# A Magazine For CPC Users And Members Support Club 



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WACCI always worth waiting for.

## WACCI

a magazine for CPC user's and members support club

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## Benefits of Membership

The best magazine for serious CPC users.
Index covering issucs 1-104.
Telephone helpline (indispensible)
Bargain buys/wanted list from Market Stall.
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J ist of PD dises, tapes, library books and services.
Above all the advice, assistance and friendship from other WACCI members. Bencfit List: by Ernic Ruddick

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More pokes and game tips.

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Goes io primit: 27th JULY 1998 Membership: 271


What can be done to improve WACCI? On time would be nice for a change wouldn't it!! I couldn't agree more, but what I need are the articles. If each of you wrote just one article, WACCI would on time for ages to come. How about writing a membership profile? Your article doesn't even have to be a page a column would be okay round about 500 words. Help me to give you a magzine each month please.

## Newsdesk

Angela has been very busy over the last month so there isn't any Newsdesk in this issue. Fear not she'll be back next month or so she warns me.

## Market Stall

Angie is having a break, so if you got anything to sell or looking for something to buy, please send it to me.

## Articles wamfed

I don't want to preach but without articles there won't be a WACCI.
Yes I have still got some articles to use, but I need more so please get writing or at least tell me what you would like to read about.

I've got some writers who are very willing to write stuff but not sure on what to write about, so your input is needed and needed now.

## Free PD

What's the catch you may ask! The only catch is I want you to write a review of the PD disc you get from Dave Stitson. This offer is only open to members who have a 3.5 dise drive I'm afraid.

## Convention 98

The convention this year is ON , so if you have not brought your ticket yet now is the time to do so. See page 19.

## PC errlicles or mot

For almost a year now we been asking you if you would mind if we included some PC articles, the response as been mixed, but most wouldn't mind a page or so. I think this really sums it all up so what's needed now are the articles.
So to the members who want some PC articles within WACCI get writing.

## Why stop there

Why stop at a PC? Why don't we also open WACCI to all other computers that members have and set up a new series called "Guest Computer."

No don't fret! WACCI has always been a CPC magazine and since the majority of our members subscribe to WACCI because it is a CPC magazine there is no way on earth I will abandon those who can't afford or just simply don't want to up-grade to a $P C$.

I just simply will not allow CPC articles take second place to any other computer while I'm editing WACCI.

## Wanthed

What I would like to do each month is to include a page or so about any disc from the WACCT's PD Library, so if any member(s) would like to take this regular role on please get in touch with me.

## Authors

I would like personally to thank all of those members who have contributed to this months issue. Thanks

## Next month

That's it for another month and don't forget I need those articles. Byeee.

## Lastly

I just received an e-mail from Angie asking me to include this advert.

## FOR SAEE:

Amstrad 128 k Colour Personal Computer with CTM 644 Colour Monitor and DMP 3160 printer c/w some disc. Offers Please.
To Nita Ashbury 19 The Manor House, Priory Road, Mansfield, Woodhouse, Nottingham. NG19 9LU TEL: 01623-634888.

# Are You Game <br> For A Game? <br>  

Welcome to my world, won't you come on in and please teach me how to play these games!!!

## BLAGGER

The most skillful house breaker of all time turns his attentions to the town of Umstrid, having successfully cleaned out it's computer age predecessors. Can Roger the Dodger loot his way through the endless number of banks, shops, and houses - a burglar's dream. The glint in his eye is not just sheer cheek, it's from the golden keys that he is to collect - but don't be too dazzled by the thought of massed riches around every corner in every passage, danger lies in wait!!

## FEATURES

5 lives and 20 screens. Air bonus, stereo sound, and a vast array of killing. Points - 500 points per golden key.

| CONTROLS |  |
| :--- | :--- |
| Left | Z |
| Right | X |
| Jump | Shift. |

EESTHARY - Solution by Perry Williams.South, up, get knife, get penny. Down, West, give penny, West, North, East, get mouse, West, North, wait (don't feed the mouse to the cat)! Northwest, Northeast, East, In.

Out, West, West, give mouse to Owl, South, West, wait, wait (don't kill the serpent, or you'll never get it's skin), West, get skin, East, South, examine Knight, examine Horse, get bridal, North, East, North, East, examine tracks, Southeast, examine tracks, wait, put bridle on Unicorn, Northwest, East, In, give skin, give unicorn, get talisman, examine talisman, out, West, Southwest, Southeast, South, South, South, East, In, East. East North, East, North, examine briage, jump across, East, clar, get scroll, West, jump
across, South, West, South, In, get ball, Out.

South, drop knife, get knife, get ball, East, East, examine lion, examine paw, take thorn, West, West, South, South, wear cloak, Southeast, Southwest, dig, get mask, Northeast, Northeast, Northwest, North, West, West, South, South, South, South, give mask, get whisk, ask Sorcerer about rain.

North, North, North, East, East, South, South, wear cloak, Southeast, Southwest, dig, get mask, Northeast, Northeast, Northwest, North, West, West, South, South, South, South, give mask, get whisk, ask Sorcerer about rain.
North, North, North, North, North, North, East, East, drop ball, East, examine cart, get belt, West, get ball, West, North, jump across, get bucket, fill bucket, East, East, wear belt, Up, Up, Up, sprinkle water, say "Shuei Lung".

Say "Phoenix" examine ground, get scale, rub talisman, West, West, West, West, examine scale, drop scale, drink, west, light fire with ball, East, East, East, East, East, East, East. Tell Story.

## Not sure about this one folks instructions are as clear as mud!!

## BLACKEEARD

As Captain Blackbeard you must retrieve the stolen treasure map which is hidden in one of the many chests on the chip.

## WEAPONS

As you move around the ship you will see knives and pistols which you will need to defend yourself against the
pirates that hunt you. Knives only kill people but pistols will also open chests for you.

## CHESTS

Once a chest is open you may be able to retrieve items to help you. These may be extra lives, potions or immunity or guiding lights. The guiding light is especially useful as it allows you to fire a cannon that will destroy your enemies only entrance. Once you have found a chest that will not open go back to all the others and open them, on your return you will now find something.

## THE SHIP

The ship is divided into four sections, the deck, a number of cabins and two holds. To move into the belly of the ship you must use the staircase. Moving to a staircase and Pressing Fire will take you up/down the staircase.

## SCREEN DISPLAY

At screen right it will show the number of lives left, weapons, energy (bottle of rum),. Energy is maintained by drinking bottles of rum found throughout the ship, beware though that some bottles have been "doctored" by your enemies and will make you totally drunk and at the mercy of the enemies nearby (for a short while).

## HINTS AND TIPS

Pistols have limited bullets so use them carefully. Use boxes, barrels etc to shelter from your enemies.

Beware knives can travel through the smallest of gaps. Use the immunity potions to kill as many enemies as possible.

# Fair Comment <br>  <br> <br> with John 

 <br> <br> with John}

# Please send all llethers on disc (if possible) to: Frank Neatherway, 3 Clebe Close, Rayleigh, Essex. SS6 9HL 

## PC or nol PC

Dear Clive, I have had some correspondence just recenly with Doug Webb, our charming Chairman. Doug has been very friendly and helpful to me over several months when I have had dealings with him, and he recently suggested that I should make known my views on the subject of opening the pages of WACCI to PC users. So here are my views more or less as I gave them to Doug.

If I had been asked a couple of months ago, I should certainly have said "No! Wacci is for the CPC, and should be kept for CPCers, as it has always been. OK! maybe I am a wee bit old fashioned, but I had always felt (as I still do) that there is a lot of life left in the CPC yet, and indeed more and more reasons are being found in practically every issuc (thanks to the brains who run WACCI), to persuade me to stick to that view.
However, I have recently come to the conclusion that, with technology advancing at the rate it does, it must be advisable at some time in the not too distant future, to open up to our friends (and the number of them must be increasing, albeit slowly), who have decided to "go over" to the world of the PC.

This is not to say that they have forsaken the CPC. It only needs a read through the pages of recent issues of WACCI to realise that many of those who have bought PC's have not been so unwise as to let their Arnolds go to
waste; in fact many of them seem to prefer the latter machines. Even so, how many of us, if we were to be honest, would not like to explore the vast new realms of a PC, if only we could find the time - and of course, the money? I, personally I do not possess one at present, but I am not sure how much longer I shall be able to resist the temptation to buy one, and if (or when) I do, I feel sure I shall appreciate a note in WACCI now and again to let me know I am being cared for with regard to my PC as well as my CPC.

So, open the pages of WACCI to PCers, I say and let us expand the usefulness of an already very useful publication even further.

## Best wishes Bill $\mathcal{A}$ ffison <br> Stowmarket

$\ll$ It does seem members don't really mind seeing a page or two about the PC in WACCI, but some are concerned that WACCI will eventionally only cater for the PC, this is not the case I can promise you, its only the lack of input that's forcing us to consider other ways to keep WACCI's going. - John $\gg$

## Disc missing saga conftinuess-

Dear Frank, I have been a member of WACCI for almost 12 mths now and have read some interesting articles during this time, and would like to take this opportunity to write this article which happened to me lately.
I had been using my AMSTRAD 6128 formatting a few discs one
evening, getting ready for another job I had to do. I formatted about 10 discs with no problems at all, and finished off for the night with the intention of verifying them the next night as this job was fairly important and I didn 't want any problems with the discs as $3^{\prime \prime}$ discs are very hard to obtain in Australia.

The next night I switched on and put in the first dise and was greeted with the old story "DISC MISSING DRIVE A". I tried again, same thing. I then tried another disc, same again. I then went to my second 6128, and did a cat no problems at all. I then finished the verifying of all the discs and thought I might as well put a new belt on the faulty drive of the other 6128, which is my favourite computer as I do all my ROM Burning on the other computer.

As a club member for many years during the time when the 6128's were very popular, I was responsible for fitting ABBA switches to members computers, and fitting new belts to disc drives, because of this I feel reasonably confident performing these tasks and used to do this with monotonous regulatory, but I thoroughly enjoyed helping club members.

Unfortunately the 6128 has completely died in Australia and I am no longer a member of the club, but I still like my 6128. In fact I have four of them, much to both of my daughters disgust as they use genuine IBM PSI`s.

Now back to the problem, on opening up the keyboard lifting up the circuit board on the dise drive I noticed that the drive belt had a reasonable tension, anyway I changed it and put the keyboard together.
On testing I was staggered to see "Disc Missing Drive A" once again. I opened the keyboard again, removed the disc drive completely, checked the drive belt again for twists etc, but all was well. The next move was to try this disc drive in another 6128, and to my relief it worked perfectly, I then put another dise drive which I knew was working in the first 6128 and there was "Dise Missing Drive A " on the screen again, the problem was in the keyboard itself.

I made an academic decision on the three IC's immediately in front of the card edge connector for the external dise drive. This is where I had a stroke of luck, I couldn't believe my eyes as these IC's were fitted in sockets.

I am not an electronics genius, but am experienced to a good hobby level, and decided to change the middle IC which is a 74LS38, the left one is the same, but the right one is a 74 HC 240 . I didn't have any in stock but obtained some from a local electronics supplier (Economic Electronics).

The 74L S38 were .60 c each and the 74 HC 240 was $\$ 2.20$. I fitted the middle 74LS38 and everything worked perfectly. I have never heard of this IC causing this problem and felt I should pass this information on for benefit to others.

I would like to add another comment. I noticed the other 6128's that I have do not have sockets, if I experience this problem again with these computers I would definitely fit sockets to these IC's. Even though this is not an easy job it would be well worth the effort. I have fitted sockets to other IC's in the 6128 keyboard, and it is a very good idea and can assure that it works quite well for future replacements.

Yours faithfully, Robert Ofsen
$\ll$ Many thanks for the info Robert. It would be very interesting to bear from other members who have had the some trouble. -John $\gg$

## Gome over 角o a PC

Dear John, I am having some trouble composing this letter to you as it is one of the most difficult letters I have ever had to write.. You see the problem is that I am now the proud owner of a PC and find I am using my old faithful less and less these days. I have put off this decision for so long now but I am afraid I really have to call it a day.

I read with great enthusiasm that there was to be a PC page within WACCI but as yet I have not seen anything. Yes I know that all reading this letter will say 'why don't you write something then if thats what you want?' but unfortunately I do not get much free time so sitting down trying to devise a page of something both easy to read and interesting to boot is a little out of my reach.

I would like to offer my sincerest thanks to all of those who over the years have dedicated much of their time and effort into producing a first class magazine. No doubt I shall send for a copy sometime to see what has changed and maybe there might just be something in it to grab my resubscription.

## Ian Burley

$\ll$ Sorry that you are leaving us. I understand what you are saying about the PC interest. A few of our members have said much the same thing as you but hopefully we will be going forward with a PC page very soon so WATCH THIS SPACE! -John $\gg$

## Love af firs sighth

Dear John, In regard to Jonty 'Love At First Sight' article in WACCI issue 120. I thought the article was well written, very informative and above all humourous. It kept me reading with great interest till the end. It has inspired me to not only buy a Freddy Drive when I can afford one but also
to put pen to paper (or should that be fingers to keyboard) and write this letter.

Lawrence writes that the article was 'inappropriate' considering the readership of both sexes and all age groups. Well surely if anyone other than Lawrence was offended by the article then would they not have written in to complain also.

It would seem to me that the rest of the WACCI membership read the article in the same context as I did. WACCI may be a 'Serious Computer Magazine' but a little humour goes a long way to keep folks interested.

