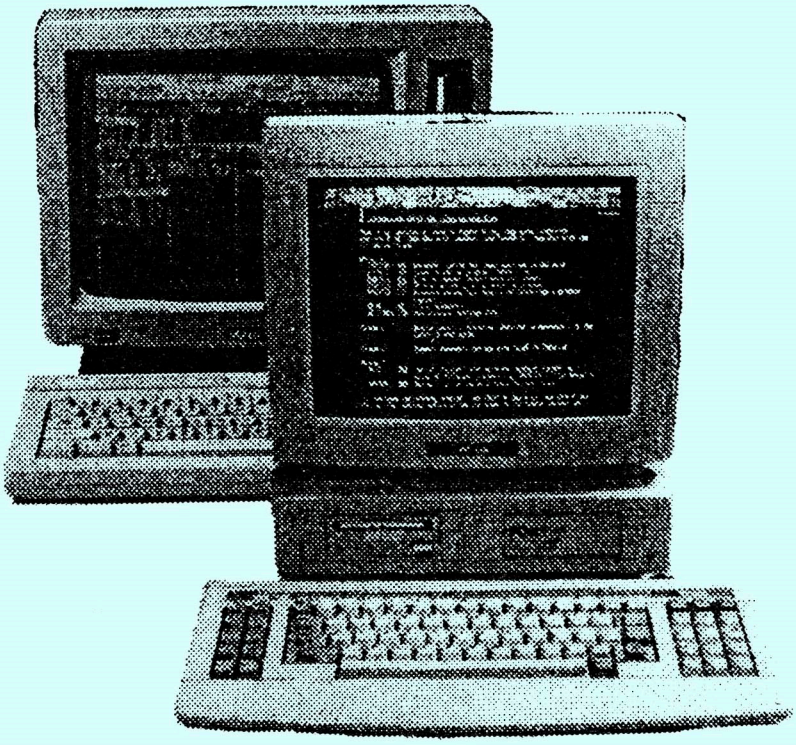
The Disc Drive

Issue 20 Winter 1998/99



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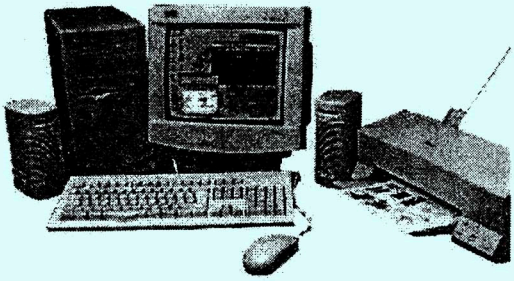

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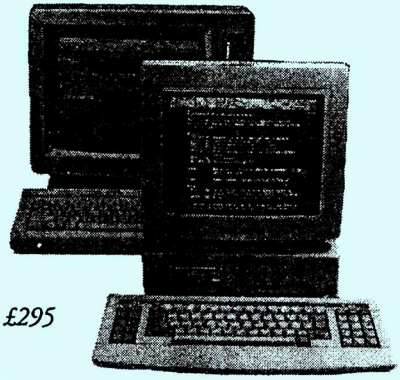

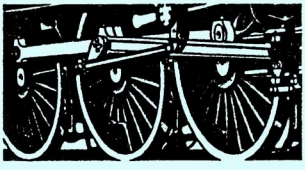

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SATURDAY 15 MAY 1999

ALL ROADS LEAD TO

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In 1994 Microdesigners travelled from around the country to enjoy a fascinating MD Day organised by the Crawley PCW Club. Creative Technology, Crazy Diamond, Crossword Maker, DGC Software and ArtMonk Design were among the companies taking part.

Now, in May 1999, Crawley is planning a one day PCW extravaganza. A chance to learn what's new, how to solve that technical problem or make the latest program work.

For ticket and final programme details watch the PCW press, keep in touch with your local PCW Club or, after Easter, contact

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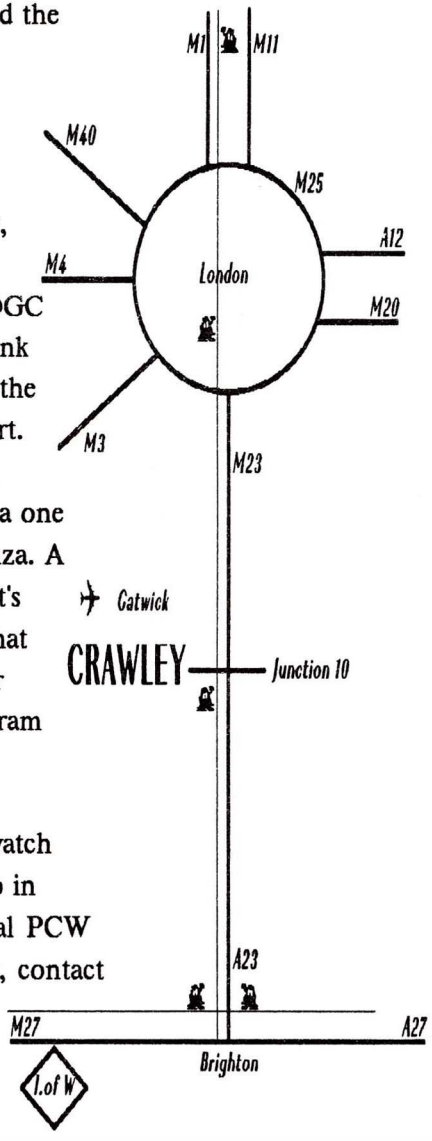

MEET: The movers and shakers from the PCW world. The British Amstrad PCW Club, producers of 'The Disc Drive'. Adrian Braddy, Editor of 'PCW Today'. Doug Cox and the MDIUG team. John Elliott. John Craggs, creator of 'Writer's Desk', the invaluable guide to making your writing pay. The companies still serving the PCW.

FIND OUT ABOUT': Using the latest Loco-Script programs, getting the best from the PcW16, and how to keep your PCW working.

Contents

The Disc Drive

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From the Editor's Desk

The lead article in this edition is the announcement of the PCW Day organised by the Crawley PCW Club. There is an advertisement elsewhere which also gives further details. I would urge as many of our members as possible to attend this event. The last such occasion, back in 1994, was most successful in that it gave PCW users from all over the southern half of the country the opportunity to meet and greet and exchange experiences. There will be quite a contingent from our own club attending so, if you can make it, there is the chance for you to meet the committee and other members face to face. I know that it is impractical for many of you but, if you can do so, please be there. I hope to see you in May.

On later pages, Daniel continues his explanation of Mallard BASIC whilst George Swepson submits a very powerful program for cataloguing your discs. A selection of clip art is followed by two articles on the PcW16. A method of producing codeword puzzles on your PCW shows how to add variety to your publications. Two news items from R J Beadon come next, then part nine of Adrian's BASIC suite, preparing for that accidentally erased file by Rod Shinkfield, a comment on the '16 by Michael Banister and, in conclusion, a light hearted item from Tony Sheridan. You may ask why only *one* reader's letter has been printed – it's the only one that's been sent in!

Mike Elliston

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Saturday 15th May 1999

Make a note in your new diary now for the Crawley PCW Day is not to be missed.

From 10am until 4pm there will be the opportunity to explore a wide range of PCW topics, from the oldest to the latest in programs and technology.

With plans still being made the programme is slowly developing but experts will certainly be demonstrating how to get the best from MicroDesign, the Network, scanning and the finer points of LocoScript.

We hope to have several PcW16s running the full range of available programs and John Elliott will be working with a PC, a PcW16 and a PCW. Brian Watson, of Protext and the 8BIT Association, will be on hand.

If you are involved in running a PCW Club the day will offer the chance to meet members from other clubs. The Crawley MicroDesign Day in 1994 saw representatives from the Widmore, the M25, MicroDesign Essex, Somerset and Hastings clubs among others swapping ideas and information.

For postal members this will be the time to meet the officers and other members. An opportunity to make your views known on how the club can meet your needs.

Crawley is ideally suited for this type of event because it is so accessible. Its affinity with Gatwick means that it is well served by road and rail. Long distance travellers with air miles to spare could even investigate flying into the airport. For visitors needing to stay overnight there is a wide range of accommodation available nearby.

The venue is the Christ Church, a modern well equipped complex, just two minutes walk from Three Bridges railway station – which offers free parking on Saturdays! For this occasion the whole complex has been booked.

Parking adjacent to the hall can be arranged for wheelchair users and their tickets will cover admission of a helper if necessary.

Light refreshments will be available on site throughout the day and the nearby 'Snooty Fox' offers a wide menu.

All this for a Fiver! And, with luck, there will be enough 'special offers' to more than cover the cost of travel and ticket. See the advertisement section for further details.

Esther Welch

Programming in Mallard BASIC: 3

by Daniel French

Hello and welcome back to this fascinating foray into the world of Mallard BASIC programming. Sorry there was no article in the Autumn issue – I was so busy with college that I missed Mike's deadline. My new college courses are forcing me to work with those awful machines, PCs – I complained a great deal about the unfairness! Now the course has slowed down a bit, I have much more time to devote to the world's *best* computer – the PCW!

In the first article (Issue 17) I showed how BASIC could be used in a simple way, as a calculator. I also explained the principles of line numbering and then went on to explore variables and the INPUT command. The PRINT statement was also looked at.

In the second article (Issue 18), we got to the meat of the subject. I discussed the various different types of variable available. We had a look at the INPUT command used in conjunction with STRING variables. String concatenation (joining) was explored, and the LEFT$ and RIGHT$ functions were described. I also explained about the semicolon, and its usefulness in PRINT statements.

