifying character which defines the variable type. These types are listed below:

% Variables ending with a percent sign are deemed *Integer* variables and can only hold whole numbers like 6 or 34 but not 33.45; they cannot hold numbers which contain decimal remainders.

! Variables ending with an exclamation mark are deemed *Single precision* number variables. They can hold integers (whole numbers) and numbers with decimal remainders, but can only handle around six decimal places. Note that variables with no identifier are treated as single precision anyway, so the exclamation mark is usually unnecessary.

Variables ending with a hash sign are called *Double precision* number variables. They can hold the same type of numbers as single precision variables but are accurate to 15 decimal places.

$ Variables ending with the dollar sign are *String* variables. These can hold any combination of ASCII characters, like 'Hello everybody' or 'Daniel French'. String variables can also hold numbers but these numbers will not be processed in the same manner as number variables for they are only characters which happen to represent numerals.

We all know how Number variables work. For example, you have two number variables, called A and B, where A is equal to 34 and B is equal to 4. If you type in at the keyboard PRINT A+B, not surprisingly, the answer 38 will appear on the screen. *String* variables are a totally different kettle of fish.

Say you had two *String* variables, A$ and B$, where A$ contains the value 34 (although string variables can hold numbers this isn't very useful for arithmetic as you will see shortly) and B$ contains the value of 4. If you type at the Ok prompt PRINT A$+B$ you will get the result 344 which tells us the two strings have simply been joined together or, as it is known by people who want you want to impress you with long words, **concatenated**, but I don't like that so we'll stick with 'joined'. ⟹

If you want to do arithmetic with String variables you are out of luck. (It *is* possible but we'll come to that later in the series.) This *joining* is very useful for making a large variable by stitching together a number of smaller ones.

Let's do an example: you are writing a program which requires you to enter your name but needs access to your forename and/or your surname separately yet also needs access to both names at the same time. Now, you could write something like:

```
10 INPUT "Please type your first name ";FIRSTNAME$
20 INPUT "Please type your second name ";SECONDNAME$
30 INPUT "Please type both your names ";BOTHNAME$
40 PRINT "You're name is ";BOTHNAME$
```

Now this is pretty silly, as we can do it by simply making BOTHNAME$ equal to FIRSTNAME$ + SECONDNAME$. Thus, change line 30 (just retype it) to:

```
30 BOTHNAME$=FIRSTNAME$+SECONDNAME$
```

which will do the trick, except you will get a result like JOHNSMITH. What is needed here is a little cleverness to get a space in between the two variables.

Now, unlike number variables, where you are limited to performing arithmetic on the contents, you are allowed to include spaces, extra text, other variables, etc., in the command you are using to join two string variables, so it is quite easy to see what we have to do to line 30. Retype it again as:

```
30 BOTHNAME$=FIRSTNAME$+" "+SECONDNAME$
```

which will give us the Daniel French we require (assuming that FIRSTNAME$ contained Daniel and SECONDNAME$ contained French.

As I said above, we can do a lot of really interesting things to String Variables, like splitting them up, joining them together, slicing pieces out of them and putting them somewhere else. Let's use the above program as an example. Note that you can't complete this example unless the program above is still in the memory. It still will be unless you have LOADed something else, or quit from BASIC. Anyway, if it isn't still there, type it again, and then add to it:

```
50 FIRSTIN$=LEFT$(FIRSTNAME$,1)
60 SECONDIN$=LEFT$(SECONDNAME$,1)
70 PRINT "Your initials are ";FIRSTIN$;".";SECONDIN$
```

Please note that I have introduced these rather long variable names for clarity only! Now run the program by typing RUN [Return] and the output will look something like this. User input is enclosed in brackets, as before:

```
Please type your first name ?(Daniel)
Please type your second name ?(French)
Your initials are D.F
```

By this, you have probably figured out that LEFT$ will take n characters, starting from the leftmost side of the string, and store it in a variable of your choice. Note that we could also have done it this way:

```
PRINT "Your initials are ";LEFT$(FIRSTIN$,1);".";LEFT$(SECONDIN$,2)
```

but I decided against it because it introduces much unwanted confusion to an otherwise simple command!

Anyway, now we know how LEFT$ works. Its sister command RIGHT$ works in exactly the same way, e.g. A$=RIGHT$(D$,3) would place the three rightmost characters of the variable D$ in the variable A$.

LEFT$ and RIGHT$ are Mallard BASIC functions. Please note that functions, or reserved words as they are known, *cannot* be used as variable names. If you try it you'll be faced with an error!

You will have noticed that I have carefully side-stepped the new and wonderful things we can do with PRINT so I shall explain them here. As you know, if you want to display a number on the screen, you simply type PRINT 8256 and it will be displayed. If you wanted to display a string, type PRINT "8256" or PRINT "AMSTRAD PCW 8256".

This is easy enough, but there is another goody I missed out. The semi-colon (;) allows you to join strings on the spot, in much exactly the same way as you joined the variables earlier: NEWV$=NEWV$+OLDV$.

Note that you *could* use that kind of format with PRINT, e.g. PRINT A$+B$ and it would work but I am using (;) as an introduction to something even more interesting which I can discuss at length in the next article. You can, of course, use this format with pure text too, although something like:

```
PRINT "HELLO";" ";"WORLD"
```

is pretty useless because we might just have put it all together like:

```
PRINT "HELLO WORLD".
```

This does come in very useful, however, because if you leave a semicolon at the end of a print statement the computer will not do a carriage return. So your program could do this:

(Before you type in the next program erase the old one by typing NEW followed by [Return] at the Ok prompt.)

```
10 PRINT"Hello ";
20 PRINT"to everybody ";
30 PRINT"at the South ";
40 PRINT"Essex PCW Clu";
50 PRINT"b"
```

This is rather silly, especially lines 40 and 50, but it does illustrate the versatility of the Print command.

INPUT with Strings

You will notice we have introduced a new variation on the INPUT command. Instead of INPUT A we have INPUT FIRSTNAME$. Input will work in the same manner as number variables, but for *String* variables only, there is a more versatile command called LINE INPUT. This operates in *exactly* the same way as INPUT (with string variables only) except that it allows you to insert a comma into the text. For some reason that I cannot understand an ordinary INPUT will throw up a REDO FROM START message if you try to include a comma. Try it and see for yourself.

Note: Those already familiar with BASIC will notice I have not explained some aspects of certain commands. This is simply to avoid confusion, so we are not introducing a lot of redundant information which has no bearing on the current example. Rest assured: everything will be explained in detail when the time is right!

Troubleshooting

If something goes wrong during the above examples, don't forget to check for typing errors in your program. If you find any, simply retype that line. If you have any further problems or just can't get a program to run, whether it be anything to do with this tutorial or not, give me a ring on 0181 876 9251 (London) and I'll do my best to help.

I guess that is all for the moment. Next time round we will play a few more interesting tricks with strings, introduce another 'slicing' command called MID$, and introduce LOOPS into your programs. Don't miss the next exciting instalment, of Programming in Mallard BASIC and, don't forget, *have fun!*

Approximate Dates of Introduction of the Amstrad Machines

CPC 464	Apr 1985
CPC 6128	Jul 1985
PCW 8256	Sep 1985
PC 1512	Mar 1986
PCW 8512	Mar 1987
PC 1640	Jun 1987
PCW 9512	Nov 1987
PCW 9512+	Oct 1990
PCW 9256	Oct 1990
PCW 10	Sep 1993
PCW 16	Dec 1995

Stan Martin, Leeds

Was there not a CPC 664? - Ed

I Could Always Count on the PCW

by Ken Plumridge

My first exposure to computers was in 1956 when I was hauled over the coals for brashly taunting the scheduling staff at Dagenham with the prophesy 'Very shortly you'll all be replaced by little electric valves!'. That was before the company bought the second computer to be used commercially in the UK. It was the size of two tennis courts, housed in a climate-controlled environment and had less capacity than a modern laptop.

My first personal computer was a Sinclair; brilliant in concept and abysmal in execution and about as reliable as a one-armed trombone player. After having rewritten the first four chapters of the instruction book, I returned the machine and got my money back.

The second foray was into an Amstrad CPC 464 with colour monitor. On that I learned to program in BASIC and spent Christmas roaming Dixons and setting their machines to ask customers their names and wish them 'Merry Christmas' with a display of lights.

Although it was cassette fed it had *Flight Simulator* with attitude; it shifted the runway the moment you tried to land. The cassette is littered with hangars with holes in the roof.

Next, I moved to an Amstrad PCW8256 which I upgraded to 8512 with a second drive and a Rampac. This was done with a plumber's soldering iron which I understand is not the right tool.

This became the love of my life as I PIPped and Crackered and filled count less discs with documents. I used to hope that something would go wrong because it was a challenge to fix it. Technical manuals were written, edited; sales programmes compiled. There was no end to the work it did. My intellectual achievement was to create a program that forecast the costs and results of million-dollar campaigns with 3% accuracy, whereas previously they were happy with a 15% correct estimate.

That Amstrad earned its cost about fifty times over. Years later, the B: drive popped its clogs and, consequently, it was turned back into an 8256. I thought then, and I still think now, that it is a truly great machine.

Three years ago I could no longer resist the blandishments of the advertisements for PCs and bought myself an all-singing, all-dancing gizmo which, at that time, was top of the range. Since then I have made sporadic attempts to keep up with leaps in capacity, speed and general remarkability, little of which I actually need.

How do I see the difference between operating the Amstrad and its uppity sister, the PC? In one way the PC can be summed up with the tag:

I hate this b.... computer,
I wish the boss would sell it.
Why doesn't it do what I want it to,
Instead of what I tell it?

But let me start at the beginning:

Booting up on the PCW is probably quicker than on the PC. If, as is the case most times, you want to get into word processing, the PCW loads it straight-away. Stick in the right disc, press f7 and you're off. With the PC, boot up is a more elaborate process as it tells you what it is doing, how many of this and what configuration is that and, event-ually, up comes the Desk Top; from there you can get into word processing. I will keep to that for the moment because that is really the only fair method of comparison.

In typing this article, I am reminded of the total simplicity of editing on the PCW. For example, the ability to turn underlining, bold or italic on or off with the [+] and [-] keys.

The PC tries to be too helpful. If it finds I am indenting paragraphs, it joins in and indents every time I create a new paragraph ... regardless. Yes, I know it's my fault and there are ways of stopping it but, with the Amstrad, it stood back politely and waited for me to give the instructions.

The spell checker on the PCW is adequate; on the PC it is more elaborate. It draws a red line under doubtful spelling and even corrects it automatically if I want: I don't want! I'm likely to get an inappropriate American interpretation.

The Grammar Checker on the PC is a bit of a joke if you have progressed in your literacy beyond Bill and Ben the Flowerpot Men. It comes up with 'You have used an impassive verb.' Evidently that confuses our American cousins. It also hates sentences longer than 20 words and gives you marks out of ten for your performance. I put in one of Gibbons's rather long sentences and it marked it at 2/10. Mind you, it would be good for editing text for comics.

Saving and using *blocks* is much sim-pler on the PCW than on the PC. This I find is a major advantage for the PCW because much of my writing is involved in juggling text into the most effective sequence. In some ways I find the input requirements of the Amstrad easier. Also the way all document files are shown on the Locoscript screen is much simpler and easier to manipulate.

Let me be realistic as to the undoubted qualities of the PC. The word processing is very powerful and I can insert pictures, photos and all manner of artwork into a document. I can bring up reference books or calculators right in the middle of my composing masterpieces of literature.

A major disadvantage of the PCW is that it does not show the effect of changing the style, size, bold or italic on screen and consequently I used to get an unwanted result on the first print.

On the PC it has the WYSIWYG (What You See Is What You Get) factor. In other words, the image of the text on the screen reflects what you have done to the type face, etc. and, being an undisci-plined writer, this is most useful. I can reduce the image of a document so that I can see more of it at the same time. As my memory is not that good, this also is a helpful facility when editing.

