WACCI

ISSUE 119	£2.00
February	1998

WIBBLE

Angela Cook - launches Wibble

and members get a free copy....

BENEFITS OF MEMBERSHIP

* The best magazine for serious CPC users.
* Index covering issues 1-104, soon to be updated..
* Telephone helpline (indispensible)
* Bargain buys/wanted list from Market Stall.
* Discount off goods from advertisers.
* List of PD discs, tapes, library books and services.
* Above all the advice, assistance and friendship from other WACCI members. *Benefit List: by Ernie Ruddick*

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PRODUCTION METHOD

WACCI is created using Protext and Promerge on a CPC 6128+ and laid out using a CPC and a lot of help from a *PC*. The magazine is then printed on a Epson Stylus 200. WACCI is photocopied and collated by A 2 Z! WACCI is distributed by the Bowley clan for your enjoyment. *Happy Reading*.

Contents

Thanx & Stuff

I would like to welcome all the new members and I hope that you'll be with us for a long time to come.. Plans are now in motion for convention 98. Below you'll read what Angie has to say about it. But first I'm going to have a serious moan. Please read on....

FACT OR FICTION?

I've heard from a friend that he or she has loads of letters from WACCI members informing him or her that they are not going to re-subscribe because I use a PC to do the page lay-outs. *Is it true?*

Only **you** the members can say for certain if it is true or not, but why have they not told me? Since I'm the only person who can do something about it! It's a bit silly moaning about it between yourselves! *Tell me.*

At first I was going to completely ignore it and put it down to harmful gossip, but how could I? Since it comes from a friend.

It is too important of an issue to let it slip by and say nothing or to leave it until its too late to do anything, so I telephoned the printers and told them that I may have to make some alterations.

I NEED TO KNOW

This is addressed to each and every one of you. I need to know if it is **true** or **not**!

It will only take you a couple of minutes to answer the question below, so please do and have your say after all its your magazine. *In writing only please.*

Are you **not** going to re-subscribe because I use a PC to produce WACCI?

WRONG ADDRESS

In ATM 2 Roy Everett made a big fuss in me getting his address wrong, but what annoys me is why did he let that poor old man struggle across the road each month?

All that was needed was a quick telephone call or he could have wrote to me pointing out the mistake.

MOANING OVER

Sorry about the moaning in this issue folks, I won't make this a habit I can assure you.

MEMBERSHIP ENQUIRIES

Doug Webb is now dealing with all new membership enquires. If you have placed an advert in your local newspaper *(which I on behalf of WACCI thank you for)* please make the necessary changes. *Thanks.*

MAKING CONTACT

I would like to thank Peter Curgenven for making contact overseas for WACCI.

Peter has been busy sending out issues of WACCI each month in hopes that WACCI would make friends and set up an exchange of information, ideas, articles and software. Response is slow, but he is making progress and I hope that Peter will continue the good work.. What is missing is a official title so how about Overseas Manager? This will also give him free access to WACCIs PD library. Peter's name has also been added to page 2.

PAST CONVENTIONS

Angie has done WACCI proud over the years. She has organised three conventions which have all been a success with the membership. Angie has the final word if the convention goes ahead or not and where it is to be held.

I know some of you have been looking around for another place and I would like to thank you all. If Angie is going to organise the event it needs to be more local to her. If you want another convention let Angie know. *Now*

WACCI CONVENTION 1998

I have provisionally booked the 1998 Convention at Bescot Stadium for Sunday 20th September 9.00am to 5.30pm. The ticket price this year will be £3.00.

I need 100 advance bookings from you in order for me to confirm the booking with the stadium. I intend to start a fund now to cover the costs of this and any items to sell for WACCI would be greatly appreciated if I can fund raise then obviously this will bring the cost of the tickets down. **PLEASE HELP ME** This is a good day out for us all and I would hate not to be able to hold it just for the sake of money. Please contact me if you can help. Angie 01922-449730 or on e-mail: angie hardwick@cableinet.co.uk.

Regards
Angie

Carols Puzzler ?

Carol Bowley: 97 Tirrington,
Bretton, Peterborough. PE3 9XT
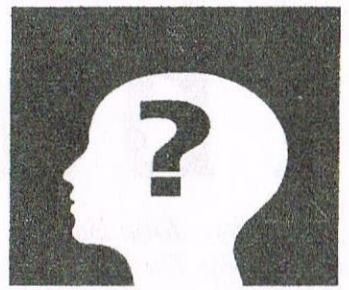
Well here I am again at last. I hope you missed me. Anyway this competition has been set by WACCI member Dave Simpson. I had a good laugh working out the answers and I expect you will too. Actually I was a little surprised by my Son Andrews answers to the questions, he got quite a few right and seeing as he is only 14 I thought that was quite good for a Bowley. So I'll stop the banter now and let you get on with these questions that I know you will enjoy doing. Well here goes then, good luck

Carol

Intelligence Test

1. Please write your name in the square provided. ☐

2. How many animals did Moses take on to the Ark?

3. Some months have 31 days, some have 30 days. How many have 28 days?

4. Divide thirty by a half, and add ten?

5. If your doctor gave you three tablets and told you to take one every half hour, how long would they last?

6. How many sides are there in a circle?

7. How far can a dog run into a wood?

8. Which country has the 4th July - UK, USA or France?

9. If you were alone in a deserted house at night and there was a lamp, a candle, a fire *(unlit)*, and you only had one match, which would you light first?

10. A man built a rectangular house with each side having a southern exposure. A bear came wandering by. What colour was the bear?

11. How many birthdays does the average man have?

12. Why can a man living in York not be buried west of Trent?

13. If you have two coins totalling eleven pence, and one of the coins is not a ten pence piece, what are the two coins?

14. How much soil, to the nearest cubic inch, is there in a 2'x 2' x 4' hole?

15. If two monkeys sit in the corner of a room and look at another pair in the next corner, and so on until every pair looks at another pair, how many monkeys could say that they were looking at other monkeys?

16. Is it legal for a man to marry his widow's sister?

17. If you drove a bus leaving Newcastle with 40 passengers, dropped of 7 at Gateshead and picked up 2, stopped at Birtley and picked up another 10, then went on to arrive in Durham, 15 minutes later, what was the drivers name?

Well not so bad eh! Answers to be with me no later than 15th March.

☐
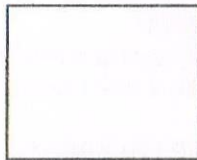
Answers issue 117
Yes folks you did very well with the song title quiz and these are the answers:

1. I Love To Love
2. Stop In The Name Of Love
3. Goodbye To Love
4. Love Hangover
5. Love Me Love My Dog
6. I Love You Love Me Love
7. Puppy Love
8. Love Me Do
9. Love Is In The Air
10. And I Love You So

WINNER
And this winners name has completely ruined my day yet again. His name is....

Frank Smart

Oh how that man is starting to annoy me. No Frank I'm only kidding...*really!!*

Congratulations on winning a day with the Bowleys but if you would prefer, you can have a £5.00 WACCI voucher for your efforts.

THE SMILING SMART
Frank certainly got something to smile about since he has just won yet again, come on everybody enter and make sure Frank doesn't win this time around.

MESSAGE TO BOB HOUSTON
Bob Did you ever receive the 'computer' you won at the convention a couple of years ago? Please let John know as he is curious.

CLISHMACLAVER
This has been shelved for the time being as I do not have any good gossip to tell you for the moment. So if you liked the column then write in and give me something to put in it.

What I want to know is birthdays, anniversaries, special occasions and funny things that you have done.

That's about it for this month, seeya all next month. *Have fun.*

Carol

Fair Comment

with Uncle Clive

write c/o Frank Neatherway, 3 Glebe Close, Rayleigh, Essex. SS6 9HL

WHERE DID IT ALL START? Way back in WACCI number 1 *(distributed in October 1986)* Jeff Walker the founder and leading light of WACCI recognised the need for, and importance of members talking *(or writing)* to other members and so the longest running WACCI feature was born. Jeff opened the Fair Comment section with the well worded and well meant message. *Uncle Clive.*

FAIR COMMENT - EDITED BY JEFF WALKER Okay, this is it. If you've got a bone to pick, a statement to make, a point to put across, if you want to comment on anything you've read in this or any newsletter, if you want to sing somebody's praises or tell them what you think of them, or even if all you want to do is just let off steam or ask a simple question, then this is the place to do it, no holds barred. Everyone, they say, has a right to their own opinion. This column, hopefully, is going to stretch that statement to its limits and find out just how true it really is. The address to write to is the Main Club Address, and can be found on the back page.

The very first letter managed to set the mood for the next 119 Fair Comment's. It also introduced a whole range of WACCI style gimmicks? Such as the << Almost? - Ed >> in the second paragraph. I wonder if Richard Burton (no relation to Richard Burton of Liz Taylor fame) realised just what a powerful tool he was setting in motion? Uncle Clive >>

NEVER MIND THE QUALITY, FEEL THE WIDTH : The quality of games has been improving ever since they

started, and most are generally very good indeed. But a few games are really pathetic and are total rip-offs. This minority stain the industry.

Take World Cup Carnival for instance. It is almost exactly the same as World Cup by Artic Computing <<Almost? - Ed>>. US Gold take a below average game, put it in top quality packaging, with stickers and numerous other freebies, then have the nerve to say it's been super enhanced. What, the packaging or the game? With all this hype and marketing, the only winners of the World Cup were US Gold.

Then come the cheapy games. When they first appeared they were about the standard of magazine type-ins. But now we have Knightyme, Spellbound, Kane, and Thrust which could all sell for the same as a full priced game. I think this puts the full price firms to shame.

Another aspect of the industry which is put to shame is advertising. Software houses put adverts in magazines and you wait eagerly for them to be released. And wait and wait...... I've been waiting ages for the appearance of Knightrider and Streethawk from Ocean. I call this disgusting.

Another house doing this is Sega. They've been converting Spyhunter and a couple of others for I don't know how long. By the time they finally release them, the games will be out of date, and nobody will want to play them. If software houses can't release a game in time to coincide with the advert, they should wait until the program's finished and then advertise it! Quite a few games nowadays are released

about TV or films, and most of these fail miserably to be anywhere as good as the program. A prime example is V. The game does not feature at least one of their famous green aliens anywhere. The advert has a gigantic green face in the middle of it, and I think this is misleading. Another one is Ghostbusters. It sold very well indeed, but that was, once again, because of the title. Ah, Ghostbusters is a great film, you think, so it must be a great game. It is tedious, boring, repetitive and not worth £10.

Prices of games seem to be going up and up and up, so poor kids can't afford to buy the games they want. Well, maybe just one - if they're lucky. My view is, if they brought software prices down to, say, £5.95, they would be in the range of many school-children, and so sell more than at their current prices. No wonder people copy software at the prices nowadays! *<<And it's these same pirates who are to blame for the ever increasing price of games software - Ed>>.*

<<Was it only eleven years ago that it all started? How time flies! So much for the past let's get on with this months postbag. Uncle Clive. >>

ALWAYS SET YOURSELF A GOAL!
Dear Clive, It was Saturday, January 24th the wife and myself were just lounging about, in our lounge of course, we had been shopping in the morning and after a light lunch were watching TV. Nothing too exciting to watch, just Horse Racing, Rugby Union etc., except today most of the fourth round ties of the FA CUP were being played and the presenter on BBC 1 would be giving updates of the scores and

scorers in the matches throughout the afternoon. Arsenal were leading Middlesborough 2 - 0, Manchester United were giving Walsall a hiding 4 - 0, there did not appear to be any unexpected scores when right of the blue so to speak the presenter announced that Bowley had scored a consolation goal for Walsall who were then losing 5 - 1. Well you can well imagine my surprise at this, gobsmacked would be a more fitting description. After a short while thinking about it, I said to myself that's where that John Bowley is, messing about at Old Trafford.

Once again instead of getting the magazine printed and posted to us members he is now trying to climb another mountain, which attempting to beat Man. Utd. surely must be. I mentioned all of this to my wife, who knowing how John does enjoy doing such things in a somewhat haphazard manner, stated it could be true if when he was at the Bescot Stadium last September Walsall signed him up. We both enjoyed a good laugh at all this supposition and thought no more about it for the rest of the day.

However on the next day, Sunday, after walking round to my local newsagent to buy The Mail On Sunday and settling down by the fire with a slice of toast and a cup of tea, I suddenly remembered about John having possibly scored a goal for Walsall at Old Trafford. So I took a close look at the results of the FA Cup played printed within the paper and there it was, the scorer of Walsall's consolation goal, however his name was not John but Roger, but more importantly his surname was Boli.

So John I am sorry for thinking it was you, but it did give my wife and myself something to have a good laugh about at the time. It is now Monday Jan 26th and I still haven't received my issue of magazine No 118, you haven't popped off to the West Indies to give our cricketers a helping hand instead have you?

Doug Webb
Chorley

<< Hiya Doug, I hope and trust that you and your good lady are well? No WACCI and it's the 26th of the month! How are the fingernails holding out? Mine arrived around the 26th and having read it, I can

tell you that it's another very good issue. By now John (not the scorer) Bowley will have read your letter, panicked, panicked some more and then gone on to ensure that you have received your copy of 118.

It must have been an unusual Saturday, Manchester United conceding a goal at home, you helping with the washing up, and BBC knowing the football scores.

If you go out in summer, on your son's birthday, on a Sunday, to by The Mail On Sunday, you would by buying "The Mail on Sunday, on Sunday, on a Sun Day, on your Sun's day!" For that you should get a discount on the price. [PS. Guess who used to watch Rowen and Martin's Laugh-In in the sixties.]

I hope that you've received 118 by now, and if you have you'll have noticed that I'm back, and that we're short of letters, and that I'm going on a bit to fill the page(s). In my humble opinion the best bit of WACCI has always been "Fair Comment" and if it's going to remain the best bit we need lots of letters from lots of members - please write to me : you know it makes sense! Lots of best wishes. Uncle Clive. >>

FISHING FOR AN ANSWER
Dear Clive. Welcome back to the world of WACCI. I have a problem that is not concerned with computing but I am sure that one of our members will be able to help me out.

Back in 1968, while my wife and I were overseas, we used to send recorded messages home to my wife's mother on small reel-to-reel tapes. Sadly, my mother-in-law died whilst we were away and it wasn't until many years later when my wife's stepfather died that we found another tape that was recorded, but not sent, just prior to her death. Unfortunately, we have no way of playing this as our old reel-to-reel recorder has long since gone.

What I would like is for the message to be cross-recorded onto a cassette. If any of our members could do this for me I would be extremely grateful. I have included my telephone number at the end of this letter so if anyone could help would they please give me a ring and I will arrange to send the tape and a blank cassette. *Regards.*

Ron Boreham
Pembroke Dock

<< Hiya Ron, Ron's phone number is: 01646 684627. I trust that you are well. I never owned a reel-to-reel tape recorder but if there's a member out there with one, I sure that they'll be getting in contact with you very shortly. I know from my many years association with WACCI, that members will wherever possible, help out other members with a problem.