If you require copies of these literary masterpieces please get in touch with David Lalieu on 01702 551618, who will be pleased to provide you with back issues of the *Disc Drive* containing the relevant material.

In the previous articles I represented what the user types in with brackets. In this article such input is shown in **bold type** instead – easier to understand.

Before you go any further you need to load BASIC into your PCW! To do this simply switch on your computer and insert your CP/M disk into the drive. When the A> prompt appears just type `BASIC` [and press RETURN].

In the last article I promised we would have a look at some more string slicing commands and introduce loops into programs. This is where the fun begins! The commands and techniques which will be explored in this article allow us to manipulate strings in interesting and useful ways and to create programs that actually do something worth doing. I shall begin by explaining the basic principals of program loops.

Caught in a loop

A loop, put simply, is a section of a BASIC program which will repeat itself a specified number of times. There are several methods of using loops in Mallard: there are `WHILE...WEND` loops, `GOSUB`s, and `FOR...NEXT` loops. It is the simplest of these, the `FOR...NEXT` variety, which will be shown in this article. `WHILE...WEND` will be shown later, much later! (Is 2001 okay with you, Mike?)

Here is a simple example, illustrating the BASIC (forgive the pun) idea, the operating of which should be quite obvious. The program lines should be entered in Mallard BASIC exactly as shown:

```
10 FOR v = 1 TO 10
20 PRINT "This piece of text will be shown ten times"
30 NEXT v
```

To run the program, type RUN [return]. As you can see, the piece of program sandwiched between the FOR and NEXT commands is repeated ten times. If line 10 were changed to:

```
10 FOR v = 1 to 14
```

the command(s) in line 20 would happen fourteen times.

The above program shows something which is not used most of the time. Sometimes you can get away without saying NEXT v, but it is easier if you do, because although it may not seem necessary now imagine what it would be like when you write programs with 50 loops, all working inside each other! Best to play it safe and specify the variable name after the NEXT – not doing so could give you headaches, the like of which you've never experienced before!

The FOR command is very much more versatile than this, however. You may be wondering why it is necessary to specify a variable name in the command. The reason for this is simple – for each repetition of the loop the specified variable is incremented by one (it can be incremented or decremented by anything you like, but let's save that for another occasion). For instance, in the above example, in the twelvth "happening" of line 20 the variable v would be equal to 12. See? Let's revise our program to show this in motion. Only line 20 need be changed so, if the above program is still in memory, just retype line 20 as shown below. The new line 20 would overwrite the old one but the rest will remain intact. If you have since erased the program with the NEW command, enter the original program again but using the line 20 show below.

```
20 PRINT "This piece of text has appeared ";v;" of 10 times"
```

Notice how v is treated as a simple number variable and how number (as well as string) variables can be included in a PRINT statement, as shown. Finally, note how the semi-colon can be used to mix both text and variables in a PRINT statement.

If you then run the above (revised) program with the RUN [Return] command, you should see the following. Note that only the first three repetitions are printed here.

```
This piece of text has appeared 1 of 10 times
This piece of text has appeared 2 of 10 times
This piece of text has appeared 3 of 10 times...
```

But you get the idea, don't you?

The tables are turned

Now, lets see this type of loop in action, in a times table display program. The following program is really the first useful program we have seen – it does something constructive – and it's short! It uses nothing that we don't know about yet and so it should be quite easy for you to follow what it is trying to do. Before typing it in erase the memory of any data with the NEW [Return] command.

```
10 PRINT "Which table ";
20 INPUT table
30 FOR x = 1 to 12
40 PRINT table;" x ";x;" = ";table*x
50 NEXT
```

Try running this with the RUN command and you will be presented with the following. Note that all input from the user is shown in **bold type**.

```
Which table ? 5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20...
```

Of course, when you run it the program will produce the table twelve times but only the first four multiplications are shown to save space. Now, let us look at the program in detail, piece by piece.

```
10 PRINT "Which table ";
```

This is an easy one – it shows the message "Which table". The semicolon after the second quotation prevents the display from moving down to the next line on the screen after presenting the message.

```
20 INPUT table
```

Another easy one: take a number input to the keyboard and store it in the variable table.

```
30 FOR x = 1 to 12
```

Repeat whatever is between here and the NEXT x statement, twelve times.

```
40 PRINT table;" x ";x;" = ";table*x
```

This is the bit that does the business. It may look complicated at first but, after you have looked at it, you'll see that it is simply everything we've already done already. It displays the contents of variable "table", followed by an "x" character, followed by the contents of the variable "x". Here x is the variable which increments each time the loop is executed (repeated). Then an equals sign is displayed followed by the result of the multiplication (table*x). Notice how, again, the semicolon has been used to prevent carriage returns appearing in the wrong places.

```
50 NEXT x
```

This ends the loop and returns to the beginning of the loop, if necessary.

Time Waster!

I hope this has cleared up any confusion that you may have had before. Incidentally LOOPS can be used to create a time delay in a program. This is sometimes useful as you can show a message to the user, leave it on the screen for a short while and then remove it automatically.

```
10 FOR pause = 1 to 1111
20 NEXT pause
```

As you can see, this loop repeats exactly one thousand, one hundred, and eleven times. Because there is nothing inside the loop, it simply does nothing 1111 times. However, doing nothing in computing is still doing *something* and it takes *time*! But not much... Doing nothing 1111 times results in a pause of one second, give or take a couple of nanoseconds! So, 555 would be a half-second pause and 2222 would be a two second pause. Doing nothing 66660 times would make a pause for one minute. Obviously, doing nothing just once produces a negligible pause but is sometimes useful in games programming.

Chopping and changing

Now, at last, we can move on to the String Slicing functions which I mentioned some time ago. The most interesting, and most versatile, of these is MID$ and it is this that we shall explore in the remainder of this article. The easiest way to explain the parameters of MID$ is to show you a sample of the command but with these parameters replaced by words:

```
sliced$=MID$(toslice$,wherebegin,howmanytoslice)
```

or

```
sliced$=MID$(text$,where,howmany)
```

Ouch! Much too difficult. Let's see a worked example instead. Type NEW [return] to erase any information currently in memory and then type the following program:

```
10 text$="AMSTRAD PCW8256"
20 where=1
30 howmany=7
40 sliced$=MID$(text$,where,howmany)
50 PRINT sliced$;" Make EXCELLENT computers!!!"
```

When you RUN this the screen will show:

```
AMSTRAD Make EXCELLENT computers!!!
```

This shows how versatile this command is, but it can be even more so. The next program, a variation of the above one, demonstrates this:

```
10 text$="AMSTRAD PCW8256"
20 where=3
30 howmany=5
40 sliceone$=MID$(text$,where,howmany)
50 where=9
60 howmany=3
70 slicetwo$=MID$(text$,where,howmany)
80 PRINT "The magazine ";slicetwo$;" Today is published
   by ";sliceone$
```

When you RUN this program you may be surprised to see the message

```
The magazine PCW Today is published by STRAD
```

As you can see, sliceone$ and slicetwo$ are produced by chopping pieces out of text$ where their contents are determined by the numbers after text$.

Here is one more demonstration, just for the sake of clarity

```
10 text$="AMSTRAD PCW8256"
20 where=13
30 howmany=3
40 sliced$=MID$(text$,where,howmany)
50 slice=VAL(sliced$)
60 PRINT "The PCW 8256 has ";slice;" Kb of memory"
70 PRINT "The PCW 8512 has ";slice*2;" Kb of memory"
```

Oops! I've accidentally introduced a new function. The VAL function, as you may have guessed, will take the contents of a STRING variable and store it in a NUMBER variable. Note that you can't do this if your STRING variable contains non-numerical data! If you try to perform A=VAL(A$) where A$="Down with PCs", then you find that A (not surprisingly) will equal zero. If, however, you try A=VAL(A$) where A$="9512" then A will equal 9512, too. This is how you can perform mathematical operations on STRING variables. As you may recall, I mentioned this in the first article, but I didn't tell you how to do it. There will be a fuller description of VAL and its counterpart STR$ (which does the opposite) later in this series.

Oh, no! The program you've typed in won't work? Well, the error message that you will undoubtedly see will tell you the line in which the error occurred. Simply retype that line, rerun the program, and you should find everything working perfectly.

Rule No.1 of BASIC Programming:
Thou shalt always copy the listing *exactly*.

If the program works, but produces output that looks as though it comes from a previous example, then you probably typed in the new program before clearing the memory of old data. If this is the case type NEW [Return], retype and rerun the program.

Rule No.2 of BASIC Programming:
Thou shalt always *erase* the memory with NEW before typing a new program.

If the program works, shows no error messages yet produces incorrect results, then you have mistyped something but not seriously enough to produce an error message. Check through the program and ensure that it is identical to that printed in the magazine. Double check any *numbers* that appear in any programs too, especially those in this article – this could easily be the cause of your troubles.

Rule No.3 of BASIC Programming:
Thou shalt not *panic* when something goes wrong.

If you still can't figure it out, or you just want to chat about programming, or PCWs in general, please feel free to give me a call on 0181 876 9251 (London) during reasonable hours and not on Fridays. If you wish you can e-mail me now as well; I have finally got myself an e-mail address. You can contact me on meldrew@spuddy.mew.co.uk. (*Meldrew*, by the way, is my nickname – coming from Victor Meldrew in *One Foot in the Grave* on BBC 1. I have been told on several occasions that I bear certain similarities to him *and I don't believe it!*)

NEXT TIME: In the next article we examine VAL and STR$ among others. See you then and please, please, *have fun*, because computers and programming are fun.