The PCW printer, with tractor feed, is rather slow, but if you are in no hurry, *so what*! The bubblejet colour printer I have is quite fast and of good quality but I suppose you can get that with a non-dedicated printer on the Amstrad, too.

On the PC there is software for everything, mainly American. You can get the results you want, almost but not

quite. The Amstrad was less ambitious but, with dogged determination and a little nonce, it was possible to get *exactly* that I wanted.

Similarly, the *Easy Labeller* disc for the Amstrad did exactly that; it *easy labelled*. Now I have a labelling software package for my PC; it will make an omelette and forecast the football results but it took me time to master the art of printing *my* choice of selections of labels. Another consideration is that, when one of the labels gets stuck in the tractor of the Amstrad printer, it's easy to remove, but when a label sticks inside the bubblejet colour printer with the PC, Goodness knows what would happen if I tried extracting a sticky label from its electronic intestines.

The spreadsheet that comes with the PC is extremely powerful. I have not used it much but it seems just as difficult or easy as Cracker.

I am being hard on the PC: in truth it is a wonderful animal. It is unfair to concentrate on the word processing side because in truth, the real strength of the PC is in its ability to store and give out information. On one CD disc I have the names and addresses, postcodes and telephone numbers of virtually everyone in the UK. Already I have located old friends whose details had been lost in the chaos of what I laughingly call my office.

Another CD contains a dictionary, a thesaurus, a biographical dictionary, a history book and an atlas. I can trace the progress, in moving pictures, of the Space Race, dinosaurs, the Gulf War; learn Italian, re-plan my garden (the plants tend to be those best suited to California) or learn what a wealth of medical conditions are out there waiting to ambush me.

In writing this article, I used the Amstrad and, although I had forgotten even the simplest of procedures, I was delighted to resume acquaintance with an old friend.

I attend a class in 'Writing for Pleasure and Profit'; I get a lot of pleasure and, after four years, have earned £10. A lady in this class is very imaginative, with a particular talent for dialogue. Most of her texts are brought to the class in handwriting and that's no good for submission for publishing. She complains she doesn't have enough time on her husband's lap-top so she is the obvious choice for caretaker of my dear Amstrad.

To summarise then:

It would be naive to make a direct comparison between the PCW and the PC. The PC is a far more versatile in gathering information and in presenting it in visual and printed form; it also has incomparably greater storage capacity. Yes, the PC is an information machine *par excellence*. However, for straightforward word processing, with all the facilities any reasonable person could want, the PCW fills the role happily and with far less fuss!

Finally, when I was into CP/M, I felt I was really *into* computers whereas, with the PC, I feel as though I'm holding onto the bumper of a fast car with one hand and trying to steer it with the other.

And another thing: When I ask the PCW for a word count. it does it in a gentlemanly fashion, scrolls majestically down the text and presents me with an answer, but the PC, when set the same task, flashes up the answer as soon as I release my finger. You can't really trust a thing like that – I reckon it just *guesses*. •

Joyce on the Internet

(or how to run your PCW programs on a PC)

by John King

Knowing of my interest in the PCW my neighbour Matthew Johnson called at my home clutching a floppy disc containing a program which he claimed I would find fascinating. He rushed past me, switched on my PC (486 DX2-66) and proceeded to un-zip the contents of the diskette onto the hard drive. On completion a request came for the loan of my 3½" PCW start-of-day discs. These were then inserted into the PC's floppy disc drive and were duly copied into this program. As if by magic, with the pressing of a few keys, the familiar PCW loading stripes appeared on the screen of my PC with the rest of Locoscript 3 following; similar results were achieved with CP/M Plus.

The program was obtained from HTTP://WWW.SEASIP.DEMON.CO.UK /PCW.HTML via the Internet and this PCW 8000 series emulator, capable of using up to 2MB of memory, with the code name JOYCE [v1.22], is the brain child of John Elliott. The copyright date is 21 December 1997.

I have had great fun (and a few mishaps) using Joyce over the past few weeks and would recommend that anyone with a PC tries out a copy. However, remember that a 75MHz Pentium is the minimum requirement; anything less and the program will operate at a snail's pace, as I know from experience.

A Read.me file (about 13 pages) containing loading and usage information is supplied with Joyce which, for ease of use, must be printed out. For those of you who have discovered that the PC and PCW keyboards are somewhat different, Mr Elliott has very cleverly included within Joyce a Keyboard Map (press f9, then K) which illustrates the PC to PCW equivalents and which can be accessed at any time. The program author does warn that Joyce will boot from a 9512 CP/M disc but not from a 9512 Locoscript disc; my Joyce boots from both but don't ask me why! It is possible to use other PCW programs with Joyce such as MD3 but time has not yet permitted me to experiment too much due to the necessity to earn money to feed my wife and three large offspring.

From the same Web address as above can also be found a disc utility titled DU53 [Disk Utility v5.03] also by John Elliott (© 27 August 1995), which is menu driven in a similar fashion to LocoScript. This a disc formatter for the Amstrad PCW, CPC and Spectrum +3. (Why does everybody forget the poor old Einstein 3" disc drive machine?) On offer is a formatter with 15 different formats; discs can be verified in two different ways, copied (either disc to disc or to 'image files') and there's more besides, all for free! My copy has already been well used.

Two further Internet addresses of PCW interest have been supplied to me from various sources and have been

accessed, by my long suffering young neighbour and I from his Internet connection, to test their authenticity. For a 3½" disc drive wiring diagram and pages of information from Ian MacDonald (remember him from the back pages of *PCW PLUS*?) and more try WWW.CALIBAN.ORG. For those like me who not only use a PCW but also a CPC, try COMP.SYS.AMSTRAD.8BIT. Here I noted pages on a CPC emulator, 9512 data and yet more.

My understanding is that these programs are in the Public Domain and their authors allow free distribution of their work but do not permit them to be sold; the copyright of the program remains with the author.

I can hear a great many voices out there shouting that we are not on the Net, and neither am I, but with a little asking around you are sure to be able to find a helpful surfer who would be only too willing to access your chosen addresses, even if you are required to contribute a few coppers towards their expenses.

If anyone out there among our readers has further Internet or Bulletin Board addresses please make then known either through the British Amstrad PCW Club publications or contact me direct on 01708 630477.

Mind the Gap (*cont.*)
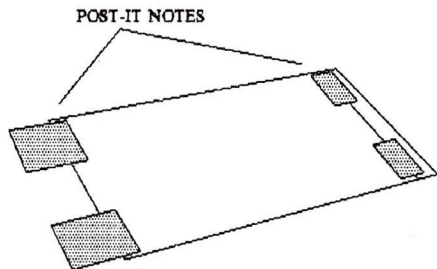
POST-IT NOTES

Sketch to accompany Steve Massam's article opposite showing the 20mm (¾") strip of paper attached to the top of the sheet (to the right) and the Post-it notes adhered to the *underside* at bottom of the paper (left), used to fool the dot matrix printer into printing from the very top to the bottom of an A4 page.

Editor's Comment
I still keep a ream of foolscap (13" x 8") paper handy as it does the same job.

Mind the Gap

by Steve Massam

At present I am working away from home. Unable to take along my much loved PCW 9512 complete with hard drive, laser printer, etc., I dug out my original PCW 8256. This has been upgraded with 1Mb of memory, 3½" drive, KeyMouse, etc. Having used an Epson laser printer which can print from the very top of the paper to the bottom I was keen to see if I could get the original 9-pin dot matrix printer to do the same.

As you probably know, when using LocoScript the 9-pin dot matrix printer requires a Single sheet A4 Paper Length of 70 lines, with a top gap of 6 lines and a bottom gap of 3 lines. It is very important that these settings are kept the same as the printer needs these blank areas to grip the paper whilst printing the first and last lines. Reducing these gap settings will almost certainly confuse the printer and it is likely to print the last few lines of a full page on another sheet of paper.

So how was I to make the printer print on the full sheet? Well, it wasn't exactly straightforward. First, I had somehow to make the paper temporarily longer, eight lines longer to be exact, and then create a new Paper Type to match. But how do you make paper temporarily longer? Well, the bottom of the page could be extended by simply adding Post-it notes to the under side of the page but the top extension had to be a little more precise. However, after numerous experiments I found the answer: a 20mm (0.75") strip of paper carefully positioned and held in place with yet more Post-it notes (cut down to size). With care this strip could be saved and used again.

A new Paper Type had now to be set up (this has been covered in some detail in the 1987 Christmas issue of *The Disc Drive*). Having pressed [F6] and gone into Settings from the disc management screen select New Paper Type, alter the Page Length to 78 and rename the paper accordingly, e.g. A4-Max. Remember to save these new settings to your Start of Day disc and they will always be there when you need them.

To use this new paper type, press [C] Create New Document. When the blank page appears on the screen press [F1] and select Document Set Up. From here press [F5] Page and then select Paper Type from the drop down menu. Now, all you need to do is cursor down to the Paper Type you require and press the [+] Key to move the tick to your selected paper type. Press [Enter], [Exit] and [Enter] and you will be back to your document.

Having typed your document, stick the 20mm strip of paper to the top of your sheet of paper and the Post-it notes to the bottom. (*See picture opposite.*) Carefully position the paper against the platen and operate the bail bar to wind the paper into the printer. If your printer is getting a little tired the paper may require some assistance. Now you are ready to print.

Incidentally, this method (although I haven't tried it) will almost certainly work on the 9512 daisywheel printer *and* has many advantages when printing from MicroDesign as well.

PcW16 FORUM

Welcome to *The Disc Drive's* new feature, which aims to provide PcW16 users with an opportunity to swap expertise, ideas on extending the machine's capabilities and answer cries for help.

One of the strengths of the PCW has always been the way users have continually stretched the scope of the machines. The Hints and Tips pages of 'PCW PLUS' and 'PCW USER' were full of innovative ideas with the result that the 8000 and 9000 series now offer a much wider range of applications than originally conceived by Alan Sugar's team.

With the PcW16 selling at an extremely low price it is attracting users unfamiliar with the older machines, for some of whom it is their very first 'computer'. The latter group may naturally feel rather nervous. Veteran PCWers know that previous models were tough and versatile and will boldly experiment, confident that the 'Rescue Disc' can always be re-loaded.

My qualification for editing this column is that I was one of the Beta-testers and now use the 16 for all my correspondence because, maintained on 'standby' like the television, it loads up in the time it takes me to sit in the typing chair. Plus, I wasn't quick enough to think of a good excuse when the Editor asked me. An even bigger plus is that I know other users willing to advise on problems.

Believe me, I am no expert. This column is intended as an outlet for a mutual self-help group. I shall be posing questions and hoping for answers.

MILLENIUM BUG

Have no fear: at midnight on the 31 December 1999 the PcW16 will obediently roll over into the new millenium. The clock can cope easily with dates to 31 December 2079, and the diary program extends to 28 February 2100. Which should see most of us out.

DATA FILE

If not needed for its basic purpose can the Address Book be used as a simple data file, say to catalogue a library?

As a data file it can be sorted in four ways; by the Name 1 line, the Name 2 line, the Post Code or the Notes section. To use as a simple

catalogue type the Author's name, surname first in line 1; the Title, Publisher and Date on the Address lines and the Subject in the Post Code space. The Notes section could be used for any other required information e.g. illustration details or condition. On screen this could be sorted by Author or Subject. Printed out entries would look like this:

CLAYTON Jane & Richard
LocoScripting People
Sigma Press
1992
Managing lists with a PC or PCW.

FIDDY Roland
Fanatics Guide to Computers
Exley
1991
Computer Cartoons

THOMAS David
Alan Sugar - The Amstrad Story
Pan
1990
Biography of Alan Sugar.

Have you used it to store and sort non-address details? Whatever information is entered you are strongly recommended to use the Address Book 'Book' menu to Export the contents to a floppy disc so that if the machine crashes the file can be re-installed without laborious re-typing.

Does anyone know if it is possible to have several Address Book/Data Files on disc and just import each one as required?