A certain member who lives in Bloxwich spends many a happy hour wandering around "Car Boot" sales - perhaps they know where a very cheap second hand one can be purchased?

I was listening to Nick Brunger on BBC Radio Nottingham, on ups pops a Mick from Nottingham who wanted to know where he could obtain help and software for a CPC 464. I phoned him to let him know about WACCI, and it turned out that he lives just round the corner from Christine Raisen, just off Bells Lane, Aspley, Nottingham.

Anyway, back to the plot, you could ask your local radio station for help, or, being as they are expects in this area, they may be able to copy (transfer) the tape for you. As yet another alternative, there are a number of specialist who offer the service on a commercial basis - some of which provide a Mail Order service. I've never used one, but if any members have, perhaps they'll let us know who are good, and more importantly, which are not.

As I replied to your letter, a thought passed through my head, which is a rare occurrence these days, so far I have recognised all the letter writers who have written to Fair Comment. Best Wishes. Uncle Clive. >>

IT'S AN OLD SQUARE (ROOT)
Dear Clive, Reading your comments regarding square roots in Issue 118 brought back memories of the time I was studying for my IWM *<< Institute of Work Managers? -Uncle C >>* exams. It was then that these were used extensively to determine "Standard Deviations". Of course by that time the first basic portable calculators were around, so all one had to do was remember the formulae.

Anyway, I digress, I then hunted for one of my old mathematics books although I already considered I could

remember how to calculate square roots the old way. The book was finally unearthed and it proved I had not forgotten how to calculate a square root, however, I just needed to see it in print to make sure. To be fair to you <<thanks>> and myself, I print the following explanation and example, so that you may remember also.

In many calculations it is necessary to find the square root of a number to a required degree of accuracy when the square root is not a whole number and use cannot be made of prime factors. To find the square root of 532.703 follow these easy stages.

1.   The figures are marked off in pairs to the left of the decimal point.

      This gives: 5'32.703

2.   Where the answer is required to 2 decimal places, two pairs of figure must be added after the decimal point, by adding 0's if necessary. In the example one 0 has been added.

      This gives: 5'32.70'30

3.   Find the highest whole number whose square is less than 5, viz 2, this is the first divisor. This is divided into 5 giving a quotient of 2 and a remainder of 1.

4.   The next pair of figures is then brought down, giving 132 as the next dividend. Our answer now looks like this:

```
              2
        ┌─────────────
2 x 2   │ 5'32.70'30
        │ 4
        │ ──
        │ 1 32
```

5.   The answer at this stage, viz 2, is then doubled, giving 4 as the first figure of the next divisor. This divisor is then completed by adding a further figure, this being the highest whole number which can also be the quotient, in this case it's 3. <<I see, you mean find the highest number which when added to the 4, and then multiplied by itself does not exceed the 132. ie. 41 x 1 = 41, 42 x 2 = 84, 43 x 3 = 129. Uncle C.>>

6.   After carrying out this division we've reached the decimal point, so we place a decimal point in the answer.

7.   We now bring down the next set of numbers 70, which gives us a dividend of 370. The answer now looks like:

```
              2   3.
        ┌─────────────
2 x 2   │ 5'32.70'30
        │ 4
        │ ──
43 x 3  │ 1 32
        │ 1 29
        │ ────
        │   3'70
```

8.   We continue the same pattern, we double our previous answer of 23 to give us 46. This divisor is then completed by adding a further figure, this being the highest whole number which can also be the quotient, in this case it's 0. <<I think I get the drift, as 460 x 0 = 0 and 461 x 1 = 461, 461 is above the 370 target so we use the 0.>>

9.   We now bring down the next pair of numbers to give a dividend of 37030.

10.   We continue the pattern by doubling the last answer of 230 to give 460. We find the highest whole number that can also be the quotient, in this case it's an 8. <<Let's see, 4607 x 7 = 32,249. 4608 x 8 = 36,864, 4609 x 9 = 41,481 - Yep, you're right it's an eight.>> The answer now looks like:

```
              2   3.  0
        ┌──────────────
2 x 2   │ 5'32.70'30
        │ 4
        │ ──
43 x 3  │ 1 32
        │ 1 29
        │ ────
460 x 0 │   3'70
        │      0
        │   ──────
4608 x 8│   3'70'30
        │   3'68'64
        │   ───────
        │     1'66
```

11.   We now have an answer of 23.08. <<I think I'll check this, 23.08 x 23.08 = 532.6864 - Hey, that's not bad!>> So the correct answer to one decimal place is 23.1.

All I can say is thank goodness for calculators, but just to prove that this method is quite correct, why don't you find the square root of 31.36. Best Regards.

Doug Webb
Chorley
Lancashire

<<Hiya Doug. Many thanks for this super explanation. Having read it, I now remember where I was going wrong. I'd paired up the numbers, and found the first 2. But I'd forgotten to double the 2 before going on to do the next calculation. You were lucky to have a calculator, I started off with a set of Napier's Bones and I can assure you Napier wasn't happy about that. I think I've got the hang of it, I'll leave the square root of 31.36 to the members and try to do the square root of 51 instead.

```
              7.  1    4    1
        ┌─────────────────
7 x 7   │ 51.00'00'00
        │ 49
        │ ────
141 x 1 │ 2'00
        │ 1'41
        │ ─────
1424 x 4│ 59'00
        │ 56'96
        │ ──────
14281 x 1│ 2'04'00
        │  1'42'81
        │ ───────
        │   61'19
```

Now if only my old maths teacher was alive - I'd get him to give me a better mark for my third year (that's year 9 to our younger readers) exams. Many thanks. Uncle C.>>

WHAT'S IN A FONT?

Dear Clive, Let me start by welcoming you back to the WACCI fold. I trust that you've been well since I last saw you at the *"All Formats Fair"* at Haydock Park? Was that really three years ago? How time flies when you're busy learning about computers in general, and the faithful CPC in particular!

I spend a lot of my time trying to keep things as they are, rather than making them *(or letting them)* change. However, I've changed my mind about one thing, and that's why I'm writing.

When WACCI moved from a standard CPC font to a proportional Times Roman font my instinctive reaction was a typically British *"Oh No - Why can't they leave things alone?"*. But I changed my mind - and as my new mind works slightly better than the old one, I've decided that I now prefer the new'ish look, with one exception.

Proportional based fonts and Basic programmes do not go together, and I find reading a program like this very hard to do:

```
10 FOR area = 1 to 10
20 bishop = area * area
30 PRINT bishop
40 NEXT area
```

This could be improved by using a non true type font such as Courier New for all programmes, they would now look like this:

```
10 FOR area = 1 to 10
20 bishop = area * area
30 PRINT bishop
40 NEXT area
```

This is in my opinion a much better layout. Best wishes. I'm sure that other members will quickly write in to either support *(or debunk)* my idea.

Carl Leonard
Lancaster

(Take the M6 North from Haydock Park and keep going until the traffic dies down!)

< Hiya Carl. I tried that traffic dying down bit to find Lancaster - do you know how to get back from Inverness? Sorry that bit's a lie! It was really John O'Groats!

I think I agree with you. In general, I normally prefer a single font on a page, unless there is an over-riding reason for having more than one font and this is probably the only good reason I've heard.

A standard 12 point font, using bold for emphasis, and Italics for comments, and 14 or 14 point version for headings gives a nice clean appearance. A nice clean non-true type font for program listings seems to enhance their readability and gives a much more CPC list effect when printed. I've seen many layouts and articles that have been ruined by the over use of fonts and effects - It's definitely a case of too many fonts spoiling the page.

There's a good case for using sensible variable names in programmes, however once in a while I like a change, and I use silly names. Cobol used to be the best for this, with examples like this one:

IF CIGARETTES KILL PEOPLE THEN PERFORM OPERATION THRU WINDOW Despite my help, I still think that you're on to a winner here, and that the example you included, proves that you are right. Best Wishes. Uncle Clive. >

SPREAD IT AROUND

Dear Clive, Can you pass on my admiration to John Bowley for the way in which he manages to produce such an interesting, high quality magazine each month. It must take a lot of hard work. *< It does, I know, I've done it - and I agree with you, he's doing a grand job! - Uncle Clive. >*

On to the main reason for writing, in WACCI 118 you mentioned DC-CPC Spreadsheet *< Actually it was John Evans who mentioned it. Uncle C >* and having never used or seen a Spreadsheet I wondered if you could explain what one is, and how they work? Is that asking to much of Fair Comment? Should I be asking for a willing volunteer *< Such as John Evans? >* to write an idiots guide to spreadsheets.

Many thanks in anticipation.
John Wilson
Birmingham

< Hiya John, not you're not asking to much - Fair Comment is, and always has been both about making comments, and asking for, and receiving help. Spreadsheets? Let me think < whirr. >> Here goes, a general definition of the four main type of programs (excluding games) would be:

A Word Processor is a program that allows the uses to enter, save, manipulate and print text. A Database is a program that allows the user to enter, save, manipulate and print data. A Spreadsheet is a program that allows the user to enter, save, manipulate and calculate numbers.

An Art Package is a program that allows the user to enter, save, manipulate and printers pictures and graphics.

On PC's the lines between each program are very blurred, whilst on a CPC the lines are still fairly clear.

A Spreadsheet is made of a lots of cells. The cells are split in to columns and rows, the columns are marked alphabetically from A to Z, and the rows are marked from 1 to lots more than 1, like so:

etc.

Every cell is uniquely identified by its column and row number. A2, B4, Z345 and so on. Cells can either hold Number, Information or a formulae. Information can be directly entered in to a cell by:

a)   Moving the cursor to the cell and then typing the data or:

b)   It can be entered in to a cell using a formulae, this would take the form of A2 x B3, this would find the contents of the cells A2 and B3, multiply them, and then store the answer in the cell that held the formulae.

c)   Cell can also be used to look up information, from either a table, or elsewhere in the computer. Supercalc can nip to CP M's bios and find the current date and then enter the date in to the cell.

A typical bit of a Spreadsheet might look a bit like this:

	A	B	C
1	Number	14	5
2	Value	7.2	8.0
3	Total	100.8	40.0

Formulae can calculate a wide range of mathematical expressions including +, -, / and x and a wide range of logical expressions including , and 's.

Information can be displayed using a range of standard effects, such as limiting the number of decimal places, left, right and centre justification, displaying the answer in a standard £££.pp format and many more.

The main uses of Spreadsheets are Costings and Quotes. However, don't be fooled, the PC versions will also play a mean game of Blackjack (Pontoon to our English readers.)

I trust that this very broad outline gives you a feel for what a Spreadsheet is, what it is used for, and why they are used. Please feel free to ask about bits that are incomprehensible. Best Wishes. Uncle Clive. >

Keep your letters coming in please.

First Steps In Machine Code
by Richard Fairhurst
chapter six

There are a few, miscellaneous instructions which we haven't dealt with yet. In this chapter I'll explain those, so by the end of this chapter you should know every op-code possible on the Z80!, but first we'll continue with the rotate instructions from chapter 5.

RL *(ROTATE LEFT)*

Bit 7 goes to carry, bit 6 to bit 7, bit 5 to bit 6 etc. The old value of carry goes to bit 0. Again, there is a special A register instruction (RLA).

RLC *(ROTATE LEFT CIRCULAR)*

Bit 7 goes to bit 0, bit 6 to bit 7, bit 5 to bit 6 etc. Bit 7 also goes to carry. The special one-byte A register instruction is RLCA. Examples of the syntax of these commands:

```
            SRA A
            SLA (HL)
            SRL D
            RR (IX+3)
            RRA
            RRC E
            RL (IY-1)
            RLC H
            RLCA
```

An example of using these commands is to multiply a 16-bit number *(held in HL)* by two. Normally, you would use ADD HL,HL *(i.e. add it to itself)*. But you can do it by rotate instructions - as you're multiplying, you want to rotate left, so the code would go as follows:

```
            SLA L
            RL H
```

Simple! This diagram explains how, with HL as 385 as an example:

```
 H        carry   L
 00000001   ?   10000001   - to begin with
 00000001   1   00000010   - after the SLA L
 00000011   0   00000010   - after the RL H
```

As you can see, the high bit of L *(i.e. bit 7)*, which needed to be moved to the low bit (bit 0) of H, has indeed done so - via the carry.

A quick note on the other flags: auxiliary carry is always reset *(i.e. becomes 0)*. Flags such as zero (Z) are set according to the result of the operation, except with the one-byte accumulator rotate instructions. Carry is affected by different instructions in different ways, as detailed above!

One obvious use is in testing, for example, bit 0 of a byte. A simple RRA would put this into the carry, which you could then act on by CALL C,address or something like that. In fact, due to the speed of this method, the CPC uses this to read in data from the tape!

It would be unrealistic to expect to learn the exact effects of all of these commands - I always refer back to a book whenever I need to use one and am unsure of what to use. However, it is useful to know what you can do with these commands and how to do it, because, despite their complexity, they are some of the most useful instructions available to the Z80 programmer! The flags are set according to the result.

To finish off the rotation/shift instructions detailed in the last and the begining of this chapter, there are two special rotation instructions for **"binary coded decimal"**. Binary coded decimal is a special way of storing decimal numbers in which two values from 0-9 are stored in each byte, in bits 7-4 and bits 3-0.

Since it isn't easy to convert from hex/binary to decimal in machine code, there are three instructions specially dedicated to doing this, two of which are rotate instructions. They are: **RRD** *(Rotate Right Decimal)*

This takes a byte from address (HL), and places bits 3-0 from it into bits 3-0 of A. It then puts bits 7-4 of the byte at (HL) into its bits 3-0, and the original content of bits 3-0 of A is moved to bits 7-4 of the byte at (HL).

RLD (ROTATE LEFT DECIMAL)

Similarly, this moves bits 7-4 of (HL) to A, bits 0-3 of (HL) to its bits 7-4, and bits 3-0 of A to bits 3-0 of (HL).

Carry is not affected by these instructions, but all other flags are. The other **BCD** *(binary coded decimal)* instruction is:

DAA (DECIMAL ACCUMULATOR ADJUST)

This must be used IMMEDIATELY after an add or subtract instruction, and converts A to a BCD equivalent.

For example, if A contained 5 (BCD or hex) and you entered ADD A,26 (hex), the result of A after this ADD would be 2B. However, put a DAA afterwards, and it becomes 31 (hex) which is what you wanted.

If you have used BASIC extensively, you might know that the BASIC program is stored in memory starting from &170 (368 in decimal). It might seem odd that the computer doesn't use memory starting from address 0.

However, there is a use for the lowest memory addresses, which is the RST (ReSTart) set of instructions. These are basically CALLs to an address which are contained in one byte. They are:

```
RST 0 - CALL &0
RST 8 (or RST 1) - CALL &8
RST 10 (or RST 2) - CALL &10
```

RST 18 (or RST 3) - CALL &18
RST 20 (or RST 4) - CALL &20
RST 28 (or RST 5) - CALL &28
RST 30 (or RST 6) - CALL &30
RST 38 (or RST 7) - CALL &38

On the CPC, the computer uses RST 0 to RST 28 for its own purposes and you must not change these. However, you can change the eight bytes from &30 to &37 *(i.e. RST 30)* for your own purposes. You must not change RST 38.