Catalog.Bas and Caracter.Bas

by George Swepson

What *is* on this disc, George?

Following on from the discussion in previous editions of the *Disc Drive* on cataloguing both LocoScript and CP/M data discs, George Swepson has written a very powerful BASIC program which lists the name (label) of the disc, the date upon which the catalogue was produced, the files in *all* user groups in alphabetical order, the number of files, the disc space used and free, and sends it to the ⇒ printer of your choice! Because of the different types of printer in use, George has also written a couple of subsidiary programs that set up the left hand margin for you on a daisywheel and enable the printing of some of the more unusual characters on other printers. The following is a printout of the directory of the disc upon which the suite of programs is made available:

~~~~~~

```
                    Files on Disc: CARACTER/CATALOG                 11/10/1998

DISC SPACE              44k USED              662k FREE                6 FILES
Group 0
#$%'@{_}."""" 2k   1½3§5^78.000  2k   CARACTER.BAS  2k   CATALOG .BAS  16k
LHMARGIN.BAS  2k   README  .LS2  20k
```

~~~~~~

A copy of George's disc is being put in the club software library (held by Nick Chaundy) and George requests that users provide him with feedback on how well the programs run and what difficulties were encountered. I am of the opinion that this is by far the best disc cataloguing program I have come across in both the public domain *and for sale*. I would urge readers to try a copy for themselves and report back to George so that any alterations can be made. You will see from George's explanation which follows how truly powerful it really is. *Editor.*

CATALOG.BAS and CARACTER.BAS

CATALOG.BAS displays the filenames on a PCW disc; it lists the files in alphanumeric order in their separate groups with their group names and the number of files in each group. It shows the file lengths, the file attributes (R=Read Only; H=Hidden or System), the date, the disc name, the used- and free-disc space, and the total number of files on the disc. CATALOG.BAS has been written principally for those PCW users whose printer has no Screen Dump facility.

Those users whose printer *is* capable of Screen Dumping, i.e., the owners of PCW8256, PCW8512 or PcW9256, can obtain a catalogue of their discs by displaying the LocoScript Disc Management Screen, putting paper in their printer, then pressing [EXTRA] and [PTR] together. If your disc contains files in more than four groups or contains many files you will have to make more than one dump, but the procedure is quick and easy and gives an accurate rendering of your filenames. If you want to see them remember to display your *Hidden* files and/or *Limbo* files before dumping.

Users of PCW8256, PCW8512 and PcW9256 can use CATALOG.BAS but the matrix printer has a minor limitation. No printer will perform perfectly on every possible LocoScript filename but some are better than others; see below.

To display *all* the possible LocoScript filenames CATALOG.BAS needs characters that are not readily available in Basic. It is the function of CARACTER .BAS to supply these characters, so this program has to be run first.

To use CARACTER.BAS and CATALOG.BAS you should switch on your PCW or reset it (with [SHIFT] [EXTRA] and [EXIT] simultaneously), then insert your CP/M disc into Drive A:. You may have to tap [SPACE] to get it to load. When the A> appears, type `BASIC` and press [RETURN].

When the `Ok` prompt appears remove the CP/M disc, and put the CARACTER/ CATALOG disc into a suitable drive. Type `RUN "d:CARACTER` and press [RETURN] where `d` is A or B or C or whichever is the drive into which you have put the disc; CARACTER.BAS will then load and run. When it has made its characters it will cause CATALOG.BAS to load and run; you have only to follow the instructions on screen.

CATALOG.BAS will allow you to catalogue files *either* in groups 0 to 7 only *or* in *all* groups; i.e. 0 to 15.

If you choose the 0 to 7 option, CATALOG.BAS will erase Read-Write files in groups 8 to 15. Normally, these will be LocoScript limbo files but, be warned: if you want to keep any of these files you should recover them from limbo before running CATALOG.BAS. It is necessary to erase the files in groups 8 to 15 so that the program can calculate the remaining free disc space correctly. If you have any files in these groups and hope to preserve them by opening the write-protect hole on the disc, the program will complain and will refuse to proceed until you have closed it.

If you choose to catalogue *all* groups, CATALOG.BAS will treat them all equally without erasing any files.

If you want to stop either of the programs running press `[STOP]`. If you want to re-run the current program, just

type RUN and press [RETURN]. You can return to the CARACTER.BAS program from CATALOG.BAS by [STOP]ing the CATALOG program and going through the RUN "d:CARACTER routine again.

CATALOG.BAS will both display its findings on screen and print them to a choice of printers; you choose the printer from a menu within the program and you don't have to use DEVICE.COM first.

CATALOG.BAS prints on A4 paper. However, it produces an area of printing that is small enough to be cut out and wrapped round the disc and be retained by an elastic band, or slipped into a small polythene disc wallet. Of course, the print does not have to be cut out, in which case the sheet can be punched and entered into a ring binder. As CATALOG.BAS will produce multiple copies either on the same sheet if there is room, or on separate sheets at your choice, you can have a copy both for the disc and the binder.

CATALOG.BAS will not lose its gathered data if you switch between printers but it will as soon as you choose to catalogue another disc.

CATALOG.BAS can accommodate up to *512* filenames per drive and per group. I have used CATALOG.BAS to catalogue the filenames on my GEM hard disc but as I do not have 512 files in any drive or group I have not been able to test CATALOG.BAS to this extreme.

Remember that if you have a hard disc, in LocoScript your floppy drives are A: (and B: if you have one) and drives C:, D:, E: and F: are on the hard disc. However, in CP/M (and therefore in Basic) the floppy drives are C: (and D: if you have one). Drives A:, B:, E: and F: are on the hard disc. LocoScript Drive C: = CP/M Drive A:.

Inclusive of headings and blank lines there are up to 80 printed lines per sheet. If you have more files than will fit onto one sheet of A4, the program will continue onto as many sheets as are necessary. If you use either of the PCW printers the program will tell you when to change paper; if you use an external printer the program will tell it when to change. The program will not split a group between sheets.

The small size of type face has consequences for users of the PCW daisywheel printer: you should use a print-wheel suitable for 15 or 17 cpi printing. The Mini Gothic 15 wheel, available from LocoScript Software, is excellent for the purpose.

When loading paper, daisywheel users may note that the status line shows 'Matrix' instead of the usual 'Daisy' or 'PCW9512'. Don't worry, this is intentional; your printer will revert to 'PCW 9512' when next you load LocoScript or to 'Daisy' when next you load CP/M.

At the start of printing, users of both PCW matrix and daisywheel printers will be told to load paper with the left edge at Ø on the bail bar. On the matrix printer this position is obvious enough but if your daisywheel is in its original state there will be no indication. The program LHMARGIN.BAS helps to define Ø on the bail bar by printing a column of characters in the left-most column and your zero Ø is just to the left of this column. LHMARGIN.BAS should be run *before* any program (such as CATALOG .BAS) has the chance to alter these margins. Of course, if after once finding Ø you mark the bail bar appropriately you will not have to run LHMARGIN.BAS again.

```
                    Files on Disc: LOCOSCRIPT 2 V2.29B              09/10/1998

DISC SPACE              552k USED              154k FREE              34 FILES
Group 0                 SYSTEM                 22 files.
24PIN    .#ST   30k H   24PIN    .PRI    2k H  CONTENTS.DOC    2k    DISCMAN .JOY   30k H
INSTALL .DRV    6k H   J229LOCO.EMS   40k H  KEYBOARD.JOY    2k H  LOCOFILE.JOY   22k H
LOCOMAIL.JOY    6k H   LOCOSPEL.JOY    8k H  LQ24     .DRV   6k H  LQ2500   .#CO    4k H
LQ2500   .#PG   4k H   LQ2500   .#SC    4k H  LQ2500   .#SS   4k H  LQ2500   .PRI    4k H
PCW9512 .#SF    2k H   PCW9512 .PRI    6k H  READ     .ME    6k    SCRCHAR .JOY    4k H
SCRIPT   .JOY  34k H   SETTINGS.STD    2k

Group 1                 BASIC                  1 files.
TEMPLATE.STD   18k

Group 2                 BOOKPAGE               1 files.
TEMPLATE.STD    2k

Group 3                 LETTERS                1 files.
TEMPLATE.STD    2k

Group 4                 BOOKCHAP               2 files.
LOCOSPEL.DCT   36k      TEMPLATE.STD   2k

Group 5                 TECHNICS               2 files.
LOCOSPEL.DCT   68k      TEMPLATE.STD   2k

Group 6                 PAPER                  2 files.
LOCOSPEL.DCT  160k      TEMPLATE.STD   2k

Group 7                 ASCII                  3 files.
3½"DRIVE.DOC   18k      TEMPLATE.STD   2k     USERSPEL.DCT   12k
```

The above illustration shows the listing produced by George's program of the directory of a LocoScript version 2.29B start of day disc. Note how it displays both disc space used and still available, the number of files on the disc and in each user group, the name of the disc and of each group, the names and sizes of all files on the disc and the group in which they appear (and whether they are Hidden/System files or not). What more could you ask for?

Daisywheel users should follow the paper loading instruction carefully. In its *Matrix* mode this printer is rather particular about the sequence of paper loading and print instructions. If you fail to follow the sequence as instructed you may find your printer has paper wrapped round its roller yet it still refuses to print.