## Ray Finch

Aged 67
$\ll$ Thanks Ray for your letter. I am glad you enjoyed the article. (Jonty bas written many good articles for WACCI and to be perfectly honest if be and others who contribute to the magazine each month didn't then WACCI wouldn't be around to-day.) All the authors would like in return is some reaction from the membership to tell them what they like or disliked about their articles.
Richard Fairburst is still prepared to write articles for WACCI but not sure on what to write about so members input is vital for WACCI's survival. Perbaps other members may like to open up the forum on this subject and let me know what sort of articles you would like to see here within WACCI. You know I am always asking for them (articles that is) so come on tell me what you want. -John $\gg$

## Supporter for a PC page

Following on from Ian Burleys letter regarding a PC page. Here is a letter supporting lans view.

Dear John, WACCI seems to be in a dilema about its future direction. I am a fervent ' 6128 er'. I use it mostly for word processing and other bits and pieces. Sad though it is, it seems inevitable that the 6128 and others like it are gradually going to the wall as people are changing over to PCs. PCs (I am told) have great advantages, although I cannot see why. I scem to
rage 6
be collecting quite a number of CD ) ROMs, catalogues and data etc. which I cannot use. The pressures are there and no doubt will grow to push me into the PC camp.

Although a distant prospect for me at the moment, when I look at the PC scene I am puzzled and perplexed as to what I would need to look for in a PC. I just haven't a clue and am so glad that my 6128 maintains good health ( $I$ shouldn't have said that!')

It does seem to me that you and others in the clubs heriarchy have 'been there' and made the big changeover. Surely problems were encountered, mistakes made and rectified. Could we not have some informative articles on what the PC is, what it can do, which ones would be best for the 'small user', what 'add-ons' one would need and so on. I feel an absolute clod about the PC and surely not alone. Just a few pages each issue would be wonderful.

By sitting in both camps, WACCI could go on for years, outlasting the very last 6128 although loyal to the end.

## Yours sincerely Frank Cosgrove

$\ll$ Thanks Frank for your letter I realise that this was a personal letter but thought it appropriate for the current debate what is going om at present. Actually I felt it was quite a gift because your letter was just what I have been waiting for. You have not only offered support for a PC page but have also given a specific request as to the content. So I feel justified in publishing it in the hallowed pages of Fair Comment.

So come on you PC writers out there, Frank has set you the task so get writing and answer the questions! John>>

## Helpline

Dear John, Just thought I would drop you a line to let you know that I will re-suscribe after all. After speaking to you on the telephone last night, I thought about whether keeping on with WACCI was a good idea as I no longer really have much use for my 6128. You spoke about the advantages
of the 6128 over a PC although you admitted that the PC was a lot easier to use at times and did so much more. what swayed me John, and don't laugh at this, my PC decided to crash. Out came the 6128 for work that needed doing. It only went to show me that one thing you forget easily is to make back up copies on the PC as you go along. Something that you rarely need to think about with the 6128 .
So thanks John, your advice and ear were available to me at no cost other than that of a telephone call. Something else I would sorely miss if I only had a PC to work with.

## Best regards

Pat Channing
$\ll$ Hi Pat, So glad I could be of use to you. Unfortunately it is true that with most of the PC support around today it is either very costly or non existant. This is one of the really great things about a club like WACCI, people are only a phone call or letter away and the advice is given completely free and with grod grace. That just cannot be bought. If WACCI did undertake to include a few $P C$ pages then obviously the same services would apply to the PC as it does to the CPC making WACCI an even stronger club than it is now. John $\gg$

Dear John, May I take this opportunity to say a warm and heartfelt Thank You for giving us a truly superb magazine. $\ll$ Of course you can, happy to oblige - John $\gg$. Once again you have created a wonderous thing and given us mere mortals something of beauty to cast our gaze upon. $\ll$ The cheques in the post. -John $\gg$ However, I have only one very small gripe. Ratz' 'Chips With Everything' in the last issue. It was a very good article and I found it very informative but the one awkward thing I have to mention is the handwritten directions.

Sorry to seem as if I am complaining John but perhaps handwritten instructions could be made bigger. Thanks for a very good article Ratz.

John $\mathcal{K e a t i n g ~}$

## WACCI Re-visifed

Looking through old WACCIs as I occasionally do I came accross this letter in WACCI issue 22 July 1988. I thought its content was still relevent today and I thought I would re-run it as it shows appreciation to those of you who provide type-ins for us. Perhaps it will inspire some of you to do some for us?

## Beasic pointer

May I make a point about 'type-in' programs: they make not only the game or facility available but more importantly, they are examples of how to do things.

I recall when I was struggling with Basic. I learnt a lot by secing how 'old know it all' set up a league table or detected a collision. I am glad you never forget the weaker friends.
P.C.Ashbury-Smith

London
$\ll$ There wasn't an answer given to this letter but I feel the content is still appropriate today, 10 years later.

There are still some people out there who bave no idea what to do when they first plug in their 'new to them' 6128 or other, as they probably bought one from the reliable old car boot sale.

It most likely doesn't bave any instructions with it and the unsuspecting buyer has taken the sellers word for it that everything is simple and that you can buy books and all software at any good computer shop.

In fact I beard just that being said to a chap at a boot sale and I interrupted the sale to put him right.

He still bought the 0128 and took my phone number to ring when he got howe for more information. He is now a WACCI member and has never looked back. But what about those who do not bave a WACCI member over bearing the sale? -Jobn>>

Keep your letters coming.

# Arnolds Basic 

Arnolds Basic was written by Paul Fairman of Sheepsoft fame. Paul kindly gave WACCI permission to re-print his excellent tutorial. So thanks Paul. Arnolds Basic is available from Dave Stitson, PD Disc 125.

## Copyright

The following text is a guide to the BASIC programming language on the Amstrad CPC range of computers listed just below. It is designed as a crash- course in the programming language and some not important detail is left out.

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## Parl one

The computer, the best invention ever, and they are readily available to us, the public. This text deals with the actual programming of a specific computer, the Amstrad CPC range which comprises of the CPC 464 , CPC 664, СРС 6128, СРС $464+$, CPC $6128+$. It also touches on other subjects such as machine code programming (don't worry), disks etc.

## Osher computers

The computer is relied on heavily today in business as well as being used in schools, and of course the home. Just to cover the main titles of computers around today the following is provided, in alphabetical order:

## Amige 500

Amiga 500 - this is the so called best selling home computer package in the world ever.

The Commodore Amiga offers mega graphics, stunning sound plus more and shows that Commodore Computers have come a long way since their VIC 20 many years ago.

## Amstrad

Amstrad - the CPC is the computer this text details and NOT any of the others mentioned here. It is what is known as an " 8 bit" computer as compared with the " 16 bits" like the Amiga and Atari ST. It refers to the graphics capabilities of the machine. 16 bits are better than the eights in graphics without argument.

Amstrad also produce the PCW (Personal Computer/Word processor) which is not to do with the CPC although some very special software called CPM software will run on both machines. And to add to these two, Amstrad are well into the world of PCs, expensive business computers.

## Afeari ST

Atari ST - Commodore's main rival for their Amiga 500. The ST is also 16 bit and offers the user many excellent features, one of which is the sound with its MIDI interface allowing music to be created casily.

## BE Micro

BBC Micro - Er, the old BBC's from the early 1980's. I personally refer to them as a heap of plastic but they are in use in around $80 \%$ of UK schools.

Anyway, many schools are moving on to computers such as the Acorn A3000, also known as the Archimedes, a much better computer, with 32 bit graphics! PC's are also becoming popular, notably the RM Nimbus.

## 

Commodore 64 - the C64, Amstrad CPC, and Spectrum (see below) are often put into the same category, the three eight bits. They all came out around the same time and were, and
still are, enemies. The C64 is classed now as a games machine, which means there are very, very few people using the C64 for anything but games.

Spectrum - Oh dear. Speccy's, as they are commonly known, are often ridiculed in computer mags and rejected as piles of junk and that's all I have to say about them.

## CPC

One problem with the CPC's is the differences between the computers. The CPC 464 and Plus version both have tape decks (built in), but the CPC 664, 6128 (and Plus) have disk drives. Disk is much better due to the speed, reliability, and general efficiency of them. Anyone who still has a tape system would be strongly advised to buy a disk drive, the DDI-1 is the model needed.

## Beasic

As soon as this introduction guide is finished (not long) the programming tutorial begins. It is for a programming language supplied with most home computers, and definitely for all of those listed above, called BASIC. Let's first tell you what exactly that stands for, Beginners Allpurpose Symbolic Instruction Code.

It is a language that was designed for beginners in computer programming to give them an introduction and prepare them for the world of "real" programming. To the surprise of many, BASIC has survived until today and is still in popular use. The problem with all BASIC's (there are many different versions on different computers) is it is slow. Painfully slow.

Therefore BASIC can only be used effectively where mega speed is NOT demanded from the program.

## Assembly Language

Another, more complex language called Assembly Language is used to develop such speed critical programs like arcade style computer games.

Basically what I am trying to get over to you is that if you are expecting the sort of games that you are used to playing at home from BASIC, then you can forget it, but learning BASIC is a great help if you should come to learn assembly language one day.

Throughout any computer book that teaches you programming you should never just read it. Always practice every little detail and even if it performs something pretty pathetic which bores you to death, continue reading, and at the same time think about how YOU could modify the "code" to do something different. A few exercises are provided along with the answers to help the thinking of everything.

## IMPORTANT NOTES8

PLEASE NOTE THAT ONCE LINES OF A PROGRAM HAVE BEEN TYPED IN YOU MUST PRESS RETURN OR ENTER TO TELL THE COMPUTER THAT THE LINE IS FINISHED.

At the end of part 10 details on editing a BASIC program are given including other important information on listing programs, deleting them etc. And on that note I shall end to prepare to begin.

## Parit two

This part is vital reading as it furnishes the reader with the basics of BASIC. Some of the most important programming commands will be introduced, and later on detailed as much as possible. All programs have lines. After each line press the RETURN key or ENTER key to input the line into the CPC's memory.

## Programming

After the program is complete type RUN and press RETURN/ENTER and the program will "execute". First
of all let's show a command that is totally ignored by the computer when the program is actually run. The REM command. Eg:

## 10 REM A mega computer program 20 REM Created in BASIC

Now the above tiny program has the following: Line Numbers - these are 10 and 20 in the example and are used by the computer to understand in which order all of the instructions will be carried out. This is a huge advantage of BASIC, because you can always go back and stick bits in if you want to improve, and more importantly, de-bug the program. As you can see, I have gone up in multiples of ten which is the normal thing to do, leaving plenty of space to add lines afterwards.
The next thing that BASIC expects AFTER the line number, is a command. In this case I have used REM which stands for REMark which means WHAT EVER is after the REM is not read by BASIC, so you can type anything that you want.

The point of this command is to put REM commands throughout the program so that you can casily follow the program through and identify the different parts, or ROUTINES, without trouble.
This should be done for STRUCTURED programming, when large programs are being worked upon. As shown the rubbish that follows the REM simply doesn't make sense to the computer. Use REM's for whatever you want.

Well there we have one programming command, pretty useless, but there you go. It has shown the line numbers at least. Now to more of what is called the SYNTAX of BASIC. Those experienced with BASIC may be used to the error messages that BASIC produces, one of which is SYNTAX ERROR. This is quite an easy error to find and de-bug because it means that somewhere in the line that BASIC says the error is in, has something obviously wrong with it.

It may be a mis-spelt/mis-typed word or anything really. Just follow the line through character by character and the error should pop up eventually. All error messages produced by BASIC are shown in part five. It is advised that you read this section if some horrible error message should fly onto the screen. Okay, now for another little proggy for your examination:

10 MODE 1:INK 0,0:INK 1,26:
BORDER 0
20 PRINT"HI THERE ME OLD KIPPER!
WHAT'S YOUR NAME ";
30 INPUT name\$
40 IF name $\$=$ "'"THEN PRINT"Well, type
something then":PRINT:GOTO 20
50 PRINT:PRINT"HELLO ";name\$

Once the program is ready type RUN and press RETURN to run the program.

Some more points before beginning properly. You will notice that everything after the line number is in capital letters AND they are the programming commands, often called KEYWORDS. Even though they are printed in caps does not mean they must be typed is caps. In fact is is advised that you type in lower case letters all of the time so that if you meant to type in a keyword and when LISTing the program the word is in lower case, it is not a keyword.

Another important point is the use of the colon (:). This is used to divide one line of a program into two, giving BASIC more than one instruction to do. This has been done in the first line, line 10 . Four different commands are used here.

## Mode Aclverntages and Disadvamirages

The first key word is MODE. The Amstrad CPC has three screen modes accessible from BASIC, MODE 0 , MODE 1 and MODE 2. Each has advantages and disadvantages.

## Mode 0

UP TO 16 COLOURS MAY BE USED DOTS ON THE SCREEN

ARE LARGER, ON THE SCREEN AT THE SAME TIME AND SO GRAPHICS ARE NOT GOOD.

## Mode I

GRAPHICS ARE BETTER DUE TO ONLY FOUR COLOURS AVAIL.ABLE PIXELS BEING HALF THE SIZE OF MODE 0

## Mode 2

80 COLUMNS OF TEXT CAN BE JUST TWO COLOURS AT THE SAME TIME USED, GRAPHICS ARE EXCELLENT.

MODE 0 has 20 columns of text, MODE I has 40 columns of text, and as shown in the table, MODE 2 has 80 columns of text. Experiment by using different MODEs and study the size of characters AND the size of the little dots that make up the character. MODE 0 would be used if many colours wanted to utilised in the program, like games, and MODE 2 would be chosen for programs such as a financial management program, so that 80 columns of text could be used. Colour is restricted to TWO in MODE 2. MODE I is used to have a medium size print.