INS AND OUTS

A function of the Z80 which you may find very useful is its ability to access external hardware, by means of the OUT and IN commands. The hardware includes things such as the CRTC video chip, the sound chip, a serial interface if one is fitted, etc.

To do this, the OUT instructions let you send a value to a particular output port. Usually with the Z80, the port is held in the C register and is from 0 to &FF (255). However, because of a clever feature of the CPC's design, on the CPC it is held in the BC register pair and can so be from 0 to &FFFF.

Some ports, though, ignore the value of C. So if you wanted to address the CRTC register select, which is port &BC00, you could actually set BC to be anything from &BC00 to &BCFF, as this port ignores C.

The instructions are OUT (C),register where **"register"** is A,B,C,D,E,H or L. On the Amstrad OUT (C),B will not be very useful as B is always used to hold the port address. What these instructions do is simply to output a byte to a particular output port.

AN EXAMPLE IS:

```
LD BC,&BC02  ;port &BCxx (CRTC register select), value &02
OUT (C),C    ;send C (&02) to port BC (&BC??)
INC B        ;increase B so it is &BD (CRTC data)
LD C,49      ;C is 49
OUT (C),C    ;send C (49) to port BC (&BD??)
```

What this routine does is to send 49 to register 2 of the CRTC *(which is done by sending the register number to &BC?? and then the data to &BD??)*. This has the effect of moving the screen left on your monitor!

There is also an OUT (port),A instruction, where the port value is changeable and incorporated in the

instruction, but since the port number will be placed in C according to the conventions of the Z80 and the Amstrad will require a value in B too, this is not very frequently used.

The opposite of OUT, surprisingly enough, is IN! This reads a value from a port, and the syntax is IN register,(C). B is used as the port number as well as C, as above. The register can be A,B,C,D,E,H or L, and there is an IN A,(port) instruction available with the same restrictions as above.

For example, this would read a byte of data from a serial interface:

```
LD BC,&FADC
IN A,(C)
```

The byte is placed in A.

Above, in describing the RST instructions, I mentioned that you must not change RST 38 *(i.e. &38 to &3F)*.

The reason with this is to do with the CPC's **"interrupts"**. What happens is that, every 1/300th of a second, the Z80 receives a trigger *(called an interrupt)* from the CPC's hardware. This causes it to execute a RST 38.

DON'T INTERRUPT ME

There are a number of instructions related to interrupts. If you are writing an interrupt routine, then RETI will return from it. In any program, DI disables interrupts, and EI enables them again.

Disabling interrupts will be useful in a program which requires complete control of the CPC, without a blundering interrupt coming up at an unpredictable time and wrecking your timing, but it has a number of disadvantages: the CPC uses interrupts to scan the keyboard, produce sound etc.

If interrupts are switched off, you will have to write your own routines if you want to do this, and that's not easy!

However, in certain uses, such as a demo, disabling interrupts is almost essential.

There are three **"interrupt modes"** on the Z80. You can select one by means of any of these three instructions: IM 0, IM

1 and IM 2. IM 1 is the mode selected by the CPC, which means **"when an interrupt occurs, do a RST 38"**. IM 0 and IM 2 aren't used by the CPC, and aren't useful in writing your own programs!

There are two more interrupt-related instructions: another type of interrupt exists, called **NMI** *(non-maskable interrupt)*. These cannot be disabled by DI. They are not generated by the CPC's hardware, although a peripheral could activate an NMI. However, you would have to have interrupts disabled and not be using the CPC's ROM, because what an NMI does is CALL &66.

You could obviously put your own routine in RAM there, but if the operating system ROM was selected, then the NMI would CALL into that and *crash!*

The other instruction is **"HALT"**. This waits for the next interrupt before continuing - which you could use to synchronise to the next 1/300th of a second. Alternatively, a reset *(e.g. by the blue button on the multiface)* would stop the HALT *as well!*

NOP IS FOR NOTHING

The one instruction left is called **"NOP"**, which stands for *"No OPeration". This does nothing.*

Although it might seem useless, if you want to blank out a few bytes in memory, you can just replace them with NOPs *(which is useful, for example, in a game POKE!)*.

That's all the Z80 instructions covered! Before we go any further, check through the lot again to see that you understand them. In the next chapter, there'll be some real Z80 programs *(wow!)* - so an understanding of the instructions will be helpful in working out how each program works!

Richard Fairhurst

CPC Internet Sites
by Angela (ITGA) Cook
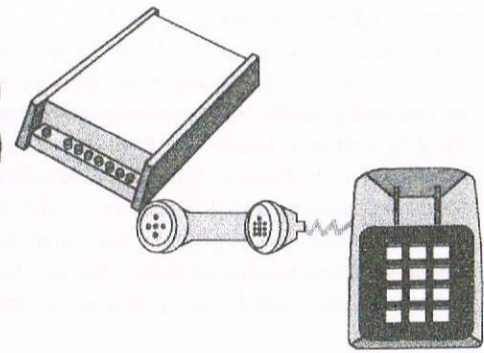
The World Wide Web is a big place, as big as the imagination lets it be. Lots of jargon and mysterious atrocities surround the web, but in there somewhere are loads of web sites just for our humble CPC.

WEB-U-LIKE
Following on from Paul Dwerryhouse's look at the WACCI website some time ago and the reprint of Richard Fairhurst's Surfin' The CPC, I have taken a look at some CPC websites myself.

I came across loads and have written a little bit about all I could. I didn't look in great depth on all of them as web browsing is all on my phone bill - already equalling the national debt of a small African country.

So there may well be items on web sites that I have missed. Remember that people change their web addresses and pages are often updated, so a lot of what is written here is probably already slightly out of date.

There are also other websites than the ones I have covered here. Some of these weren't working when I did my searches, so follow the links from other websites and you'll come across them.
Anybody caught up with any of the terms I have used here *(though I have tried not to go overboard on the jargon)* can consult Richard's article in issue 115 for an explanation.

If anybody wants a copy of this article so they don't have to type all the addresses into their browser, e-mail me and I'll send it to you.

AMSTRAD NEWSGROUP

comp.sys.amstrad.8bit Also known as "csa8". A news group is where people post "articles" for others to read and respond to. Much like pinning paper to a notice board and people writing comments below. I am led to believe it is

possible for CPCs to get access to newsgroups too. Lots of people associated with various parts of CPC history gather here, some technically minded, others reminiscing of past times.

Includes such people as Richard Fairhurst, and various other BTL writers, Cliff Lawson *(of Amstrad Betacom)*, Simon Forrester *(Amstrad Action)*, Kevin Thacker *(Unofficial WWW resource, below)*, Brian Watson *(you mean you don't know who he is)* and various other enthusiasts, even CPC original Roland Perry. All sorts can be found, technical problems solved, games argued over and "off topic" items discussed amongst like

minded friends. Definitely worth reading, even more so getting involved in the posting.

AMSTRAD

Cliff Lawson is an extremely helpful person often seen on csa8. His unofficial Amstrad web site is so comprehensive it has a section dedicated to CPC's.

This basically consists of a little preamble, thanks to people who have helped him out *(including Rob Scott and Paul Fairman)*.
Cliff talks a little about CPC emulators and then gives various links to other sites Also information on PCWs and such like. A good place to start.

Links to other web sites

http://web.ukonline.co.uk/cliff.lawson/index.htm

- Kevin Thacker's unofficial Amstrad pages...
- WACCI Worldwide CPC User club
- Schneider/Amstrad CPC site USA
- United Amstrad User Group (inc. firware guide in a file).
- French ftp site They have a CPC FAQ in HTML format.
- French ftp site The same CPC FAQ as a downloadable document.
- Systeme D - Richard Fairhurst's CPC page

I'd also highly recommend a look at comp.sys.amstrad.8bit if you have software that allows you to access news groups That group is dedicated to our older computers such as the CPC, PCWs and Notepad.

This page is now a member of the "Ring of CPC's" which is a bunch of pages dedicated to the CPC that you can navigate using the control shown below. Each page in the ring has a similar control so you can easily skip from one to the next and back.

This Ring of CPC's site
is owned by Cliff Lawson.

[Prev | Skip It | Next 5 | Random | Next]

Want to join the ring? Get the info.

AMSTRAD GAME RESOURCE

http://www.bsc.napier.ac.uk/~bsc4074 /amstrad/amstrad.html

Difficult to know exactly who hosts this site, Richard Fairhurst says *"some chap masquerading under the pseudonym of Aragorn"*. There are games to download listed by software house and even a few excerpts of game music. There are interviews with Richard Aplin, Gari Biasillo, Mark Haigh-Hutchinson, Nick Jones, David Perry and Jon Ritman. Also Amstrad Action reviews listing in alphabetical and issue order. That must have taken some work. You can download some emulators from here and look at the host's list of favourite games. Worth a visit if you're after games and some odd items of interest.

UNITED AMSTRAD USER GROUP

http://www.eimages.co.uk/users/davidc/uaug/index.html

There is a definite sense of humour at work here. The site title is *"The Trailing Edge Of Technology"* which made me smile. This web page is hosted by David Cantrell, programming editor for the UAUG. David has some very useful pages here, including the Firmware Manual, software to download and the usual links. Lot of thought put in to this. Good job the web page doesn't reflect the style and design of the UAUG's magazine. Take a look, especially for the more techy minded.

Unofficial CPC Worldwide Web Resource

http://andercheran.aiind.upv.es/~amstrad/

This extensive site is compiled and mostly written by Kevin Thacker. Details include, Contacts, Emails for Important CPC People, Newsgroups, CPC Parts and supplies, Articles and Documents, Notice Board, Cheats, Hacking, Projects, Images, Emulators and related software. The emulator section is especially detailed, not only in the emulators to download, but also for software for running on them. Kevin has kindly given me permission to republish articles from his website. Appropriate ones will be in WACCI. Must see, especially for the mountains of technical information.

WACCI on the WWW

http://users.ox.ac.uk/~chri0264/wowww.html

Maintained by Matthew Phillips, some may have met at the convention. Hasn't changed a lot in design over the years, but is very clear. Quite up to date and good explanations. Loads of information available here, including the PD library index, e-mail support, CPC suppliers and such like. Obviously a must for WACClites.

Schlumpf's CPC Corner

http://cip2.e-technik.uni-erlangen.de:8080/hyplan/makra/cpc.html

All in German. Nicely designed and reads well *(what I can understand)*. Lots of information for German speakers and those who live in the country. Also some downloads and lots of links. Worth a look.

Other CPC places

http://privat.schlund.de/OppererSascha/CPC.htm

Amstrad/Schneider CPC Department. All in German, though the language barrier is not a problem. Can download heaps of games, CPC emulators pictures, some of which are available on Kevin Thacker's site.

http://www.ctn-service.com/cpc-zubehoer.html

Very odd and very German. I can't work it out what you are supposed to be able to do or get, but it's there.

http://www.student.adelaide.edu.au/~darkhalf/transcpc.html

About a project simulating a small file system on the CPC with files being stored on a PC. Now complete apparently.

http://www.cs.unc.edu/~llopis/cpc/spain/spain_en.html

Describes the development of the Spanish software for the CPC 1984-90.

CPC USA

http://info.pitt.edu/~mxsst1/cpc/

I was really looking forward to this American site, hoping to forge some link in the America's. Unfortunately the site is a complete let down.

Upon visiting I recalled seeing it before, I don't think it has changed since then - which was ages ago. I tried e-mailing the host but got no reply. Some links and general information, including something technical about monitors. Not worth visiting unless you are a die hard CPC fan with a bottomless pocket.

NWC

http://www.kom.auc.dk/~nwc/

This is the odd homepage of Peter Sørensen. Not much here until you stumble across the *"Unofficial WWW resource"*, which is a mirror of Kevin Thacker's site I presume. Other than that, there are a few pictures of him and that's about it. Not worth bothering about if you look at Kevin Thacker's WWW resource site.

AMSTRAD CPC Museum

http://194.202.157.54/amstrad/

Hosted by Darren Benson. Contents include technical specifications, information on magazines *(including a link to WACCI)*, history of the CPC and emulators for various machines. You can also search for an item to download or search for a publisher and their games available for download *(even included Radical Software Fluff, which impressed me)*. Definitely worth browsing through.

Systeme D

http://www.systemed.u-net.com/

The CPC and PCW are catered for, amongst Richard Fairhurst's other interests. BTL website includes excerpts from previous issues, info on the writers and some comic pictures. Can also download issues of BTL or read on-line. Robot PD and ComSoft websites are here along with various links. A must for BTL fans or those on the PD trail.
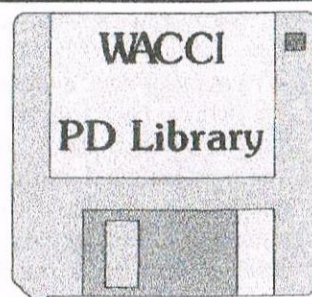
END OF TOUR

And so ends my journey into the world of CPC websites. There are many weird and wonderful things out there, so get some drinks, crisps *(and a cloth if you don't want a messy mouse)* and browse on.

Angela

Poking Around In The PD Library
with Ian Parker

WACCI PD Library

I'm not sure how to start and then continue with this series of articles. It's going to be interesting to write on what has been sitting under one's nose, so to speak, for about four years. So whatta we got in this "my own" section of the PD library that stretches from 55 to 84? The range covers utilities in AMSDOS and CP/M, picture shows, demo discs to show some of the things achieved by our trusty machines, games of many types and a complete version of the Small 'c' language. Anything there to whet your interest? No? Well, the next page is easy to turn.

STILL THERE?
I'm glad you haven't all gone away so I'll battle on then. At the start of all this I intend to try and run these discs on a 464 as well as a 6128. For reasons of *"This is all I've got as spares"* I shall be using a CPC464 + 64K RAM + Disc drive *(inc DDI1)*. Well I intend to but..... How about if I say that I may forget now and again but I shall say if the disc/ file is known to be 464 compatible. I do not have any access to the 'plus' range of Amstrad so I can't assist in that area.

Right – On with the Motley. PD Disc 55 labelled as AMSDOS Utilities Disc 2.

FIRST, SIDE 1 OR A.
A suite of programs that are not claimed to run on any thing less than a 6128 confirmed. Here we have a chance to teach ourselves machine code. The group of files is described as a machine code helper and tutorial and more. There are seven separate .DOC files to read or print out. Some are `hidden' in User 3. There are also some demo files to help give you a feel of things. Almost all one could wish for to help pass a dark winters evening with a trusted friend.

SIDE 2 OR B. Right away I can cheat on what I put in these articles. EPIC an early version of the utility to add extra commands to Protext on ROM. *(Protext is a program you may find mentioned on other pages now and again (Highly commendable according to what some would say)).* This version did not properly load on the above '464 setup. Now here's the bit where I cheat because the EPIC program has been improved *(Vers 1.1)* and is available on PD 74 Side A.

MODESTY
Modesty forbids my mentioning a review article in WACCI issue 100. It is a program that I use to extend Protext by adding boxes or other 'odd' characters which are not directly available from the keyboard.