OVER TO YOU

FORUM: A meeting place to discuss topics of common concern. We would like to hear how you are using the 16. Has anyone found a way of depicting a telephone and fax symbol, perhaps adding or replacing one of the set of additional characters? Whether you have a problem or a useful tip to share, please feel free to phone:

☎ 01273 480582
(14.00-20.00hours)

You can leave a message on the answerphone, or write to:

Mrs Esther Welch
81b Western Road
L E W E S
East Sussex
BN7 1RS.
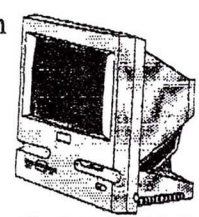
Esther Welch

PcW16 Database

by Mike Elliston

The PcW16 comes with a built-in word processor and spreadsheet plus a clock, calendar, address book, etc. One major complaint is that there is no database. However, the spreadsheet can be used as a rather simple database if you organise your records before you start.

The spreadsheet can manipulate text as well as numbers and formulae; the only snag is that there is a limit of 250 rows or records. If you catalogue your library of books or LPs or CDs so that they are in natural groupings of 200 or so per category then you could save, for example, classical on one file, jazz on another, big band on a third, etc.

Library Database

Let's assume you want to produce a database of your collection of books. Open a new spreadsheet and ensure that the default format is left aligned text. In cell A1 type Title, in B1 Author, Date in C1, Publisher in D1 and Notes in E1. Go to A2 and type in a row of hyphens but with a " quotation mark at the beginning to show it's text and not a formula. Fill this across to cells B2 - E2 to draw a line.

In A3 type the title of the first book in the first category, then the author in B3, and so forth across the row to create the first record in your database. You do not have to enter the books in any order but it may look neater if you do.

There is no need to amend the column widths; even if you cannot read the whole entry in a cell the data is still stored there.

If you find that you want to move records around you can save a row (record) to the scratchpad and insert or delete rows (records) as necessary; then you can paste the stored text back in where you wish. There is no reason why you should not move a number of rows around this way provided that there is enough memory for the scratchpad to hold them.

Once you have finished cataloguing the first group of books save this file under an appropriate name, eg Classical. Open this file again, delete all the rows except the top two and save it under a new name, say, Booklist. Then you can use this as a master for other categories by copying Booklist to Jazz and starting the listing of books in that group.

Finding Text

When you wish to locate a book by title or author, etc, use the Find, Find Text option to locate that row or record, but make sure that the cursor is in cell A1 before you start; the search only commences from the current cell location. Unfortunately there is no Sort routine in the present version of the spreadsheet but that may change?

The one major disadvantage of the spreadsheet, however you use it, is the Print option. The only printed output available on the PcW16, regardless of which printer you use, is in 12 pt Swiss (the sanserif) on a landscape sheet.

This doesn't give much variety and often means that you have to print out a number of sections over a number of pages. Fortunately the scratchpad stays active when moving from one program to another so it is possible to copy all the spreadsheet into the scratchpad, close down the spreadsheet, open the word processor and paste the spreadsheet into a document. This document can then be formatted in whatever size or style of typeface you wish and printed out as you require.

Example demonstrated

Illustrated on the following pages are the steps taken in producing a short booklist. Only five records have been entered but the principle is evident. The first, Fig. 1, shows the spreadsheet with the columns left as the default width. In Fig. 2 the columns have been widened to show the full entry in each cell, but, as will be seen in Fig. 3, this is unnecessary.

Fig. 3 illustrates a new document in the Word Processor as it would appear on the screen with the database records imported from the spreadsheet via the scratchpad. This layout has already been amended by altering the tab positions on the ruler at the top to as to fit the field lengths of the various records. Note that the data comes across with the fields separated by tabs. Extra tabs have been inserted on certain lines so that the few entries in the Notes column appear 'stacked' rather than having to widen the whole printed page just for these few lengthy lines.

Note that the spreadsheet has to be imported by copying to the scratchpad and then pasting from the scratchpad in the WP document. You cannot use the Import Document function. However, you could use the spreadsheet to Export the data to a proper database on a PC or a PCW because the Export function in the spreadsheet includes the Comma Separated Variables option which most other database packages will accept.

The final illustration shows the book list as it would appear on the printed page. As this is only a one page example the title line appears at the top of the list just once. However, if your list is some 200 or more entries long it will span four or five sides. The title lines could be pasted in at the top of each sheet to make the list easier to understand.

In conclusion

This is not the best database in the world but it shows what can be done on the PcW16 with a bit of ingenuity. You could, of course, simply type the whole list into a WP document from the start but I think you will find that using the spreadsheet as an intermediary step makes it easier to visualise and arrange.

These four pages were produced on a PcW16 and an HP III laser. Note how little control you have over line spacing!

| STOP | Spreadsheet: | Printing books | Cut | Copy | Paste |

| Cell: A1 | Contents: Title | Format: TEXT: Left aligned, normal |

	A	B	C	D	E	F	G	H
001	Title	Author	Publisher	Date	Notes			
002	--							
003	Label design	Claude Humb	Thames & Hu	1972				
004	Twentieth ce	Sebastian Ca	Trefoils	1987				
005	Alphabet Vol	Ed R S Hutchi	James Moran	1964	Kynoch Press			
006	Type Catalog	Neon Type Di	Typefounders	n/a	Chicago			
007	Encyclopaed	Jaspert, Berr	Blandford	on 1970	1990 paperback			
008								
009								
010								
014								
015								
016								
017								

Type a number or some text into the current cell, or change cells using the arrow keys or the mouse.

Fig. 1

	A	B	C	D
001	Title	Author	Publisher	Date N
002	--------------------	---------------------	---------------------	-------- ---
003	Label design	Claude Humbert	Thames & Hudson	1972
004	Twentieth century type designers	Sebastian Carter	Trefoil	1987
005	Alphabet Vol One	Ed R S Hutchings	James Moran	1964 K
006	Type Catalog	Neon Type Div	Typefounders of Chicago	n/a
007	Encyclopaedia of Type Faces	Jaspert, Berry & Johnson	Blandford	1970 1
008				
009				
010				
015				
016				
017				

Type a number or some text into the current cell, or change cells using the arrow keys or the mouse.

Fig. 2

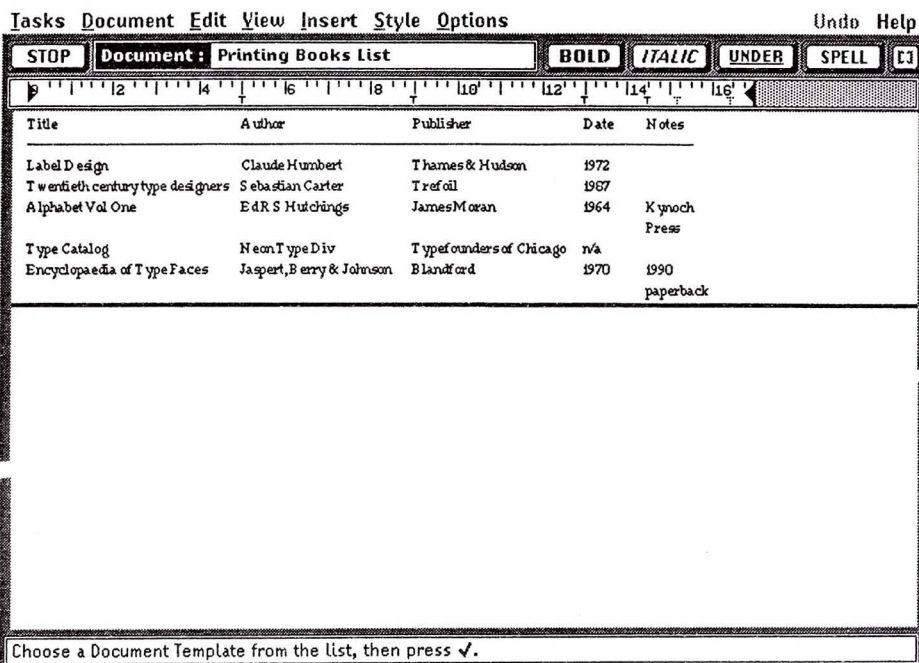| STOP | Document : Printing Books List | BOLD | ITALIC | UNDER | SPELL | [] |

Title	Author	Publisher	Date	Notes
Label Design	Claude Humbert	Thames & Hudson	1972	
Twentieth century type designers	Sebastian Carter	Trefoil	1987	
Alphabet Vol One	Ed R S Hutchings	James Moran	1964	Kynoch Press
Type Catalog	Neon Type Div	Typefounders of Chicago	n/a	
Encyclopaedia of Type Faces	Jaspert, Berry & Johnson	Blandford	1970	1990 paperback

Choose a Document Template from the list, then press ✓.

Fig. 3

Title	Author	Publisher	Date	Notes
Label Design	Claude Humbert	Thames & Hudson	1972	
Twentieth century type designers	Sebastian Carter	Trefoil	1987	
Alphabet Vol One	Ed R S Hutchings	James Moran	1964	Kynoch Press
Type Catalog	Neon Type Div	Typefounders of Chicago	n/a	
Encyclopaedia of Type Faces	Jaspert, Berry & Johnson	Blandford	1970	1990 paperback

Fig. 4

❦ PCW Plants ❦

by Steve Massam

As you are aware from the earlier article, I have been working away from home for some time now. I took one of my PCW8256s with me as I thought it might come in handy and, if I had a chance, the plan was to continue to prepare articles for the *Disc Drive*. Unfortunately, time to prepare these articles has been some what limited but the PCW has certainly been most useful while we are here.

The project that my colleague Derek and I are undertaking is for the National Scottish Museum in Edinburgh. It involves the construction of a Natural History diorama some fifteen metres wide, five metres deep and three metres high. This diorama is to depict the native Scottish flora and fauna of some 5000 years ago showing the changing habitat from tundra after the last Ice Age; the colonization by birch and juniper, turning it into deciduous broad leaf woodland; and finally being taken over by Caledonian pine forest. Just to make things a little more interesting, the seasons are also to be shown: the tundra in winter through spring, then summer, finishing with the Caledonian pine forest in autumn.

As taxidermists, you would undoubtedly think that we would also be preparing the animals and birds of this period: wolves, bear, wild boar, beaver, elk, reindeer, capercaillie and ptarmigan, to name but a few, but the Museum has its own resident taxidermists and all of the above have already been mounted.

In addition to taxidermy, both Derek and I undertake model making, most of which is natural habitat to enhance the mounted specimens we prepare: different types of soil, rocks, trees, foliage, plants and artificial water effects, etc. and it is for this reason the Museum employed us.

The PCW was first put to use preparing various charts, schedules and documents outlining how and when we thought different aspects of the work were to be carried out, so that other people associated with the project could see how work was to progress and, hopefully, adjust their schedules accordingly.

Some of the work was to involve collecting natural plant material from various sites in Scotland. Special permission had been arranged by the Museum and Route Planner was used to plot the best route from one place to another.

On our return from a collecting trip, the plants we had gathered were either dunked, dipped, soaked, sprayed, injected or painted with various concoctions to prevent them from shrivelling up and falling to bits. Neither Derek nor I had ever prepared so much natural vegetation before and good results were only achieved after much experimentation. At times it seemed that every available square foot of work-space was occupied by a vat, tub or bin of some kind. In due course the plants were removed from their containers, washed, drained, dried and sprayed to restore their colour, using stains, dyes or paint.

With the recent advances in their quality and general availability, we took full advantage of commercially made silk plants wherever possible, purchasing some of the foliage, mainly tree canopy, ready made; this required minimal, if any, modification from us. However, a fair number of the plants were unique Scottish rarities and this, believe it or not, is where the humble PCW came in very handy.

Some of the plants were sent to us live from the Botanic Gardens and we set to work on these and others, dissecting them into their various parts. I either scanned them into MicroDesign and tided up the images by hand or drew them life size on the screen using KeyMouse, ably assisted by Tweak. These patterns could then be printed out on the appropriate paper types which, in turn, were treated and manipulated in various ways before the components were cut out and assembled to produce very lifelike reproductions.