## HNK

The next three instructions just set the colours that are I personally like. You don't have to use these at all. If you have a CPC6128 like me then on the disk drive will be a list of all 27 colours. The first command INK 0,0 refers to the background (INK 0) and sets it to 0 which is the code for BLACK. The second INK used is INK 1 which is set to 26 (BRIGHT WHITE). This is the ink that is used. The last instruction in line 10 sets the area called the border to black, code 0 .

At last line 10 is finished although colour will be detailed more in part 4 of this text. Iine 20 uses the simple PRINT command. This is quite a common key word that BASIC offers and can be typed as a question mark so line 10 could be typed as:

## 20 PRINT"HI THERE ME OLD KIPPER! WHAT'S YOUR NAME ";

## PRIRINT

The ? will be converted to PRINT when listed by typing LIST. PRINT does exactly what it says; what ever is in the inverted commas is printed onto the screen. You cannot print inverted commas using this method because a SYNTAX ERROR will occur.

## INPUT

The INPUT command introduces a "variable". A variable is what BASIC, uses to hold various types of information. The variable can be almost anything you want with the exception of keywords. I have chosen "name" because it is what you are meant to type in. It is good technique to use variables that you will remember.

The dollar sign after $(S)$ is to distinguish the type of variable. The type we are using is called a STRING variable which means it can contain letters and numbers. If the dollar sign was not typed (omitted) then BASIC would expect only a NUMBER to be typed in, and any letters would result in an error. Once the INPUT command has accepted input from the user the contents a stored into name\$.

Line 40 is included in the program to demonstrate the series of statements IF and THEN. Just think of it as an English statement: IF what has been typed which is stored into name\$ equals nothing (""') THEN PRINT what is in the quotation marks.

The last command is a naughty one which tells BASIC to GO TO line 20. Try not to use many of GOTO's because you will soon get lost when trying to follow the program through. I have found this out from personal experience.

So, the variable name $\$$ contains something. Whether or not it is actually a name of someone is another matter, it all depends on what you
typed in when the program asked you your name. Next the program has a PRINT command (as the previous line did). This leaves a line blank which is used in the example to make the presentation look a bit better. The program now prints HELLO on the screen and followed by the contents of name\$, so it should say hello to you. The end. Or is it. Notice the use of the semi-colon. Try using the program WITHOUT the ; in both lines 20 and 50 and you will find that the semicolon has a good use.

The most important part of that program was line 40 which had the IF THEN system used. This system should work on all BASIC's not just the CPC's. It certainly works on all four previous computers of mine.

## IF THEN

There is also a command used in conjunction with IF and THEN. It is ELSE. Again think of it as you are speaking in the English language to the BASIC language BUT BASIC only understands one method of saying things to it. More next month.

## Market Stall

## WANTED

MP3 for CPC 6128 PLEASE CONTACT: Sanjid Husain TEL: 0121-327-0117.

Ray Neal wants: The Dart Scanner and the Teletext Adapter and Decoder for the CPC 6128 .

PLEASE CONTACT Ray at 56 Houldsworth Crescent, Coventry CV6 4HJ TEL 01203-362063.

## WANTED:

WACCI Magazine 4 to 15,19 and 22, has anyone got a disk version of Monty Pythons Flying Circus. Also if you need a good home for anything don't throw it away I want it.

PLEASE CONTACTz Christine Raisin, 117, Tilbury Rise, Cinderhill, Nottingham. NG8 6DE TEL 01159133181

# RamRom Pł 2 Software 

Ratz tempts you with some juicy-looking software.

Hi all. Last time I showed you how to build a ramrom unit for the CPC. Hopefully, no-one cooked their machine during construction!

This time we'll have a look at the software we need to program the ramrom and how the rom soffware itself is written.

## Load Up

Listing 1 is a basic program that uses a fairly nifty routine (thanks to the all-knowing Rob Scott) to search for the ramrom and load a rom image into it.

Type the program in now, but please note that you should save it before trying to debug/run it as there is a CALL 0 command, which as you all know resets the CPC. Anyone who doesn't fancy typing it in please send me a $3^{\prime \prime}$ or $3.5^{\prime \prime}$ disc and SSAE for a copy.

## Rombalba

So how do we write a program to go into a rom! Firstly, we really need to write a machine code program, so we need an assembler (Protext / Maxam 1.5 does nicely and I never leave home without them....) Secondly, we need to know what format a rom chip requires.

Last time, I suggested reading CWTA July 1987, but for those people who don't have a copy (shame on you!) here goes...

```
10 REM *** STS RamRom Programmer ***
20 REM *** Thanks to Hangman!! ***
30 ON ERROR GOTO 560
40 GOSUB 250:REM pake RSXs in
50 MODE 1:INK 0,0:INK 1,25:BORDER 0
6 0 ~ P R I N T ~ " ~ R a t z ' s ~ R a m R o m ~ P r o g r a m m e r ~ ( c ) 1 9 9 8 ~ S T S " ~
7 0 ~ P E N ~ 2 : P R I N T ~
80 PRINT " Program by Ratz, ROM patch by Hangman"
90 PEN 1:PRINT
100 WINDOW #7,1,40,5,19
110 WINDOW #0,1,40,21,25
120 INPUT " Load from Drive A/B : ",dr$:d$=LOWER$(dr$)
130 IF dŞ="a" THEN |A:GOT0 160
140 IF d$="b" THEN |B:GOTO 160
150 PRINT CHR$(7):CLS:GOTO 120
160 WINDOW SWAP 0,7:PEN 3:|DIR,"*.rom":PEN 1:WINDOW SWAP 0,7
170 PRINT:INPUT " Filename : ",f$:IF LEN(f$)>8 THEN PRINT
CHR$(7):CLS:GOTO 170
180 LOAD f$+".rom",&4000
190 |SEARCHRR:n=PEEK(&9019):IF n=0 THEN PRINT CHR$(7):PEN
3:PRINT "Search Error : check, then hit a key...":PRINT:PEN
1:CALL &BB18:GOTO 190
200 PRINT:PRINT "RamRom located at slot :";n:PRINT
210 FOR i=1 TO 2000:NEXT i
220 |COPYRR,n:e=PEEK(&901A):IF e=255 THEN PRINT CHR$(7):PEN
3:PRINT "Verifying Error : hit a key...":PEN 1:CALL &BB18:G0T0
220
230 PEN 2:PRINT "RamRom programmed! Set switch, then hit a
key...":CALL &BB18
240 CALL 0:REM *** RESETS! ****
250 REM **** poke machine code ****
2 6 0 ~ M E M O R Y ~ \& 3 F F F
270 CLS:PRINT "Poking cade, please wait."
280 ln=390:REM line no. of first DATA statement
290 FOR adr=&9000 T0 &90D1 STEP 13
300 READ byte$:chk=0
310 FOR i=0 T0 12
320 v=VAL("&"+MID$(byte$.i*2+1,2))
330 POKE adr+i,v:chk=chk+v
3 4 0 ~ N E X T ~
350 IF chk<>VAL("&"+RIGHT$(byte$,3)) THEN PRINT"Check line
";ln:STOP
360 ln=1n+10:NEXT
370 CALL &9000:REM initialise RSXs
380 RETURN
390 DATA 3A1890B7C0011B90211490CDD1568
400 DATA BC3E01321890C900000000000029E
410 DATA 002390C33290C387905345415253D
420 DATA 434852D2434F505952D200AF324EF
430 DATA 1A90F3D9ED437C90D92100C00E67A
440 DATA 0006DFED49D9CB99ED49D93EDD782
450 DATA 77D9CBD9ED49D93E0006DFED7978C
460 DATA 3600D9CB99ED49D9ED497EFEDD811
470 DATA 280A36FF0C79FE0820D00E0036426
480 DATA FF79321990D9010000ED49D90153D
490 DATA 00DFED49C9FE01C0AF321A90DD705
500 DATA 7E00329D90F3D9C5CB99ED49D97E1
510 DATA 0100DFED492100401100C00100349
520 DATA 40D5E5C5EDB0C1E1D11ABE20177DE
530 DATA 23130B78B120F5AF321A90F3014FE
540 DATA 00DFED49D9C1ED49D9C93EFF187DC
5 5 0 ~ D A T A ~ E D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 E D ~
5 6 0 \text { IF DERR>0 THEN PRINT CHR\$(7):CLS:GOTO 170}
570 STOP
```

* Programs written for a rom should be of 16 k or less and assemble at \&c000.* The first byte of the rom determines it's type. These include 0 (foreground), 1 (background) and 2 (extension). We will be writing background rom programs, so this should usually be set to 1 .
* The next 3 bytes determine the mark, version and modification of the program.

Not really useful unless you are Bill Gates and wish to make a mint by getting people to go from Windows 3.1 to Windows 3.11. I ask you.

Set all 3 bytes to 1 and have done with it.

* Last time, I suggested you brush up on RSXs (resident system extensions), because that's basically what roms are. Again, for those who haven't done their homework an RSX is a machine code routine that can be accessed from Basic by use of the "|" key (ie. a bar command). You are required to tell the computer where the routine lives in memory and what name it is by the use of a jump table and a name table.

Unsurprisingly, the next bit of a rom consists of the....

* Jump Table. The first 2 bytes (ie bytes 4 and 5) point to the location of the name table. Following this, there is a list of jumps to the routines corresponding to the different commands in your rom.

When you switch on the computer automatically jumps to the first routine in the jump table - this should be the initialisation routine.

* Following this, there is the Name table. This should consist of the same number of names as there are jumps in the jump table, and in the same order.

Since we only want our rom to be initiailsed once (on power up) it
makes sense that the first name should be something that cannot be called, such as "|A ROM" (RSX commands are not allowed to have spaces in). As usual, the last character should have bit 7 set, and a zero byte marks the end of the table.

* The initialisation routine should print a sign-on message and can use control characters to set the screen mode/colours.

If you're clever, you can even print up a little sprite, or whatever. However, the most important thing it needs to do is to reserve some workspace.

Unlike normal memory, you can't have workspace (temporary storage) with in the rom itself, so you need to grab yourself some from the main memory.

When a rom is initialised, the HL and DE registers contain the highest and lowest values for availiable memory.

Therefore, reducing HIL or increasing DE by however many bytes of workspace you need will grab you some memory. Lovely.

* When a rom command is called, several values are passed in the A, IX and IY registers. A contains the number of parameters passed, IX points to a list of these parameters and IY points to the address of the workspace reserved by that particular rom on initialisation

Right, that's all the groundwork done. Next month I'll print up a listing for a basic rom, which should make things much easier. See you then!

Ratz

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## Merline-Serve/KM1),

Beympton Cottage, Branswick Road, Worthing, West Sussex, BN11 3NQ. TG6/Eax O1903 206739


Merline-Serve is a non-profit making service run by CPC enthusiasts, for CPC enthusiasts.

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## We also run King Arthur's

 Domain, a disc based PD library containing over 200 discs. For a catalogue, send a disc ( $3^{\prime \prime}$ or $3.5^{\prime \prime}$ ) and an S.S.A.E. he address above and we'll get one on it's way.PUBLIC DOMANN DISC 91 - AMSDOS - UTILS DISC 7
AMIGA Amiga and MSDOS to CPC file transfer.
AR KIVIST Utopia based Tape Archiver.
BLOODONT Music file for ProTracker.
CHEESE
CONVERT
COPY
DECODER Morse file Decoder from WACCI issue 74.
DISCO'MAGIC. Superb disc utility.
FUNY-FUN Music file for ProTracker.
MASTERSAVE Disc copier vl.1.
MDOS Disc copier.
PROTRACKER Super Music Utility v1.0+.
ROBOCOPY File copier.
TURBO3 Disc copier.
ULTRA Disc copier.
WIZARD Disc Utility.
PUBLIC DOMAN DHSG 92 - AMSDOS - CAMES DISG 5
CUBULUX Clear all the squares to win.
RCQUEST By Moving Pixels of MOPS.
MEGABOMBER By HJT. Blow up the obstacles to win.
JUMP MANIA By Fraggle of MOPS, hop the squares.
LOGISTIC Plan ahead and control all squares to win.
ATTACK Space invaders 1993.
SMILEY Guide the two heroes to safety.
ZAXON Puzznic clone.
PIC PAIRS Match the pictures to win.
SQUASHBALL Breakout clone.
SUPERALI Bombjack clone.
BRUCE LEE Kick the spiders to clear the screen.

## PUBLIC DOMAIN DISC 93 - AMSDOS - UTILS DISC 8

CATEDIT Disc and file management utility.
CHIPBEND Play with the CTRC chip settings.
DESIGNER The Brunword character designer.
DIGITRAK A super sound/music utility.
SMON
SUPER
BMP-CON
SLIDE
INFO A rather neat monitor. Dise and file Utility. Convert BMP files to Amsdos screens. A slide (picture) show. The BMP-con program help file in German.

PUBLIC DOMAIN DISC 94 - AMSDOS - DEMOS DISC 12
The seven great Demos included on the disc are:- Batmans Journey SWAB 93, Chain MegaDemo, Maniak2, Micha's Demo, Finally McPaddy Demo Credits.

PUELIC DOMANR DISC 95 AMSDOS PRINT ENHANCER
This program consists of a text editor plus new fonts for Epson compatible printers and is written by Geoff Short.

## PUBLIC DOMAIN DISC 96 - CP/M 3.1 - PRINTIT

$\mathrm{CP} / \mathrm{M}+$ printer enhancer for use with an 8 bit printer port. Fully documentated. Programme by Andrew Clarke.