PRINTER CODES
The program relies mainly on the use of the printer's codes and this suite of programs allows you to create a printer driver file for use with EPIC. Mathematical symbols, Greek alphabet, fractions, bullets and even a degrees symbol with many more are available if your printer supports them. I like it, that is hardly an unbiased opinion, but then I don't have a problem with that.

THERE'S MORE
Three further programs on this side all run on the '464 setup. To look at them in alphabetical order we first see ED, a video titler. This type of program allows one to create special display screens for use with a video recorder. Now you can add that professional touch to your video masterpiece before sending it to the likes of Mr Beadle et al. I had a `go' with it and found it is accompanied by a rather nice demo sequence. Yes, you can make one page or a whole sequence of credits or perhaps a whole video of screens. The pages can be faded on/off or dissolved and so on. It is really quite fun just to *"play"* with it.

TOOLKIT
The next program is TOOLKIT. This is a suite of programs that allow you to have a jolly good old furkle around in your memory. It is a implementary program to the suite on side A. A menu at the front loader takes you to 8 features or Quit. To take you briefly through the facilities as follows:-

1. A disassembler. You have some code in memory and this little wodgit reads it back to you in mnemonic form e.g. B7,3A,7A,BC should translate as: OR A LD A,(BC7A).

2. A memory editor. This gives you the chance to alter the memory contents just so long as you can talk hex or ASCII in machine code of course.

To look at it another way *"what happens if I change this.."* At worst your CPC locks up and can be reset with the power switch, at best you have found the infinite lives poke or the poke that stops the space invaders firing back. *He He He He.*

3. A memory lister, as its name implies it lists the memory. So you have the chance to see any text hidden in amongst the code for example. Or else to look at the way it is all spread out in the RAM or ROM.

4. Compare. A facility that lets you match one section of the memory against another section. It may save you repeating chunks of code to save memory. Otherwise it could be used to see what the differences are in batches of collected data.

5. Fill memory. This is a facility I have seen in other memory programs and I really do not see why anyone needs such a thing. As I understand it, a section of memory is filled with a character of your choice in the area of your choice. Er *good, fine.*

6. Move memory. This will of course shift a section of code *(like wot you have just perfected)* into a different location, e.g. into a high location where you wouldn't be easily able to work on it. It now gives you the chance to a) run it b) load more code c)clear the section of memory you were just using *(i.e. use "fill memory" with zero's)* so that you can compose more code to work with the above.

7. Search memory. I'm sure you've had that feeling "I know it's in here somewhere". Trying to find a well known phrase or coding in a block of memory of your choice.

8. A memory map. I suppose this is to help you find your way out? It doesn't strike me as a lot of use, but then again I was wrong about the fill command. Finally one has the option of:-

9. Quit. This is the option you always hit just a millisecond or two after you spot an interesting item you would like to explore.

PD 57
A wholly CPM disc which will run on version 2.2 or 3.1. I can tell you folks here and now without upsetting anybody that there are over 85K of documentation files on this disc. *Amazing isn't it?* Read on. Side A has that well known program ZDE, the word processor that is almost as good as Protext in CPM *(some say)*.

Although this will run in CPM 2.2 it is recommended that VDE266 is used for the best results. VDE266 is available on PD 10 if you need to find it quickly. ZDE has over 64K of documentation in three files called ZDE-DOC.PT1 to PT3. Another file covers installation for your preferences.

WHAT IS A MACRO?
To complement ZDE is a program called SAMPKEY it loads macro'S for you to use in ZDE. I can almost hear you say *"What is a macro?"* well, a macro is a method of giving a group or series of instructions in a simplified manner. One example would be an RSX in Basic. In such an example, say, four keys could clear the screen, load a program and set the colours to suit you.
Those of you with Protext on ROM may already know about |CP. Alright then, five keys if you include ENTER.

That is all a macro is, a simplified manner of entering a set of commands. The commands could be entered by hand if you want but why not let the machine do it it's paid to do that sort of thing like simple repetitive actions. This is the program that loads the instructions for the macros in ZDE and put them at keys 0 to 9. I assume they mean function keys.

If you want to make your very own macro file then the program to do it is also included on the disc called ZDKCOM. It's all there just read the .DOC files.

QTEXT Is the final program on this side and it improves text handling under CPM 3.1. I can't comment properly on it 'cos I haven't used it. Having said that, anything that improves speed without loss of any important bits can't be too bad or can it? *(Well have you quickly loaded Windows 95 ever?)* The claims made for the program are that it will increase the output speed by 10 to 30 times. Now it may be my slightly skewed view of things or is that a grammatical inconsistency?

My thinking is *(and I hope someone will correct me if I am wrong)* that if the present data flow rate is say 1K2 Baud then to increase it by 30 times would make it a flow rate of 36K Baud.

My ghast is well and truly flabbered and *GOSH* as well. As often is the case, the program has its own documentation file.

Side B Is next. Each file is a CPM Utility for Versions 2.2 and 3.1. There are four main programs on this side as follows. B29 This is a Library, File and Disc Utility. Based or should I say inspired by the well known program NSWEEP.

However this program will print .COM files, prints filename on printout *(there's a good idea)*, print tagged files, multiple copies of printout, not forgetting a real time display. There are several other features to this program. Well worth the trouble of loading. E86 is an expert system based on a concept from the AI folk of the 70's & 80's.

It takes the results of several logical associations and build up a set of rules to make an expert system that you can apply to the subject of interest. I have plagiarised a section from the .DOC file for a better description *(why re-invent the wheel?)*

EXPERT86
Is an expert system shell. A shell is an 'empty' expert system it has the deductive power of an expert system already built in but it has no knowledge about any particular subject. The knowledge is added which can answer questions on any chosen subject.

Expert86 may be used for a wide range of problems in areas such as:

consultation, decision-making, pattern recognition, problem solving, diagnosis, teaching and analysis

Most expert systems have one serious flaw. It can often be very difficult to feed information into them efficiently and accurately. This is often far from easy. Expert86 uses a technique called 'rule induction' to find its own rules, and therefore eliminates the 'rule preparation' stage. It does not need very much help from the user to fill its knowledge base and so expert systems can be written very quickly and with surprisingly little effort.

An example file has been made up about cars and people wanting to buy one. The decision tree that Expert86 builds is stored on a file with a .TRE extension, so the tree for CAR can be found in CAR.TRE. That should give you all something to play with.

DISZ80 Is as you may have gathered, a disassembler for Z80 code. In this case it can disassemble a .COM file into ZYLOG mnemonics. A fairly comprehensive .DOC file is included for you to mull over.

Last, but by no means lost is FILER11. FILER11 runs like a card index type of program. It will let you to store information on disk, and then fetch it back by specifying known data, off it will go to retrieve all records which match. *(Sounds a bit like Patch the dog out for a run doesn't it?)* This program allows you to print out, delete, edit, and then continue with a search, or print each record as it is found, without pausing between. Excited? Good that's what I'm here for excitement.

Ian Parker

The WACCI PD Library

PUBLIC DOMAIN DISC 1 - FORTH - CP/M 2.2 ONLY

The complete Forth programming language disc. Includes both versions of Forth, a full description of the language and an easy to follow 'Teach yourself Forth' series.

PUBLIC DOMAIN DISC 2 - UTILITIES - CP/M 2.2 & 3.1

NSWP	Superb disc and file management utility.
BINCALC	On screen calculator.
COMPARE	Compare two files for differences.
LOOK	Views and edits ASCII and binary files.
BD04	Checks discs for bad sectors and files.
XDIR	Directory utility.
UNLOAD	Convert COM files to HEX files.
NDDT	Improved version of DDT & SID.
RASMB	Convert HEX files into mnemonics.
RASMTA	As RASMB but saves stack pointers.
LOHD	Improved version of LOAD.
LASM	Improved version of ASM.
XIZI	Z80 to 8080 to Z80 m/code translator.
ZMAC	Relocatable Z80 macro assembler.
LINK	Z80 machine code program linker.
D	Directory utility.
SD	Directory utility.
DISPLAY	Improved text file reader.
DS	Directory utility, replaces DIR.
MDIR	Directory utility, replaces DIR.
PRINT	Superb text file printer utility.
WC	Counts the words in a text file.
ED	Documentation for ED.COM.
Z80ASM	Z80 assembler.
ERAQ16	Improved version of the ERA command.
LU	Library file creator.

PUBLIC DOMAIN DISC 3 - MBASIC - CP/M 2.2 & 3.1

The complete MBasic disc. MBasic was originally a full price release (Basic-80). The disc contains all you'll ever need to including, MBasic, MBasic Compiler, Instructions and several complete programs (StarTrek, MPG & Convert.)

PUBLIC DOMAIN DISC 4 - AMSDOS

POWERPAGE 128	DTP program, by Richard Fairhurst.
PD PLANNER	Spreadsheet by Paul Dwerryhouse, 128k Reqd.
RAMBASE3	Super Database by John Fairlie, 128k Reqd.
RAMDISC	Create a Ram drive, 128k Reqd.

PUBLIC DOMAIN DISC 5 - CP/M GAMES - CP/M 2.2 & 3.1

BASE	Text only adventure.
BASE2	Part 2 of the BASE adventure.
ISLAND	Text only adventure.
ISLAND1	Part 2 of the island adventure.
PRESSUP	Simple to play game, but very hard to win.
ADVENT	The original Colossal Cave adventure.
CUBE	Version of Rubiks cube.
GOLF	Weird text only golf game.
MASTMIND	Interesting version of MasterMind.
OTHELLO	CP/M version of Reversi.

PUBLIC DOMAIN DISC 6 - AMSDOS GAMES

ADDER	Guide the snake to collect points.
ANNA	Eat the diamonds with your annaconda.
ASSETS	Asset strip companies to make a profit.
BIO	Plot your Biorhythms, having a good day?
CALENDAR	Print out a calendar for the year.
CATLABEL	Print out a label for any disc.
CBEEP	Customise the beep on your CPC.
CRIB	The card game of crib.
DESERT	Guide your tank around the desert.
DROPFOUR	A version of connect four.
EDITOR	Run your own magazine and make a profit.
EEZAP	Shoot the balloon to win.
GIN	Play the card game on your CPC.
HANGMAN	Guess the word before it's to late.
ICEFRONT	An interesting game.
MUSIC	Write and play tunes.
ODE	Dedicate an ode to a friend.
PATIENCE	Play the card came of patience.
PIQUET	The card game of Piquet.
ROMANNUM	Converts numbers to Roman numerals.
SPRING	An interesting game, well worth playing.
TRENCH	Fly your fighter down a trench.
BOP	Plays a bit of Bop music.
CHESS	Basic game of chess.
COLOSSAL	The solution to Level 9's colossal cave's.
CREEPY	Move around the vegetables, don't touch.
CSEA	Get the submarines before they escape.
CTN	Conversion of a very old English game.
CONNECT	Another version of connect four.
GIGO & FRED	Garbage in, garbage out, talking rubbish.
HOROSCOPE	Want to know the future? Here it is.
OCTAVE	Play the octaves on the numeric keypad.
ORGAN	Use the keys as an organ. Design tunes.
POOLS	Win the pools with this super aid?
SPLAT	A super machine code & basic game.
TIMEBOMB	Collect the timebombs before they explode.

PUBLIC DOMAIN DISC 7 - UTILITIES - CP/M 3.1 ONLY

FORM3	Read & write to PCW format discs.
MIKEDIT	Easy to use line & text editor.
SUPERZAP	Super track & sector editor.
ZDEBUG17	Z80 interactive program de-bugger.
NEWCCP	Adds lots of new commands to the CP/M.
ANDYBASE	Superb Database, v1.1, now shareware.
WCOUNT	Counts words, lines and chars in a file.
UN33	Unerase erased CP/M files.
ARK11 & ARC24	Creates *.ARK archive files, Version 1.1.
DC-CPC	Spreadsheet, similar to Supercalc 2.
UNARC	UN-ARChive files created with ARC24.COM.
ADRIVE	Switch between normal & 80 track drive A.
ASSIGN	Redirect disc commands, drive A to B etc.
CRUNCH28	Crunch archive files to save disc space.
UNCR28	UN-CRunches *.?Z? files.
EXTDISC	Changes the drive parameters.
FORMAT	Format discs to the new parameters.
MENU	Simple & easy to use Menu program.
QTEXT21	Speeds up screen handling.

PUBLIC DOMAIN DISC 8 - COMMS - AMSDOS & CP/M 3.1

ZMP	The best CP/M Comms program (ZModem.)
TERM504B	The best Amsdos Comms program (XModem-1k.)

Plus all you needed to know about comms, including, phone list, help files and more.

PUBLIC DOMAIN DISC 9 - UTILITIES - CP/M 2.2 & 3.1

CLEANUP	Improved version of CP/M's ERA command
DIRCHK	Check the disc directory and locate files.
DISPLAY	Improved version of CP/M's TYPE command.
FILECHOP	Splits up large text files.
LRUN23	RUN a .COM file from within a .LBR file.
LT29	Easy to use library file unpacker.
NC	NewCopy, improved disc to disc file copier.
NULU15	Super disc utility, similar to NSWP.
ACOPY21A	General purpose, super fast, file copier.
DU	Superb Disc utility. Fully documented.
GREP	Scan text or programs for keywords.
LIST	Improves the appearance of printed output.
LOOKAT	View text or program files.
MFT	Easy Multi-File Transfers on CP/M.
RESCUE	Rescue programs from corrupted discs.
RPIP	Improved version of PIP.
SORT	Sorts text files into alpha-numeric order.
VLIST	Improved version of TYPE.
WSCLEAN	Strips high bits from text files.

PUBLIC DOMAIN DISC 10 WORD PROCESSING -Amsdos &CP/M

VDE266	Word Processor, top quality PD package. The Latest and final version (2.66) of VDE, the complete word processor. VDE runs under both CP/M 2.2 & 3.1.
ISPELL8	The PD Spell Checker Version EIGHT by Paul Dwerryhouse. Ver 8 updated by Terry Ward.

PUBLIC DOMAIN DISC 11- AMSDOS - ADVENTURES 1

GENO	Journey to Geno, super two part adventure.
ORKON	The Orkon Mission, another super adventure.
ESCHER	Eschers Crazy Mill *(The water runs uphill)*

PUBLIC DOMAIN DISC 12 - COBOL - CP/M 2.2 & 3.1

The complete Cobol programming disc. This top quality PD package contains all you ever needed, including the compiler a full 'Teach yourself Cobol' series, examples, instructions and two complete programs.

PUBLIC DOMAIN DISC 13 - DEMOS DISC 1 - AMSDOS

AMIGADEMO	Your CPC does an Amiga Demo imitation.
MADNESS	Quality Graphics *(contains bad language)*.
MALIBU	Super Graphics Demo.
HUNTER	Super Graphics Demo.
BARS	Super Graphics Demo.
GPA-NOEL	Plays 'Noel' to a Christmas scene.
JOGGING	Super Graphics Demo (pictures a bit rude).
REMIX	Super Graphics Demo.
WACCI	The WACCI logo by David Carter.