PCW9512 owners who use an *external* printer may find they have to keep their daisywheel printer still connected if the printing on the external printer is to proceed. This is due to a bug in the version of CP/M they are using. Both J21CPM3.EMS (CP/M v2.1) and J29CPM3.EMS (CP/M v2.9) are affected by this bug but J22CPM3.EMS (CP/M v2.12) and J25CPM3.EMT (CP/M v2.15) work correctly.

Note that .EMT files will *not* load from a 3" drive whereas .EMS files will load from either a 3" or 3½" drive. You are strongly advised to upgrade your copy of CP/M to J22CPM3.EMS (or later) or live with having to have the daisywheel permanently connected!

During printing you will see a notice displayed to the effect that you can abort the printing by pressing the [SPACE] bar. Pressing the [SPACE] bar merely interrupts the flow of data *to* the printer. Those printers that have a large or even medium sized buffer capacity (most external printers) quickly accept all the data sent to them before they have printed more than a small portion of it. Thus, the [SPACE] bar cannot stop them printing the data they have already received; only the printer controls, 'Pause' or similar buttons, can do that.

The PCW printers, both matrix and daisywheel, have only a small buffer capacity, so they can accept data only at the speed at which it is printed. Consequently, pressing [SPACE] *can* interrupt the data flow to them and so it has some effect on what they print. If you have a printer tangle and can press [SPACE] before the offer of another printed copy appears on the screen you will get directions on how to proceed.

No printer of my acquaintance will print *all* the possible characters that are permitted in LocoScript filenames (not from Basic, anyway) and you are most unlikely to find that *your* printer will. It is probably best to avoid using characters that your printer cannot print. However, you may have used them already.

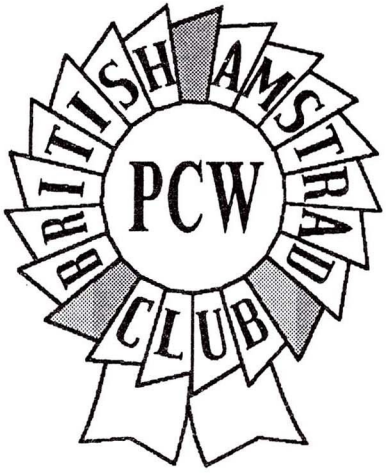
For this reason I have specially stored onto group 0 of the CARACTER/CATALOG.BAS disc two empty files with the rather strange filenames 1½3§5◊78.000 and #$%'@{_}."""". By cataloguing this disc and seeing how these oddly named files are printed you will be able to see how your printer interprets them.

With the help of CARACTER.BAS, CATALOG.BAS will interpret and display *on the screen* all permitted LocoScript filename characters correctly.

Some commercial software of my acquaintance uses filenames containing characters that are invalid not only in LocoScript but also in CP/M and Basic! When CATALOG.BAS encounters such a character it will beep and bring that filename to the screen with the notice that it cannot measure the length of the file. In consequence, not only may that filename be interpreted incorrectly and be printed without a length, but the total space used and free disc space may not add up to the normal total disc capacity.

For those interested in the more technical details of the program:

There is only a limited range of characters permitted for LocoScript filenames: see the *LocoScript 2 User Guide*, ISBN 1 85195 008 7, page 273 or the *PCW9512 Manual*, page 332 and subsequent updates and revisions. These show the permitted range to be:



PCW Directory

The purpose of this directory is to provide a means of contact between users, suppliers and clubs for all Amstrad PCW software and hardware, including the PcW16. If you've been left out, if the details are wrong, or you know of a club or supplier omitted from this directory, please let us know, *in writing*! Equally we wish to be advised of suppliers or clubs that have 'Gone away' or appear to no longer exist; there's no point in listing them.

Remember: the only way for us to keep in touch is by regular communication.

Alladink, Nick Godwin, 16 Springwood Park, Edinburgh, EH16 6JL 0131 270 0538
Ribbon recycling and reinking

Amstrad Consumer Electronics Ltd,
169 Kings Road, Brentwood, Essex CM14 4EF 01227 228888
PcW16 Support 0891 515715

Anlaby Computer Services, Trevor Laycock, 7 North Street, Anlaby, Hull HU10 7DD
Disc drive repairs (local) and disc conversion 01482 650648

Ansible Information, 94 London Road, Reading, Berkshire RG1 5AU 01424 720457
Ansible Index, the unique indexing system for use with LocoScript files

A-Z Computers, 134 Heath Road, Twickenham, Middx TW1 4BN 0181 744 1834
PCW repairs and spares

Bemish Business Machines, 14 Lower Richmond Road, London SW15 1JP ... 0181 785 3208
Repairs to all Amstrad machines plus PCW disc conversions

P D Blake, 99 Normandy Avenue, Beverley, E Yorks HU17 8PR 01482 864230
Budget software for the PCW

British Amstrad PCW Club, 10 Sheridan Ave, Benfleet, Essex SS7 1RD ... 01702 551618
Probably the largest PCW club around

Cirtech (UK) Ltd, Monksford Stables, Newtown St Boswells, Melrose TD6 0RU
Gem and Insyder Hard Drives, Flash Drives, Sprinters and Speed Print 01835 823898

Composit Software, 10 Leasowe Green, Lightmoor, Telford TF4 3QX 01952 595436
Composers Pen, Music Pad, Presto and Sketchpad Plus.

Comsoft, 10 McIntosh Court, Wellpark, Glasgow G31 2HW..... 01415 544735
Protext, Routeplanner and other 8-bit software

Cornwall PCW Club:
John Shipcott, 11 Tremane Rd, Camborne, Cornwall TR14 7NT 01209 713997

John Craggs, 60 Belmont Road, Chandlers Ford, Eastleigh, Hants SO53 3FJ
Writers Desk software for the PCW user 01703 364821

Costa del Sol PCW Club: Ken Tether 00 34 95 293 2096

Crawley PCW Club:
J Brooks, 6 Downsview Crescent, Uckfield TN22 1TG 01825 763563

Creative Technology (MicroDesign) Ltd, 10 Park Street, Uttoxeter, Staffs ST14 7AG
The Network, MicroDesign. Tweak, Font & Shade Designer 01889 567160

DanSoft, 44 Charcot House, Highcliff Drive, London SW15 4PT 0181 876 9251
Direct, user friendly software for the PCW

Dave's Disk Doctor Service Ltd 01892 835974
The floppy disc data rescue service http://www.diskdoctor.co.uk/

Devon PCW Club:
Peter Goodridge, 38 Widgery Road, Exeter, Devon EX4 8BA 01392 210269

Directory of PCW User Groups:
Clive Read, 19 Portsfield Close, Bexhill on Sea, E Sussex TN40 2FR

W P Ford, Sarsden, Blackboys, Uckfield, East Sussex, TN22 5JU 01825 890688
Roots PCW genealogy program for the PCW

Garrison Computers, 191 Watling Street Road, Fulwood, Preston PR2 4AE 01772 701248
Formerly known as MicroForm, suppliers of PCW disc drives and spares

Derrick Gaskin, 119 London Road, Brentwood, Essex CM14 4NP
The Quickmyth range of mythology discs for use with LocoFile

Hastings & Eastbourne PCW Club:
George McGee, 15 Pippin Cl, Herstmonceux, E. Sussex TN39 5DL ... 01323 833969

Heads of the Valley Group: Roy Underwood,
Birchacre, Croes Bycnan, Llwydcoed, Aberdare, Mid Glamorgan ... 01685 874972

Hereford Computer Club, PCW Group:
Maurice Knight, 2 The Lodge, Kingston, Hereford HR2 9HN 01981 250886

Richard P Hill, 84 Wincheap, Canterbury, Kent CT1 3RS
BASIC 98 for the PCW

Ideal Value Products, 10 Sheridan Avenue, Benfleet, Essex SS7 1RD 01702 551618
Magazine Index for PCWPlus, 1986-1996 and agents for the Crossword Maker kit

Independant Eight Bit Association:
Brian Watson, 39 High Street, Sutton in the Isle, Ely, Cambs .. 01353 777006

Ink King, Crendon House, Crookhorn Lane, Soberton, Southampton, Hants SO3 1RD
Ink cartridges and refill kits 01489 877818

Javea Computer Club, Alicante: Tom Hughes 00 34 96 558 3508

Joyce Computer Club: Frank Van Empel, Leksmondhof 8, NL-1108, Amsterdam, Nederlands
http://www.euronet.nl/users/fvempel/index/html (in English)

Kentish PCW Club:
Leslie Merchant, 14 Hill Road, Northfleet, Gravesend, Kent 01474 335882

David Landers, Brinkburn Gardens Cottage, Longframlington, Morpeth NE65 8AR
Instant Recall: calculator, calendar, converter, etc., for LocoMail 01665 570662

Leeds Amstrad PCW Club:
Paul Newmark, Laythorpe Road, Leeds LS16 5HW 0113 275 5576

LocoScript Software, 10 Vincent Works, Dorking, Surrey RH4 3HJ 01306 747757
LocoScript, LocoMail, LocoSpell, LocoFile, LX fonts, etc, etc

Mapej, Meadow View, Quinta Cres, Weston Rhyn, Oswestry, Shropshire SY10 7RN
PCW disc conversions 01691 778659

MicroDesign International User Group:
Doug Cox, 132 Adelaide Gr, East Cowes, Isle of Wight PO32 2TU . 01983 296366
Publishes the 'Design Tree' for MicroDesign users

Midas Charity Ink, 5 Nelson Road, Brixham, South Devon TQ5 8BH 01803 853144
Ink ribbons, bubblejet and deskjet refills and cartridges