PUBLIC DOMAIN DISC 97 - AMSDOS - THE DES DEMO
The DES Demo, Music Maker Demo, CTV Demo, Grafix Demo, See You Soon Demo and the Fishtank Demo by Stuart Gascoigne
PUBLIC DOMAIN DISC 98 - AMSDOS - PATCH DISC
Contains many of Matthew Phillips programs from his Programmers Patch series.

## PUBLIC DOMAIN DISC 99-AMSDOS - XWORD

This is version 2 of the crossword compiler which uses the second bank of a CPC6128 and its by Keith Mortimer.
PUBLIC DOMAIN DISC 100 - WACCI MAGRZINE INDEX
by Frank Neatherway. The magazine index comes to you in binary files which can be loaded into Masterfile III. Don't worry if you've not got Masterfile III because they are also in Ascii format to enable you to load them into a word processor. Included on this dise is the PD index.

## PUPRLIG DOMAN DISC 101 - PROMEREE TUTORIALS

Wacci was kindly been given permission to include into our public domain library the Promerge Tutorials by Douglas Thomas our thanks to Douglas. Also on this side is the Protext Demo RAMBASE 4. In this version there are many added functions which makes this database one of the best around to date. I have included loads and loads of pokes (over 1,000 ) for the gamesters amongst us and these files can be loaded into Rambase 4 and this will show you how good that Rambase 4 really is. But don't take my word for it, order this disc from Dave and see for yourself.

## PUBLIC DOMAIN DISC 102-AMSDOS - UTILS DISC 9

ARTSAVE Rescues Art Studio picture after a CRASH.

ASNFN
CPMBCONV
DIR-SORT
DIREDIT
DISKPROG
DMON
FLIK

HEADER
IFFCON
MULTIARC
MULTICON
NOTEPAD
PAL-LOAD
SOFTARC2
SOFTFORM
SPLITASC
SYS-DATA
T.REX

CPCINFO
CPM-ADDR

ASN1,2. ASN1 and ASN2 both add the functions in the form of RSX commands. Adds them to basic. Converts your CPM loader to run from basic. Sorts out your dise directories in alphabet order. Directory Editor.
Database for storing disc record entries. Powerfull Disc monitor.
Switches to the other bank on your 6128 and then you can run two programs together. Reads the tape header.
Converts Amiga graphics to CPC etc.
Archives up to two $3^{\prime \prime}$ (both sides) disc to a 3.5 Converts Multiface screen pictures to Amsdos. Pull down notepad easy to use. Loads palette files from Advanced Art Studio. Archive disc to tape and tape to disc. Formats $3^{\prime \prime}$ discs to data ( 178 k ). Splits large ASCII files into smaller files. Converts SYSTEM formatted discs to DATA. Uses the RAM to copy programs very fast. Information on CPC's. CPM Addresses.

PUBLIC DOMAN DISC 102 - UTILS DISC 9 comininuedfs-

DART
FIRMWARE
FORMATS
HAKFS
HARDCATZ
KEYBOARD
PIC-ASC
PROGRAMD
PSU
SCAN
TYPING
WILIOW

All about the 780 Dart.
Firmware CALL's and more.
About Amstard disc and PCW formats.
Graphical Display.
Makes a print out of your disc contents.
Learn to type with this keyboard program.
Turns SCREENS into ASCII characters.
Program Design tips.
How to make your own power supply. Text Viewer.
Typing lessons.
Picture by Pixels.

## PUBLIC DOMAIN DISC 103 - AMSDOS - CLIP ART T

Batman2, Biplane, Bird, Boat, Bomb, Bord2, Bronson, Chip, Clint, Cubecorn, Cupotea, Deur4, Fort, Gevange3, Koen, Mini, Pang, Pen, Pijll5, Polauto, Rotsen2, Schat, Startrek, Strekkers, Stetoren, Strepen, Tankwage, Wc, Telefoo2 ,Tipis, Tweetic, Urbanusl, Venster, Wagon, Wijsli, Atlantis, B-Badge, Betty, Bombjack, Bond, Buggy and more.

On this dise there is a program called DISC.BAS which you can use to view the contents of PD Dise 103. The clip art files are of the type that can be loaded into Stop Press, PowerPage and even Microlesignt. However before you can load them into MicroDesign+ you will need to convert them from CUT file type to that of the DR file Type.

PLEASE NOTE: (Advanced Music Systems - AMS) The Public Domain discs from 104 to 108 are for the AMS and are were all arranged by Rob Baxter.

## PUSLIC DORANR DISE 104 - MUSIC T

The Brandenburg Concertos by J. S. Bach. The Brandenburg have been divided into thirteen seperate LINKER files.

## PNBLIC DOMAMN DISC 105 - MUSIC 2

On this dise their is music composed by Bach, Handel, Mozart, Mussorgsky, Widor and Pachelbel. Such as Toccata, The Water Music, Eine Kleine Nachtmusik and more.

## PUBLIC DOMAAR DISC 106 - MUSIC 3

The Four Seasons by Vivaldi. Plus music by Strauss, Grieg, Handel, Chopin, Bach and Khachaiurian. With classics like The Blue Danube, Wedding Day at Troldhaugen, Sabre Dance, The Arrival of the Queen of Sheba and the Minute Waltz.

## PUBLIC DOMAMA DISC 107 - MUSIC A

Variations and Inventions by J. S. Bach. The titles are The Goldberg Variations, Sheep May Safely Graze, The Italian Concerto and the Chromatic Fantasia and Fuguc. Other compositions such as The William Tell Overture and three dances from the Nuteracker Suite.

## PUELIC DOMAN DISC 108 - MUSIC 5

Ancient and Modern by various composers with pieces like The Snow Is Dancing, The Entertainer, Trumpet Voluntary, The savers and The Blacksheep Variations.

## PUBLIC DOMAIN DISC 109- MUSIC 6

AMS-MIDI Converts disc files created by Rainbird's Advanced Music System (AMS) into a form useable by the program Perform. Perform then transmits the files over the MIDI interface in the RAM Music Machine. If suitable equipment (a

MIDI instrument) is connected to the MIDI OUT socket of the Music Machine then the music will be played.
ASTRO.SCR Before being squashed.
ASTRO.SQR After being squashed. Using SQUASH.BIN
CAI.BAS Prints a calendar to screen or printer.
CAL.DOC History of the calendar.
DISC.BAS Loader programme for the below.
DISC.DOC Disc contents.
EXAMPLE.BAS Asks for a squashed screen to be loaded.
FILEREAD.BAS View and print out DOC filcs.
INTRO.DOC Gencral information on LNKSPLIT, SEND, MIDILINK, TRANSFER and others.
LNKSPLIT.BAS Loader for LNKSPLIT.BIN.
LNKSPLIT.BIN Splits up LNK files from the AMS.
MIDILINK.BAS Makes LNK files.
SQUASH.BIN Squashes Amsdos screens.
UBTEST1/2 Needs MASTERCALC.
The MUS files on this disk are NOT for the Advanced Music System all of them can be loaded by using the BASIC loader programme. Some of them may not work on a Plus computer. After listening to the music always reset your computer.
MP4.BAS When you run this programme press 1 for French text or 2 for English text. Then that part of the demo loads. You can then press certain keys which make this demo do things. I'll leave this up to you to find.

## PUBLIE DOMRAN DISC 140 - WORD GAMES 3

More word games from Keith Mortimer, Siege, Pop, ()xo, Attrition, Hide and Seek and Landslide. Side B: W OR D GAMES 4 Runner, Wordweb, Scuttle and Triangles.

## PUMLIC DOPAAN DHSC 111 - PICTURE DISC 12

Abbey, Alan, Buttifly, Cacti, Cheddar, Dog, Engine, Flamingo, Frog8, Fulmars, Granprix, Haha, Jet, Lisa, Max3, Nude, Penguins, Pwillow, Raffs, SBellesd, SHenge, Swans, TigComp, TutMask and Yots. These pictures are superb and the details of the pictures is amazing.

## PUELIC DOANAN DISC 112 - DEMO MAMKRS

This dise contains programs to enable you to make your own demo's.
Side B: BASICTUTORIAI S A excellent basic tutorial it fills all of side $b$ : There are lessons covering all aspects of basic programming.
PURLIG DOMARM DISE 113 - CPC EMHLATOR SHAREWARE - MSDOS This is a updated version of the CPC emulator for the PC and you need at least a 386 to use this programme. This version also tranfers it self onto your hard drive.

PURLIC DOMAIN DISC 114 - B-ASIC by Logen Systems This dise is for members who have a PLUS computer and wants to be able to use all the extra colours.
Please note: This may not be the full version, so any help regarding B-ASIC is very welcomed. Contact John Bowley. Tele: 01733702158.

PURLIC DOMAMN DISG IIS ANIMAL QUIZ amd FRRANGAIS Side A: Contains loads of pictures of animals and from a list of options you've to pick the right animal. ** This program is ideal for children of 4 to Gyrs. **
Side B: FRANCAIS: This programme could help you to learn French it comes with a dictionary which covers: Travel, Time, Directions, Dine-out, Accom, Numbers, Phone, Post, Shopping and a few more besides.

## PUBLIC DOMAIN DISC 116 - SMART + amel FLUFF (Plus Compufers) SMART PLUS . Is a exceilent art programme

 and comes complete with the manual on disc. There is also a demo of the Animation function called ANIMATE (which may cause offence).SPRMAK.BAS Make sprite data for your own proggys.
FLUFF This game is a bit like Sonic.

## PUBLIC DOMAIN DISC 117 - BANKBASE

BANKBASE Is a database the uses the extra RAM for data storage and comes complete with the manual. The manual takes all of side 2 .

## PURLIC DOMAAP DISC 118 - AMSDOS - GAMES DISC 7

AXYS
MINGS
SPOTS
AMSTROID
FLIPFLOP
GALAXIAN
HANGMAN
KARL.
PUZZNIX
RUBICK'S
WORDSPAS
WRITEIT

Overscan. Shoot em up.
Like the Lemmings game.
Turn tiles over to win. Destroy the rocks. Tile puzzle. Like the arcade version. 3D version, whats that word. Platform game. Brill. Keep you going for ages. Like the famous cube. 3D Version. Find the word before you drown. Fill in the sentence.

## PUBLIC DOMANN DISC 119 - CRIB and BLACKJACK

These games were placed into PD by Barrie Snell, both of which are fully documented and fun to play.

## PURLIC DOMAIN DISC 120 - ADVENTURES DISC 6

This dise comes to you with five adventures and are relcased into PD by Phil Craven. The adventures are: The Trial Of Arnold Blackwood, Arnold Goes To Somewhere Else, Wise \& Fool Of Arnold Blackwood, Brawn Free and Grief Encounter.

## PUBLIC DOMAAN DISC 121-SOUNDHAKKER v2.0

With this utility you will be able to take music from games and demos that were produced by SoundTrakker. Comes complete with full documention and loads of *.STK music files such as:Addams, Agents, A-Flight, Alex, Badmag, Castle, Dotty, Layla, Love, Looser, Magic, Maxiwest, Intox, Final, Knockers and a few more besides.

## PUBLIC DOMAIN DISC 122 SOUNDHAKKER MODULES

This disc also contains Soundhakker and agains comes to you with loads of *.STK music files such as:- Crazy, Megaintr, Megaparty, Menuett, Money, Munsters, My-Boy, Nobody, Race, Sdemo, Simone, Snakel-4, Techno2, Thebeat, Thriller, Winter, Xmas, Nas, Race, Report, Turnip, Superbas, Termite-2, and more.

## PUBLIC DOMAIN DISC 123 - OTTO DISCZINE 1 \& 2.

A well put together disczine covering the CPC scene. On this disc there are reviews, screen shots from games, Free PD all put together by Nicholas Campbell.

PUBLIC DOMAIN DISC 124 MR MEN By Philip DiRichleas 8. Co Loads of the famous Mr Men charactors converted from a PC Što Amsdos format and in fuill colour.

## PUBLIC DOMAAN DISC 125 - CPC GUIDE

This dise is filled with text files all about our humble CPC . To many files to list but in my opinion a must for any serious CPCer.

## PUBLIC DOMAIN DISC 126-STREET WARRIORS

A good beat-em-up, loads of levels. My three sons had a good play with Street Warriors and this is what they said about it: Great, brill, cool. I think this is a hit with my boys, it tends to runs a little on the slow side, however if you have got Parados or Romdos then simply format another 3.5 dise to D10 and copy both sides of the master disc onto your formatted disc, this will speed up the loading and will save you time by not having to keep turning over the disc.

## PUBLIC DOMAIN DISC 127 - POWERPAGE SUPPORT

Side A: Contains 58 fonts and side B: Contains 17 different borders. Needs PD Disc 4.

## PUBLIC DOMAIN DISC 128 - BTL I

Edited by Richard Fairhurst and some other well known names on the CPC scene. Please note: This will only run from the A: Drive which is a pain, but if you've got a ABBA switch then you will have no problem having BTL on a 3.5 disc.

## PUBLIC DOMAN DISC 129 - BTL 2

Better than BTL 1 in my opinion and runs from A or B drive.

## PUBLIC DOMAIN DISC 130 - GHOUL'S WRITER

Have you ever wanted to send a letter to your CPC pen friend but tied of the old fashion way on paper. Well now you can simply buy this disc from your friendly PD Librarian Dave Stitson.
Once you finished writing your letter you then can add music and some special graphic effects. All the instruction that you need are on this disc.

## Free PD

If you would like to do a review on any of discs from WACCI's PD Library then please let me know and Ill arrange for it to be sent to you free of charge, since you would be doing WACCI a great favour its the least we can do. There is only one problem and that is I can only offer a free PD dise to members who have a 3.5 disc drive.