I cannot honestly say that we could not have done it without the PCW but it certainly speeded things up and, for my part, made the project even more of an interesting challenge.
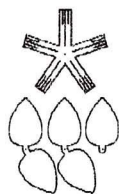
For those who are interested, we believe the new gallery in Edinburgh is planned to open sometime in November. Dioramas of this quality and scale are fast becoming a thing of the past and this one will almost certainly be the last produced in Great Brain this century, if ever again.
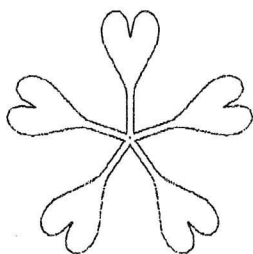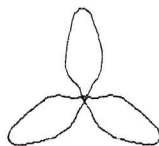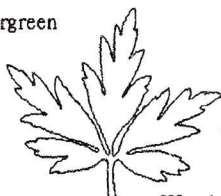
Red Campion
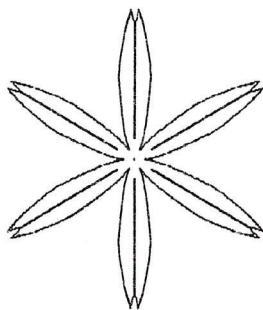
Bluebell

One Flower Wintergreen

Twinflower

Wood Anemone

(Illustrations slightly reduced from originals.)

MAKING A HARD DISC WORK WITH YOUR PCW

by Mike Elliston

So you have got yourself a hard disc for your PCW? You can now store all those MD3 or LocoScript LX fonts on one disc and not have to worry about loading them up each time again. Or can you? Think carefully before you try!

For a start make a copy of *all* the files that came pre-loaded on the hard disc, preferably two copies. How? Use PIP (running from a floppy or M:) with the [r] and [o] parameters (to copy hidden System and machine code files).

But what files are on the hard disc to be copied? SHOW d:[USER] will tell you which user groups on drive "d:" are occupied and DIR D:[FULL] will give you a directory of what's in each group in alphabetical order, including the file sizes and attributes. Alternatively DIR [DRIVE=ALL USER=ALL] will list all files in all user groups on all drives (though you may need to put a spare disc in the floppy drive/s to overcome a 'Drive Empty' message).

If the hard disc is new there will probably only be files in User 0 on the first partition. (Hard discs are frequently 'partitioned' off to give you a number of 'logical' drives on the one physical drive allowing you to use the increased storage space more efficiently.) If the disc is second-hand *don't* be tempted to simply delete everything. For a start you may erase some quite useful batch files or utilities and, secondly, you may delete a special version of CP/M designed for that model that you cannot obtain elsewhere. So back up all files to disc and keep a

note of what was where, especially hidden or system files and those with strange names like opsys.g.

Now a 40Mb hard disc may hold as much as 56 CF2DD floppies or even 227 CF2 discs *but* it can only hold 512 files per partition or 2048 on a hard disc with (the usual) four partitions. If you fill it with files which are only 2k each in size there will still be 90% of empty disc space! (2048 × 2k = 4096k = only 4Mb.) On the other hand every 16k of a file takes up another directory entry. For example a 47k files uses three directory entries or lines. Think of the directory as the contents list at the front of a book which is limited to 512 lines of text. Big entries take up more lines than small ones. Putting the whole of your *magnum opus*, which is currently stored on a CF2DD in one 704k file, will still take up 44 of the permitted 512 files on that one partition. (704 ÷ 16 = 44) In other words think about what you need to store on the hard disc as distinct from what you'd like to have available at any time. (If you are any good at sums you will see why there is no point in having a hard disc bigger than 40Mb under CP/M.*)

Do you need to install LocoScript on the hard disc or not? There are two good reasons for asking this question. One is the disc drives' nomenclature and the other relates to so-called 'Limbo' files. If you are running CP/M from your hard disc and it boots up without the need for any floppy disc you will normally find that the hard disc is divided into four

partitions named A:, B:, E: and F: with the first floppy drive being C: and the second (if fitted) named D:. *This is quite different from the convention used on the average PC so do not confuse the two.* (If you only have one floppy drive then the last two partitions will be D: and E: instead.) You should *not* to reconfigure the partitions down to two because this reduces the number of accessible files to only 2 × 512 = 1024 files (about 16Mb).

However, if you do have LocoScript on your hard disc it renames the drives on the Disc Management screen because it insists that the first floppy is A: and the second is B:. So now the hard disc partitions will appear as C:, D:, E: & F:. This can result in your over-writing an existing file if you copy from another drive and get the drive names confused. I have the first two partitions on the hard disc named "A_in_CPM" and "B_in_CPM" so that there is less doubt as to where is what when using LocoScript.

Note that if you boot up LocoScript on your hard disc machine from a floppy disc in the A: drive you will only be able to access the floppy disc drive/s (and M:) but *not* the hard disc. This means that you may need to copy earlier data files from the hard disc onto a floppy before editing them in LocoScript run from a floppy. If you need to alter the f6 Settings in Loco-Script (e.g. after a permanent change of printer) most versions will insist on writing the updated Settings.Std to a floppy in the A: drive which you then have to manually copy back to the first user group on the hard disc.

LocoScript only recognises the first eight user groups on any drive as groups 0-7. The remaining eight user groups 8-15 are hidden from view and used as a semi-temporary back-up storage area referred to as "Limbo". If you delete a file in group A0: it is actually moved across to group A8: (which does exist on the disc although you can't normally see it). If you edit a file in B2: the previous version is stored in B10: (2 + 8 = 10) so that LocoScript can retrieve it again if you decide to Abandon Edit after all. If you have already edited and re-edited a number of files in B2: then user group B10: can become quite full. Here 'full' refers either to the total number of kilobytes the disc can hold *or* the maximum number of files that the disc directory can manage. (On a CF2 this can be as few as 64 files.)

LocoScript does have the extremely annoying habit of assuming that files in user groups 8: to 15: are back-ups *it* has created and which therefore can be got rid of if the disc is getting full. It doesn't know or care if you have just saved your Protext or MicroDesign masterpiece in A8:. If you edit a LocoScript document in A0: and the disc is getting nearly full it will simply make space by deleting your masterwork! If you must have LocoScript on your hard disc you will have to install it on the first partition which CP/M calls A: and LocoScript calls C:. Use this first partition for LocoScript *only* and keep your CP/M files on the later partitions. Don't be tempted to store some CP/M programs or data in A8:-A15: because they may mysteriously disappear without trace during a LocoScript session! You will, of course have to keep some CP/M files on A: but they can be kept to a minimum *and* protected as explained below. Do note now that System or Hidden files *can* be erased including Hidden LocoScript program files.

If you want to use LocoScript 3 or 4 with lots and lots of LX or built-in font files for all your different printers then you must start to consider how much memory you have available. (I recall an occasion when a friend with a 768k RamPac loaded every BJ10e font he had from the boot-up discs. However he couldn't edit any files or create any new ones. Why? Because he had only 6k left on the M: drive after filling the Ram with all those fonts!) Don't forget that you can always copy that special font to the M: drive from a floppy disc halfway through a LocoScript session if you need it for a one-off document. Leave your fonts on floppies and bring them into use only as and when you need them. It saves on both hard disc space and Ram usage. Keep LocoScript on A:/C: and leave the high user numbers free for LocoScript to control as it wishes.

I continue to use LocoScript 3 on my hard disc machine and only run Loco-Script 4 from floppies as and when necessary. Whilst LocoScript 4 is a great improvement on version 3 it does not take kindly to having several printers on the same disc. Indeed, LocoScript Software recommend that you use a different start-of-day disc for each printer. It is particularly important that you do not try and install two different printers which use the same class of LX fonts on the same disc. The first printer you install will allocate the LX fonts for itself and they will not be available for use by the second printer.

Another factor to remember when planning what to install on your hard disc is that certain programs for early 8000 series machines were never designed for drives other than A: or B:. (From now on

I am going to assume the CP/M convention with the hard disc as A:, B:, E: and F: and with the floppies as C: and D:.) If you are going to reserve A: primarily for LocoScript and a few CP/M start-up utilities then you should install those particularly fussy CP/M programs on B:. Examples are Protext, SuperZap, MiniOffice, etc. So, in general, the B: drive should be reserved for programs which will only run from A: or B:. Don't forget, however, that you can store *data* for programs which you run from E: or F: on the higher user groups on B:. For example you could have Protext or SuperCalc on E0: but save your documents or spreadsheets on B8: or B9. (You will save this data to floppies as well, won't you?!)

I will assume for the moment that you are a frequent user of the Creative Technology family of programs and that CP/M is used more often than Loco-Script. In this instance it is usual to accept CP/M as the start-up operating system with LocoScript as the alternative, booted by holding the [Alt] key down when you switch on or reboot. (To start either LocoScript or CP/M (or, indeed, Flipper) from a floppy disc you must switch on at the power switch *and* hold the space bar down until the boot sector on the disc is read; you can not soft boot ([Shift] + [Extra] + [Exit]) to load from a floppy.) All the Creative Technology programs are designed for use on hard discs and will run from E: and F:

You will have to have *some* CP/M utility programs on A0: but these can be kept to an absolute minimum by the judicious use of SetDef.Com in your Profile.Sub. You will need to have CP/M itself (the appropriate J*CPM3.EM* file

as supplied) Submit.Com, SetDef.Com and a Profile.Sub. If your Profile.Sub contains the lines:

```
SETDEF [TEMP=M:]
SETDEF A:,B:,E:,F:
```

then all the other CP/M utilities like DIR, PIP, ERASE, etc., can be stored on B: (or E: and F:). Note that most versions of 2in1 can only be run from A:.

SetDef will set up a path for CP/M to search on the other chosen drives (up to four) for the files being requested. By setting these utilities, e.g. DIR.COM, which *must* be in user 0 on the other drives, to the SYStem attribute (with SET.COM), they can then operate across any user group. So SetDef works across all (specified) drives and the files set to [SYS] in user group 0 will work across all users. And just to make sure that these don't get erased use SET to make *them* [RO] read only. Incidentally, setting these files (or any other files you don't want displayed) to SYS means that they won't appear visible to LocoScript thus cutting down the size of your LocoScript Disc Manager screen. It will also speed up the rate at which it pans from side to side.

There is one minor disadvantage of using SetDef to create a search path of A:, B:, E: & F: (only). If you need to run the occasional program from the first floppy drive you would normally put the disc in C: and enter MyProg [Return]. The machine will respond with MYPROG?. Why? Because MyProg on C: is not on the search path defined by SetDef. But don't panic: simply type C:MyProg [Return] instead and it will run correctly. (It is obviously preferable to switch to the C: prompt before you start.)

But this disadvantage is well outweighed by the benefit of being able to call for command files from anywhere on the hard disc.

You *can* get around this by putting C: on the path with, for example, SetDef A,B,E,C, but it is not very practical. You will then be expected to have a disc in the C: drive every time you type a command and it is not a good idea to keep floppies in warm drives too long; the hub ring glue melts after a while.

Don't be tempted to copy *every* utility program from your CP/M masters onto the hard disc. The vast majority are used only but rarely and can be copied on later if really required. Those that are useful are Dir, Submit, Pip, Set, Show, Erase, Help.Com and Help.Hlp. Probably Basic and Rped will come in handy to write your batch files unless you have a better editor like Aped or ED80. But when did you last use Logo, Link or Rmac? (I have nothing against these programs but they are of specialist use only; run them from a floppy when needed.) Setkeys and Cpmkeys may come in handy for keyboard definitions for word processors, etc. Do **not** copy your original floppy disc versions of either Disckit.Com or CP/M (JnnCPM3.EM?) onto the hard disc and overwrite the special versions that (almost certainly) have been provided already.

There may well be a manual for the hard disc stored on the hard disc itself with a Print.Com or similar to print the manual out. Run off a copy *now* and not when a problem arises and you can no longer access it. As Print.Com is only for printing out the manual and nothing else you may conveniently rename it to PrintMan.Com or Manual.Com so that

it's more obvious what it really does. (It is *not* the same as Print.Com in DOS.