PUBLIC DOMAIN DISC 14 AMIGA GRAPHICS 1 AMSDOS

David Carters first graphics disc. This disc contains 49 screen pictures. The pictures were drawn for the Amiga, and then converted to CPC format by David. The Pictures include: Bike, Bird, Castle, Donald Duck, Horse, Marilyn, Maxhead, Garfield+Odie, Odie, Buggs Bunny, Saturn, Eagle, Porsche, Venus, Harrier, Dollar, Burnball, Lens Window, Monster, Moonchild, Punisher, Smoker, Strawberry, Mazda, Sword, Terminator, Terminator2, Tiger Like, CocaCola, Turtles, Bolts, Doors, Fantasia, Garfield, Gorilla, Gun, Imagine, Juggler, Kingtut, Sunbath, Mona Lisa, Prince, Robocop, Robocop 2, Ship and a few more.

PUBLIC DOMAIN DISC 15 - AMSDOS

"FLAGS OF THE WORLD" By Andre Coutanche, Stuart Gascoinge. All the world flags bar 20 *(mainly 'cos they are too difficult or 'cos they are forever changing.)*

"THE ANIMATOR DEMO" By David Carter.
Four interesting graphics demos by Davis Carter. Written using the Animator Graphics package *(this is no longer available.)* David pushed the package to the limits of its ability whilst producing this disc.

PUBLIC DOMAIN DISC 16 - PASCAL & ZBASIC - CP/M 2.2 & 3.1

PPC PASCAL -A superb Pascal compiler. Many commands are non-standard, however it's easy to use and learn, and it does produce stand-alone *.COM files.

ZBASIC - A public domain release of a commercial product. ZBasic is easy to use and is a near-industry standard version of Basic. The full *(and costly)* version will produce stand-alone *.COM files, this feature has been removed from the PD version.

*** Both come complete with full instructions. ***

PUBLIC DOMAIN DISCS 17 & 18 - JRT PASCAL - CP/M 3.1

This twin disc set contains JRT Pascal. *(Once a full price software package costing circa $450 dollars.)* JRT Pascal is an industry standard version of the language. To write source code files you'll need a word processor that produces pure ASCII files. VDE266 the superb public domain word processor *(on WACCI PD Disc 10)* will do if you don't own a word processor.

*This disc contains full instructions and rules. ***

The price of the PD Discs are on the back page. If you don't have a side switch attached to your 3.5 disc drive then please inform Dave when ordering your PD.

If you've any new PD would you please send it to Stuart Gascoinge. Stuart's address is on page 30.

Treat yourself you deserve it
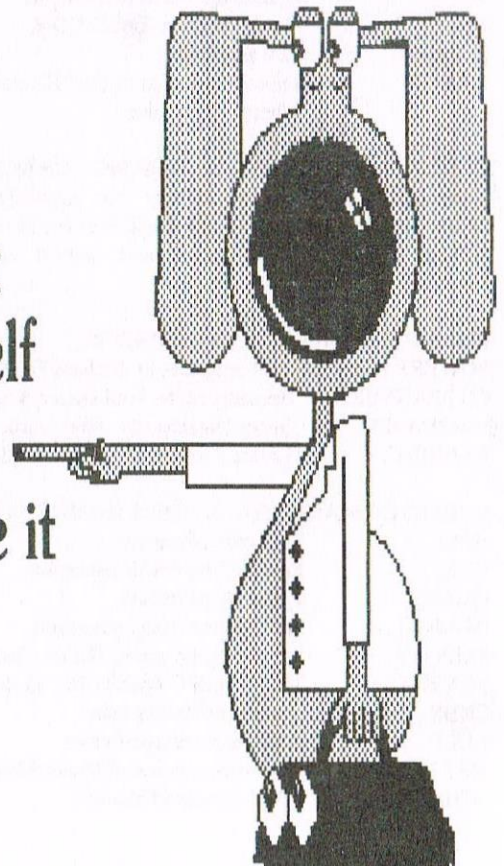
Programmers'
Patch by Matthew Phillips

This month in Programmers' Patch we are going to start a short series on MIDI programming. Although there have been many reviews of MIDI equipment for the Amstrad in magazines over the years, there has been very little on how to program your CPC to control MIDI equipment. This month also sees the first anniversary of the Programmers' Patch series, and if the reviews in last month's Blast from the Past are anything to go by, we have plenty of reason to celebrate. Then again, I have run out of inspiration for subheads this month...

SO WHAT IS MIDI THEN?

I suppose we ought to start with the obligatory explanation that MIDI stands for Musical Instrument Digital Interface, and is a standard for control and communication developed by the major keyboard manufacturers. All modern keyboards *(except the cheaper models)* have MIDI sockets and some types of computer come with MIDI capabilities built in. The Amstrad unfortunately is not one of them.

MIDI INTERFACES FOR THE CPC

To use your Amstrad to control MIDI instruments you will need a MIDI interface, which plugs into the expansion port and provides the necessary electronics and the MIDI sockets. There were several different makes of interface produced for the CPC, and while they all had much the same capability in terms of hardware, the software that came with each one was very different and varied in quality.

The main interfaces are the EMR interface, the DHCP interface, and the RAM Music Machine, which also included a sampler. Because the interfaces used different port addresses, software written for one will not work on the other makes. There has however been some software written such as the Foundation Step-Time Sequencer which can be configured to work on all three interfaces.

If you are interested in music and have a suitable MIDI instrument then it would be well worth trying to get a MIDI interface.

You can produce pretty good results even with the CPC. Though it is quite hard to obtain Amstrad gear now, there must be quite a lot of it about and you may find it turning up at car boot sales

from time to time. It might even be worth placing an ad in your local newspaper asking for Amstrad kit, or of course an ad in WACCI. I obtained my RAM Music Machine in 1990 when another WACCI member spotted them being sold off cheap in Barrow-in-Furness.

If you are good with a soldering iron, I have instructions on how to build your own MIDI interface if anyone is good enough at German to follow them.

You will also need a MIDI lead to connect your CPC to the MIDI instrument, but these are easily obtained in music shops.

SO WHAT CAN YOU DO WITH

MIDI? There are all sorts of applications for MIDI, and not all of them involve music! For instance, if you have two computers with MIDI interfaces, then you can use MIDI to get the computers to transfer any kind of data between them.

With suitable software, you can edit a piece of music on your computer, and then use MIDI to instruct your keyboard to play it for you. Some editors use conventional musical notation, others operate more like a sequencer. More advanced software enables you to play music on your keyboard while the computer records it in memory for saving or editing.

Even without editing software, you can use MIDI to get more out of your keyboard. For example Stephen's Yamaha PSS-680 keyboard has a custom drummer for designing drum sequences, but it can only remember a few at a time. Using MIDI we can transmit the drum memory to the computer and save it to disc for future use. It can then be loaded and sent back to the keyboard.

WHAT ABOUT PROGRAMMING?

Well, since this is Programmers' Patch we had better do some programming. You will probably find that your interface manual says very little about how to program the interface yourself. I have to admit that much of the programming information in this article was found by disassembling the machine code for the Foundation Step-Time Sequencer.

Whether it is strictly speaking legitimate to do this I am not sure, but in an ideal world these details would have been provided in the interface manuals.

It seems that the three main interfaces for the Amstrad use either the same or a very similar chip to handle the MIDI channel.

The RAM Music Machine uses a Motorola 6850 ACIA chip, and the data sheet for this chip would be quite useful.

The most important information is the port numbers for the different interfaces.

Table 1 gives you all you need to know for the three main MIDI interfaces for the Amstrad. If anyone has a different type of interface, I would be very interested to know.

SENDING MIDI DATA

The easiest operation is sending data to the MIDI devices attached to the interface. You can in fact do this entirely from BASIC, and I will present it in this form to start with. Better results can be achieved with a spot of machine code of course.

First we need to reset the interface and get it ready for sending data. On the EMR interface, this is done with:

OUT &F8F2,3:OUT &F8F2,&16

The DHCP interface is done the same way but with &F8E0 *(the address of the DHCP's control port)* instead of &F8F2 in each case.

The RAM Music Machine is slightly different, as the second byte sent should be &15 instead of &16:

OUT &F8EC,3:OUT &F8EC,&15

Once that is done, we can transmit the data. This entails waiting until bit 2 is set on the status port, and then sending the byte to be transmitted to the data write port. Time for a subroutine:

```
100 WHILE (INP(status) AND
2)=0:WEND
110 OUT datawrite,d
120 RETURN
```

At the start of your program you should set the variables status and datawrite according to which interface you are using. To send a byte to the MIDI interface, all you do is put the value you want to send in d and GOSUB 100. Line 100 waits until the interface is ready to transmit a byte, and then line 110 sends it.

MIDI NOTE COMMANDS
Of course, you also need to know what data to transmit. Next month we will go into this more deeply, but for now we will look at the commands to turn notes on and off.

MIDI commands to deal with notes are transmitted on "channels". There are sixteen channels, numbered 1 to 16, and each of these could correspond to a different MIDI device. For example, you might have a drum box on channel 10, and a keyboard on channel 1. The drum box would only respond to Note On and Note Off events if they were sent on channel 10, while the keyboard would be listening out on channel 1.

The way these channels are determined is not by how the boxes are plugged together. Instead you select the channel by using the controls on the drum box or keyboard.

In fact most modern keyboards and voice boxes will default to listening out on all channels at once. Thus with just one keyboard you can send a command out on channel 1 to choose a violin noise, and ask channel 2 to be a piano. Then any Note On events sent out on channel 1 will be played by your keyboard with the violin noise, and notes on channel 2 will be played with the piano noise. To turn a note on, we transmit three bytes in sequence:

&9x <pitch> <velocity>

The first is the command byte, and &9x means Note On, where x is the channel number from 0 to F in hexadecimal.

Did I say the channels were numbered from 1 to 16? Yes, well unlike computer scientists, musicians start counting at one, so that is how the channels are always described, but as far as the computer is concerned they are numbered 0 to 15 *(or 0 to F in hex)*.

Pitch is how high the note is, and is a value from 0 to 127. Middle C is 60, C sharp is 61, and so on. Velocity is the MIDI jargon term for how loud the note is *(think of hitting a piano key)*, and also ranges from 0 *(silent)* to 127 *(loudest)*. So to start a Middle C playing on channel 1 at medium volume, we would transmit the following bytes: &90,60,64

Notice that only the first one is written in hex: the other two are decimal. The note will continue playing until we tell it to stop. Of course with some instruments, such as piano, it will die away to nothing eventually, but with an organ noise it will keep going. To turn it off, we transmit a Note Off event:

&8x <pitch> <velocity>

This is very similar to Note On, except that the command byte starts with 8 instead of 9. We have to supply the pitch of the note we want to turn off, as we could have several different notes playing at once, all on the same channel. The velocity is used in some types of instrument noise to determine how the note is silenced.

The BASIC listing puts all that together in a simple program that plays a single Middle C. It is set up for the RAM Music Machine, but you can adapt it for the other interfaces by changing the values in lines 10 and 30.

OVER TO YOU
Well, that's your lot until March! In the mean time have a go at instructing your keyboard to play a tune, and experiment with different channel numbers - you might even find that one produces drum noises instead of notes.

Matthew

TABLE 1			
	RAM	EMR	DHCP
status (read only)	&F8EE	&F8F2	&F8E0
control (write only)	&F8EC	&F8F2	&F8E0
data read (read only)	&F8EF	&F8F3	&F8E1
data write (write only)	&F8ED	&F8F3	&F8E1

PROGRAM LISTING

```
10      status=&F8EE:control=&F8EC:datawrite=&F8ED
20      OUT control,3
30      OUT control,&15:REM change to &16 for EMR and DHCP
40      FOR x=0 TO 2:READ d:GOSUB 100
50      FOR x=0 TO 5000:NEXT
60      FOR x=0 TO 2:READ d:GOSUB 100
70      END
80      DATA &90,60,64,&80,60,0
100     WHILE (INP(status) AND 2)=0:WEND
110     OUT datawrite,d
120     RETURN
```

Fitting A Drive Belt

by Arthur Cook

I decided belting my drive would be a good idea << Aghhhh –Disc Drive >> and so I got to work. Then I had lots of telephone calls from WACCI members with the same problem. I thought explaining how I replaced my drive belt might enable some of you to belt your own.

HI HO HI HO

To fit a new drive belt you first have to get at the drive. If it is an internal 6128 drive, turn the computer onto it's face and undo the seven screws in the base, making sure you do not lose any. Turn the computer the right way up again and remove the two screws at the side of the casing by the disc drive *(right hand end with the drive facing you)*. Then gently lift the top of the casing away *(right hand end, disc drive side)*.

On the left hand side you will see two plastic membranes fitted into slots in the main PCB. These can be eased out and the blue and white power cables just above them can be unclipped *(don't pull by the wires, use a small thin screwdriver to ease the cables off)*. Next, undo the two screws holding the disc drive in place. With the small screwdriver, ease off the power and interface cables from the back of the drive.

Now comes the good bit. Turn the drive upside down. With the drive PCB uppermost there should be three screws in the board. Undo them and make a note of where they came from as they are all different. Ease the board upwards and unclip the power cables. Some drives have three cables at the back and one at the side, others have one each side of the drive.

THE BELT BIT

You should now be able to raise the PCB enough to see the belt. Take this off and replace with the new belt *(noting for omic effect the difference in size and elasticity)*.

Don't turn the drive right way up whilst the PCB is loose as there is a small brass pin on most drives that you **must not** lose.

You can tell if your drive has this pin by looking at the underside of the PCB. If there is a small micro switch on one edge of the board then you have pin type. If there is no switch then there is no need to worry as it's the type without the pin.

To put your drive and computer back together, reverse the above making sure that all the screws go back into the correct holes and that you refix all cables that have been undone.

DIDUMS

If the drive belt is being fitted to a DDI-1 or an FD1 then you need to do something slightly different. Undo the four screws, two each side of the disc drive end, and the two screws underneath the casing. Take the top casing away from the base *(after turning the drive up the right way)*. Ease the interface and power cables from the rear of the drive. Then undo the earth screw somewhere on the rear of the drive. The rest is as above. Replacing is again the reverse of the above procedure.

WARNING, WARNING

Under no circumstances undo the screw on the flywheel of the head motor spindle. This can seriously upset not only your drive but also anyone that attempts to put it right again.

Arthur Cook

The Greatest Shoot 'em Up Of Them All

by Peter Rogerson   part 2

ROAMING THROUGH THE COUNTRYSIDE..In Part One we looked at what we might physically and with pounds and pennies do to have the best word processor on the CPC market tailored to our own (or rather my own) particular requirements.

SETTING THE RULER

The line is created by typing a > then enough spaces *(there's absolutely no need to do our own dashes)* to take us to the first tab and from there to the second or end of the line. The number next to the abbreviation Col on the top inverse line tells you how long the line is.