## Orelering PD software

Just a reminder that Dave Stitson is the man to order your PD software from and his address is on page 14.

When ordering your software please state what dise drive you want to have your PD on and also if you have a 3.5 disc drive have you got a side switch attached.

## Price list

The price of disc are as follows: $\quad 3^{\prime \prime} \quad \mathcal{L 2 . 5 0 .}$ Each.
3.5 disc $\mathcal{L 1} 1.00$. Each.

The above prices are the same for Overseas and European members. Please make cheques payable to WACCI.

## New PD

If you have any PD that is not in WACCI PD Library could you please send it to:- Stuart Gascoigne

24 Ketch Road
Lower Knowle
Bristol
BS3 5DQ

# Market Stall oSALE! 

Angie Hardwick 23 Station Place, Bloxwich, Walsall, West Midlands. WS3 2PH Tel: 01922449730
I think this is July I have been off color last month so l'm a bit confused so please forgive me if it's not. It has been decided that regardless of whether we sell 100 tickets or not the convention will go ahead as this is very likely to be the last so PLEASE support us.

## POR SALE

These items are for convention funds and have been donated by Doug Webb. They are all on original 3 " discs complete with manuals. All at $£ 4.00$ each plus $£ 1.00$ post and packing. Tas-Sign, Powerpage 128, Proprint, Protext, Prospell, Question of Sport, British Maps Library (for use with Microdesign Plus 2 discs), CPC Card (knitting machine pattern designer), Your Pattern Writer (knitting m/c pattern designer).

PLEASE CONTACT: Doug Webb at 4, Lindsay drive, Chorley, Lancs. PR7 2QL Tel: 01257-411421. Please make cheques payable to WACCI.

The following items were donated by Bob Moffatt. DMP 2000 Printer with expanded printer buffer, manual and 4 ribbons $\mathcal{L 1 5 . 0 0 .}$ FDl Second 3 " Disc drive (needs cable) $\mathcal{L} 5.00$, Lihnet V21/23 Modem inc. Power supply and manuals $£ 15.00$,

## Disc Gammes as followss

L1.00 each plus postage, Ballyhoo, Leather Goddesses of Phobes, Hitchhikers Guide to the Galaxy, Never Ending Story, Pawn, Starglider, Castle Master, Guild of Thieves, Starstrike II, Tomahawk, Dandy and Roland in Time.

## Serious Dises

Graphic Adventure Creator $£ 2.00$, Advanced Art Studio (no box or manual) £1.50, Nevada Fortran, L.15.0, Protype E1.50, Auntie John's Concept Disc from Wacci $\mathcal{L} 0.50$ p, CP/M Disc 2 from Wacci LO.50p. All plus post and packing.
$\ll I$ am printing the whole of this advert in full as I thought members would like to read what Alan has said; I think it sums up the spirit of Wacci.-Angie $\gg$

Dear Angie, Please could you include the following advert in the next issue of WACCI as I have regrettably had to join those who have moved over to the PC. Please pass on my thanks and admiration to all those involved in WACCI without whom I would not have made much progress.

## POR SARE:

Two 6128s (one disk drive unpredictable) with color monitors, Dot matrix Printer, Silver Reed EXP with 2 spare tapes. Tape play/recorder, Multiface with Insider, Almost complete 6 slot Rombox with instructions \& Prospell, Protext, Rodos \& Maxam Roms, 3.5" Disk drive in case. Plenty of cables.

Software includes, Laser genius machine code system, Protext, Tasword, Rodos extra, Discology, Office Disc, DES, MS800, Public Domain discs 9 and 10, 2 sets of CPM master discs, Ispell, VDE 266 , plus Ramdos and Maxidos on $3.5^{\prime \prime}$ discs.
Spitfire 40 and Strike Force Harrier flight games.

16 blank 3 " discs, 10 used 3.5 " discs, 28 unused 3.5" discs.

Books include Amstrad Micro Guide, Two 6128 Manuals, ready Made Machine Code Routines, $\quad \mathrm{CP} / \mathrm{M}$ Handbook. Magazines include Amtix No's 1, 2, 3, 4, 9, 11, 14, 15, 16 Computing with the Amstrad March,

April, May, July 85. April, May, June 87, March, April, May, July 88.

Amstrad Computer User, Jan, March, April, May, June, July, Aug, Sept, Nov, Dec 85, Jan, to Nov 86, Jan, Feb, April, June, July 87, March, April, May, July, Aug 88.

Amstrad Action 17, 20, 27, 28, 29, $34,35,50,100,104,105,106,112$, $113,114,115,116,117$ all numbers from 100 with cover tapes.

WACCI 3,52 and 86 onwards. Will sell for $£ 100.00$ plus postage

PLEASE CONTACTz Alan Simms, 14 Chichester Close, Boultwood Road, London E6 4QJ TEL: 0171-4744891.

## POR SALE:

Amstrad 6128 with system discs \& manual with CTM 644 color monitor.DDI external disc drive with lead and DMP 2160 printer with manual and lead. All in good working order $£ 40.00$ plus post \& packing. 3" Amsoft or Maxwell reformatted discs from 65p each.

Amstrad CPC $6128 £ 10.00$, Amstrad CT-1 Radio Unit for CPC DEAD £1.00,. Amstrad CTM 644 Color Monitor $£ 8.00$, Amstrad DMP2160 Printer c/w manual and lead $\mathcal{L 1 0 . 0 0}$, Amstrad Flip-up disc box $\mathcal{L 1 . 0 0}$, Amstrad MP2 Modulator $£ 10.00$, Blank 3" Discs NEW (Maxwell) 10 for £12.50, Blank 3" Discs reformatted 720 k Verified, new labels (Amsoft or Maxwell) 10 for $£ 8.00$, Belts for $3^{\prime \prime}$ disc drives new $£ 1.00$ each, 30
available. Plastic Cases for 3 " discs used 25 p ea. or 10 for $£ 2.00$, CPC 6128 Manual $\mathcal{L} 2.00$, CPC644 manual L2. 20 , DDI-1 External Disc Drives 3 available $\mathrm{c} / \mathrm{w}$ lead to connect to 664,6128 L14.00 each, CPC 61287 available $£ 10.00$ each or $\mathcal{L} 60.00$ for all 7 All items plus postage.

3" Reconditioned 180k Disc Drive suitable for CPC 664, 6128, FD1 External Disk drives with lead to connect to 664,6128 £14.00 each, Flipper 3 version 3.10 (cased disc c/w manual) for PCW 8512 or expanded $8256 \mathcal{L} 7.00$, GT 65 Monitors in good working order $£ 2.00$ each, Head Coach (complete package) £3.00, Lancelot Box plus manuals (No disc) for CPC or PCW E1.00 each, I ead to convert Amstrad DD1-1 to work on CPC £2.00 each, Lead enables Spectrum to use Amstrad CTM 664 Colour Monitor $£ 4.00$, Lead to connect CPC to cassette player $\mathcal{E 1 . 0 0 \text { , }}$ Mini Office 11 (plastic case) complete for CPC L5.00, Model Universe Manual for CPC 50p, Money Manager 3" cased with manual for CPC/PCW $£ 6.00$, Multiface II with
 Rom Board with instructions. Plus Protest \& Prospell Roms \&20.00, Printer Lead for Amstrad $6128 £ 1.00$, Tasword 3" cased Disc for CPC L3.00.

PLEASE CONTACT: John King, 26, Guysfield Drive, South Hornchurch, Rainham, Essex RM13 7AJ TEL: 01708-630477.
$\ll$ John has also got loads of software for the PCW, Complete PCW systems and other items at very cheap prices so please give him a ring for full details. $-\mathrm{JB} \gg$

## FOR SALE:

CPC $6128 \mathrm{c} / \mathrm{w}$ printer and loads of software etc much loved machine very reasonable price to a good home.

PLEASE CONTACT: Isobel Swade, 9 Brentnall Close, Great Sankey, Warrington, Cheshire WA5 1XN TEL: 01925-658980.

## FOR SALE:

Comsoft 8 Slot Rom Box with 8 roms as follows Nirvana, Des ( 2 roms), Protext, Parados, Hackit, Utopia, Music Digitizer, (Hackit must only go in Slot 0 as it replaces the Basic Rom). £80.00, Ram Music Machine with Microphone \& Software \& Manual $£ 20.00$, DK Tronics Real Time Clock c/w software \& manual $\mathcal{L 2 0 . 0 0}, \mathrm{DK}$ Tronics 256 k Memory Expansion c/w manual $£ 30.00$, Tasword $6128 \mathrm{c} / \mathrm{w}$ manual $\mathcal{L 1 0 . 0 0}$, Tasword 464 D word
 464 Spell-checker c/w manual $£ 8.00$, Nirvana Utility Disc no manual $£ 8.00$, Perm Master \& manual $£ 8.00$, Cash Master \& Manual 28.00 , lanit Personal Organiser \& Manual $£ 8.00$, Xexor Disc Utility $\mathcal{L 8} 8.00$, Qualitas 464 \& manual $\& 8.00$, Music Composer Rom $£ 10.00,10$ Brand New Maxwell CF2 3" Discs L22.00, Internal CPC-6128 Disc drive Mechanism L20.00, Disc Labels (four colours) 100 for $£ 1.00$, The Game Pirates c/w manual $\mathcal{L 8} .00$.

I may be interested in swapping some of the above items for other Amstrad hardware or software or CB Radio equipment or short wave radio stuff.

PLEASE CORTACT: Richard Latham, 31, Orie! House, Blackcat Close, Chelmsley Wood, Birmingham B37 5DG TEL 0121-770-8041

## POR SALE:

CPC $464 \mathrm{c} / \mathrm{w}$ green screcn monitor \& user manual $£ 40.00$ ono, Citizen 120 D Dot Matrix Printer. Excellent condition. Boxed $\mathrm{c} / \mathrm{w}$ user manual a gift at $£ 20.00, \mathrm{CPC} 6128 \mathrm{c} / \mathrm{w}$ colour monitor, external $3.5^{\prime \prime}$ dise drive with side switch, ABBA switch, AMX Mouse, 8 -slot Rombox (with DES on two Roms, Protext, Rodos, Romdos and MS800), Multiface 11, dust covers and user manual. $\mathcal{L} 100.00$ for the lot (may split), Over 200 games on tape and disc - too numerous to mention send for full list all at rock bottom prices. Amstrad Action Magazines 17-117 inclusive (except 18,21 and 109). Many in AA official binders $£ 10.00$ the lot, Amstrad

Action Covertapes 1-50 (No 8 missing) $£ 10.00$ the lot., All the above items are plus post \& packing.

PLEASE CONTACT8 Margaret Schofield, 16, Sunningdale drive, Bramhall, Stockport, Cheshire.

## FOR SALE:

Colour Monitor for 464/664/6128 £12.00, Colour Monitor for 464 $£ 12.00$, Key board for $464 \quad\llcorner 9.00$, Faulty Upgraded 464 keyboard $£ 4.0$ or free with $464,64 \mathrm{~K}$ memory Ram Pack with software \& manual $£ 4.00$, DD1-1 Disc drive with CP/M Disc \& Manual $£ 13.00$, Joystick $£ 2.00$ or free with above computer, MPl Power Supply £7.00, MP2 Power Supply $\ell 7.00$, DMP1 Printer with Manual $£ 13.00$, Spare printer Cables $£ 3.00$ each.

Software: Programs on Tape 40p each or $\mathcal{L} 3.50$ for 10 , Blank C15 Tapes 30 p each or $£ 2.50$ for 10 , Advanced Amsword Word processor on Disc £4.00, Project Planner tape \& disc version $£ 4.00$ each, Screen Designer Tape $£ 4.00$, Decision Maker Tape £4.00, Books, Magazines \& Manuals:Sensational Games for the Amstrad $£ 3.00$, Programming Handbook in Basic \& Machine Code $\mathcal{L 3 . 0 0}$, Manual for CPC $64 \mathcal{L 3 . 0 0}$ or free with computer, Amstrad Action 1-116 except $2 . £ 25.00$ willing to split.

PLEASE CONTACT: Simon Brunsden, 7, The Greenway, Orpinton, Kent. BR5 2AY.

## WANTED:

Copy of Flight Ace Compilation OR Heathrow Air Traffic Control by Hewson

PLEASE CONTACT Peter Shepherd, 3, Palmer Crescent, Old Hall, Warrington, Cheshire. WA5 5PZ TEL 01925-659373 Home 01925-784153 work.

## For sule:

CPC 6128 with colour monitor $\mathcal{L} 60$ or nearest offer. Tele: R. E. Christ 01248670593 . Norht Wales.

# Members Spoflight Dave Teague 



Over the years, the exhortation for articles for WACCI has become more and more strident; and with the increasing feverishness comes the desperate hint that almost anything will do. The implied challenge is one I cannot resist. So...

We are trying to move house (actually, we are trying firt to sell our house, which seems altogether harder). Hopefully, sometime in the near future, I'll have to supervise the packing up of my computer desk, together with its various bits and pieces. What alot there is. (Please, gentle reader, don't take this as a competitive cue; it's merely what a disinterested spectator may say - or, perhaps a novice writer looking for an innocent introduction to a piece which is in essence a list of computer-related hardware).

My trusty computer is a 6128 , with CRTC type 0 . There are two clearly foreign toggle switches with sticky labels: 8 -bit/normal; and normal/ ext $=a$, int $=b$. They are, respectively, an 8 -bit printer port switch (using a single 7474 fip-flop), and an ABBA switch (used mainly for the Advanced Music System). The final distinguishing feature of the machine is the contrastingly-coloured cream $3^{\prime \prime}$ internal dise drive: the previous tenant having given up the ghost in the days before I had heard of DBRT (drive belt replacement therapy). The original, fully theraped (!) now sits in a drawer, awaiting recall.