Manager.Com comes with the Cirtech models to assist in file management. Beware using this to copy a file to another disc or group where a file of the same name already exists–it may well hang the system (unless there is a recent upgrade now). There is a hard disc version of SuperDos which, while a little slow at logging a new drive, is that much more powerful.

It is now a lot easier to erase the wrong file from either a floppy or your hard disc! Get into the habit of adding the [C]onfirm parameter when using Erase.Com but, probably far more important, get into the habit of making frequent *back-ups* to floppy disc in case you do make a misteak. In fact its a good idea to store most of your casual data (letters, odd notes, etc) to floppies and leave the hard disc for storing programs and major pieces of work; this saves filling the hard disc needlessly and the resultant task of deciding what to remove at a much later date. Try and plan out what you intend to put on the hard disc before you even start. List all the programs that you use most often and install them in order of priority. Put the programs on *first* and leave the data until later; that way the programs, being near the beginning of the disc, will run a little quicker (and not get fragmented). Only put documents that are used regularly on the hard disc. Don't fill it up or it will slow down considerably.

If you keep on saving files on a disc and then erasing them and storing more files on the same disc, after a while file **fragmentation** starts to occur. The operating system uses the gaps created by deleted files to store new ones. But if the new file is larger than the previous one it is split over several blocks on the disc. This fragmentation, as it is known, slows down the system and also, unfortunately, can lead to a loss of data if the operating system gets confused. I am not aware of a DeFrag utility for the PCW. The safest way, if you really have a problem, is to delete everything (except those few files originally supplied on the hard disc) from the disc and reload it file by file. By putting your program files on the hard disc first these files are unlikely to get split up unless you delete a suite of programs, thus creating a gap near the beginning of the directory.

Do not rely on LocoScript to manage your hard disc! As explained above it does not erase a file; it merely moves it to another user group. And Pip.Com is so much faster at moving or copying sets of files of the same type or with related names. Others swear by NewSweep or MaxiSweep but Pip is more powerful and versatile than most realise. Be very wary of naming a file with the .GRP extension; LocoScript cannot accept two such files in the same user group and it will panic!

Keep an eye out for programs which create lots of backup files without your being really aware. Protext leaves Protext! and .$*$ files behind when it shuts down. Other programs will leave lots of .BAK files after they've quit. (Incidentally, use .BAC not .BAK as the extension for your *own* genuine backup files or you may find that they've been erased or overwritten when you run that program again.) You can keep tabs on the number of files on each drive with SHOW d: [USER]. If you want to be more ambitious use PUT.COM to send the

result to a file each week or month and note any major increases which could fill up the disc directory:

```
PUT CONS OUT TO FILE JUNE98.LST
SHOW A:[USER]
SHOW B:[USER]
SHOW etc ...
PUT CONSOLE OUTPUT TO CONSOLE
```

or send it to the printer instead.

It might be a good idea to send the file June98.Lst to the printer and keep the file retained on disc. Key in:

```
TYPE JUNE98.LST [NoPage]
Press [Alt]+[P] together,
then press [Return]
Press [Alt]+[P] when printing ends.
```

The PCW should beep when you press [Alt]+[P] the *first* time but not the second time so that you know whether output is being echoed to the printer or not. If the number of files in one user group increases more than you anticipate then back up the extra .BAK or .$$$ files to a floppy and reduce the contents of the directory. Note that DIR [FULL] gives far more information than a simple DIR.

Whilst it is possible to give your files time and date stamps with INITDIR.Com remember that this immediately reduces the number of files that can be held in the directory to only three-quarters of the usual limit. As shown above, the size of the directory is rather an important factor in deciding how well you can utilise the hard disc so it is not advisable to initiate the hard disc directory.

Your hard disc is a fairly delicate piece of equipment even though the more modern ones are quite durable. Even so, treat it with care. *Do not move the machine while it is switched on and running.* Wait a good minute after turning it off before you do attempt to move the machine, even if only a few inches. It won't like being dropped or nudged so set it up for an optimum viewing position before turning it on.

If you do use the Amstrad daisy-wheel supplied with the 9512 put the printer on a separate desk or on the floor to prevent the vibrations from that machine gun of a printer bouncing the read/write head all over the disc platters. A-Z used to provide an extension cable for the daisy wheel enabling you to put the printer under the desk; they may still have some in stock. (Never, ever, plug or unplug the built-in printer while the power is on: it's certain death.) Better still, try and invest in a jet printer of some sort. These are much quieter, are vibration free and obviously give far better results with MD3! As you have almost certainly been supplied with an upgraded version of CP/M you will not need to have the original printer connected as well.

To summarise: Plan ahead before installing, don't bounce it, save to floppies and make frequent backups! Good luck and enjoy your new toy.

* Four partitions × 512 files of 16k each uses only 32,768k = only 32·8 Mb of the 40 Mb physically available anyway.

Using an external printer with *Route Planner*

by Bill Heilbronn

[In the January *Newsletter* Joe Bird wrote a follow-up to Monica Dickerson's Winter 1997 *Disc Drive* article on the recently released *Route Planner* suite. He included the comment that the program appeared to have been written for the dedicated Amstrad printers that come with the 8000 or the 9000 series. If you wanted to use an added external printer it was probably simpler to save the data to disc and then print it out later with either LocoScript (for any text) or using MicroDesign (for maps and diagrams). The following helpful method from Bill Heilbronn works for the text tables.]

The following technique may be used to print out the route tables to an external printer directly from the *Route Planner* program without saving them to disc first.

Making a Start up disc

It is necessary to make a start-up disc from the Comsoft master, add some extra files from your CP/M disc and then make a Profile.Sub start-up file as follows:

Using either the f2=Disc facility in LocoScript, or DISCKIT in CP/M, make a copy of the Route Planner master onto a fresh disc. Next, using either f3, Copy in LocoScript or PIP.COM in CP/M, copy the following files from the CP/M disc or your start-of-day CP/M disc:

```
Any .FIB files that you use;
DEVICE.COM
J**CPM*.EM*
SUBMIT.COM
```

Now create a new document on the M: drive using LocoScript with the name Profile.Sub. Type in the following:

```
DEVICE LST:=xxx [Return]
<ROUTE
```

Note that the letters xxx *should be replaced by 'PAR' if you are using the external parallel printer port on a 9512 or by 'CEN' if you are using the Centronics port on a CPS8256 Interface.*

Exit and save this file. Then make an ASCII file from it with the name Profile.Sub. This must be saved in user group 0 of the new Route Planner start of day disc which you should now label as **Route Planner Start-up disc**.

Working procedure

Reset the PCW and insert the Route Planner Start-up disc which should automatically load the Route Planner program. Now proceed according to the instruction manual. When the tabulation of the route is on the screen cursor to the option to print. The screen will go blank and the instruction **Press any key to print** will appear. Touch a key and the external printer should spring to life and print out the Table in the printer's normal default typeface, probably 10pt Courier at 10 cpi. With some printers it may be necessary to touch the form feed or paper feed button to initiate printing or to eject the paper upon completion. After printing the screen will show the instruction **Press any key to return to working screen**.

Now proceed with any other work.

Labels from the PCW

by Clive Anderson

I use lots of self-adhesive labels for personal use and for the hobbies that I pursue. In most cases they are easy to produce, look great and save a heck of a lot of time. Other, less obvious advantages are that I can send one or two self-addressed labels to my correspondents or suppliers and be sure that replies are correctly addressed. I've noticed that correspondents are more likely to reply if they have an easy-to-use address label.

Effectively, there are two types of blank labels: those that come on a perforated strip of backing paper (fan-fold) and those that are mounted on a sheet of A4 (or smaller) backing paper. The fan-fold labels may be supplied as one-across the backing paper or up to four across the sheet. Small packs of either are available; for economy, I buy fan-fold labels in folded strips of a thousand or more.

Take the fan-fold type first. Programs such as Mini Office Professional Plus can deal with several across but I much prefer to use the simplest arrangement of one across. This means that the printer only has to find one label for each pass of the printing head. It also means that you only ever need to print one address at a time. If most of your needs are personal or hobby based, you won't need more than a few at a time.

The most important thing to know (or discover) is if your printer has the fan-fold tractor mechanism for continuous paper. A lot of dot-matrix printers have this mechanism built in at the rear of the printer but inkjet and laser printers don't seem to have this system. The mechanism is a means by which fan-fold labels are fed through the printer in precise steps to allow the printing to be done one line at a time. Lots of PCW software can be told how high the labels are so that the printing on the labels starts at the top of the label and finishes before the bottom of the label is reached. Because we're dealing with a given number of *lines* on each label the measurement of the height is in sixths of an inch (1/6") and most address labels are an inch and a half (1½") in height. That translates as 9/6 or nine sixths high and you can comfortably get six lines of printing on one label. The width of the label is also important but, commonly, address labels are two or three inches wide. As long as there is enough width for some of those tiresome, long-winded address lines, six lines by three inches should be enough.

Most readers of this article should have a copy of the Keith Simons Collection disc and this has a delightfully simple labels program which is also an equally delightful database. Other programs such as Mini Office, LocoMail, Protext, General File 2000, etc., can be made to print labels but the basic principles are most easily be demonstrated from the Keith Simons Collection disc. Boot up CP/M and when the screen settles down to the A> prompt, type in date. This will allow you to set up the date and time for the duration of the PCW session. Why bother? You'll see why later on. Once you've set the time look for the A>

prompt and just type in the word `basic`. When the whirring and flickering stops you will see the word `Ok`.

Take out your CP/M disc and replace with the Keith Simons collection disc and immediately after the Ok prompt, type `run "labels"`. There is a space between run and "labels" and the inverted commas *must* be typed in as well. Got it wrong? Try again: `run "labels"`.

If you've got that right, you'll see and hear more flickering and buzzing noises and then the screen will prompt you with: `PLEASE TYPE THE LENGTH OF THE LABELS YOU ARE USING IN SIXTHS OF AN INCH`. I don't know why the word 'length' is used because you need to type in the number of sixths of an inch of the *height*, that is top to bottom or, strictly speaking, the distance between the *top* of one label and the *top* of the next of label, *including* the little gap between the labels. One inch high will be 6 lines, one and a half high will be 9 and so on. So type in the figure 9 and press `Enter` or `Return`.

Next you will see a screen with three boxes one on top of each other; two big ones with a narrow one sandwiched between. The top one starts with `Welcome` and tells you about the program. The middle box has `HELP` and the bottom box tells you which buttons to press for the actions required. It also measures the passage of time; you can see the seconds ticking by. This will be a digital clock if you set the time correctly using the CP/M `DATE` utility.

Press the [→] (right arrow key) and the next help page will be displayed showing details of the **Delete** function. More pages tells you about **Edit** and **New** functions.

To start your database, press `N` for a new label and start typing in the address on the top line. The box is only a rough representation of a label but most addresses can be fitted into it. When you've completed the address press `Exit` and you'll be asked for an index name. This index will be used to identify that particular address when using the **Find** function. I suppose most addresses will be identified by the surname but you can use anything that's easily remembered. So type in `Bloggs` or whatever and press `Exit`. Now you can go ahead and type in the rest of your addresses.

I use 3½" 720k discs so my databases can be quite large, even with the other programs in the Keith Simons collection. In fact I use a separate disc for different databases. In addition, I've got **Labels** set up on the Network so I don't need to leave the Network to find my database. It works like a charm!

With a bit of ingenuity **Labels** can be used as a database for a book list, vinyl record list, cassette list and so on. I also use it to make sticky labels for my 3½" discs. I use 1½" × 2¾" labels which are perfect for neatly identifying discs.

LocoMail and Mini Office both have exceptionally good label printing programs and I have used them both but they need a little more programming and self control. What do you mean: 'Self control'? Well, I nearly threw my 9512+ and the whole shooting match through the window and out into the garden a dozen times when trying to set up Loco-Mail for labels, especially when used in conjunction with LocoFile, but the Keith Simons labels program is all 'Sweetness and Light'. Not only that, but the Keith Simons Collection is almost like a mini

Windows suite of programs. When it's up and running as **Choice** you can use the **Search** program as a simple word processor to write letters and then drop into **Labels** for finding and printing addresses.