If we want to indent a whole paragraph we can insert a new line (CONTROL-i) and establish a new ruler, starting with > but not putting an L *(for left)* until we reach the point along the line where we want the paragraph to be indented to. Then carry on with tabs and spaces until we reach the end of the line. Now, when the computer takes you to a new line it takes you only so far as the indented L position. Neat, *eh?*

CENTRE HEADING

Maybe we've just typed a heading and want it to be in the centre of the line. We could, of course, count the letters in the heading, subtract the number from the total length of the line and then move the cursor half that number of spaces into the line, starting at the left hand edge. Or we could press CONTROL-c, which does the job for us in one instant operation. *Yippee!*

ACCENT? NO PROBLEM

Type on. Ah, *just a minute!* Is that a French word I see before me, with an accent? No problem. Press ENTER and look at the top of the screen. EPIC's little speciality becomes available to us, everything bar the kitchen sink. Or rather, everything bar circumflex accents.

However we can even sort them out, no problem. But not yet. Later, when we're discussing mighty things like embedded commands.

WRAPPING THE WORD

One thing you'll have noticed is the neat way the program word-wraps. That means, if a word is too long for a line it moves all of it to the next line and not just the part that won't fit. If you want to stop it word-wrapping press CONTROL-w and it'll do just that. From then on all the words you type will be along the same line, which will get longer and longer to accommodate them.

They can, of course, be formatted into a paragraph whenever you feel like it. You won't need to use this facility so often, though, so don't worry about forgetting it. The handbook is comprehensive anyway and always there to be consulted. But for some of the keypresses CONTROL-h is useful. H for Help. Press it. See how a couple of inverse lines appear with a few keypresses there for you to absorb. And hey! Most of them have to do with markers.

KEYPRESSES

Markers are keypress little wonders, too, and Protext is miraculously well endowed with them. There are two kinds. The first marks a place you feel you might need to return to in the future and there are ten available to you. CONTROL-@ followed by a number 0-9 establishes the marker, and if you wish to return to that part of your opus later repeat the exercise from wherever you are in your labyrinthine script and hey! You'll end up back there as if you were being carried on the very fibres of a silicon magic carpet.

Very useful, believe you me, especially when you're writing this tutorial and scattering it with hints that you'll get back to such and such a point some time later on. Mark the promise and it's easy to find!

MARKERS

The second kind of markers delineate the parameters of a block. Say you've got a paragraph that you've totally typed in the wrong place and, maybe because it's hugely long you don't feel like retyping it, then just mark it and move it! How about that, *sisters and bothers?*

This marker is generated by pressing SHIFT and COPY together, once at the start and once at the finish of the paragraph. Having marked the offending passage, put your cursor to where you really wanted to type it and press CONTROL-m. And it moves, in a twinkling, like *that!* Or, if you really hate that passage and want to send it to that great big pit where all lousy paragraphs should end up being tormented by eternal fires then mark it (SHIFT-COPY) and press CONTROL-DELETE. And it'll go, easy as that.

INSERTING A WORD

You might notice that at the top of the screen, second line and at the left, there is the word Insert This means that if you want to you can insert words or characters wherever you want without disturbing what was there before.

A word can be inserted and the remainder of the text shifted to the right and subsequently onto other lines if necessary to accommodate it, or a missing letter can be popped in without the least smear of Tippex. CONTROL-TAB changes this to Overwrite, and guess what that means?

You're right. Instead of inserting text it overwrites existing text with whatever you want to overwrite it with. And, do you know, I never, ever use this, but it's there for me. *Wonderful!*

MORE KEYPRESSES

There are other keypresses. They're in the book. Things like CONTROL-s which highlights the hard spaces *(as opposed to the soft spaces put in by the computer by the program's justify routine)*. Useful if you want to know why there's a bigger than expected space somewhere.

You might find that you've inadvertently pressed SPACE twice, and what with an extra soft space put in by the justify routine things are looking a bit - er - spacy. Then there's CONTROL-t which highlights carriage returns. Or CONTROL-COPY, which copies a block instead of moving it *(useful for repetitive things like the typing of forms etcetera)*. CONTROL-[moves to the top of the text area and CONTROL-] to the bottom. CONTROL and the cursor keys moves to the relative extremes of the screen you're on *(top, bottom, left, right according to which cursor was pressed)*. CONTROL-p toggles between paged mode and unpaged mode *(try it and see)*, and CONTROL-g invites you to goto a particular line. CONTROL-q and CONTROL-z go back or forwards 20 lines whilst CONTROL -(and CONTROL-) go backwards and forwards to page boundaries.

Altogether a great number of ways to move about the text. There are more, too, which you'll find in the handbook which accompanies the program.

So we can move about the text with the freedom of a tiger in the jungle, mark it, format it, indent it, do most of what we like with it.

GREATEST PAPER CHASE

The masterpiece is written. We've even formatted it for the last time *(press escape and type the word format under the command line - I told you I'd mention this some time.)* Now it's stored on a frail little disc and what you want more than anything else is to put it onto paper. The printer's there, plugged in and raring to go, so let's get started.

Ahhhhhh! Isn't it Sod's law at work! We've written this 75,000 masterpiece and its only now, right at the printing end of things, that we notice we've spelled Mr Catwallader's name all wrong throughout it! What can we do, besides gnash our teeth and tear our hair out?!? The right spelling is even a letter longer than the one we've foolishly written. *Groan, groan, groan.* But just a minute! *Think!*

FIND AND REPLACE

Find and Replace. Protext will do it for us. Ask it to replace the miserable mistake. And it'll do that. Easily. It even gives us a chance to define the parameters of that find and replace function. A word of advice, here. Choose a Global search (G), Whole word (W) and All occurrences without asking for confirmation (A). Then when the wretched Mr Catwallader's name's been put right, use the global "Format" instruction to get rid of the chaos wrought by a longer word. In the twinkling of an eyelid the horrifying error is put right, and by looking at the screen no-one would know you ever did anything wrong. Not even Mr Catwallader.

PRINTING OPTIONS

Phew. Now back to the printing options. First of all, you've noticed all the little extras in this tutorial, no doubt. Italics, underlining, that kind of thing. Well, they're generated by embedded commands and here's what they are. Press CONTROL-x and look at the top inverse line of the screen. Suddenly it's changed! Instead of details of the document you're working on it says Press printer control letter (A to Z). *What have we here?*

For the moment press i and continue. What you've done, actually, is instruct the printer to print the next bit of your document in italics, and to continue doing that until you next press CONTROL-x followed by an i. On the screen the i will be inverse, and when it's printed the printer will take note of its instruction but make no effort at printing it. In the dark recesses of computer history some word processors went awry when it came to embedded commands and left unwanted spaces where the command had been on screen. Mini Office Two tended to do that kind of thing. But with Protext the commands are invisible so far as the paper is concerned.

A full list of them is available via the setprint option, which we've almost reached. So let's voyage in that direction. Press ESCAPE and then the letters sp *(for setprint)*.

Then press y because that's what we want, and we'll finish our work with embedded commands in just a while. Right. Now, we've been presented with a screen of options, most of which we'll leave at their defaults until we really get to know what we want. But I'd change the first two. I don't use continuous paper and I do want

Near Letter Quality. For correspondence I don't want my pages numbered, and all the other settings are quite okay by me. If I wanted a different line spacing then I'd change the 1 into a 2 or even a 3, but for the moment I'm happy with single spacing.

Having finished this section in such a summary fashion *(and I've been brief)* because only you will know what your document is to look like on paper, and you'll only know that after your own experimentation.

Next we're invited to change control codes press y. We actually do want to change them. Way back, it seems like last year, I suggested we'd deal with the circumflex accent in this part, and that's what I'm about to do. But first, look at the page. In fact, it might be useful if you made a note of some of the letter-presses and what they do. Most are quite logical *(b for bold, u for underline)* and so on

We're not bothered about the escape numbers *(27 77 for elite and all the rest)*, just the letters used by Protext. I for Italics, B for Bold, S for superscript, et al Whenever we press CONTROL-x followed by one of those letters then the printer will be instructed to respond correspondingly, and as long as it's Epson compatible then it will do just that.

CUSTOMIZATION

Now let's deal with that circumflex. Find a letter with no codes next to it. That means that it's unused and available for customization. The book suggests you use the letter h *(for hat)*, and that's what I use. Enter 8,94 under the on code and ignore the rest. And that's it. Now, whenever you need a circumflex press CONTROL-x(h) after the letter requiring its top hat and that's what you'll get. But remember to save the printer driver!

CAN'T PRODUCE FRACTIONS

My printer won't or can't produce fractions (1/2 or 3/4) or anything like that, but there's a way using these embedded commands. Take 1/2. If the one is printed as a superscript and the two as a subscript, then you'll end up with a passable half if they're divided by a slash *(no giggling on the back seats!)*

Superscripts are whole letters compressed so they only occupy the top half of a word-space and subscripts, logically, are whole letters occupying the

bottom half. So I set it out like this: CONTROL-x(t),1,CONTROL-x(t),/,CONTROL-x(s)2,CONTROL-x(s), and it prints a proper 1/2. Fiddly, I know, but not impossible and again, something with which the ardent fractioner can become ridiculously proficient.

EMBEDDED COMMANDS

A word about the screen appearance when there are lots of embedded commands in your text. Because they occupy space on the screen but won't be printed the computer makes allowances by increasing the apparent length of lines containing these commands, one extra space for each command. CONTROL-v allows you to see the page as it will be printed, with the codes removed. Press it again to get the codes back on-screen.

PRINTER DRIVERS

When the time comes, the printer driver can be saved and reloaded every time you need to use Protext. Give it a filename that means something, then you won't forget it. I've got two, one for double-spaced manuscripts and one for correspondence.

My printer drivers are called "Letters" and "Novels". Makes sense, don't you think? Printer drivers aren't loaded in the same way as text files, though, Instead of "Load" use the instruction "Printer". *(Printer"letters is a common little phrase down our way)*.

OUTPUT COMMANDS

Now let's deal with output commands. There are several of these but most, I find, combine to confuse and befuddle the creative brain. Only a few of the others cry out to be used, *so here goes.*

Often you need to finish a page early and start the next line on a new page even though there's still a quantity of the current page with absolutely nothing on it. And you want it to stay that way. So generate a blank line and type >pa at the beginning of it and nothing else. The next line will magically become line one of the new page. *Hurrah!*

>OC (numbers) is something you might use. For instance, you could opt to use Elite print by starting the page with CONTROL-x(e), but it's preferable to issue an output command on a line of its own instead. >OC 27 77 does the trick.

In the total of lines making up a page that line isn't counted so doesn't interfere with the document at all. Splendid! And occasionally you might want your document to have information that is designed to help you with the writing of whatever it is you're writing, but not be printed as part of your masterpiece. Like a REM statement in BASIC, You know, little personal memos all over the place. >CO (text) does that. The text is there for you to read but will be ignored by the printing process.

OPTIONS

Many of the options available via the setprint menu are also available as stored commands. To start with, and to avoid almost total confusion, I prefer not to mention them. Let he who must discover their complexities tread gently, and on his own! Too much information gets in the way of the creative process, *maybe?*

As long as we have tailored our word processor to our own immediate requirements, and can ride through the oceans of our imaginations with the ease of a lesser god in a longboat, then we have quite enough power at our fingertips. Time enough to explore further when we've mastered the basics, which seem daunting enough on their own to start with. *Right.*

So we've printed our masterpiece. A hint here, too. You want it to be Very Legible but NLQ can take an age to print on an elderly 9-pin. Bold looks almost as good and it's far quicker. *Think about it.*

Now let's pray that some Big Man In A Publishing House gets interested. Let's make a copy for his computer to understand. We need a 31/2 inch disc, so it's invest in a 31/2 disc drive and get it connected to the port at the back of the computer. We need an ASCII copy, and this is obtained by putting Protext into a mode I haven't even mentioned yet, program mode.

Under the command line, type "Prog", and the double line at the top of the screen will instantly become a single line. Now save it onto a 3 inch disc, but not in the usual way. Use the Printfile (pf) command and an ASCII file will be saved.

This can then be transferred via DOSCOPY to a 31/2 disc, which any PC should be able to read. Doscopy's plain

sailing and everything you have to do is so logical I'm not going to waste paper detailing it here. To return to Document mode type DOC. Makes sense, doesn't it? And there we have it.

A child's guide to Protext, something which will probably be completely out of date by the time it's printed because rumour has it there are some interesting new CPC developments in the pipeline. Start saving, folks!

You know, it might be an old machine but the CPC can still be a useful tool in skilled hands and with the right combination of software. After all, when you read a book you don't concern yourself with the instrument used by the author in the creative process but rather with that creation itself. Which is as it should be.

But the CPC is much, much better than merely adequate. You know, this article is over 6,000 words long, *(all two parts together)*, has some box graphics in it and sits comfortably in my computer's memory - not bad, especially when you realise that Protext only uses the first 64k of available memory!

As the commander lay there bleeding she turned away, still smiling, adjusted her hair with the casual flick of a ghost-white hand, its finger nails redder than blood, and then proceeded to drift like a shadow into the gathering gloom.

He watched her go, pale and rowing weaker. The red patch spread around him slowly, like time passes slowly to those who know they're dying, and black night fell as his heart finally stilled. Silently, he called his Maker to him, and his Maker came.

Peter Rogerson

Market Stall
with Angie Hardwick

Well guys and gals you've seen the new PC User Club Mag now hope this leaves you wanting more, it does me and I do hope all you PC'ers amongst us will support our efforts we do want the new Wibble to be like Wacci and hope that the two magazines can run along side each other and mutually support each other. What about a joint Convention?? Back to business so to speak lets get on with the bargains.

FOR SALE: CPC 6128 with Green Monitor include leads. Colour Monitor include leads. CP/M Plus discs and manual. 3.5" Drive. RAMDOS on 3" disc with booklet.

ALL ON 3" DISC:
Protext - Amsdos- boxed with manual. Protext - CPM - WACCO edition with manual. Mircrodesign & Microdesign Plus with Manual. Advanced Art Studio with manual. Advanced Amsoft. Mini Office II with manual. Basic - The Easy Way. RSX-LIB with manual. DLAN with instructions. Powerpage 128. CPC Domain Discs 14 - 20 include. Wacci PD Discs as follows; PD Extra No 4, Homegrown No 17, PD 27, 75, 85, 101. Used 3 and 3.5" Discs - five new 3.5" discs. Some games with no instructuons on 3" discs. Discovery and Image System with instructions.

Two books Introducing Amstrad CP/M and the Amazing Amstrad Omnibus. DMP 2000 Printer c/w leads & spare ribbon, instruction book. Also a collection of various magazines relating to the Amstrad some with tapes. All the above for **£75.00**. If anyone interested can they collect.

PLEASE CONTACT: *Pat Whitmarsh (Mrs) 20 The Drive, Dovercourt, Harwich, Essex. CO12 3SU. TEL: 01255-502582.*

FOR SALE:
CPC 6128 c/w Colour Monitor Abba switch fitted internally. 3.5" Disc Drive with side switch. Amstrad DMP 2000 Printer c/w box of paper. Load of software including games and utilities. Joystick. All recently serviced. £100.00 ono will separate. Also I have a Amstrad 1512 with colour monitor 32mb Hard drive, 5.1/4" twin floppy drive. Wordstar installed, plus Supercalc 3 and disc management system. Most with manuals, offers welcomed.