Two fairly standard add-ons lie behind: a multiface two (main use: transferring tape-loaded games to disc), and a ROMBOX (MAPLIN kit, already made up when I acquired it from the WACCI inside man in MAPLINs). The only mods I've done to it are to fit a disable switch, and to remove the vast amount of extra ribbon cable that used to spout from the back of the box. The final 'standard' piece of kit is a $3.5^{\prime \prime} \mathrm{B}$ drive, delicately balanced on top of the
otherwise quite useful list of AMSTRAD colour numbers. It lives in a box I picked up from my local electronics odds ' n ' ends shop; unfortunately, the box has to be used upside down, leaving a few mounting holes visible on the (now) top.

The drive itself was one picked up for fiver at one of the All Formats shows that Uncle Clive used to frequent. Indeed it was he to whom I went first to ask for a short blessing. "Yep, that'll do, Dave." The ribbon cable (only just long enough) has a side switch slipped in; and the who bang shoot has an off-on switch (yes, I put it in upside down. But then, we've fitted the bouse out with electric darks as well - but we have to turn them off at night, 'cos it's dark enough already).

So what 'extras' does my set-up boast? Well, TV tuner, tuner/monitor changeover switch, stereo amplifier (with speakers), LC-100 colour printer, cassette recorder, receiving aerial for the relevisual apparatus, and radio. The (pukka, AMSTRAD) tuner came from one of the surplus shops (Bull?) and needed a couple of ceramic filters changing from European standard to UK (part of Europe?) standard. The picture quality it produces is at least as good as our now-dated family set; and the picture content is somewhat more interesting to me - it can pick up soccer when other sets seem to be only capable of showing police/medical/ romantic dramas. The changeover switch allows the video lines to be swapped over between monitor and telly; there is an independent power supply switch, so, for instance, I can listen to the telly whilst happily watching the monitor. (BTW, soldering
the six-core screened cable to a OPDT switch was very fiddly). The amplifier and speakers were home-made (well, the boxes for the latter were) - it's mainspowered but only delivers about 1.5 W per channel - which is enough. 'Sometime' I'll replace it with a far smaller amp without power-supply (probably an LM377): my B drive power supply is an old Spectrum PSU with plenty of amps left to feed the amplifier.

What about the recorder \& the printer, I hear you all cry. The former is a cassette recorder. It records and plays back cassettes. You put them in the top. I don't like cassettes. The printer is potentially very nice. 'Sometime' (great time, that isn't it?) I'm going to write a machine code utility to drive it properly (by which I mean, allowing intcractive choice of colours/textures, choosing the region to be printed by means of a resizeable box, and at least some choice of scaling. Oh, and something to get round the hassle of horizomtal and vertical steps being incommensurate).

The radio, sitting on top of the monitor, doesn't work well when the monitor works; but not the converse. Funny world, isn't it?

That's about all. If anyone would like any further details of any of the 'homemade' items, they should get in touch with me (or, if there is great interest, of the flying pig variety, with John to persuade me to produce a follow-up article, complete with Micro-Design pictures of amazing quality).
$\ll I$ am so get writing Dave. -John $\gg$


## 

- Date: 20th September 1998
- Time: 9am-5.30pm
- Price: $£ 2.00$. Please make cheques payable to WACCI.
- Where: Bescot Football Stadium, Birmingham, Walsall.
- Tickets from: Angie Hardwick. 23 Station Place, Bloxwich, Walsall, West Midland. WS3 2PH Tele: 01922449730
- Come along to the WACCI convention 98 and enjoy meeting and talking to other members.
- Sell your computer goods and perhaps even buy something that you've always wanted to have.
- Bar available, lunch by prior booking (contact Angie).
- Big outside Market \& Donut stall.
- So what are you waiting for?


# MICRODESIGN PLUS UNDER the WACCI MICROSCOPE PETER ROGERSON 






Before I begin, just a feminder to you all, brothers and sisters. This series of articles is not intended as an introduction to new CPC products but is a peminder to menbers of long-standing that the old prograns do actually work quite well even now, and to newer CPCars that their machine (no doubt glasned from a boot sale for a fiver) can actually perform oreditably well.

## HISTORY LESSON

To start with, let's have a bit of history. Microdesign (the original program) came out in the mid 80s, and wasn't so much a OTP package as a piece of software to aid with the design of circuits and the like. Its text-handling features were minimal, limited as they were to direct input in one of four fonts - none of then elegant - to the screen. In 1992 the progran was enhanced (hence the PLUS bit) and those enhancements included text conversion software, Pure ASCll files become bits of clip-art 50 far as MicroDesign is concerned.

## TEXTUAL MATTERS

Text is likely to be the main part of the average page, and the way it's set out is often almost as important as it's content, I find it best to produce it (using Protext) in smallish blocks one column wide. This is then converted by Microdesign Plus and becomes a clipart of file, it's then an easy matter to lay the blocks in order on the page and tuck in a few illustrations, Haybe
odd snippets of olip-art that seen to relate to the subject natter, This helps the eye and renders a boring monologue into something infinitely fascinating, Perhaps.


FEST VOUR EVES OH THIS, THEN. YOU WHOU IT'LL 00 YOU 600.

## ICONS

The biggest strength of MioroDesign is its use of icon sets, These can to individually crafted letters of the alphabet or little clip-arty illustrations, They are selected from a strip along the botton of the sereen and easily put into place. Headlines can then be built up - the process is a little laborious and - hey, your Pentium ouning chum would soiggef, but he paid nore than a few pints of cooking for his chunk of plastic. The haddine at the top of this article was created from a single set of icons - there's enough space for two complete alphabets in one set, Yippee!

## CLIP-ART

The wacky world of PD libraries is awash with clipart. Huch of it is in STOP PRESS or PowerPage CUT format, but it can be easily converted to . DR files by the PLUS module, This article's got a few intriguing examples of the clip-artist's art in order to reduce the possibility of eyestrain which may ultinately lead to blindness or worse, See hou
considerate ! an, dear reader!
HieroDesign, though, is also a competent art package and shapes can be drawn, magnified, corrected, even stretched or squashed, and using a high definition mode in uhich pictures are produced in strips and printed sequentially, peally high quality illustrations can be produced.

Which is as it should be.

## THE ARTIST IN ALL OF 45

There might come the time when you can't find the right piece of clip-art and fancy having a go at drawing your own. MDt is well up to that, so you can thank your lucky stars just there, It has facilities for drawien all manner of shapes, filling them with an end less choice of patterned fills syou use the icon sets, which not only contain a variety of patterns, but also have all the letters of the alphabet in an end less array of different shapes and sizes).



IVE RLWAYS WANTE TO LIVE IN A FANTASY GAETE LIKE
THIS ... व ब NOW : VE FOUND THE HOME OF MU GREAM5 THANK 10 MO !

## DIRECT INPUT

It's quite clear when using the prograit for DTP purposes that it wasn't initially intended for such a use. It is possible to lay out complex diagrams and include a modest amount of text (possibly in the form of labels), and that text can go any which way you like, Besides the conventional left to pight you can type it up or down, even upside doun, curl it along irregular shapes and 50 on, in any one of the four default fonts already mentioned, (This article is being printed in two of them, selected as Sanserif from the HDt menu.)

Anyway, the features that turn what was a pretty wonderful design package into a proper DTP piece of sof tware are clearly add-ons (they even need loading and using separately), and this adds a degree of complexity you don't find with alternative programs; like Pouerpage 128.

## JERRY BUILT?

All-in-all, despite the jerrybuilt feel of the whole thing, it works well and is simplicity itself to use, lir particular, the text add-on has converted a design package into a workable desk-top publishing program. True, it won't compare very favourably with the latest $P G$ stuff, but it does hail from a different generation and is cunning on a machine which hias limited memory and considerably slower processing powef, Looked at in that light it's not so bad. After all, I've produced this article using it and it alone (although the raw text hias been produced on Protext there's no text editing feature on

MOt) and I think you might agree that all-in-all it's been up to the job.

## BLOCKS

Blocks are wonderful things on MDt, Using elastic-band techniques you mark a block, text or illustrations, it doesn't matter, and you can do one of several things with it. This is an area where Powerpage 128 gets beaten because on that latter program if you need to move a part of the page you have to furst copy it then go back and erase the original. But with Microbesign you can Erase the contents of the rubber-banded block, Hove it, Kopy (with a K) it or store it. This last feature is more usefu! than you might believe. Once stored, a section of the page can be erased and reprinted anywhere at any time, duplicated, multiplied by $n$ in order to create a pattern, the list's as endless as such lists can get to be. And all of these functions are fast. No long tedious hanging around for a diagram to be replicated eisewhere.


A OOODLE - IT § SUKH A FITY : NEVER LEAPNT HOW TO DRGU FRCES, THOUGH I GAN RLMOET
 WFME WOUL SMELL AS GUEET...

## PRIMTING.

Printing couldn't be easiep, You have a choice of sizes and print qualities accessed via a menu, and the printer driver is really good, especially for folks like myself who still adhere to
the wonders of 9 -pin printers. Qutput quality it excellent and reasonably fast, I have one moan, though, and that is the length of the screen page is a couple of inches shorler than the printed page. Okay, you might think, you don't need top and bottom margins on the screen, do you? But in order to try and replicate John's page size with this article I've used every pixel available to me, and it's not quite enough. Still, never mind. It's not worth shedding too many tears over.

## WHAT ELSE?

There are a few weaknesses. To start with, I don't seem to be able to find any way of inserting a single idaticiseg word into a paragraph without cheating, and the same goes for bold, emphasised and 50 on. (Cheating involues marking the top half of a word with the block command and shifting it one pixel to the right, then doing the same again with the uppers of those characters blessed with then. The whole effect is vaguely italic - witness the italics on this page - but generally scruffy.) All in all, though, MDZ is a darned fine program and if you haven't got it and occasionally need to produce sheets of printed matter, then you might as well get hold of a copy, And for A4 print-outs it beats the blessed and holy Powerpage 128 into a neatly cocked hat.

If I've whetted your appetite you can get a copy from COMSOFT.
Get in touch with Peter Camphell on telephone number 01415544735 or poke around the adds on Market Stall or your local hoot sale.

## Peter Rogerson



# Programmers Pafth by Mathew Phillips 

The sun beat down on the wide desert plains of Mexico. Juan Carlos breathed a heavy sigh as he surveyed the arid landscape. His horse snorted. They had waited a long time. Lesser men would have turned back by now, but Juan Carlos had determination. He would see it through. At last he sensed in the distance a slight disturbance in the air. And then the dust cloud approaching, and finally the sound of hooves. Flaminguez had come. The gaunt, bearded messenger thrust a packet into his hands. Carlos tore it open. Here it was - the June issue of WACCl at last.

First of all, another apology for an error in one of the programs. The listing on page 17 in WACCI issue 120 had a mistake in line 60 . The bit which says

$$
i^{*} 10+100
$$

should have said

$$
\mathrm{i} \% * 10+100
$$

If you typed in the program exactly as listed in the magazine, it would have worked fine, but if you made a mistake in typing in the hex data in lines 100 to 240 , then my mistake in line 60 would have meant that you would have been told that your typing error was in line 100 , even if it wasn't.

Not very helpful! I hope no-one struggled too long over this one; if so, I'm very sorry...

## BACK 2 BASICS

One of the great things about WACCI is the PD library. There is such a variety of games and utilities.

Most of the discs have something entertaining on, even if it isn't all first class. The only problem if you are a 464 user like me is that some of the PD stuff doesn't work on the CPC 464.

If it requires 128 K of RAM, then I am all right, as I have a dk'tronics RAM pack, but if it uses certain commands, then things get a bit more tricky.

