

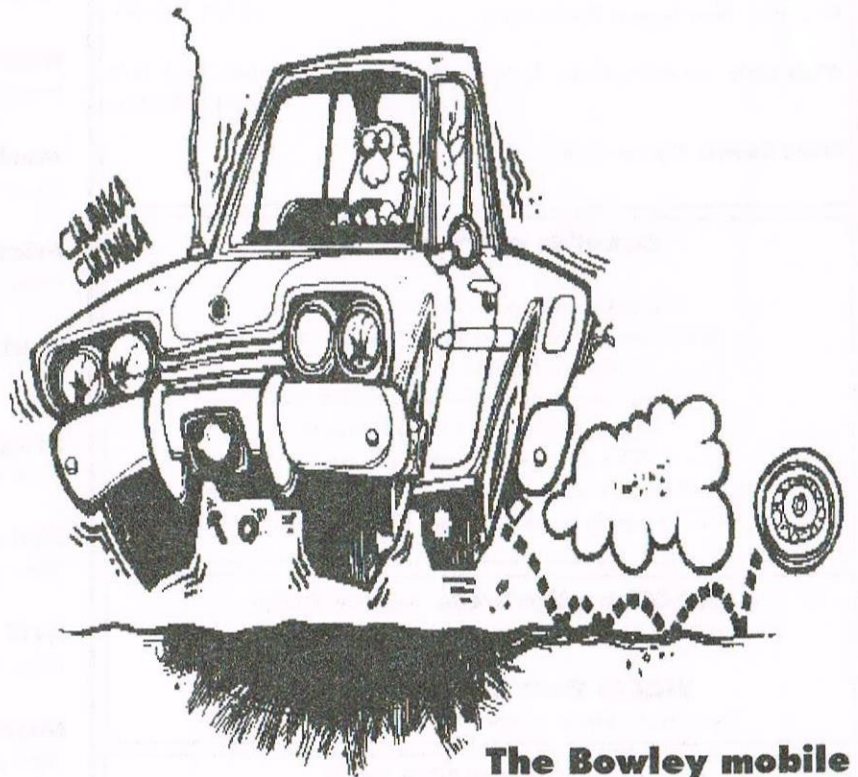
**A Magazine For CPC Users
And Members Support Club**

ISSUE 121

£2.00

May

1998



**Join us on a trip to the
WACCI super highway**

WACCI

WACCI

a magazine for CPC user's and members support club

The Club

Chairman: Doug Webb, 4 Lindsay Drive, Chorley, Lancashire PR7 2QL. 01257 411421

Publicity Officer: Brian Watson, Harrowden, 39 High Street, Sutton, Ely, Cambs CB6 2RA. 01353 777006

Overseas Manager: Peter Curgenvin, The Hollyar, Bay Road, Trevone - Nr Padstow, Cornwall PL28 8QZ. 01841 520875

The Magazine

Editor: John Bowley, 97 Tirington, Bretton, Peterborough, PE3 9XF. 01733 702158

Assistant: Ron Izett

Fair Comment: c/o Frank Neatherway, 3, Glebe Close, Rayleigh, Essex, SS6 9HH.

Market Stall: Angie Hardwick, 23 Station Place, Bloxwich, Walsall, West Midlands, WS3 2PII. 01922 449730

Roving Reporter: Angela Cook, Brympton Cottage, Brunswick Road, Worthing, West Sussex, BN11 3NQ. 01903 206739

Wish List: Ernie Ruddick, 26 Spitalfields, Yarm, Cleveland, TS15 9HH. 01642 898091

Front Cover: *Yep me again.*

Benefits of Membership

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

WACCI on the web:

Matthew Phillips.
The URL, is: <http://users.ox.ac.uk/~chri0264/wowwww.html>

WACCI Post Room:

John Bowley
The e-mail address is: jebowley@wacci.demon.co.uk

Copyright: WACCI 1998

Material may not be produced either in whole or in part without the prior consent of the copyright holders. WACCI club members may freely reproduce material for their own use. No payment can be made for any material selected for publication.

Production Method

WACCI is created using Protex and Promerge on a CPC and transferred over to a PC using SANKO, MAKEBMP, PROCLIP, MULTICON, MODE 1-2 and lots of luck. The magazine is then printed on a Epson Stylus 200. WACCI is printed and collated by A 2 Z!