Mini Office can spew out labels from a database like a Kalashnikov machine gun and is much easier to run than LocoMail; it is, in my humble opinion, *spot on!*

The other labels across A4 sheets can be printed with MicroDesign. It needs much more effort to ensure that the A4 page on the screen aligns exactly with the A4 label page in the printer, but it can be done and, once you have sorted it all out, you can easily produce labels with clip art as an added attraction. I even make my own self-adhesive cassette labels to fit on blank cassettes which I use for reading stories and poetry onto tape for some of my VIP (Visually Impaired Person) friends. Avery make A4 sheets of blank cassette labels; slightly pricey but well made.

I get most of my labels supplies from Dunning Computer Supplies who sell by mail order. I live on the Isle of Wight and, as far as I can tell, we don't have stationers who stock a variety of blank labels. However, most big towns on the mainland have stores where you can get small packs of labels.

Dunning's address is Unit 13c, Sunrise Business Park, Higher Shaftsbury Road, Blandford Forum, Dorset DT11 8ST. Tel. 01258 480660 (24 hr. order line). I have found this company to be very helpful and reliable over a period of five years. They also sell Amstrad printer ribbons.

So, if you need labels or just think you will have fun using them, get stuck in !

Half a page of Clive's cassette labels, approx. two-thirds original size.

BASIC Listing: 7

by Adrian Hooper

Welcome to the seventh part of my BASIC listing; this part is to be an Area 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] 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 "AREA.CON" [RETURN] and then RUN "AREA.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 some additional help or wish to acquire a copy of the programs on disc (only 3.5" at present and *only when the tutorial has finished*) please contact me on 01761 436276 (between 6 and 9 pm).

```
10  LET C1$=CHR$(27)+"E"+CHR$(27)+"H"
20  PRINT cl$:t$="Area Conversion Menu"
30  PRINT TAB(15);t$: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$="square inch":s2$="square yard":s3$="square
    mile":s4$="acre":s5$="square centimetre":s6$="square
    metre":s7$="square kilometre":s8$="hectare"
70  p1$="square inches":p2$="square yards":p3$="square
    miles":p4$="acres":p5$="square centimetres":p6$="square
    metres":p7$="square kilometres":p8$="hectares"
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$:t2s$=s5$:t2p$=p5$:GOSUB 310
130 D=C*6.54:GOSUB 340:GOSUB 280:RETURN
140 t1s$=s5$:t1p$=p5$:t2s$=s1$:t2p$=p1$:GOSUB 310
150 D=C*0.155:GOSUB 340:GOSUB 280:RETURN
```

```
160 tls$=s2$:t1p$=p2$:t2s$=s6$:t2p$=p6$:GOSUB 310
170 D=C*0.8361:GOSUB 340:GOSUB 280:RETURN
180 tls$=s6$:t1p$=p6$:t2s$=s2$:t2p$=p2$:GOSUB 310
190 D=C*1.196:GOSUB 340:GOSUB 280:RETURN
200 tls$=s3$:t1p$=p3$:t2s$=s7$:t2p$=p7$:GOSUB 310
210 D=C*2.59:GOSUB 340:GOSUB 280:RETURN
220 tls$=s7$:t1p$=p7$:t2s$=s3$:t2p$=p3$:GOSUB 310
230 D=C*0.386:GOSUB 340:GOSUB 280:RETURN
240 tls$=s4$:t1p$=p4$:t2s$=s8$:t2p$=p8$:GOSUB 310
250 D=C*0.405:GOSUB 340:GOSUB 280:RETURN
260 tls$=s8$:t1p$=p8$:t2s$=s4$:t2p$=p4$:GOSUB 310
270 D=C*2.471: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 area in ";t1p$:PRINT:INPUT C:RETURN
340 IF C=1 THEN pc$=tls$ 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 " Square inches to square centimetres"," Square centimetres to
    square inches"
380 DATA " Square yards to square metres"," Square metres to square
    yards"
390 DATA " Square miles to square kilometres"," Square kilometres to
    square miles"
400 DATA " Acres to hectares"," Hectares to acres"
410 DATA " Acres to square metres","Square metres to acres","Return to
    conversion menu"
500 tls$=s4$:t1p$=p4$:t2s$=s6$:t2p$=p6$:GOSUB 310
510 D=C*4047:GOSUB 340:GOSUB 280:RETURN
520 tls$=s6$:t1p$=p6$:t2s$=s4$:t2p$=p4$:GOSUB 310
530 D=C*0.000247:GOSUB 340:GOSUB 280:RETURN
```

Good luck! Adrian Hooper (RADSTOCK.PCW user group)

Readers Write...
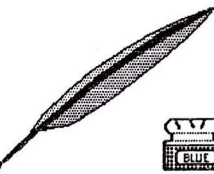
Dear Editor,

I had a good chuckle when I read your article about the PCW user who believed he had to keep his Start of Day disc in his machine or it would stop working properly. I've had a similar experience but I've not mentioned it to other Amstrad users because they might think I was telling Porky Pies.

I was buying some domestic electrical appliance in a small electrical shop when I noticed they had a PCW 9512+ installed on the counter. I had been using my 9512+ for a year or so and was interested to see what application was being used in the shop. I asked the assistant what it was being used for and she explained it was used for stock control. She regularly entered details of sales, stock etc. She offered to demonstrate the software for me and then muttered something about the wrong disc being in the drive.

I was surprised to see her remove the disc and switch the whole machine off. Even more surprisingly, she scrabbled about in a cardboard box and found another disc, switched the machine on again and inserted the fresh disc. I can't remember what the software was but, whatever it was, it was new to me. Having shown me what was required she removed the disc, switched the machine off, replaced the original disc and switched on again.

Naturally, and I thought – helpfully, I suggested that it was not necessary to switch the machine off each time the disc was changed. With something akin to righteous indignation she assured me it *was* necessary, she did it several times a day so she *ought* to know what she was doing. I was going on to explain that each disc need not be a start of the day disc either but her attitude changed and she snapped at me as if I had said (or had done) something nasty. I paid up for my purchase and left. Why, I wondered, did certain words spring to my mind – words like 'Ignorance' & 'Bliss'?

Clive Anderson   Isle of Wight

Spell-checking Protext in the Network

Having just read through the Winter edition of *The Disc Drive* and noted the various references to Protext, MD3 and the Network, I am writing to add my own observations. This is being written in Protext and will be printed in MD3, both running under the Network.

What I shall *not* be able to do is use the Protext spell-checker properly in this environment. It will tell me what words it does not recognise; it will even store new words I want saved. All the Spell utilities will also work. However, what it will not

do is let me correct any mistakes; I have to do that outside the Spell facility, perhaps by a series of find and replace operations, which is what I have now done.

Trying to trace the roots of this problem via Creative Technology, my attention was drawn to a comment in a Readme file on the Network master disc: 'The Protext spell checker does not work properly under the Network. It can be used to *show* which words are misspelt but if its *Change* facility is used the entire Network environment becomes unstable and any saved work may be lost.'

What happens is that the machine locks up either with or without a major corruption of the screen display. This will happen on leaving the spell checker *after making corrections*. It happens if the Spell program is invoked from inside a Protext document or if the entire Spell choices with utilities are invoked, or if the Spell.Com program is loaded as an independent entity on the Network with its own icon, etc., or even if Spell.Com is called up on the Network's Command Line facility.

Creative Technology suggests that the reason may be the impossibility of running one program inside another on the Network. Yet the other .Com files provided with Protext (e.g. Convert.Com) work perfectly *and* the whole of Spell works, apart from the correction facility; it only fails after corrections have been attempted. Incidentally Spell.Com works perfectly if Protext is being used (booted) from the A: prompt and wholly outside the Network.

Peter Dixon   Brecon, Powys

Editor's Comment

I am a little puzzled by the suggestion that Spell does not work from the f7 Utilities Command Line because that is just how I use the spell checker in the Network. There are two versions of the spell-checking program supplied with Protext, namely Spell.Com and PS.Com, the later being an acronym for ProSpell. Spell.Com allows the choice of drives A:, B: or M: for either the text files or the dictionary files, whereas ProSpell give *all* the drive options from A: to M: inclusive and is, as far as I am aware, intended for use on machines fitted with a hard drive. It appears to be the same as Spell in all other respects.

Now I run the Network on a 9512 fitted with a hard drive where the hard drive letters are A: and B:, the two floppies become C: and D:, and the two remaining partitions on the hard drive are E: and F:. The fact that I happen to use a hard disc has no bearing on Protext or the Network. However, PS.Com, intended for use with a hard drive, *does* lock up the machine if you try and run it from inside the Network so I resort to the following procedure using Spell.Com (which only talks to drives A:, B: and M:) instead, (and this should work on any PCW).

Start up the Network and open the Protext window. Create a document file, say Sample.TXT, and save it to a floppy disc. Exit to the Network and call up the Command Line with f7 Utilities. Use Pip to copy this TXT file to M:. Remove the floppy and insert another disc containing the files ProSpell.Dct and Spell.Com and, again using Pip, copy these to the M: drive. Now switch to M: and run Spell.

From the main Spell menu select the M: drive for both the text file and the dictionary. Then run either the single pass check or the two pass check on your TXT file, making any changes as you wish. The old text file (before changes) will be renamed BAK and the newly corrected file will be given the .TXT extension. Now quit Spell and, using Pip, copy the new TXT file back to the floppy disc over-writing the original file. You can also copy (and perhaps rename) the BAK file if you need a copy of the file before it was amended. Press EXIT to return to the Network. Open MD3 and load the corrected TXT file into the Editor. This works with no problems.

A few comments:

• My versions of PS and Spell are 4.17 and 3.14 respectively.

• I find it useful to copy Pip.Com to the M: as well so as to simplify subsequent copying.

• As you need to remember to use USER to change user groups under the Command Line it is better if you do all work in 0.

• I do happen to have 1.5 Mb of memory but I'm not sure if that should make any difference.

PcW 5-volt Power Supply

I recently became the proud owner of a second-hand single 3½" drive PcW 9256 while my original computer underwent recuperative surgery. I used a LocoScript LPP512 RamPack to supplement the memory bringing M: up to 1024k.

I now had the original PcW9256 with 2048k of RAM, two 3½" drives and the standard dot matrix printer as my main workhorse and this second machine as a reserve. I decided to upgrade this second machine so that it now had two drives.

Using LocoScript 3 was no problem and I eventually (idiotically) sent off my Loco 3 master disc for an upgrade to Loco 4 in December 1996 and started using Loco 4 on my main PcW. Despite the bugs the system worked and, to SoftCo's credit, they were extremely helpful with replacement programs in response to my complaints. I have been using Release 2 v4.07 since July 1997 and have now converted to v4.11.

Whilst using my main PcW for MD3 I wished to import text from Loco3 using the conversion facility and inserted my Start of Day disc into the second PcW to copy a file onto another disc to import into MD3. I was amazed to discover that LocoSpel.Dct failed to load. It did load, however, when the LPP512 (and a large chunk of the fonts) was removed. I took a trip to Pinboard Computers at Stevenage to have the set-up checked but did not anticipate that the LPP512 could be a problem, especially as my main PcW accepted it without demur. After a considerable amount of checking Pinboard demonstrated that everything was fully functioning. When I returned home I refitted the LPP512 and did a full test of the unit using Moonstone's *Check-up* program, confirming that it did seem to work.

If you have survived this far, the cure, in my case, was an (external) secondary 5-volt Power Supply Unit which is connected on the outside by a DIN plug and socket and internally via the drive ribbon cable; this provides adequate power for both the drives and the RamPack.

I now have a double output unit to supply both my main PcW and the reserve machine simultaneously. I feel that Power Supply Units could well become a future necessity as components age and tolerances slip. I dare to suggest that the LocoSpell difficulty mentioned in an earlier *Newsletter* could be caused by a similar idiosyncrasy of the equipment. It is not unknown for electrical equipment tolerances to slip until they work individually but not collectively. Be aware.