Morley Amstrad PCW Users: Frank King,
16 Gardens Cres, Ravensthorpe, Dewsbury, W Yorks XX13 3HF 01924 430319

National Amstrad PCW Club:
Steve Garrill, 259 Squires Gate Lane, Blackpool FY4 3RE 01253 343029

North Wales Computer Club,
L J Simpson, Ty Ceiriog, 9 Bryn Rhosyn, Abergele, Clydd LL22 8EZ

Northumberland & Borders PCW Club:
George Scott, 5 Belmont Gardens, Haydon Bridge, Northumberland NE47 6HG

Office Land, 10 Sterte Close, Poole, Dorset, BH15 2AT 01202 666155
Daisy wheels, ribbons, discs, manuals, software etc., for the PCW

PCW Friends:
Clive Cook, 4 Glan Morfa Farm, Llandudno Junction, LL31 9AA

PCW Today:
Adrian Braddy, 150 Oxford Rd, Middlesbrough, Teesside TS5 5EL . 01642 823117
The other "must have" quarterly magazine for PCW users everywhere

Perthshire PCW Club:
David Paterson, 26 Moulin Crescent, Perth PH1 2EA 01738 860741

Philosoft, 57 Llwyn-Onn, Penderyn, Aberdare, Wales CF44 9XY 01685 813978
Insight, the Optical Character Recognition package for the PCW

Pinboard Computers, 9 Bondor Business Centre, London Road, Baldock, Herts SG7 6HP
Replacement disc drives, spares, repairs and refurbished PCWs 01462 894410

Radstock.pcw User Group:
Adrian Hooper, 40 Kilmersdon Rd, Haydon, Radstock, Bath BA3 3QN 01761 436276

Rotherham PCW Club:
E Chipchase, 47 Brunswick Rd, Broom Valley, Rotherham S60 2RX . 01709 361156

Scotwest.pcw Club:
David Williams, 32 Carfin St, New Stevenson, Motherwell ML1 4JL 01698 732403

S D Microsystems, PO Box 99, Thetford, Norfolk IP24 1NA 07000 736427
A wide range of software for the PCW

Solent PCW Services, 20 Masefield Cres, Waterlooville, Hants PO8 8JS . 01705 268780
Repairs and spares for your PCW: agents for Pinboard drives

Somerset PCW Club: John Howick,
Old Forge Cottage, 2 Green Hill, Sherbourne, Dorset DT9 4EP ... 01935 812275

System Insight, Freepost SO6209, Hedge End, Southampton SO32 2EE 01329 835500
The Inkjet Specialists

Teesside PCW Users Group:
K Carr-Brown, 2 Highfield Gdn, Eaglescliffe, Cleveland TS16 0DT 01642 648881

Thornton PCW Club:
Steve Morstell, 5 Carlisle Grove, Thornton Cleveleys, Lancs FY5 4BY

Three Inch Software, 14 Cartaret Cl, Willen, Milton Keynes MK15 9LD .. 01908 690704
The Three Inch Thesaurus for use with LocoScript and the 9512 Rescue kit

Widmore PCW Club:
Dorothy Featherstone, 5 St Giles Cl, Farnborough, Kent BR6 7DT 01689 858105

Published by the British Amstrad PCW Club, 10 Sheridan Ave, Benfleet, Essex SS7 1RD

E & O E

Capital letters A...Z, the numbers 0...9, and the following extra characters " # $ % ' @ _ { } ½ § ◊.

Most filenames will consist of letters, or letters and numbers, and only a few will make use of the extra characters. Again, if the extra characters are used, most of them will cause no difficulty. The daisywheel printer cannot print the curly brackets but this is unlikely to cause a problem, as PCWs with daisywheel printers have no curly bracket keys on the keyboard.

But what about the last three characters? The ½ is on all keyboards, the § is found on the 8000 keyboard and the ◊ can be contrived quite easily, but will anyone ever use them for filenames? The difficulty for CATALOG.BAS is that, occasionally, someone just might.

So what? Why will those three cause any problems? The last three characters will because they are pseudo-non-Ascii characters, i.e., they have Ascii numbers outside the range of 33 to 127. ➡

(See the blue 8000 CP/M manual pages 113 to 118 or the PCW9512 manual pages 547 to 554).

Characters in the file-type or extension (the three characters after the dot in the filename) with Ascii numbers greater than 127 give special properties to a file. If the number of the *first* file-type character is greater than 127 then the file is a *Read-Only* file; that is, it cannot be erased, written to or renamed. If the Ascii number of the *second* file-type character is greater than 127 then the file is a *System* file (or, in LocoScript, a *Hidden* file).

LocoScript wants to use filenames containing these three characters as though the files were normal, Read-write, directory files. To get over the above difficulty, LocoScript has reassigned some numbers within the Ascii range to denote the three characters. The following table shows these numbers and the normal characters dispossessed of them.

Character	Usual CP/M number	Loco-assigned number	Usual CP/M character with Loco number
½	169	96	Grave accent `
§	166	126	Tilde accent ~
◊	Does not exist	94	UP arrow ↑

When Basic reads a LocoScript filename that employs these characters it reads these reassigned numbers and, when printing on the screen it, attributes the usual CP/M characters to them. There is thus no correlation between the LocoScript filename character and the character that Basic would normally print on the screen.

However, this difficulty can be overcome, by using a routine that I first saw in the March 1991 issue of *8000 PLUS*, p68, and repeated in the September 1991 issue, p69.

I have arranged for CARACTER.BAS to draw characters looking very much like the three LocoScript characters and to assign them to the numbers that LocoScript assigns to them. This procedure dispossesses the usual characters in CP/M and Basic also but it makes perfect the translation of LocoScript filename char-

acters to Basic. Consequently, when Basic reads one of these LocoScript numbers it now attributes one of the new characters to that number. Such new characters can be printed only on the screen, not on a printer, but at least the screen display will represent all possible filenames correctly.

These reassignments are temporary; they remain in memory only until you switch off or reset your PCW.

The outstanding difficulty arises because no printer of my acquaintance will print all three pseudo-non-Ascii characters, not from Basic, anyway. Printers can print them under LocoScript because LocoScript supplies them from its own store of characters, whereas Basic relies on the printer's store of characters. My Epson Stylus 800 will print the ½ and the § characters but not the ◊. The PCW daisywheel will print the ½ but not the § or the ◊. The PCW matrix can be made to print the § but not the ½ or the ◊.

I have mitigated, but not overcome, the shortcomings of the printers by changing some of the character numbers sent to the separate printers. My Epson Stylus, and probably most external Epson printers, will print the ½ character but only from character number 171. Similarly, they will print the § character but only from character number 21. Consequently, where a LocoScript filename character appears as character number 96 I have replaced it by character number 171, and where a LocoScript number 126 appears I have replaced it by character number 21. Thus these printers will be able to print the ½ and § characters correctly. As they have no ◊ in their repertoire there is nothing I can do to make them to print it, so I have left the LocoScript number as it is at 94, from which these printers will print the normal UP arrow ↑, usually without the shaft ^.

Similarly, the daisywheel will print the ½ character but only from character number 92, so when a LocoScript character number 96 appears in the feed to the daisywheel I have changed it to 92; this change will enable the daisywheel to print the ½ character correctly. As the daisywheel has no § or ◊ characters in its repertoire (or on its print-wheels) there is nothing I can do to enable it to print them; I have therefore left the LocoScript numbers as they are at 126 and 94. From these the daisywheel will print the pound £ sign and the degree character °.

If the printable character range is extended to cover 0 to 31 and 128 to 159 the matrix will print the § character but only from character number 16. So when a LocoScript character number 126 appears in the feed to the matrix I have changed it to 16; this change will enable the matrix to print the § character correctly. As the matrix has no ½ or ◊ characters in its repertoire there is nothing I can do to enable it to print them, so I have left the LocoScript numbers as they are at 96 and 94. From these the matrix will print the grave accent ` and the UP arrow ^ without the shaft.

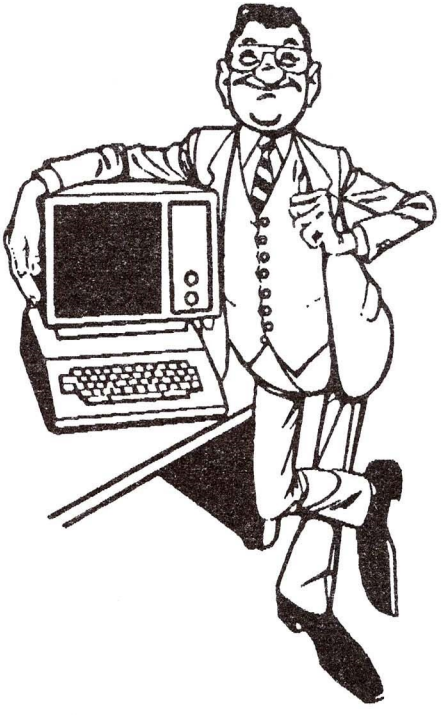
These shortcomings of the printers remain as the outstanding difficulty for CATALOG.BAS. In selecting filenames I advise PCW users to avoid using those characters that their printer cannot print.

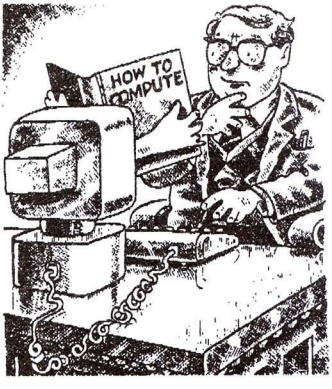
If you find the above explanation is difficult to follow then, believe me, it is much more difficult to discover it for oneself!