PLEASE CONTACT: *Tim Weston TEL: 01326-319933 after 6.00 pm .*

FOR SALE: All Original CPC/PCW boxed. Soft 968 Firmware Guide **£12.00**. High Energy Game collection, 4 discs of North and South, TinTin, Teenage Queen, Hostages, Fire & Forget **£7.00**. Arnor Protype print enhancer on discs **£5.00**. DKTronics light pen and software **£5.00**. Maxam Rom and Manual **£10.00**. Amstrad Basic Tutorial on tape **£3.00** x 2. Locksmith utilities disc **£4.00**. MP1 power supply for 464 **£4.00**. Single socket Rom Box **£8.00**. MP2 power supply for 6128 **£5.00**. Dart Scanner with disc software for CPC phone for details. Faulty 6128 Keyboards phone for details. Multiface Two **£15.00**. Plan It on disc for PCW **£5.00**. Master Paint on disc for PCW **£5.00**. Accolade US Gold PCW Games Disc **£3.00**.

Amstrad 1640 Computer, 2 colour Monitors, 2 Base Units one with twin drives, 1 Keyboard and Mouse, Mountain of software and books, boxes of discs. All working **£25.00** the lot.

Software for sale. All on 3" disc all boxed and original some brand new as follows; Monty Pythons Flying Circus, Football Manager 2, The Hunt for Red October, Castle Master, Mind Stretecher incls Cluedo, Monopoly and Scrabble, Dragon Ninja, Nightraider, Knightmare, Bloodwich, Empire Sritkes Back, Welltris, Tetris 2, Leaderboard Golf, Outrun, Yie ar Kung Fu, Tobrok. All Games **£2.50** each or Five for **£10.00**.
Three Inch Disc Utilities as priced all boxed as new. 3D Constructions Kit **£3.00**. Tasword **£4.00**. Tas-spell **£4.00**.

Tascopy on tape **£2.00**. Advanced Art Studio **£4.00**. The Music System on tape **£2.50**. Laser Basic Advanced Games programmer **£6.00**. Soft 119 Home Budget on tape no folder **£3.50**. DD1 Disc Drive working no lead. **£8.00**. FD1 working but no lead or interface. **£8.00**.

Tape Software **50p** each as follows; Yaba daba Doo, Thing on a Spring, Magic Clock, Trivial Pursuit - A New Beginning, Killed Until Dead, Magic Maths, Cyrus 2 Chess.

PLEASE CONTACT; *Anthony Taylor, 77 Anton Way, Aylesbury, Bucks. HP21 9LX TEL: 01296-433404*

FOR SALE: The following Games all boxed or in Cassette Cases, at **£3.00** each or the lot for **£60.00**. Elite, Superman, Spitfire 40, A View to a Kill, 3D Boxing, Radi!!, Strongman, Hyper Sports, Predator, Space Hawks, Back to Reality, Feud, Knight Time, The Apprentice, Stockmarket, Caves of Doom, Hunchback, Fruit Machine, Terminus, Flight Path 737, 3D Stuntrider, Nonterraqueous, Roland Ahoy, Roland In The Caves, Ghosts'n'Goblins.

PLEASE CONTACT: *Luke Richardson, Martyr's House, Church Road, East Bilney,Dereham, Norfolk, NR20 4HN. TEL.: 01362-860017.*
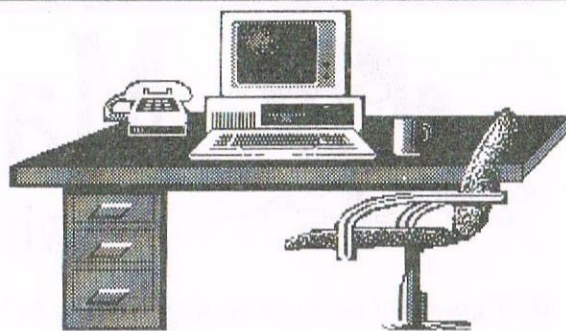
WANTED: Anthony Taylor wants Prospell on Rom with disc dictionary, also A copy of a game called Roller Coaster.

PLEASE CONTACT: *Anthony at 77, Anton Way, Aylesbury, Bucks HP21 9LX TEL: 01296-433404.*

Angie

The News Desk
with Angela (ITGA) Cook

Brympton Cottage, Brunswick Road, Worthing,
West Sussex, BN11 3NQ. Tel/fax; 01903 206739.
E-mail; angelacook@mcmail.com

This month has just flown past. It feels I've just got over the last WACCI and another one is looming in the distance, imagine how John feels. Next month I should be able to tell you all about what went on when I dragged Rob Scott up to Peterborough with me. Hmm, talking about something which will be in the past by the time you read but not whilst I write is most strange. Anyway, Richard Fairhurst will probably also be in on the act of eating, drinking and being merry in the Bowley household. That is, of course, if my car doesn't mind having a quick engine swap.

PRINTER RIBBONS GO AKTIV.
After I nearly had a coronary due to ink cartridge prices, John put me in touch with a company specialising in cheap ink cartridges. I ordered a cartridge for my Epson. It was cheap and impressive both in quality and staying power. The company also sell all manner of printer ribbons. DMP2000 ribbons are just £1.76 each, including the VAT and postage. They also supply for the 8000/9000 series PCW's, Citizen 120D, Star LC models and many more.

The service I've had from the company has been excellent and their prices are very good. Contact Aktive on 01159 308200 for a price list.

ADATE, BDATE, CDATE....
A few issues ago I mentioned the PCW program XDATE by John Elliot. WACCI member John Hudson had written to me asking if the program was PD or not. The program, a patch for CP/M's DTE.COM, was originally published in Future Publishing's PCW Plus. Future said that the program was copyright was John Elliot's, the programer. I contacted John Elliot with regards to the possibility of the program becoming PD and he said:

"I regard it as PD, and you can do what you like with it."

So all PCW users who want to use the XDATE patch can quite happily do so.

Thanks John Elliot, and thanks John Hudson for the letter. John Hudson has also sent the program to Doug Webb for inclusion in the WACCI library.

BRIAN'S BIT
Brian Watson has lots of pressures on his time *(including a new distribution business that seems to be going well)*. 8BIT was due to close anyway, but Brian has made issues 19/20, 21/22, 23/24 of 8BIT all double-size specials. This is in order to let him close the magazine as soon as possible, while still giving full value to the readership. The final issue, 25, will also be a *"whopper"*. Brian adds,

"That is not to say it will also come in a bun with sesame seeds on."

Present subscriptions will be honoured, but new readers should apply to Brian for revised price details

Harrowden, 39 High Street, Sutton-In-The-Isle, Ely, Cambridgeshire, CB6 2RA.

SPANKING SANKO
Sanko is a new program from Richard Fairhurst. It lets you save Protext documents in RTF *(Rich Text File)* format, as understood by most PC and Mac word-processors. This means that you can now transport documents from CPC to PC without losing bold, italics, paragraph break, justification and other such information.

The program is simplicity itself to use - just type SANKO at the Protext prompt. People already making good use of Sanko include Simon Crump *(Frequency)*, who transfers his college assignments from CPC to PC with it, and a certain Mr John Bowley. Sanko is an

Almost PD release from Systeme D and was coded by that nasty BTL editor. I think there'll be a review in a WACCI near you soon.

RICHARD, AGAIN
A new BTl is out. Well, sort of. It's not BTL 5 though, so you can breathe a sigh of relief. But it is BTL 4.1. It's basically BTL 4, but the code has been tweaked ever-so-slightly. As a result, the scrolling is super-smooth *(and twice as fast)*, and you have the choice of the original BTL green-on-black colour scheme once again. So, the BTL customer relations department has been working overtime then Richard?

PHILIP GOES INTO OVERDRIVE
This morning a small envelope was on my door step, with familiar writing in purple felt tip. Inside I found a wad of peach coloured toilet paper. Before worrying too much I discovered a disc wrapped in the paper. All that was written on it was Euro-WACCI 2. I haven't loaded it yet, but it's finished. Discs and SSAE's to: Philip DiRichleau, 32 Arobretum Avenue, Monks Road, Lincoln.

ATM
Roy Everett releases issue 2 of ATM, to get your copy contact Roy at:

2 Coldnailhurst Avenue
Braintree,
Essex
CM7 2SJ

01376 344572

Angela

Plus PD.BAS

by Peter Robson (adapted from AA 106 PD tips page 26/27)

In WACCI 115 Ray Powell wrote a revue of RC-QUEST (very clear and accurate. Well done Ray) In it he mentioned the problem of "Crunched" programs being unfriendly to PLUS machines. I thought that it may be appropriate to expand on the problem and give a listing for those PLUS owners who, like myself, may not have a King Arthurs catalogue disc. The listing is adapted from that published in Amstrad Action 106 pages 26/27 "Public Image" their Public Domain feature by Keith Woods. The listing was credited to CROWN.

IT'S ALL CROWNS FAULT

Some PD programs have been compressed using CROWNS Crunch and Turbo Imploder, unfortunately these cannot be run on PLUS machines in the normal manner.

PLUS-PD.BAS enables PLUS owners to run these programs from the listing or use the information provided, to adapt the loader program to suit the PLUS machines.

The original listing though, providing the information needed, I found was a bit unfriendly in use. So my adaptation has made it easier to use *(or I hope it has)*.

The techy bits are CROWN'S I have just added a few frills including some on screen instructions, a printer on line check and the option to run the program from the listing at the end.

HOW TO WORK IT

After choosing the printer option or not, enter the filename including the extension *(if any)* of the crunched program. You will then be presented with the information :-

> Filename
> Load Address (in HEX)
> Start Address (in HEX)

(the original also included the length but as this is not needed I left it out.) followed by the details of how to use the information. eg. :-

To run the program RC-QUEST. on a CPC PLUS computer the following line should be run directly or incorporated in a loader program :-" MEMORY &4000-1: LOAD"RC-QUEST.",&4000:CALL &4000

Then the options to (R)un your program, re-run (P)LUS-PD or (Q)uit. (Press R P or Q)

USING THE INFO.

To adapt a loader program to permanently suit PLUS machines either amend the existing loader if there is one or create your own. As always the advice to work from a back up disc is a good one. If the PD Disc has a menu program usually called DISC.BAS, load this and look for the line containing the instruction TO RUN your crunched program and alter it from eg. :-

```
180 IF a$="B" THEN RUN "RC-
QUEST."  to read something
like :-
```

```
180 IF a$="B" THEN MEMORY
&4000-1:LOAD"RC-QUEST.",
&4000:CALL &4000
```

Then don't forget to save the amended program. If there is no existing loader, then create one of your own. As an example :-

```
10 REM RCLDR.BAS
20 MEMORY &4000-1:LOAD "RC-
QUEST.",&4000:CALL &4000
```

Then save it on the disc containing the crunched program. So that in future it is only necessary to type RUN"RCLDR *(or whatever)* to get it up and running.

A FEW NOTES ON THE LISTING

Most of it is fairly straight forward, but the odd explanation may be of help. Line 30 contains the instruction ON ERROR GOTO 60. This is an essential part of the program because, as we don't want to try and load or run the crunched program at this stage, line 50 uses the command OPENIN to extract the address details from the disc. Now OPENIN will only load ASCII files so will produce an error when attempting to load a crunched file hence the on error goto 60 command.

Line 40 asks if you want the results on screen or printer and pauses for a reply. If the printer option is chosen, GOSUB 250 is the printer on line check routine.

Line 50 asks for the filename of the crunched program and then examines the disc for the load and start addresses.

Lines 70 & 80 look in the memory for the filename and extension.

Lines 90 & 100 look in the memory for the load and start addresses and stores them in L$ and S$. The next two lines print them.

Lines 130 & 140 give the instructions and the line to type to run the program.

Lines 160 to 180 give the options available.

Line 190 pauses awaiting your choice.

Lines 200 to 230 execute the selection.

Line 240 is the one that uses the data to run the crunched program.

Lines 250 to 280 are the printer on line check *(This routine is an adaptation of the one used in RAMBASE 3)*.

A SMALL DIVERSION
For the benefit of newcomers to the PLUS machines, you may have noticed that the printer check routinne used on WACCI PD discs for printing the DISC.DOC file causes a Printer Not on Line message whether it is or not. This is due to the PLUS 8 bit printer facility. To make your WACCI PD DISC.BAS programs PLUS compatible you could change the two lines causing the problem (lines 1290 & 1310 on the discs I have) by changing the figure 30 to read 158 But this would make the program unacceptable for non-PLUS machines. The lines presently read :-

```
1290 IF INP(&F500)=30 THEN
GO TO 1320
1310 WHILE INP(&F500) <>
30:WEND
```

To make the program compatible for all CPCs the following changes should do the trick :-

```
1290 IF (INP(&F500) AND
&40)=0 THEN GOTO 1320
1310 WHILE (INP(&F500) AND
&40) <> 0:WEND
```

Apart from the crunched programs, there are some others that are not compatible with PLUS machines due to something called an *"incompatible keyscan"* whatever that is. I believe that this can be overcome but I dont know how. So if anyone can shed some light on how to hack such programs into submission I would be interested to know. The two that I know of are AA's covertape (on disc) game ELITE and on WACCI PD disc 92 MEGABOMBER there are probably many more.

Well that's enough prattle from me for now, keep smiling.

Peter Robson

THE LISTING

```
10 'PLUS-PD.BAS  adapted from AA 106 PD tips page 26/27
by Peter Robson 1998
20 CLEAR:MODE 2:PRINT TAB(20)"PLUS-PD by Peter Robson for
WACCI 1998":  PRINT TAB(19)"(adapted from AA 106 PD tips
page 26/27)
30 ON ERROR GOTO 60:PRINT:PRINT" Insert disc containing the
Crunched  program."
40 PRINT:PRINT" OUTPUT TO PRINTER ? (Y/N)   ";:a$="": WHILE
a$<>"N" AND a$<>"Y":a$=UPPER$(INKEY$):WEND:PRINT a$: IF
a$="Y" THEN p=8:GOSUB 250
50 PRINT:INPUT" Filename (incl ext)   >
";a$:a$=a$:OPENIN a$
60 CLOSEIN:IF p=8 THEN PRINT#p:PRINT#p,"> "a$
70 PRINT#p:FOR a=&A756 TO
&A75D:PRINT#p,CHR$(MAX(32,PEEK(a)));:NEXT:PRINT#p,".";
80 FOR a=&A75E TO
&A760:PRINT#p,CHR$(MAX(32,PEEK(a)));:NEXT:PRINT#p
90 L$="&"+HEX$(PEEK(&A76A)+256*PEEK(&A76B),4)
100 S$="&"+HEX$(PEEK(&A76F)+256*PEEK(&A770),4)
110 PRINT#p:PRINT#p,"Load  Address:- " L$
120 PRINT#p,"Start Address:- " S$
130 PRINT#p:PRINT#p," To run the program ";UPPER$(a$);" on
a CPC PLUS   computer the following line ":PRINT#p,"
should be run directly or   incorporated in a loader
program :-"
140 PRINT#p:PRINT#p," MEMORY ";L$;"-1:LOAD
";CHR$(34)UPPER$(a$);CHR$(34);",";L$;":CALL ";S$
150 PRINT#p:PRINT#p
160 PRINT TAB(5)"To Run The Program    PRESS     R"
170 PRINT TAB(5)"To Run PLUS-PD again PRESS     P"
180 PRINT TAB(5)"To Quit to Basic      PRESS     Q"
190 b$=UPPER$(INKEY$):WHILE b$="" :GOTO 190:WEND
200 IF b$="P" THEN GOTO 20
210 IF b$="R" THEN GOTO 240
220 IF b$="Q" THEN END
230 GOTO 20
240 MEMORY VAL(L$)-1:LOAD a$,VAL(L$):CALL VAL(S$)
250 ' Printer on line check
260 WINDOW#2,1,80,25,25
270 IF (INP(&F500) AND &40)<>0 THEN SOUND
1,478:PRINT#2,"Printer is    not On-Line. Please rectify
(switch on, check paper etc.)":FOR i=1 TO
3000:NEXT:CLS#2:FOR i=1 TO 600:NEXT:GOTO 270
280 CLS#2:RETURN
```

PLUS-PD.BAS
by Peter Robson 1998
adapted from AA 106 PD

Members Spotlight
On
Ray Powell

I cannot believe that there is anyone out there who is the least bit interested in the following blatant space filler, which was written in response to a request (!!) from our esteemed Editor and Carol for some personal info. Letters of outrage to Peterborough please. Perhaps it will persuade some of you to write an article, just to keep this sort of rubbish out of the mag!!!