Keith Bull   Westcliffe-on-Sea

In the February 1998 *Newsletter* I commented on the need to install the Epson LQ2500 printer fitted with the Colour option as the LQ150 in order that it would print in colour. I asked if others had similar experiences. Two letters came in, from Bill Heilbronn and from Monica Dickerson, a follows. If others can offer information on other printers used with LocoScript 4 please write in with your experiences.   Ed.

HP Deskjet 540

I use a Hewlett Packard Deskjet 540 printer which has a colour option, that is, you can replace the Black cartridge with a Colour cartridge in the same position. When I upgraded the printer driver at the same time as I purchased LocoScript 4 I installed the new printer driver for the DJ540 but found that it would not print in colour. I consulted LocoScript Software who advised me to install the printer drive labelled DJ550C.

When I did so the HP DJ540 printed perfectly in colour in both the LX fonts and the printer's own fonts. So, use the DJ550C driver with the DJ540 printer.

Bill Heilbronn   Leamington Spa

Citizen ABC

I have a Citizen ABC 24-pin printer with colour attachment. I bought the Citizen from LocoScript as a package which included the Printer Support Disc. I installed the printer as the Citizen ABC on the disc and use this in both modes. In Standard mode I've installed the LocoScript LX fonts and in Download mode I use the *original* (pre-LX) fonts. I don't use the printer's own (built-in) fonts as I don't like them.

With the original 9-pin printer (on the 8000 series) I experimented with coloured ribbons, changing the ribbons for each pass, and was at the time quite impressed. The colour attachment on the Citizen ABC when used with LocoScript 4 is even more impressive and flexible.

When it comes to using the printer with MD3 it is not so flexible. I do not find it easy to get the registration right for several passes and it doesn't respond well to to the codes for violet, orange and green so I usually do these in two passes: blue/red, red/yellow and blue/yellow.

If I design graphics which do not require really tight registration then I can get a greater range of colours by using different flood densities. I also seem to get banding with MD3 so I am wondering if I have the Options menu correctly set up: I shall experiment when I have time!

Monica Dickerson   Surlingham

A PCW Repair Tip-Off

On my 8512 I have found and cured a fault that seems likely to afflict all 8000 series PCWs and, maybe, others too.

The fault manifested itself as an erratic start at switch-on, similar to the effect that a slack belt can produce. In time, the fault got slowly worse, often requiring a switch off and a second or third attempt to load the program. Eventually, start up appeared like a blown mains fuse, with nothing happening at all: no drive lights, no screen glow. Indeed, I thought the mains fuse *had* blown but through the slots at the back of the case, I saw that the cathode ray tube filament was glowing.

A lot of investigation followed; I found the 5 volt supply trip circuit had locked out. On depowering and repowering I saw the regulated 5 volt supply was only 4.5 volts even if the lockout did not occur. Slowly, over a period of twenty minutes, the 5-volt supply recovered. When it had, the PCW would load programs quite satisfactorily.

Eventually, I traced the cause to part C5017 (see circuit diagram); this is the reservoir capacitor for the 5 volt supply. The oscilloscope showed a large (2.5 volt peak-to-peak) ripple voltage and low (only 6 volts) mean d.c. voltage across the capacitor, these suggesting high internal resistance. This ripple voltage decreased, and the d.c. voltage increased, with warm up. The lockouts had occurred because the current passing through the 5 volt current sensing resistor, R5012, was affected by the ripple voltage; that is, the current was not smooth but a series of pulses, the peaks of which had triggered the lock-out protection circuit, parts Q5006, Q5007 and Q5008.

I reasoned that the other reservoir capacitors, C5018 on the 12 volt supply and C5019 on the 24 volt supply, might have deteriorated similarly, but investigation showed they had not. Nevertheless, it seemed a good idea to buy replacements for all three capacitors while I was replacing the first. In consequence, I bought some replacement capacitors, type JL53H, 470uF, 50 volt (50 volts working to allow later replacement of C5018 and C5019 by this type also) at £1.07 each from Maplin. This is a type that tolerates a high ripple current.

Fortunately, C5017 is accessible. It is at the centre back of the printed circuit board under the neck of the tube and I have now changed it. In consequence, the ripple voltage across it has dropped to 200 mV and the rectified d.c. voltage has risen to 7.0 volts. There are no over-current trips and the regulated voltage does not vary from 5.0 volts.

The original C5017 is of 470 uF and 16 volt working, made by Rubycon. It is 10mm in diameter with a seated height of 13mm. The replacement is 12mm in diameter, which just allows it to fit in, and 25mm seated height.

Unless you are accustomed to working with a soldering iron on printed circuit boards this is not really a DIY repair, but at least you will be able to tell your repair man what to look for.

I first saw the fault on my 8512 about a year ago. It has not recurred since the repair.

G. Swepson

NB A copy of the circuit diagram is available for anyone requiring it; send a large SAE to the Secretary for a copy.

Software Review

An appraisal of **Auto Discat** – a disc cataloguing program for the PCW

reviewed by Mike Elliston

Auto Discat is an abbreviation for Automatic Disc Cataloguer. It is a file indexing and disc labelling utility for the PCW which runs under BASIC, already supplied on the master disc. All you need to do is add your own copies of CP/M (the EMS or EMT file) and Submit.Com from your CP/M master disc to make a self starting copy of the program. The program is supplied on either 3" or 3½" discs and full details are in the manual.

Once loaded you are presented with a Main Menu giving options to control the printer; to read, display and sort the disc directories; to change discs and user groups; to search and select specified files; to print labels or lists, or save the list to disc; and to exit back to CP/M.

The printer utilities menu permits the selection of the printer port and print quality, and enables line feed for use with labels (to start printing at a point some way down the sheet on the first label). Although not apparent from this menu the 0 option is to quit back to the Main Menu. When I investigated the first sub-option, to select the printer port, I merely chose 0 to quit back a level; the program insisted on writing to the disc although no changes had been made. I suspect it assumed that no printer was connected but this was not clear. I ran this sub-option again, to select the PARallel port on the 9512 I was using, to be on the safe side in case it *had* assumed no printer was available for this session.

The second item on the Main Menu is to read the directory of the disc currently in the A: drive. LocoScript users should be aware that this is only a list of the files in *one* user group on the disc, that chosen by the Change Disc Drive or Change User Number options further down the Main Menu; it is not a list of *all* the files on the disc. The third item allows you to view the directory list *last read* with details of the drive letter, the user number and any files specifically selected at Select Files later in the Main Menu.

Option 4 enables you to print a variety of lists of the directory, or just the selected files (e.g. only the .COM files on a disc). Possible choices are a Horizontal list, with the filenames spread across the paper in five columns, a Vertical list with the filenames in one column down the left hand edge, or Labels such as address labels (limited to 36 filenames) or disc labels with 48 names. Frustratingly, there is no STOP or CANcel option here; if you make a mistake you end up printing it or rebooting. I chose to print a Vertical list and was not pleased to find that the system only printed the first 64 filenames of a directory listing of 78 files. Nor was I pleased to discover that there is no EOF (End of File) marker in the listing; I had to eject the paper from the printer manually. No, the [PTR] key insisted that no printer was present (even though I had just printed a truncated list) so I couldn't use that to eject the sheet of paper either.

I decided to use Save Disc Listing to a disc to see if that saved the complete list of files (and not just the first 64). It did but I could only save it to a disc in A: (or by changing the data disc drive between reading and saving) in B:. There is no way of saving a number of filelists on M:. You have the option to remove the data disc and save this filelist along with several others on *another* disc, in A: or B: (if fitted), but please ensure that each list name is unique or they will overwrite one another. The rule seems to be that you will have to save the directory of a disc containing more than 64 files to another disc first and then import them into your word processor to produce printed your lists later. Incidentally, on a number of occasions I did something wrong and got an error number: these numbers refer to the Mallard Basic error messages. These are listed in Appendix II of Book 2 of the Amstrad PCW Manual (the one that you now have to buy separately!)

Change Disc Drive and User Number are obvious and, in case you get lost, the current settings are shown at the top of the Main Menu each time you return to it. There then follows the option to sort the directory listing (held in memory, not that actually on the disc) alphabetically by file name or extension but you have to go back into Display Directory to view the sorted list. This alphabetic order is retained if this sorted list is again saved to a file list on disc (with a new name) which is probably a better way of doing things *but it automatically de-selects any files already selected or tagged*, so sort the directory *before* you select any files.

Finally, you can search through a disc and select certain files by tagging your chosen files in the file list with an asterisk. This is based on the Basic string search routine, looking for a specified string of letters *anywhere* in the file name. Thus, if you search for all the .COM files on a disc it will tag them all for subsequent printing, but it will also flag a file called COMics.BAS because the search string 'COM' appears therein even though its not a COM file; not a major problem, but one of which you should be aware. Again you must return to the Display Directory option from the Main Menu to be able to view the tagged files among the full file list (and there's no way of un-tagging the unwanted file named Comics.Bas here). You can not use wild cards (*.* or ?) in this file search and select routine.

Finally there is 0 to quit the program. Do not panic if the screen menu disappears while you are away for a coffee; there is an automatic screen saver built into the program – touch a key and all will return to normal.

It is noted in the manual that this program is not a disc management utility; you cannot copy or move the tagged or selected files to another disc. Auto Discat simply produces lists or labels of the files (or selected files) stored on your discs quickly and easily. Just be aware that it only logs one user group on a disc at a time, which may be important to Loco-Script users, and that there are physical limits to the number of file names it can print on the list or labels.

Auto Discat is available on either 3" or 3½" disc from SD Microsystems, PO Box 99, Thetford, Norfolk IP24 1NA [telephone: 07000 736427] at £12.50 inclusive. It runs on all PCWs and PcWs (except, as with so many of these utilities, the PcW16).

Software Review

An appraisal of **DIRECT** – a disc management program for the Amstrad PCW

reviewed by Nick Chaundy

It is good to see that programs are still being written for the Amstrad PCWs and this offering, from Dansoft Software Products, whose address is 44 Charcot House, Highcliffe Drive, Roehampton, London SW15 4PT, shows that PCW programming is very much alive and well!

Direct is essentially a 'housekeeping' program which offers some of the facilities of programs such as Creative Technology's *MicroDisplay* or Dave Rand's *NewSweep*. **Direct** cannot be regarded in any way as a direct (please excuse the pun!) replacement for either of these, but it does offer some facilities which are not accessible within either MicroDisplay or NewSweep. This is not withstanding the fact that both Micro-Display and NewSweep each offer their own unique facilities that are not available within the Direct program environment.

The review copy provided is an upgrade from the first disc received, with which I had experienced some problems when running it on a 9000 series machine with a 3½" drive. I am delighted to report that this problem is now fully resolved with the revised 'front-end' of the install-ation module.

The presentation of both the manual and the disc label is of high quality. I especially liked the imaginative logo design showing a three-inch disc resplendent with a collar and tie!

The conveniently sized A5 manual is very clearly set out with each step of the installation procedure explained. Error trapping, at the installation stage, is excellent – amply demonstrated by the fact that if the wrong disc is inserted at any stage, this is picked up automatically by the program and the user advised accordingly.

I decided to embark upon a 'Start of Day' installation on a 9512 with twin 3½" drives; precisely the combination which had previously proved to be so difficult. This time the installation process was completed with no trouble at all and I accepted the very useful option offered, to include DISCKIT on the Start of Day disc. There were a number of transient messages which, according to the manual, "should be ignored". This did not present itself as a problem but could perhaps be confusing to a novice.

The distinctive three part screen is clearly explained in the manual. Logging a new disc has thoughtfully been set up to be achieved by pressing f7, just like LocoScript 2, 3 and 4! Unfortunately LocoScript files cannot be displayed directly (conversion to an ASCII format is necessary first). Interestingly, though, *WordStar* and *Protext* files can be viewed directly.