## LISTING 1

10 SYMBOL AFTER 256:MEMORY \&8FFF
20 RESTORE 100:er=0: addr=HIMEM+1
30 FOR i\%=0 TO 104:READ cod\$: chk\%=0
40 FOR j\%=0 TO 11: $a \%=$ VAL ("\&"+MID\$ (cod\$,j\%*2+1,2))
50 POKE addr, a\%:chk\%=chk\%+a\%: addr=addr+1:NEXT
60 IF chk $\%<>$ VAL ("\&"+RIGHT\$ (cod\$,3)) THEN
PRINT"Error in line";i\%*10+100:er=-1
70 NEXT:IF er THEN END
80 CALL \&9000
90 PRINT"Machine code installed"
100 DATA 010D90210990C3D1BC0000003A8
110 DATA 002190C33E90C34390C34890573
120 DATA C35390C35890C35D905343415D8
130 DATA CE5343414EC65343414ED04C4FA
140 DATA 4953D44C495354C64C4953544AE
150 DATA D000CD96901808CDAA901803505
160 DATA CD9B902151912292901820CD544
170 DATA 96901808CDAA901803CD9B90560 180 DATA 215F92229290180B3E4206FC3FB 190 DATA CD27BB00C38FBC2AE9945E235E5
200 DATA 562B7AB328EAE51922E994E163E
210 DATA 23235E235623ED53E59422E7502
220 DATA 94CD5F9218DD212B91180321460
230 DATA EF90CDCE9022ED903EC9326F6F1
240 DATA 90C9CDCE9021489122ED903D65A 250 DATA 205E326F90DD6E00DD660146484
260 DATA 235E2356EB11EF94CD8CBCD8666
270 DATA 1846D1C1ED73ED94C5D511706EC
280 DATA 01ED53E994F5E53E4206C0CD6AB
290 DATA 27BBCD48BBE1F1C9C3EF90C5854
300 DATA 47CD2BBD78C13836F5CD8ABB6AA
310 DATA CD1BBB301AFEC02016CD8DBB5F6
320 DATA 215ABB22ED90211894CD9094593
330 DATA ED7BED94C36890CD2EBD38DC770 340 DATA CD8DBBF1F5CD31BDF11803CD78F 350 DATA 5ABBFE0AC0CD1BBBD0FEC0C07CE 360 DATA CD8ABBCD18BBF5CD8DBBF1FE8AB 370 DATA C0C018C0CD95BCD8CD92BC18781

Püge 22 400 DATA CA5F92180CFEB3200DCDC8915E3 410 DATA FE8BCA5F92CDCF9118D7FE947F'2 420 DATA 280CFE952808FEBC2804FEBD598 430 DATA 200BCDCF9179FE04D25F92185AE 440 DATA BCFEAE2804FEAF200BCDCF91699 450 DATA 79FE03D25F9218A9FEBB20125E9 460 DATA CDC891EE2328EACDCF9179FE7FD 470 DATA 02D25F9218932BCDCF91188D56D 480 DATA 7EFE20C02318F90E017EB7C859C 490 DATA 23FE01C8FE28200DCDF991FE692 500 DATA 2928EEED7BEB941876FE2928603 510 DATA F6FE2C20030C18DDCD1192184CC 520 DATA D87EB7C8FE01C823FE29C8FE7AC 530 DATA 282005 CDF 99118 EDCD 119218531 540 DATA E8FE0E30062323CD8994C9FE621 550 DATA 18D823FE19C823FE1FD8200452E 560 DATA 232323C92B2BEE222003C372400 570 DATA 94FE7CD82006ED7BEB94181F62A 580 DATA FEFF20027E23E5CD4C92E1C96FA 590 DATA 211F94BE2809D823F5CD899459D 600 DATA F118F4ED7BEB942AE594CDA27F6 610 DATA 943E20CDEC902AE7947EB720635 620 DATA OA3EODCDEC903E0AC3EC 9023548 630 DATA FE0120147E23FE97CA9A93FE65E 640 DATA C0CA9A932B3E3ACDEC9018D9694 650 DATA FE0420023C3CFE0E30134723355 660 DATA 23CD909478FE0730C43E279057A 670 DATA CDEC9018BCFE183007C622CD61F 680 DATA EC9018B1FE19200C7E23E56F57D 690 DATA 2600 CDA294E118A1FE1A2804507 700 DATA FE1E20085E235623E5EB18EA510 710 DATA FE1B20273E26CDEC903E58CD570 720 DATA EC905E2356230E000608CD533B2 730 DATA $94060753 C D 5394 A F C B 1217 C 6511$ 740 DATA 30CDEC90C36D92FE1C20293E5DC 750 DATA 26CDEC900E00AF23ED6FCD665DE 760 DATA 94ED6FCD6694ED6F2BED6FCD767 770 DATA 6694ED6F0E20CD6694ED6F235CA 780 DATA 23C36D92FE1D20105E23562342A. 790 DATA E5EB2323235E2356EBC3C692616 800 DATA FE1F202511C2B0010500EDB0488 810 DATA 3E0532C1B0E50E00CD0F'B9C5533 820 DATA CD9DEEC1CD18B9215EAECD7B72C 830 DATA 94E1C36D92FE222009CDEC906C9 840 DATA CD7B94C36D92FE7C3006CDEC707 850 DATA 90C36D92200ACDEC9023CD90645 860 DATA 94C36D92FEFF20027E23FEC06D4 870 DATA 20103E27CDEC907EB7CA6D925DC 880 DATA 23CDEC9018F5FEC5200AE52166C 890 DATA 1594CD9094E118E7E5211F94633 900 DATA BE2338132007CD9094E1C36D555 910 DATA 92F57E23E68028FAF118E90E6B0 920 DATA 00F5CD0FB9F1C5061B2188E35ED 930 DATA E5F57E23B7282418037E23B74F1 940 DATA F2ED93F1BE2804D12318E9786BA 950 DATA C63FFE40C4EC90E1CD9094C1816 960 DATA CD18B9E1C36D92F1D110D1186FC

970 DATA F25245CD427265616B0D8A4951B 980 DATA 444552D272444543A47E434F49F 990 DATA 5059434852A4DD46494CCCDE58C 1000 DATA 47524150484943 D3DF4D4153491 1010 DATA CBE04652414DC5E1435552535B4 1020 DATA 4FD2F'FAFCB1217B128090E024B5 1030 DATA E601C630CDEC9010EEC9B1C8766 1040 DATA OE20E60FF5CDDC94F1C97EB7744 1050 DATA C823FE2220F8C97EB7C823F5701 1060 DATA CDEC90F1FE2220F3C97E23B778E 1070 DATA F'28994C97E23B7FA9D94FE09762 1080 DATA C4EC9018F3E67FC3EC9006046F9 1090 DATA 0E00DD21C994DD5E00DD56014D8 1100 DATA DD23DD23AFED523C30FB193D5AB 1110 DATA DDE5CDD194DDE110E57DC3D78BE 1120 DATA 941027E80364000A00B1C80E3AB 1130 DATA 20E60FC630C3EC90C69027CE695 1140 DATA 4027C3EC90000000000000002A6

The BASIC in the 464 is version 1.0, whereas the version in the 664,6128 , and the Plus machines (I think) is BASIC 1.1. This adds a few new commands to BASIC, and alters how a few others work. Most of the changes are in graphics commands.

With a small amount of work, many of these BASIC 1.1 programs can be edited to run on a 464 . The main problem is that if a program contains any of the extra commands added in BASIC 1.1, then you cannot even list the lines on a 464 to see what the problem is!

This is because the computer stores your programs in a special way which involves replacing the commands with tokens. Since the 464 does not have the extra commands in BASIC 1.1, it has no idea what the tokens mean either.

## IVE GOT A LITTLE LIST

To solve this problem, I have come up with a little program, printed as Listing 1. Actually it is a very long program, and so we have decided to compile a special Programmers' Patch PD disc. The dise will have all the programs from the series on it, including this month's, and a few more besides. Order your copy from Dave Stitson now.

The program installs some RSX commands. The idea is that you then load the piece of BASIC which will not run on the 464 , and use these commands to diagnose the problem.

What are the commands? A summary is in the box marked Figure 1. The most useful one is |SCAN. This will scan the program for lines that will not work on the 464 , and lists them to the screen, complete with the extra BASIC 1.1 commands displayed correctly!

You can then go through and alter these lines so that they work on the 464 , typing |SCAN from time to time to see if there are any more left. Remember that you will not be able to use EDIT if there is a BASIC 1.1 command in the line. Use ISCAN to list the line, and then type a replacement
straight into the machine. The |LIST command lists all of the lines to the screen, displaying the extra 1.1 commands properly.
Perhaps more useful are the variants $\mid$ LISTP and |LISTF. The former lists the whole program to the printer instead of the screen, and the latter lists to a file.

For example:

$$
\mathrm{aS}=\text { "filename":|LISTF,@a\$ }
$$

would list the whole program to a file called "filename" (silly name for a file). You could then load the file into an editor like Protext and use the search and replace facilities to correct the lines.

I have also provided |SCANP and |SCANF which work in a similar way.

This program only works on the 464 by the way. If you have a 664 or 6128 , then there is another program on the Programmers' Patch disc specially for you. You can use it to identify which lines will cause problems for 464 users, and rewrite them if possible.
The program only has the scanning commands, not the listing ones, and just displays the numbers of the lines that would offend a 464 , rather than listing them. You have your own built in LIST command to do that!

## QUICR FIX

Having identificd the lines which will cause problems, what can we do about them? There isn't much space left this month, so we'll deal with a few easy ones.

## FRAME

This command can be replaced with CALL \&BD19. The FRAME command just points to the \&BD19 vector. FRAME is in fact the only BASIC command that has its execution address in RAM. This means that you can make the FRAME command do anything you like simply by patching the \&BD19 vector!

## CLEAR INPut

There are various ways of clearing the keyboard buffer. The one I like to use is

## WHILE INKEY\$>"":WEND

but you may want something shorter, in which case try CALL \& BB03 instead. This call has the side effect of resetting the expansion characters. For example, if you have a disc drive and Protext on ROM, CTRL+ENTER will produce RUN"DISC, but after calling \&BB03 it will go back to RUN". This may cause problems, or it may not.

## ON BREAK CONT

This is easily replaced by ON BREAK GOSUB xxx, where xxx is a line which simply says RETURN.
You may not want to keep the command in anyway, as it stops you from using the escape key to break into the program.

## NEXT TIME, IN EPISODE 2

Most of the rest of the commands relate to graphics, and well look at them next month. Can you wait that long? Juan Carlos can.

## FIGURE I

|SCAN list to the screen lines that will not work on the 464
|SCANP ditto, but listing to the printer
|SCANF,@a\$ same again, but saving to the file a\$
|LIST list the whole program to the screen
|LISTP ditto, but listing to the printer
|LISTF,@a\$ same again, but saving to the file as
<<Matthew has already said you can order your very Programmers " Patch disc from Dave Stitson the PD disc number is 98 . -John $\gg$

## THE

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Tele: 01353777006 . Protext for the CPC, PC and Atari. Pipeline Tutorials, 8BIT Magazine and
The Independent Eight Association and more. Call for details..

# Poking Around In The PD Library 



Way back in the mists of time.. no, before Amstrad Action closed... and before Clive edited WACCI... and before St. Eve edited WACCI as well. You want to go back to when WACCI started with Jeff Walker. Okay, when he started WACCI, one of the first things he did was to set up some soffware libraries for members to be able to buy cheap programs. He split it up into two versions. One was the PD Library which contained all the CP/M programs you'd ever heard of (this was back in the days when CP/M ruled WACCl and any program worth its salt came out in CP/M). The other was the Homegrown Library and this contained all the programs that came out in Amsdos, but they weren't Public Domain.

Well, when Jiffy and St. Eve and Joolz were all involved in WACCI, the Homegrown Library grew at a rate of knots and software from it was review in a section called Poking in the Library (which had a rather charming picture of Garfield in the header for some reason).

Since the re-launch, however, the Homegrown Library has been largely ignored in terms of expansion and reviews though it is still run by the very capable Dave Stitson (4 Connaught Avenue, Mutley, Plymouth PL4 7BX).

Hopefully, I'll be able to do something about this unjust situation. To start with, I'll have a poke around some of Auntic John's programs.

Dise 1 in the library is AJ's Concept Disc and is full of games.

## Auntie Johm

Auntic John, for those of you who don't know, was a key figure on the CPC scene several years back.

He wrote Auntie John's diary for a long time and, along with his friend Green, delighted in bringing mayhem to the pages of WACCI and, later, to the pages of ACU.

The Concept Disc contains 8 games Grecn's Strip Pontoon, Saucer Attack, Englebert, 3D Maze, Juggle, Dripzone Plus, Globe and Beetlemania.

## Juggle

Is a simple picture that moves balls around the screen to make it look like a clown is juggling so I can ignore it (you'll use it about once, ever).

Globe can be dealt with just as quickly. As the name suggests, it draws a globe on your screen. You can give all the details of where you want and it'll draw a rough outline map of the world viewed from that position. A bit bizarre but it looks okay.

## Strip Ponitoon

Moving onto the proper programs, Green's Strip Pontoon is nowhere near as risqué as it sounds being as the pictures themselves are of pretty poor quality (it is, after all, a CPC in mode 1) and censored in appropriate places.

The game itself is a pretty good version of Pontoon which is pretty tough to advance in.

Those of you who are good at counting cards will no doubt do better than I did, but I couldn't get past the first couple of pictures no matter how many times I play (but I did figure out how to view the pictures, just to check them out - seriously, no-one should be offended by the pictures although one does involve a $V$-sign (when you lose)).

But if you can handle losing, you'll love the game. And being as discs only cost a few quid ( $£ 2.50$ for a $3^{\prime \prime}$
disc, £1.50 to borrow one and £1.00 for a 3.5 " disc) it's going to be a lot less hard on your wallet if you lose.

## Smucer A解ack

Saucer Attack, as the name suggests, is a Space Invaders style game. It's different from the run of the mill game because rather than having to defend yourself against 100 aliens at once, you get them in dribs and drabs.

The graphics are a bit basic and the sound is merely functional, but it has one or two nice features like cancelling shots which aren't going to hit anything (you can only bave I missile in the air at once, you see). If you like Space Invaders then you might play this but I can't really see it myself.

## Englleberin

Is a version of Q-Bert or Crazy Er* bert or whatever it was called. 3D steps which you have to wipe your feet on to advance to the next level with a really bizarre control method due to the fact that the game is in 3D.

It runs a bit slowly (it's in BASIC) but if you add 1 DEFINT A-Z to the game, it works a lot faster.

Again, it's another of those games where if you like them, you'll love it because it's a good version.

For me, though, it's a bit annoying and probably won't get dug out again.

## 3D Mare

Is a 3D maze (well, duh!). It's drawn in a wire-frame manner but you have an idea of how close you are to the exit by the colours at the top of the screen.

The closer they are to black, the better you're doing. A top down map can be called up but it's slow.

The music's pretty funky though. Only real problem is that it's completely random so you can sometimes have a really easy game. Good fun to waste time on though.

## Beetlemanic

Is a game that I won't bother to try and explain the plot of. Basically, though, you have to take some flags to each corner of the map and run away from the bad guys.