HOOKED

In common with many people, my first contact with computers in general was in the legendary days of the 'Computer Error', when bills for enormous amounts could land on the doormat *(why were they always in favour of the Company?)* The CPC first came to my notice when two of my granddaughters were given a 464.

At first I thought that it was just for games, but after enforced early retirement I had more time to visit and take notice, and realized that there was more to it than that. I read the manual, and pottered about on their machine. I was hooked. I wanted a computer! My first attempt was typically *(For me)* farcical. I bought a Commodore 16 at a boot sale!! Naturally it did not work *(Divine intervention?)* My next move was more sensible. From an advert' in the local Free-Ads paper I obtained a 464.

Some time later I discovered Amstrad Action, and between these two I learned the basics of CPCing. I soon wanted to upgrade away from the terminal boredom of waiting for tapes to load, so my next dip into the Free-Ads produced a 6128 Plus. Despite it's limitations, I learned a lot with this machine, notably disc and file handling. I also fitted a tape input *(Yawn!)* to increase its usefulness.

WACCIED

As my skills and programming ability improved AA disappeared, and I found myself wanting a replacement. Enter WACCI, which more than made up for the loss of AA. That was just two years ago, and I am about to sign on for another year. I guess I must like it! My contact with WACCI became closer about eighteen months ago when Philip the frenetic elicited my first article. This came as a result of my buying a 6128 and printer, about which I was daft enough to telephone Philip with a query. The result was that I was talked into submission! Since then I have made a few other contributions.

SET-UP

Due to lack of space in my study, *(er. Spare bedroom)* my set up is of necessity somewhat compact. It is comprised of a five foot by one foot six *(1.5 mtr by .5 mtr for those of less mature years)* kneehole desk, for which I have made and fitted at the rear, a foot *(300 mm)* high by one foot two inch wide full length stand. On this stand there are three monitors, and a Citizen 124D 23 pin *(see F.C. issue 114!)* printer. On the desk, across the left hand end is a 464.

Next to that is this 6128 Plus that I am typing on now. To the right of this is a standard 6128. Then there is a DMP 3160 printer. To use the 464, the Plus is slid under the stand, and the 464 is swung around to take its place.

The Plus has a Romboard fitted, containing my newly acquired Protext and Maxam Roms. The only other add ons that I have at this time are a multiface, a Wizard eight bit printer port, another Romboard, and a datacorder, all on the 6128, though I am now looking for a second drive to add more flexibility to my set up.

Knowing that my machines cannot last for ever, and being a sucker for bargains in the Free-Adds, *(Where would I be without them?)* I have three more 6128s' complete with monitors, and a spare DMP3160 stored away as back ups.

SOFTWARE.

So what programs do I run on all this hardware? For the 464, umpteen games that I'm not very good at and can't be bothered to transfer to disc. This means that the machine is generally ignored. For the other machines I have mostly utilities and 'serious' programs. These include Xexor, *(which has to be the most useful program ever written)* various word processors, Rambase 4, Dlan, various DTP progs, GPaint, Smart+, Nemesis, and Wombat *(THE best transfer programs.)* Games on disc are mostly Adventures, or 'Puzzlers'. I also have *(and enjoy!!)* the infamous B.T.L. quartet.

THE EVEN MORE BORING BIT.

Other than the CPC, my main 'Hands On' interests are wood work, angling, and bird-watching. On a more intellectual (?!) level, I have a wide range of interests, from Astronomy, to Zoology. For entertainment I prefer escapist type television and books. If there is humour involved, so much the better, and if there is also idiot humour, that is best of all.

Musically, my taste is a bit old fashioned, tending toward Rock and Heavy Metal But I can, and do, listen to a wider range of music. Physically, I am six foot tall with long hair, usually worn in a pony tail. I'm incredibly handsome, with a body that Arnold Thing would die for. *(To those of you who have met me. I can dream can't I ? ?)* Anyway it's true up to, and including, the pony tail!! Agewise I am just turned 46. *(Work it out!)* That's about it really. If you have insomniac children, you have my permission to change the 'I' to 'He' and read this to them to send them to sleep. *Ray Powell*

Help At Hand... Disc's Broke? Oh Dear!

by Christine Raisin   drawings by Jonty Jones

Talking to Jonty one evening. I told him what I had just done. He said "Write that down for an article. I wish I had know that two years ago. It would have saved a lot of my art work." Well Jonty here goes, lets hope someone else can make use of it.

I WANT THAT DATA

I had several broken 3" disc's which I wanted the data off. Here is what I did:

TAKING A DISC APART

I got a small screwdriver and prised open the disc from the top and the sides..

Where the arrows are in *(fig 1)*. Being careful and making sure not to lose any bits and pieces that where lose inside.

PLASTIC BITS

They are the right protect plastic pieces, the slide shutter which could have the spring attached if so be very careful as not to scratch the surface of the disc. *(See fig 2.)* Here also you must be careful of the metal shutter pieces as usually one of these are free also.

The edges of the metal shutter pieces are shape and can easily cause damage the disc surface. One often comes out with the disc. I say be careful of the disc, as we know that's where the data is stored, and we need to try to recover it. We then remove the other metal piece from the case of the disc.

The easiest way is pushing it up with your finger, until you can get hold of it and ease it out.

You should have the case of the disc open leaving the white disk padding intact. *(see fig. 3.)* Then place the disc back in the case easing the centre cog into the hole in the centre of the disc. Be careful as handling the disc can harm the data. There is also a possibility that you can put the disc back the wrong way round. *(It may have fallen out so which way does it go in. Pot luck I'm afraid)*. Then ease the case gently to close it together. Turn the cog in the centre carefully to see if it runs freely. Then press together so as it clips back in place. I then gently lift the top corners to put in the right protect pieces.

The red ones go back with the open ends to the sides of the discs with the little tag upmost to form the right protect levers. Now close the case tightly. Place two small pieces of sticky tape over the top part of the disc each side of the shutter window, ensuring the disc is still free to move round inside.

COPY THE DATA

Now you should be able to copy off the data to a new disc. I have been able to reformat these disc's and re-copy on to them. I must sa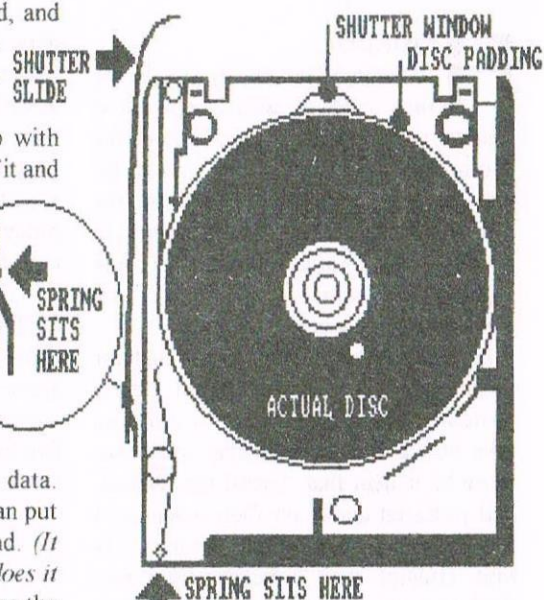y this does not always work, but most have the I tried. I wish anyone that tries this has as much success as I have. *Good luck.*
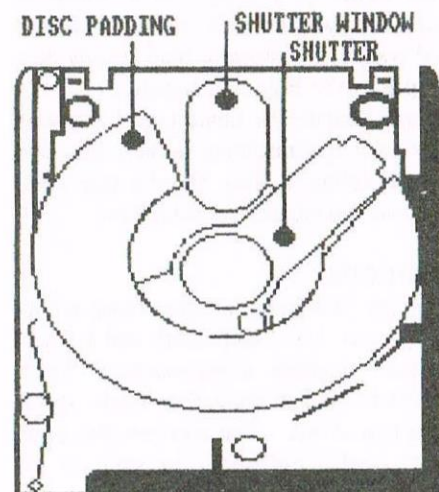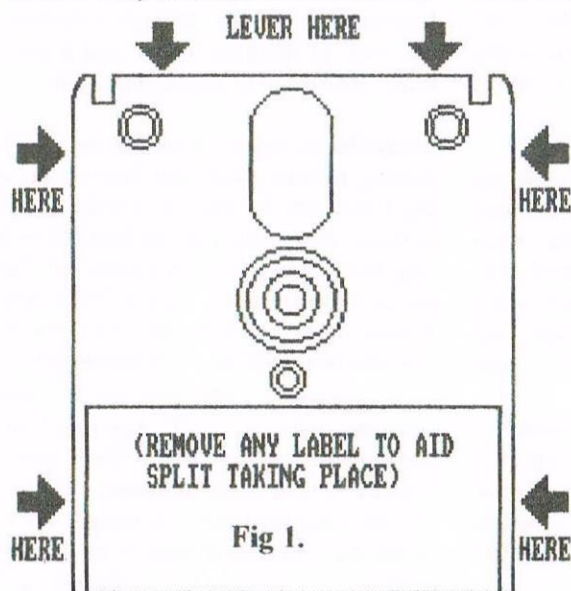
Christine

Fig 2.

Fig 1.

(REMOVE ANY LABEL TO AID SPLIT TAKING PLACE)

Fig 3.

Are You Game For A Game?
with Angie Hardwick

BATMAN

Well here you are folks another contribution for your happy gamesters amongst us. I thought I just would point out that I'm pretty useless at these myself but I have had a go at playing some of them. Last month we ended with Batman and so that's were we start.

BATMAN THE MOVIE
Section One - Axis Chemical Plant. As Bruce Wayne, you overhear Commissioner Gordon telling the Mayor of an attack on the Axis Plant by Jack Napier and his henchmen. Acting swiftly you don your black costume and make your way to the scene. Once inside the factory you must move towards the exit *(and Napier)* on the far right of the map. You will meet assorted criminals along the way. Some of whom will attack you physically, some will shoot at you and some will throw grenades. Avoid also leaking chemical droplets and gas bursts at various points on your route.

You can sustain a limited amount of hits as your body armour affords a certain degree of protection but your energy can get depleted quite rapidly if you do not try and defend yourself. Use the Batarang to throw at your attackers and your Batrope to access levels above, by shooting a grapnel device from your belt and reeling yourself up.

On the final screen of this level, you will confront Napier himself. If you defeat him he will fall into a vat of toxic chemical waste which will disfigure his appearance and mind. You have created The Joker!!!

Hints and Tips for Level 1
Master control of the Batrope. Work out the quick route to the end. Shoot on sight.

Multiface Pokes for Batman
1D62 FF Removes Grenades
18C9 00 No Poison or Guards on Level 1

Section 2 - The Street of Gotham City.
Having rescued Vicky Vale from the clutches of the Joker in the Fluglheim Museum, you must make good your escape in the Batmobile. Racing at high speeds through the streets of Gotham City, you must avoid both the Joker's

vehicles and the police who have set up road blocks, as they are still unsure which side of the law you are on.

Your Batmobile is equipped with a sophisticated radar which will indicate the direction you must follow in order to escape safely. If you do not maintain a high speed, the Joker will catch you up and inflict damage upon the Batmobile, as will collisions with other cars.

The Batmobile is also equipped with a rope and grapnel. If, whilst travelling at high speeds, you wish to make a fast turn, shoot the grapnel out at a lampost on the street corner: if timed correctly, this will enable you to make the turn without speed loss.

Section 3 - The Batcave.
The Joker has invented a compound 'Smilex' which, on contact, will kill it's victims, leaving a deathly grin on their faces. The Joker has 'spiked' certain everyday consumables with elements from this compound which, when mixed together forms 'smilex'.

Using the powerful computer in your Batcave, you must in the time given ascertain which three objects contain those elements, as you select any three the display will indicate how many of these you have chose correctly. You must by process of elimination select the exact trio of elements before the time runs out.

Section 4 - The Streets of Gotham City.
The Joker's deadliest scheme is now taking place at midnight on the streets of Gotham City. By promising massive handouts of money to the people of Gotham, the streets are packed with masses of unsuspecting citizens.

However, all is not as it seems, for the carnival-type parade contains a sinister secret.

Inside the dozens of bright balloons is enough 'smilex gas' to kill the entire population of Gotham City. These balloons are about to be leaked you are piloting the Batwing and must cut through the mooring ropes of the balloons with the wings of the flying craft. If you miss any of them, they will self-destruct, sending clouds of gas into the crowds, similarly if you miss the rope and hit the balloon itself, the same will occur. If, however, you slice the rope, the balloon will float harmlessly away where the gas will dissipate into the atmosphere.

Section 5 - The Cathedral.
Pursuing the Joker through Gotham Cathedral, you must negotiate the crumbling floors and avoid the rabid rats in order to confront, finally, the Joker on the roof. As in the chemical factory, you must use the Batarang and the Batrope to achieve this aim. On the rooftop, you must defeat the Joker, or he will make his escape by helicopter and bring Gotham City to it's knees.

HINTS and TIPS
Level 1 Master control of the Batrope. Work out the quick route to the end. Shoot on sight.
Level 2 Don't bump into other cars. Be as quick as possible. When the arrow indicates a turn is ahead try to move to the side of the road.
Level 3 Use your brains. Be quick *(you've only got one minute)*
Level 4 Cut ropes cleanly. Don't hit balloons.

Multiface Pokes.
1D62 FF Removes Grenades
18C9 00 No poison or Guard on Level 1

So there you are I found this game quite complicated but I did get better the more I played. *Angie*

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