A specific advantage that Direct offers, when compared to other house-keeping programs, is that you can RUN applications from within

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Dave's Tips on Floppy Disk Care

by Dave Smith

Most floppy disk problems are caused by mains voltage fluctuations (usually dips), poor quality disks or operator error. They can almost always be avoided by a proper backing up strategy. The following tips, compiled from experience in salvaging thousands of floppy disks, may help to prevent future disasters.

If you suspect a hardware problem get your machine checked immediately. Do not use it in the meantime and never test it with an important disk – use a new one.

Don't switch the machine on or off with disks in the drives. Get a mains spike protector and avoid using a ring main supplying devices that switch on and off or carry heavy loads. Even so, these gadgets won't prevent the dips – only an uninterruptible power supply (UPS) can do this. Try to avoid working late at night or during storms. Use good quality branded floppy disks. These usually have a batch number or country of origin on them.

Don't leave the disks in the drive for long periods. Recycle old disks frequently by reformatting them. Don't touch the surface of disks. Keep them in jackets or boxes away from dust. Don't take the disk out of the drive while the disk light shows that it is being accessed.

Keep disks away from magnetic fields from domestic or office equipment, magnets in telephones, hi-fi speakers or children's toys. Avoid extremes of humidity and temperature or dusty environments. If transient errors keep occurring, clean the drive occasionally with a non-abrasive head cleaner. If static electricity is a problem, earth yourself before working, or get an antistatic mat.

Use the correct format of disk for the type of drive that you are using. A common problem with modern 3½" disks is 'cross-formatting'. You can use 720k (DD) disks in a 1.44Mb drive if they are formatted to only 720k. Formatting a high density (HD) disk in a low density (720k) drive is also risky. Data on such 'cross-formatted' disks degrades quickly. 1.44Mb disks have an extra hole in the corner opposite the 'write-protect' hole; 720k disks do not. NEVER use high density (HD) disks in a PCW/PcW 3½" drive – use only DD disks.

The same problem occurs with the older 5¾" disks. You should also avoid cross-formatting 360k and 1.2Mb disks. 360k disks have a hub ring; 1.2Mb disks do not. These disks are also more vulnerable than modern 3½" disks. Avoid bending them and, if you are sending them by post, always put a stiffener in the parcel. Only write on the labels with a felt tip pen once they are stuck on these disks. Put the disks back in their protective jacket once they come out of the drive. Do not lay them unprotected on the desk – this can scratch the disk surface.

The Amstrad PCW 3" 'flippy' disks are unusual. The PCW 8256/8512 180k A: drive is single-headed, so they can be used on both sides. However the 720k B: drive of that machine and the A: drive of

the PCW9512 are double-headed so you can only use one side. Don't try to mix mix 180k and 720k formats or use the reverse side of a 720k 3" disk. On the Amstrad 8512 you can't write to a 180k disk in the 720k B: drive or to a 720k disk in the A: drive. Don't try to copy a 720k B: disk onto a 180k disk in A: – it won't work!

After working with a 3" disk lay it flat while it cools – the adhesive used in some of the cheaper disks melts and the hub may become off-centred. When you format a new disk for the PCW/PcW machines, reformat an old one or copy a disk, use DISCKIT (or LocoScript 2, 3 or 4) to *verify* it afterwards. This checks that the disk is OK and may avoid problems later.

Floppy disks wear out eventually. Use plenty – they are cheap in comparison with your time. Use the 'grandfather, father, son' cycle when you make a significant change to a file and backup every week or so anyway, even on disks to which you only make small changes. This procedure is described at the end.

Always use the 'write protect' tabs on a disk if you are not changing it. This is especially important when copying. When the hole is open the disk is protected. Take care to swap the disks properly when copying in several parts. Do not hold the [Enter] button down too long when replying to prompts – the machine may remember this and proceed later without pausing.

Remember that a backup disk has one function only – that is to make copies from. Never work on a backup disk – once you use a backup disk it is no longer a backup! Keep your backup and working disks in different places. Whenever you

make a copy of a disk use the copy – and don't keep using the same disk. This immediately confirms that the copy is valid. Don't erase files or reformat old disks unless you have first checked that the new copies of these are OK. Keep some pre-formatted disks handy.

Some modern PC programs quickly fill up the floppy disk with temporary files and then 'crash'. Work only on your hard drive if possible and then copy the files off onto floppy disks for backup or transit purposes. Try to keep your files small. When you edit a document you are actually creating a new version so make sure there is enough free space on the disk or on the RAM drive. On a PCW/PcW machine use different disks to store LocoScript documents and other CP/M files – LocoScript and CP/M interpret the user groups quite differently and you may lose data. Do not store your files on your 'start of day disk' if this can be avoided. On a PC disk never store files in the root directory – always use sub-directories. Don't store your program files and the data on the same disk. Avoid mixing data from different applications on the same floppy disk.

Get the latest version of your software. Programs are like a tramp's bed – there are always a few bugs lurking! Take time to study the manual. If something goes wrong and you get a disk problem or if you erase a file accidentally, stop using the disk immediately. Write down any error messages precisely. Abandon any edit and do not ignore errors and continue. Working further on such a disk may reduce the chance of a successful salvage. Before doing anything else write-protect the disk and then try to make a copy of it. If you can't copy the

disk and don't have the expertise to tackle the salvage, don't dabble!

The Generation Game

The ultimate backup, of course, is a hard paper copy (or two), since some hardware problems can destroy data on all your disks, whatever you do. However, keeping several copies of each of your disks is prudent and more efficient. The 'grandfather, father, son' cycle of backing up disks is a good way to ensure that you always have a recent copy of your data in case anything goes wrong with the disk on which you are working. This means keeping three sets of disks and at any time only using one disk of each set (the 'son') while keeping the others as backups. When you make changes to your working disk (the son) use the 'grandfather disk' of that set to to make the backup on, copying from the son onto that disk. This disk then becomes the new 'son' as the next working disk. The old son becomes the new father and the old father becomes the new grandfather. So with each backup every member of the family moves to the earlier generation. Keeping just one backup doesn't cover you against problems that may arise when making the next backup.

© Dave's Disk Doctor Service Ltd

The above hints and tips on how to handle your disks and safeguard your work are reproduced by permission of Dave's Disk Doctor Service Ltd. Dave Smith and his colleagues operate this disk and data rescue company whereby all profits go to the BACUP charity. Please contact 01892 835974 for further details.•

[from p.43] the Direct environment. I had no problems running CP/M .COM files; programs written in BASIC all ran perfectly well but the SYSTEM command was needed to get back into Direct again. (This procedure is explained fully in the manual.)

The file handling commands, such as Copy, Rename and Erase, all operate exactly as one would expect. The *Print File* option is, however, subject to the same LocoScript limitations as *Display File* referred to above.

The built in *Memowrite* text editor is another useful facility which sets Direct apart from other housekeeping programs. The memory buffer for this can be quite a small block (only 20 or so lines of text) but, fortunately, you can easily save text to disc. Any text loaded in excess of the limit will be truncated. (A warning about this is given in the manual.)

The on-line *Help* facility is useful. As there is no index of keywords I used the *Display File* command to browse through the HELP file itself!

Possibilities for future upgrades which should be considered might include:
• the ability to display LocoScript documents (there may be copyright issues involved here?);
• the elimination of spurious transient messages;
• a file compression facility;
• a graphics viewing facility.

My overall verdict is to recommend this program. It is user friendly and the manual is excellent – both crucial elements of any recommendation as far as I am concerned. Daniel French, the program author, is to be congratulated for creating such a useful product. •

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Advantage, 20 Regent Street, Cheltenham, Glos GL50 1HE ............... 01242 224340
Alladink, 43 High Street, Eyemouth, Berwickshire TD14 5EY ........... 01890 750965
A-Z Computers, 134 Heath Road, Twickenham, Middx TW1 4BN ............ 0181 7441834
Basic98, R P Hill, 84 Wincheap, Canterbury, Kent CT1 3RS
Berkshire Amstrad PCW Users Club, 121 Bullbrook Drive, Bracknell, Berks RG12 2QR
British Amstrad PCW Club, 10 Sheridan Ave, Benfleet, Essex SS7 1RD ... 01702 551618
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 99, Thetford, Norfolk IP24 1NA    ........... 07000 736427
Solent PCW Services, 20 Masefield Cres, Waterlooville, Hants PO8 8JS . 01705 268780
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
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8

10

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Protext v2.23 has had 12 years continuous development. Despite being highly developed, above all, it is very fast and the user-friendly 'look and feel' of the program has been maintained throughout it's development. Because of **Protext**'s wide range of useful features, it is impossible to cover everything here, but further information is available if you send an A4 SAE to Brian Watson at **Protext Software**, *Harrowden*, 39, High Street, Sutton-in-the-Isle, ELY, Cambridgeshire CB6 2RA.

CP/M Protext, the one-disc word processing solution, costs just £25. It is available on 3" or 3½" disc from **ComSoft**, 10 McIntosh Court, Wellpark, GLASGOW G31 2HW, or Brian Watson at **Protext Software**. All cheques must be payable to **ComSoft**. Orders may be phoned to 0141 554 4735 or 01353 777006, quoting credit card details. Please ensure you give your PCW/PcW type and your drive A: size when ordering.

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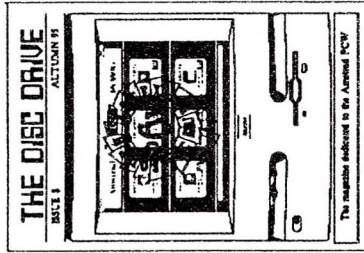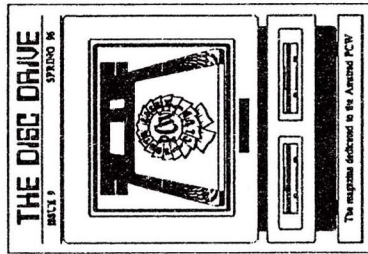Please contact David Lalieu on 01702 551618 for further details.
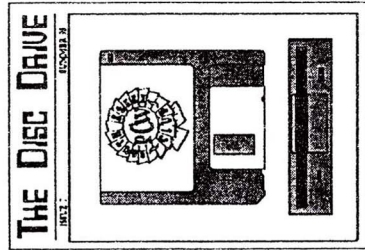
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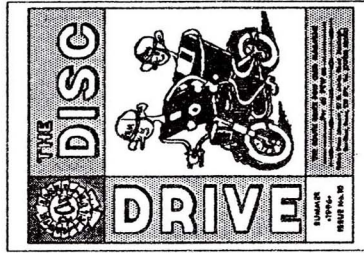* Rogue's Gallery.
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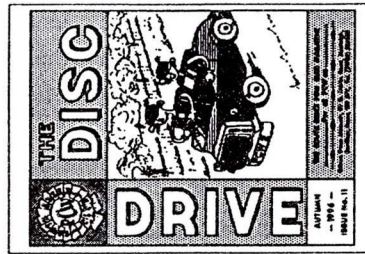## Issue 9

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The No.1 Amstrad magazine

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# LocoScript 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.
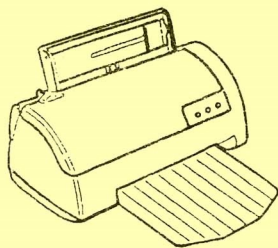
All for £135 including VAT and delivery. (£125 if you return your LocoScript 3 master disc and £99 if you return your LocoScript 4 master disc). If you have a PCW8256/8512 or PcW9256 you may also need the Power Pack at an extra £50.
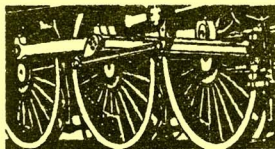
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Note: To use an external printer with LocoScript 4 you need either the LocoScript 3 or LocoScript 4 Printer Support Pack. To print in colour you need a suitable printer and the LocoScript 4 Printer Support Pack. The JP170 is colour upgradeable, but this option is not supported by LocoScript 4. The Power Pack normally costs £59.95 unless purchased together with a printer package.