George Swepson

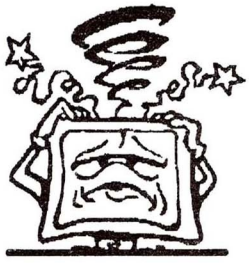
CLIP ART LIBRARY

A selection of computer illustrations from our clip art library
available from Nick Chaundy





PcW16 FORUM



SCATTERBRAINED 16?

Does your machine lock up and crash? the fault may lie in your own hands! If you are a fast typist you may be giving the 16's brain more to do than it can cope with. Try typing at a slower steadier rate. When you pause for thought and inspiration tap the F8 key and the text on screen will relay and save, so that should disaster strike later your work to date should be safe.

Try not to issue too many instructions too quickly. Give the machine time to absorb and act upon each one in sequence. Never issue new instructions while the little egg timer is on screen - it is the equivalent of the MicroDesign 'Busy' sign.

My machine also has a preference for the order in which it accepts instructions. When switching from a central, bold and italic heading it definitely prefers to go first to the left hand margin and then to change the type style. Try it the other way around and it will go left but insist on staying bold and italic.

Now that it has taught me its preferred way of working we get along fine.

ADDING STYLE

At this time of the year the decorative capabilities of computers come into their own. Letters to family and friends, party invitations, tickets, posters and publicity for charity events all benefit from a little spicing up. 'Little' is the operative word, too much dressing up can hide the message.

Although the PcW16 does not have any graphics capabilites good layout and the imaginative use of different font sizes, plus the **Bold**, *Italic* and Underline functions can produce a distinctive document. Consider incorporating some of the more imgaginative images from the Character set eg ♥ ♣ ♦ ♠. You could devise your own style manual demonstrating some ideas and making notes on how different effects are achieved.

Whatever program or machine you

are using (LocoScript, MicroDesign, the PcW16) it is useful to record, preferably in a notebook kept especially for the purpose, details of typefaces, font sizes and MDAs used. When working with a scanner in MicroDesign I often include the source of illustrations - saves hours of time looking for that elusive picture the next time you need it.

Anyone interested in producing an interesting NewsLetter using the 16 should read the article by Adrian Braddy 'Publish Yourself' in the Winter 1997/8 issue of 'PCW Today'.

MARKET STALL BUY

As I mentioned in the Autumn issue, my original (free) test machine died a mysterious death while I was away on holiday. My initial reaction was to say 'Forget it, for years I had only the PcW9512 which did everything I wanted it to, including my major passion - MicroDesign. Do I really need a 16?'

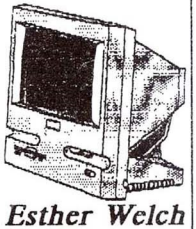
However, I found that I missed the 16's ability to jump into life and be available to write letters at a moment's notice. The unanswered letters began to mount up. So a replacement machine was acquired from a market stall at a cost of £55.

Not any old market stall of course. This particular trader makes regular appearances at three East Sussex locations and specializes in a wide range of Amstrad products. A friend actually carried out the negotiations and deliverd the box to me.

So what did I get for the money? An apparently new machine, properly boxed with mouse, keyboard and one disc. The machine turned out to be preloaded with program v1.11 and the two extra programs 'Shopping List' and 'Word Match' were on the disc. Fortunately I was able to load v1.12 but even without that the machine would have been acceptable.

The missing ingredient was a manual! This didn't bother me but must be alarming to anyone unfamiliar with the machine.

You can contact me
☎ 01273 480582
or write to:
81b Western Road
LEWES BN7 1RS.



Esther Welch

How to Crash your PcW16

by Mike Elliston

I was thinking about how to adapt a Basic program into a Find Your Date of Birth program for the spreadsheet – what day of the week was a certain date? – when I realised that for most users the Diary/Alarm program will do that task already. In order to see how far back the Diary went I set it to 1st March 1920 and clicked back a year at a time until 1st March 1900. (How many of our readers are more than 98 years old?) That was correct but one month earlier and the calendar went wrong! The months of January and February for the year 1900 on the Diary give incorrect dates.

How far back *does* the Diary go? Clicking back a month (to what should have been December 1899) gave the month 'k' of the year 'blank' and the machine locked up! Nothing responded, neither keyboard nor mouse, prayer nor profanity. Now what? The book says: **Do not switch off the mains supply while the standby button is glowing green or flashing** but, unfortunately, that *is* what you do have to do. However, wait for a short while just to see if the screen saver cuts in. If it does, then you can start again by simply touching a key. If nothing happens after about ten minutes I'm afraid that you'll have to unplug the machine from the mains. Wait a moment or two before you plug it back in again.

If you are very lucky it will reboot back to the start up screen with the correct time and date. If not it'll mean re-loading the operating system from the Rescue Disc. If that happens you have lost any work stored in the cabinet – a very good reason for always storing your documents on disc anyway.

Another way, or so I'm told, that is certain to hang the PcW16 is to open the Word Processor, load the Frequently Answered Questions document from the v1.12 Rescue Disc, Task, Edit, Select Whole Document and change the text style to 8 point Roman. Why? I don't know but please don't try it because it can not do your machine any good to have it lock up too often. For the same reason I've not bothered to see how far *forward* the Diary will go but I can tell you that while 2000 *is* a leap year 2100 is *not*. If you do know of an guaranteed *repeatable* method to make the PcW16 hang then please write in and I'll publish it in the *Disc Drive* so other readers will be warned not to try it.

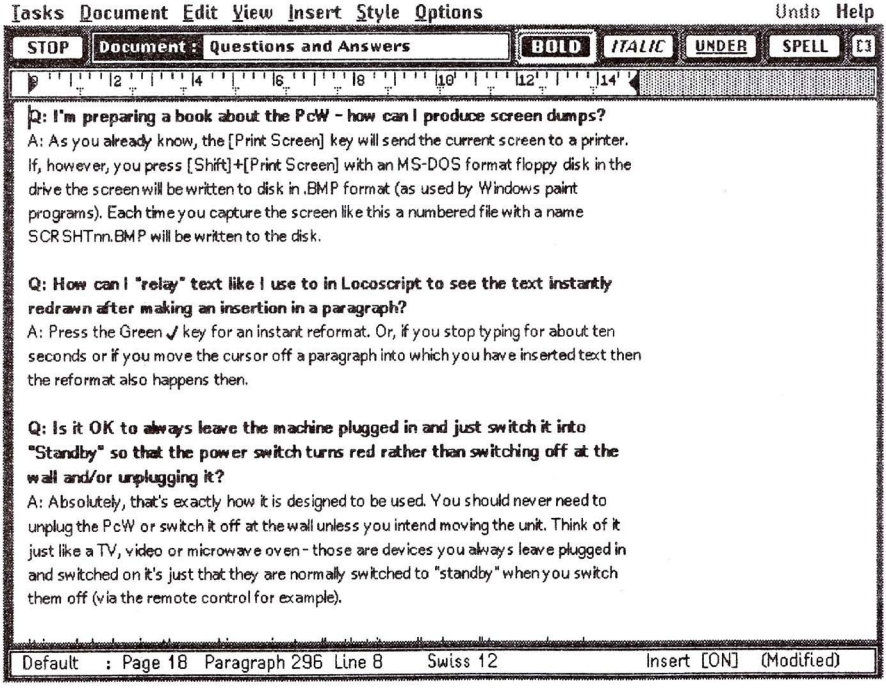
The 16 may have a Z80B chip that is four times as fast as that in the earlier PCWs but, because of the way in which it works presenting everything graphically, – almost a visual image on screen of what should be output to the printer – it has *much* more work to do in the process. This means that it is possible for the proficient typist who has learned many of the short cuts – Ctrl+B to turn Bold on or off, etc – to confuse the program by entering information faster than it can be handled. As Esther has pointed out in earlier articles, the word processor program prefers to deal with certain strings of commands in a predetermined order as well.

The operating system and the built-in suite of programs were designed to have the look and feel of programs running on much more powerful personal computers with processors running at ten or twenty times the speed (and costing ten or twenty times as much!). It does have its limitations (especially within the spreadsheet). There are the odd few bugs still hidden away, it struggles on occasions but, in general, the 16 is quite successful and its a pretty good bargain for a personal computer for less than £100. It's much easier than many to hook up to a printer.

However, be gentle with your PcW16 and don't try to type ahead of it too enthusiasically. Give it time to refresh the screen as it wants, when it can. If I were to suggest to you that every time you make the PcW16 hang or crash you have cut its potential working life by a week or a month, perhaps you may think about treating it with a bit more care!

Remember that the PcW16 has only been out for a relatively short period of time. The vast majority of our members own and use the classic 8000 or 9000 series of PCWs. About a fifth of our members use the PcW16 but most are still tyros because they have had access to the machine for only a matter of months – there are, as yet, no experts.