It's top down scrolling and you can flick to an overhead map of the area, but the scrolling is really juddery which makes it a pain to play. Load it just for the plot though (and realise you bow twisted Auntic John was). It also gets very repetitive and can be a bit too easy and mind-numbingly boring.

Finally, though, we have the piece de resistance.

## Dripzone Plus

Is known far and wide as possibly the best game you can ever play. Forget fancy graphics and sound Dripzone Plus just oozes quality of gameplay.

If you've ever played Arkanoid or Breakout or something like that you'll know roughly what you're doing.

The only slight difference is that the game is also combined with noughts and crosses. Every time you win a level, you get a O.

Every time you lose, the computer gets an X. Squares are picked at random, though. Power-ups can be gained by collecting two drips. A drip appears every time to the ball hits the top of the screen. Collect two and a flashy cloud thing comes down. Pick it up
on the centre of your bat (the game is a bit too picky here, I think) and you can get cool powerups like extra balls, lasers, bonus points, swap (swaps all Xs for Os and vice versa), cheat (win this level) and the like.

If you win a game of Noughts and Crosses, you go on to the next level with even more fiendishly designed levels.

There's some digitised music/speech that deserves a mention. It's a version of The Twilight Zone which doesn't sound too bad on a CPC (it's vaguely intelligible) but don't even think about running it through an emulator. My speakers squeak and squeal at it.

Oh well, that's Homegrown Disc 1 for you this month. Next month perhaps Ill have a crack at something else but if there's a disc your having problems with or want some more information about, let me know.

> James Coupe
> 21 Victoria Road Sutton Coldfield West Midlands B72 1SY

I'll have a look at it for you and see if I can get a review knocked together for you. Name some specific programs because it ${ }^{t}$ ll be quite difficult to review an entire disc being as most have lots of little programs on them.

## BLACKJACK AND CRIBBAGE

What do you do when its pouring down with rain? Since WACCI is not due out yet! Well what about a game of Blackjack or Cribbage?.

Both of these games were written by Barrie Snell.

First of all you need to order PD disc 119 from Dave Stitson your friendly PD Librarian.

## CRIBBAGE

When you first load cribbage you are faced with lots of options for you to select from. Once you've chosen your option then the game loads and away you go. There are many different ways you can play cribbage I prefer to play cribbage with the six card option as this is the one I like most.

## CARDS

For members who do not know much about cribbage I shall try to explain it briefly for you.
First of all you are dealt six cards two of which you've put into what is called a box (you take turns in having the box) leaving you with just four cards to play with. Then a card is turned over if its a Jack you get two points.
You then select a card, then the computer displays a card and hopefully you will out play the computer and score the most points this part of the game is sometimes called pegging.

## CAME PLAY

The idea of the game is to score 121 points, what does points make? No not prizes! I'm afraid but it will win you the game.

## POINTS

The points works out like this 15 for 2 , 2 for a pair, 31 for 2 and you can score points with three of a kind, flushes etc. Then after all the cards have been played you count up all the points in your hand and the box hand if its your turn.

## OUTRO

I found playing Cribbage by Barrie Snell to be very enjoyable and I would recommend it to anyone who likes playing Crib.

## BLACKJACK

Now onto Blackjack some people may call this Pontoon or 21's and the idea of the game is to bet on your cards and try to score 21 points and that's all I've to say on it, as with cribbage the graphics are clear and the game play of both of these games are very good.

John

# Speak T• Me 

Here's a couple of real stupid questions for you, Question 1, "you love your CPC right?", "The single internal speaker leaves a lot to be desired don't it?", "How would you like to have SURROUND SOUND for under £3.00?". Hey I DID say they were stupid questions!. So how about it then wanna' know how? Read on then...

## GETTING TOOLED UP

Before you begin you are going to require a couple of simple bits'n'bobs:

## ITEM

1 TOBISHIKA SPEAKERS £1.99
1 INSULATING TAPE 25p
PLIERS OR NAIL CLIPPERS
1 SM. PHILIPS SCREW DRIVER
2 KITCHEN TAPS

## SMORT CIRCUIT

The best way to insure the CPC HAS been drained of any last shreds of stored electricity is to switch on the machine as in normal use.

Now UN-PLUG the power supply DIRECTLY from the wall socket. This causes the flow of electricity to run backwards as electricity will always find the lowest resistance point to flow through.

## LET THE SPARKS FLY

The human body is an excellent capacitor and most people have an uncanny knack of storing sizeable electrical charges. In case you are one the these people go to your kitchen taps and turn on both the hot and cold standard wiring in a house carries anything up to three earthing points the lowest being in the kitchen. Grab the taps for an instant to dispel any extra stored electricity in your body. Now dry your hands and we'll begin.

## LETS BE OPRN ABOUT THIS

If you've never opened a CPC then you needn't worry it's not going to fall apart in your hands, well it shouldn't anyway!. Switch off and remove any peripherals you might have attached.

If you are undertaking any kind of internal work to a CPC then in the interests of anything going wrong this is a wise move. Remove all the screws from the underside of the machine, note there is a single longer screw and where it came from.

Remove the two small black screws from the drive side of the machine and store them all safely for the moment.

With the machine in it's normal position (KEY'S UP) lift the top half from the drive side over to the left and lay it down. A good tip at this time would be not to take a drink of coffee or tea In case you get a coughing fit, trust me it happens!.

## WHRED FOR SOUND

Follow the two wires from the internal speaker these being blue and black back into the main power board. They SHOULD terminate with a BLUE connector? Pull this free and following it back along to the speaker un-clip it as you go. Now slide out the speaker. Take the pliers OR nail clippers and cut BOTH wires from the speaker. If you leave approx 2 inches of wire attached to the speaker this will allow the speaker to be salvaged at a later date.

Now do the same with the plug in connector on the replacement speakers. Now separate the speaker wires down to approx 2 inches, the OUTER insulation is of a soft rubber so gives easily to the task. Now using your choice of cutters, trim back each wire in turn.

You should find a RED and BLACK INNER insulated wire and an additional un-covered set of wires in each section of split wires? TWIST both the un-covered wires together from both sets, now TWIST together BOTH the RED and BLACK wires. Make the twists tight and neat.

## BLOCK RUSTERS? NEARLY!

Strip approx 1 inch of the ends of the wires you've just cut from the internal speaker. TWIST one to the un-covered wires you've just paired, attach the other to the RED and BLACK wires that you've just paired too.

Seal off the NEW connections with approx 2 inches of insulating wire. Plug the block connector back in place and then screw the two halves of the casing together. Whilst the machine is turned over TAPE the wires down to the underside of the casing, the wires will sit in-between the expansion port and the printer port easily.

If you don't tape the wires down the block connector can become loose or broken.

## TWIN SPEARSI!

Now only re-connect the CPC to your monitor nothing should go wrong, but lets not take any chances ROM blowing isn't cheap.

Power up and load a disc/tape to try out the speakers, it's more fun than just jamming down ESC or something similar. Voila!, two external speakers for way under $£ 3.00$ and you did it yourself.

Of course to appreciate the speakers it's best to separate them further than they are when bought and place them facing you from the back corners of your desk etc.

## Please mofe

THIS IS NOT STEREO THERE IS A DIFFERENCE.

To get sterco sound you must use the I/O port and an amplifier system. But!, this method will give you full volume control using existing fittings and a $30 \%$ improvement on the single speaker?

## SOUND OFF, ONE TWOIE

The speakers I used for this project were of an IMPEDANCE level of 8 OHMS with a MAX INPUT POWER of 0.05 W .

They are approx three and a half inches tall and two and a half inches wide, with a mat black plastic casing so they blend well to the background and eat very little valuable desk space in my case anyway as it's never tidy.

If you cannot get the speakers to match these for the price I stated then drop me a line don't forget to include $£ 2.00$ for the speakers and a couple of quid for my trouble and return postage it wouldn't go a-miss.

If you can't or don't have the courage to undertake the task give me a ring and we'll discuss terms for me undertaking the job for you!!

17 BEECHWAY<br>NORTH SEATON<br>ASHINGTON<br>NORTHUMBERLAND<br>NE63 9TD

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[^0]

Amstrad Action once ran a feature of giving away along with new PD and the occasional commercial software a run of CLASSIC games on a cover tape, and every now and then some cheats on tape.

Whether or not the cover tapes ran was another matter! WACCI for as long as I know has thrown in hints and or tips for one thing or another.

Here's the complete level codes for Lemmings.

[^1]27 NHMFHBALDN
28 HMFHBINMDW
29 MFHBAILNDP
30 FHBIJLMODY
31 NBANLMFPDV
32 BINLMFHQDO
33 BAJHLDIBEO
34 IJHLDIBLEX
35 NHLDIBADEU
36 HLDIBINEEN
37 LDIBAJLFEW
38 DIBIJLLGEP
39 IBANLLDHEN
40 BINLLDIIEV
41 BAJHMDIJEX
42 IJHMDIBKEQ
43 NHMDIBALEN
44 HMDIBINMEN
45 MDIBAJLNEP
46 DIBIJLMOEY
47 IBANLMDPEV
48 BINLMDIQED
49 BAJHLFIBFR
50 IJHLFIBCFK
51 NHLFIBADFX
52 HLFIBINEFQ
53 LFIBAJLFFJ
54 FIBIJLLGFS
55 IBANLLFHFP
56 BINLLFIIFY
57 BAJHMFIJFK
58 IJHMFIBKFT
59 NHMFIBALFQ
60 HMFIBIMMFJ

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# Reviewers Guide 

I suppose there are skills we need to use when we are reviewing a piece of software or writing an article about an aspect of our hobby. So here goes. Before you begin first of all have a clear idea about what you want to say. That might sound obvious but the fact that the writer doesn't know at the beginning what he's going to end with can stick out like a sore thumb.

Sccond, jot down a few ideas, paragraph headings or notes on the general progression of your work. If it's a software review the notes might be along the lines of:

1) Description of software, what it does etc. 2) Is it easy to use? 3) Is it well implemented! 4) Any obvious bugs etc. 5) Does it do what it set out to do? 6) Compared with similar products, is it good, mediocre or rotten? 7). How does it perform? Do any research necessary. Rather than depend on already published statistics, if there are any. Be precise with the research, accuracy is important. If you're timing something use a stopwatch, it's so much easier than the alternatives (eqg-timer, sun-dial, grandfather clock etc etc etc).

It helps to be slightly humorous, but you're not writing a new series of BlackAdder so don't imagine you are. But a chuckle here and there never hurt anyone and if it's good enough helps the reader along.
Write as much about each of your headings or notes as you feel comfortable with. Don't pad anything out with unnecessary words to make it look longer. Padding is a) obvious and b) boring.

If you are reviewing the kind of software that produces an image on paper, DTP, Art package, that kind of thing, then use it and include some of that use in your review - an illustration, piece of clip-art, graph, whatever the package produces.
Describe how you arrived at your finished product, in reasonable detail unless it's something we all do every day, like switch our CPCs on. Spend some time with the program even if you think you know it like the back of
your hand already. Try to look at it through the eyes of a stranger.

Be independent. If one of the Great and Goods of WACCI has produced a piece of software and you're reviewing it, the fact that it was produced by one of the Great and Goods doesn't mean it's brilliant. Be objective, critical and above all don't be swayed by where the software came from. It's the code that you're judging, not its author. And of course, the opposite's true too. Just because someone you can't stand the sight of wrote a brilliant piece of code doesn't mean it's rubbish.

Remember that any software is going to be limited by the machine it's been written for. I know we don't like thinking that the CPC has limitations, but it has. It's a great little 8 -bit with still undiscovered heights of performance, but it'll never be a top-of-the-range PC running a really expensive processor at supersonic speeds, but it didn't cost as much and, hey, it's as good a word processor as any of those 16,32 or even 64-bit machines will ever be, when it's running Protext on Rom, with a few fragrant additions, like EPIC and Proclip and so on. So don't use comparisons that are absurd. After all, you wouldn't complain to the landlord of your local drinking house because a pint of his very best bitter had less effect on your head than the pint of whisky you foolishly swallowed last week had, would you?
If your article includes a great deal of technical gobbledegook, then make it digestible. Remember that WACCI has become a sanctuary for a considerably wider range of people than tech-heads. Try to use as few technical terms as possible, and if you need to use a lot try and space them
out and a glossary at the end might help us lesser mortals. Finished your article? No you haven't! Read it through, aloud's a good idea if there's nobody in earshot. Reading you stuff aloud draws your attention to the odd clumsy grouping of words, the repetition of the same word too often, all kinds of weaknesses that you can correct quite easily. Get someone else to read it through if you can (though it's not easy, most folks think that matters pertaining to the CPC are faintly ridiculous and don't appreciate being associated with them; the fault's their's, a personality defect, but you'll gain nothing by insisting ).

Be ruthless if you feel you need to be ruthless. Chop things out, move them about, add new sentences at the least whim, depend on instinct because instinct can be a pretty friendly fellow.
Use a spell-checker, but don't depend on it. There are goodnessknows how many errors you can make that a spell-checker won't even sniff at. But don't get paranoid about your spelling. Most mistakes that you don't notice will be edited out somewhere along the line.
When it comes to submitting it don't forget you don't need a printer. You can send a disc to Ernie or whoever is meant to be on the receiving end. Just mention which WP you used, and if it's not Protext it might be wise to send both ASCII as well as the files of your particular WP, just to be on the safe side.

Right. There we have it. The definitive guide to reviewing serious software, hardware, CPC-related activities and wild, wild women. Allegedly. Peter Rogerson

Homegrown, PD Exiren, PD Discs 1-onweards:
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