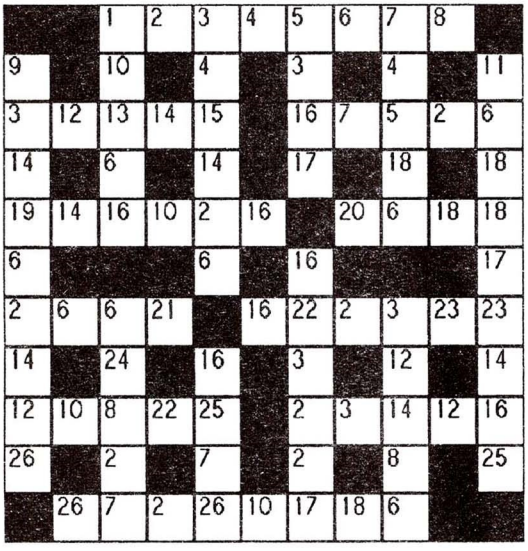
We need as much feedback as possible from *all* PcW16 users to build up a knowledge base of expertise. You may think that the little experience you have had will be of little use to others but it is only by sharing your expertise with others that we can all learn and avoid repeating the same mistakes. Please let us *all* know how you are getting on with *your* PcW16.



Codeword Puzzles on a PCW

by Frederick Eagles

Codeword is a variation of the standard crossword puzzle; it has been around for as nearly as long as the crossword but, like the yo-yo, it is currently undergoing something of a revival. The layout of the codeword is very similar to that of the crossword except that each white square contains a number instead of the letter of the alphabet which would occupy that square in the final solution. You are given one or two of the letters to start you off and you have to work out the rest of the puzzle by deduction. Needless to say the numbers are *not* 1=A, 2=B, etc.; that would make life far too simple. It is standard practice that as many possible letters of the alphabet are used in the puzzle which must, like any decent crossword, be symmetrical in pattern.



1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

An example of a codeword puzzle, which was produced entirely on a PCW8256, is shown in the illustration. As this is a variant on the more usual crossword puzzle, which you may wish to include in your parish magazine or similar periodical, here is how this was prepared using the Crossword Maker and MicroDesign3 (but MD2 may do as well).

Select the layout you wish to use, probably by choosing a solution to a crossword puzzle from a magazine or newspaper. If need be, edit it slightly so that most letters of the alphabet will appear on the square. It doesn't matter how difficult the crossword was; you don't want the clues, just the solution.

Load up your copy of the Crossword Maker and adjust the size of the blank square with the Shift+arrow keys to the size of your codeword square *plus three extra rows at the bottom*. You'll see what

the extra rows are for shortly. So, using my example of an eleven columns by eleven rows grid, make the starting square eleven columns wide by fourteen rows deep.

Now start filling in the crossword/ codeword solution using the space bar for the black squares and capital letters for the words across and down. Do not worry about the clues and ignore any error messages about no clues being selected. Double check that you have filled all the characters in their respective squares correctly; the symmetrical pattern should be obvious from the grid on the screen before you. When all is well simply enter a few black squares on the first of the extra three lines and then type out the complete alphabet from A to Z on the next 26 squares, filling in the remainder of the last row with black squares to finish.

Now save the grid to a data disc (not the M: drive) using "2" if you use MD2 or "3" for MicroDesign 3, with a name like "Codeword". This should then be saved on the disc as a MicroDesign text file called Codeword.Txt. Use the Directory command from the File menu to check that this has been saved to disc properly before exiting the Crossword Maker (or use DIR from the CP/M prompt if you forgot).

Now load up with MicroDesign. When ready, load your choice of crossword font into slot 3, leaving Stan13 and Stan16 in slots 1 and 2. I used Cross3.Mdf, which is on your Crossword Maker disc, as I was going to use MD3, but there are others on that disc too. Put the Crossword Maker disc away and insert the data disc upon which you have saved the MicroDesign Codeword.Txt file. Go to the Editor and Load the Codeword text file into the MD Editor.

The text file which the Crossword Maker creates and which should load into the Editor consists of four major sections:

(a) the blank crossword layout with clue numbers (as if you had included clues);

(b) the list of clues, which on this occasion should repeat the phrase "No Clue" umpteen times (because you selected none);

(c) the solution to the puzzle as answers Across followed by answers Down; and

(d) the solution to the puzzle in the form of the grid (plus the letters of the alphabet on the bottom three rows).

We are only interested in part (d) so Mark and Cut parts (a), (b) and (c) and Save the remainder (d) as text with a new filename, say Codegrid.Txt. Now this part of the text file will look like this:

```
**FIRST*WORD**
SECOND*ANSWER*
```

etc.,

where the asterisk * stands for the black square in the crossword font.

(If you have the Font and Shade Designer program you may wish to view the Crossword fonts but please do not attempt to edit them. There are rules about the average width of characters and which characters must exist for a font file to be valid and if you amend a crossword font it may not load again.)

Now this text file contains the solution to the puzzle but you want to present the user with the coded numbers which *replace* the letters instead, for them to solve. This can be done quite simply using Find and Exchange in the Editor.

The information you need to know about an MD *Crossword* .MDF font file in order to do this is as follows:

(a) The capitals A-Z on the keyboard represent the letters A-Z in an open square used for the solution,

(b) The asterisk (*) key holds the black square ■ and the half (½) key holds a plain white square □.

(c) A *numbered* white square is built up of four components:

(1) the open square bracket [key starts the square;

(2) the numerals 1-0 hold the superscript numbers within the square (including the horizontal lines above and below);

(3) the underscore _ draws the two short lines making up the top and bottom of the square. You need *two* of these after the number if there is a single digit in the square but only *one* if the number consists of two figures (and none if the puzzle is very large and numbers have three digits); and

(4) the closing square bracket] completes the square.

It is normal practise for the first letter in the solution to be **1**, the next to be **2**, etc., but you can replace the letters of the alphabet with whatever numbers you choose.

So, if the first word across is `FIRST`, then F=1, I=2, R=3, S=4 and T=5 and this will apply every time the letter appears on the grid. To replace the F in the text file with a square containing [1] proceed as follows:

Go to the top of the file with Alt+Doc. Press Find and then Extra+Doc to enable Exchange. Type `F` at the Find cursor, then `[1__]` at the Exch cursor to replace the F and press Enter. (That's *two* underscores after the 1.) The cursor will ripple down the text file exchanging all occurrences of F with [1__]. Go to the top of the file again with Alt+Doc and replace all `I` with `[2__]`. Continue this procedure until S=9 (in the short example above). When you get to the tenth letter E, replace `E` with `[10_]` (using a *single* underscore instead). Follow completely through so that all letters of the alphabet have been replaced by numerals in their squares.

Finally, edit the last three lines by deleting the white squares (represented by a half), put a carriage return after the last line of the puzzle proper (to separate it from the last two lines) and adjust the rest so that it forms two lines, `[1]-[13]` and `[14]-[26]`.

A couple of points to note:

the asterisks remain in place as they represent the black squares;

use the underscore character (Shift+hyphen) and not just the hyphen or it won't line up properly;

the letters of the full alphabet at the bottom of the codeword should also be replaced with numerals;

and there should be no white squares (represented by the half).

Now save this file with a new name, say Puzzle.Txt and Exit back into Typeset. Select Font 3 with Extra+Word and adjust the typesetting window with W if necessary. Press T for typeset and in Format f3 select Left Align.

Do not be tempted to change the f5 Font settings. Press Paste and the file Puzzle.Txt will flow into the typesetting window using the chosen crossword font; it should come out looking like the illustration at the beginning of this article.

The only thing that's missing is the alphabet down the side of the puzzle square (on which the user strikes off the letters as they are discovered). I used Write in Graphics to put them in by eye. You will find it helps if you press Extra+0 when you've ready to type in the A, for then you can line up the other letters vertically and horizontally more easily using the cursor readout at the bottom of the screen (preferably set to read in pixels). Use either Stan16 or Stan13 depending on the type of printer you are going to use. Save this two-column alphabet as a Cut or MDA for use next time to save resetting it again.

Decide which letter/s you wish to give as clues and Write these into the appropriate square/s in the [1]-[26] boxes beneath the puzzle. Now save the whole puzzle as an MDA looking much like the example above and print it out (in draft on the first occasion?) to see how it looks. If there are mistakes you will probably find it easier to edit one of the text files and typeset again than edit the graphic image on screen.

The puzzle set out above is a genuine codeword puzzle using *every* letter of the alphabet. To start you off I will tell you that [22] is **C** and [23] is **F**. See if you can complete it before the solution is published in the next *Disc Drive*.

If you have the Network and sufficient memory you may find it useful to run both the Crossword Maker and MicroDesign3 from inside the Network. The Crossword Maker is available from the Secretary, David Lalieu and both MicroDesign3 and the Network are available from Creative Technology. See the respective advertisements elsewhere in this magazine for full details.

Snippets

R J Beadon of Letchworth supplies a cutting from an unidentified magazine:

"Rob Buckley of Radical Software fame is working on a new operating system for the PCWs and is also looking into making a version for the CPC. It's a cross platform product, featuring drag and drop as well as drop down menus. It is supposed to be easy to be develop for as it has a built in version of BASIC."

The same source also reports:

"Sir Clive Sinclair has plans for a new computer, referred to as the ZX2000. Sir Clive says: 'I've started work on a prototype already. It's a competitor to the PC because the modern desktop computer is about as bad a design as possible. It slows down an extremely fast processor with cumbersome routines and programs... I want to create a computer that is completely portable... I want something that is going to cost ten times less than current notebook PCs... The trick is to get the power consumption down so low that you stick a couple of batteries in and replace them a month later... * We've designed our own CPU and it's an extremely high performance one. We had prototypes of it some time ago and it's blindingly fast, about ten times faster than a Pentium II... I don't want to go into too much detail...but this little blighter will be incredibly fast and very efficient'"

* Wasn't Sir Clive behind the Cambridge Z88? I await this laptop with interest. *Ed*

BASIC Listing: 9

by Adrian Hooper, Radstock PCW User Group

Welcome to the nineth part of my BASIC listing; this part is to be a pressure 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 "PRESSURE.CON" [RET]` and then `RUN "PRESSURE.CON" [RET]`. 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 3½" at present *only when the tutorial has finished*) please contact me on 01761 436276 (between 6 and 9 pm).

```
10 LET Cl$=CHR$(27)+"E"+CHR$(27)+"H"
20 PRINT cl$:t$="Pressure Conversion Menu"
30 PRINT TAB(15);t$: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$="psi":s2$="Kpa"
70 p1$="psi":p2$="Kpa"
80 PRINT:PRINT:FOR i=1 TO 3:READ a$:PRINT i;"  ";a$:NEXT
90 PRINT:PRINT:PRINT "Please type in your chosen type now: ":INPUT A
100 ON A GOSUB 120,140,110
110 IF A=3 THEN PRINT cl$:RUN "CONVERSE.BAS"
120 t1s$=s1$:t1p$=p1$:t2s$=s2$:t2p$=p2$:GOSUB 230
130 D=C*6.89:GOSUB 260:GOSUB 200:RETURN
140 t1s$=s2$:t1p$=p2$:t2s$=s1$:t2p$=p1$:GOSUB 230
150 D=C*0.145:GOSUB 260:GOSUB 200:RETURN
200 PRINT:PRINT:PRINT "Press SPACE to return to menu"
210 WHILE INKEY$<>"":PRINT CHR$(7):WEND
220 x$=UPPER$(INPUT$(1)):IF x$=" " THEN RUN ELSE 220
230 PRINT cl$:t$="Program to convert "+t1p$+" to "+t2p$:PRINT t$
240 l$=STRING$(LEN(t$),"="):PRINT l$:PRINT:PRINT
250 PRINT "Please enter the pressure in ";t1p$:PRINT:INPUT C:RETURN
260 IF C=1 THEN pc$=t1s$ ELSE pc$=t1p$
270 IF D=1 THEN pd$=t2s$ ELSE pd$=t2p$
280 PRINT:PRINT C;pc$;" is equivalent to";D;pd$:RETURN
290 DATA "psi (lb/square inch) to Kpa (Kilo-pascals)","Kpa
    (Kilo-pascals) to psi (lb/square inch)","Return to conversion menu"
```

File Recovery

by Rod Shinkfield

To prove accidentally erased CP/M files can (sometimes) be recovered, format a spare disc using Diskit and then return to the CP/M A> prompt. With the newly formatted disc in the A: drive, type DIR [RETURN]. The appearance of 'No File' proves the disc (which we'll call **'Test disc'**) is clean and free from files.

Replace **Test disc** in drive A with your usual CP/M master disc copy (*never* work on original master discs) and type

PIP [RETURN].

CP/M 3 PIP VERSION 3.0 and an asterisk should appear. Now type:

M:=A:PIP.COM [RETURN].

Then, when the second asterisk appears, press [PASTE]. What you have typed last should reappear (pressing [PASTE] saves retyping). Change the words PIP.COM to the name of the file you wish to use – *e.g.* change:

M:=A:PIP.COM to read

M:=A:EX2.BAS [RETURN]

(EX2.BAS being my example filename).

Replace the CP/M master disc with **Test disc** and press [PASTE].

*M:=A:EX2.BAS should appear. Change the M to an A, and the A to an M (*e.g.* *A:=M:EX2.BAS) and press [RETURN]. Press the [PASTE] key again and *A:=M:EX2.BAS appears. Change the EX2.BAS to PIP.COM and press [RETURN]. What has happened? The files, EX2.BAS and PIP.COM, were first copied from the master disc into memory, then copied from memory on to **Test disc.**

Press [RETURN] to leave PIP and return to the A> prompt. Type DIR [RETURN] and both filenames EX2.BAS and PIP.COM will appear, to show they have been successfully copied on to **Test disc.**

We will now *erase* both files from **Test disc**! Type ERA *.* [RETURN] and you will be asked whether you wish to ERASE *.* (Y/N)? Press the Y key and both files will be deleted. Typing DIR [RETURN] will once more bring forth 'No File'. So where have the erased files gone? In LocoScript they would have been sent in to Limbo from where it is simple to recover them. In CP/M they are sent to **F9A>**, which I will now prove.

Replace **Test disc** with the CP/M master disc and type BASIC [RETURN] to load BASIC. Change back to **Test disc** and type the following:

POKE 64480,229: POKE 64432,229:

POKE 64348,229: POKE 64040,229

[RETURN]. Then type SYSTEM [RETURN] to return to CP/M. Only this time, instead of the expected A> the prompt has changed to **F9A>.**

F9A> is CP/M's equivalent to LocoScript's Limbo. Typing DIR [RETURN] should reveal the missing files in F9A>, ready to be recovered and copied back on to **Test disc.**

Because PIP.COM was erased and sent to F9A> to join the erased example file, EX2.BAS, we can use this Pip.Com in F9A> to recover EX2.BAS. So type PIP [RETURN] and at the asterisk type EX2.BAS[GØ]=EX2.BAS [RETURN] (PIP.COM can be left in F9A> for next time). Type USER 0 [RETURN] to escape from F9A> and return to A>. Now, on typing DIR [RETURN], the once lost EX2.BAS file should be revealed on TEST.DISC and so prove the recovery of lost files is possible. ●

Readers Write...

The comment in the club *Newsletter* about the PcW16 and its behaviour after a period of non-use was of interest to me. I had a similar experience with my 16 machine a few months ago.

On return from a two-week break I found the machine to be dead. I had bought it from Dixons just over a year before the incident and had taken out an extended guarantee. The engineer who came in response to my call simply installed a new machine without even taking the back off the faulty one. He explained this was company policy as the inside of the machine presented dangers from the high voltages it works on.

Two things to learn from this: always back up your cabinet to disc if you are going to leave the machine switched off for any length of time; and don't mess about with its innards unless you are totally confident of your ability to do so safely.

I was pleased to see the PcW16 Forum in the current issue of the *Disc Drive* and hope for even more material about this machine as time goes on.

Michael Banister, Solihull

And Finally

Memo: from Computer Support
Re: Y2K (Year 2000 problem)

In order to be Y2K compliant the following plan is being implemented:

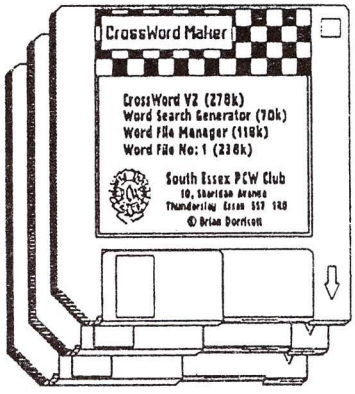
All computers will be removed from desktops during January 1999. Everyone is to be provided with an Etch-a-Sketch instead. There are many sound reasons for this:

(1) No Y2K problems, (2) No technical glitches keeping work from being completed on time, (3) No more time wasted reading and writing e-mails; and (4) Instant response from Helpdesk and reduced attendance callouts.

The Helpdesk will be trained to answer the following Frequently Asked Questions (FAQ) concerning the Etch-a-Sketch following change-over:

Q: My Etch-a-Sketch has lots of funny lines all over the screen.
A: Pick it up and shake it.
Q: How do I turn my Etch-a-Sketch off?
A: Pick it up and shake it.
Q: What's the short-cut on my Etch-a-Sketch for Undo/Abandon Edit?
A: Pick it up and shake it.
Q: How do I start to create a new document?
A: Pick it up and shake it.
Q: How do I restart my Etch-a-Sketch?
A: Pick it up and shake it.
Q: How do I delete a document on my Etch-a-Sketch?
A: Pick it up and shake it.
Q: How do I save my Etch-a-Sketch document?
A: Don't pick it up and shake it.

CROSSWORD MAKER



The much acclaimed program from Brian Dorricott now available at a new low price. Buy Crossword Maker v2 and get Word Search Generator, Word File Manager & Word File #1 *free*, supplied on 3½" disc. (For 3" send in your own formatted and identified disc.) Price £25 inc. manuals. Four other word files are available; two in English, one each French and German, at £5 each. Please make cheques payable to *British Amstrad PCW Club*, 10 Sheridan Avenue, Benfleet, Essex SS7 1RD or telephone David Lalieu on 01702 551618.

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You'll probably recognise famous names like David Langford, Rod Shinkfield, David Landers, Steve Denson and John Craggs - just some of the big PCW experts who write regularly for us.

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What do I need?

MicroDesign3 comes complete with all you need to start Desktop Publishing on any Amstrad PCW. (The program requires 512K of memory, but memory upgrades are available.) The package also includes an extensive library of typeface designs, and can print using dot-matrix, inkjet and laser printers.

THIS ADVERTISEMENT WAS DESIGNED AND PRINTED AT THIS SCALE USING ONLY AN AMSTRAD PCW8512 WITH 1Mb MEMORY, A BUBBLEJET PRINTER, AND MICRODESIGN3.

Is it easy to learn?

MicroDesign3 is controlled using on-screen menus, so it is simple to operate using the keyboard or a mouse: in PCW-Plus Magazine's review of MicroDesign3, the program scored five marks out of five for 'ease of use'. The package includes a fully illustrated key-by-key tutorial to help you get started, and we also provide a free technical support service, by letter or telephone, available Monday to Friday 4-7pm.

If you would like to know more about Desktop Publishing on your Amstrad PCW, please write to us, or give us a call!

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CREATIVE TECHNOLOGY