Contents

Thanx & Stuff	3
<i>More waffle from your editor.</i>	
Are You Game For A Game?	4
<i>More pokes and game tips.</i>	
Fair Comment	5
<i>Clive answers your letters.</i>	
First Steps In Machine Code	9
<i>Tutorial by Richard Fairhurst. Final part.</i>	
Chips With Everything	12
<i>How to build a RamRom.</i>	
News Desk	14
<i>Who? What? When? Angela tells us.</i>	
WACCI's PD Library Index	16
<i>Part 4 of WACCI's software library.</i>	
Market Stall	19
<i>More bargains to buy.</i>	
Print Enhancing The Prototype Way	21
<i>Peter puts Prototype into WACCI.</i>	
Poking Around In The PD Library	22
<i>Ian shows us around the library.</i>	
Programmers' Patch	23
<i>Making sounds with your Amstrad.</i>	
Divinely Appraised	26
<i>Peter appraises DSK-CPC</i>	
ATM	27
<i>Jonty has a look at ATM. Does he like it?</i>	
Members Spotlight	28
<i>Who is Carol's victim this month?</i>	
Services	30
<i>PD listings, WACCI help-line etc.</i>	
Subscription Form	31
<i>Fill in your subscription form 'cos you wouldn't want to be without your mag.</i>	
A new advert have a look.	32
<i>Prices of PD Discs and Firmware Guides.</i>	

Thanx & Stuff

Edited By: John Bowley
Owned By: The Club Members
Chairman: Doug Webb

Conceived and Founded

By: Jeff Walker
In: October 1986

Developed and Expanded by: Steve Williams, Clive Bellaby, Paul Dwerryhouse and Philip DiRichleau.

Goes to print: 20th June 1998 (*I hope*)
Membership: 281



Hi one and all, welcome to another late fun packed magazine which I hope you will all enjoy. I have a fair amount of articles built up, but don't let that stop you I want more. The more I've got the easier it becomes putting together your magazine. Above you will have notice I've removed the copy date and replaced it with goes to print. This means that I need to have the magazine laid out by the 18th at the latest.

Its late again

A load of things have been happening in my private life of late which caused me having to go down to London for a few days, but hopefully things are now slowly getting to back to normal.

Very sorry

I'm very sorry to the members who have been waiting for me to get back to them. I'll be getting in touch very soon please be patient with me.

Please note

My e-mail address has now changed I'm now with Demon so my address is:

jebowley@wacci.demon.co.uk

PD orders

All requests for PD are to be sent to Dave Stitson from now on and his address is on page 30. *Thanks*

PD problems

If you have any trouble with any of your PD that you got from WACCI then please return it the Dave Stitson who will be only to pleased to send you a replacement disc.

Convention update

To-date we have only have 20 members who want to go to this years convention, regrettably if we don't get another 40 members then the convention will be *cancelled*.

Although we do have a financial backer against any loss, we feel that all the hard work that Angie has to do to make the convention a success it just wouldn't be worth it for 20 members, so please if you want this years convention to go ahead we need to know *NOW*.

The final decision whether the convention will take place this year will be made at the end of *July*.

Members input

The most important about WACCI is you, each and everyone of you. You all have a big part to play in keeping WACCI going because without any support WACCI will just simply die.

What's needed now is more input to make sure WACCI has a bright future. It could be a letter to Fair Comment sharing something that they have discovered, a problem that you need help on or an article, (*which are always*

needed). Carol has not set a puzzle this month simply because there wasn't many entries and Carol feels that the members no longer want a Puzzle page. (*All outstanding prizes will be sent out shortly.*) There as been no support for the gossip page either and for the same reason this as also been dropped.

New disczine for children

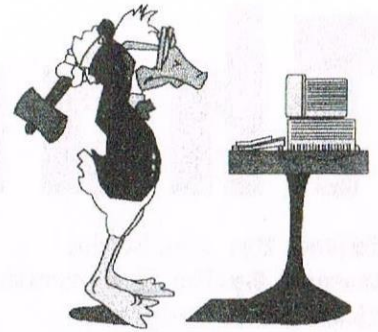
A new disczine has just been started up but this time it is just for children. No adults allowed. The disczine is called CPC which stands for Children's Private Club to get your free copy send a 3" or 3.5 disc with a SAE to:

Roy Jones
17 Beech Way
North Seaton
Ashington
Northumberland
NE63 9TD

Upgrade

I've finally up-graded to Win95 and I'm now using Publisher 97 to layout the pages. Seeya next month. *John*

Are You Game For A Game?



Once again into the breach dear friends, time to play, oh that word time how come there's never enough!!

The Antidote part 2

The Antidote (Part 11) You are on the ocean, go East, North, North then West and you come ashore on an island. go North then East and get the lantern then return West and South. Enter the cave. Get the shovel and the vine then dig and get the chest, go back out and dig again. Get the hook and tie the vine to the hook. Throw the hook to catch your raft and launch the raft go South, East, South, East then East through the reef and you are on the harbour wall.

Go to the barren field and get the knife then go to the slaughter house and talk to the Butcher. Give the knife and the Butcher gives you some meat. Go South and West to the stables and read the plaque, now go to the armoury and examine the weapons then examine bow, get the bow and go to the market.

Talk to the Trader and give him the meat, he gives you a camel in return, so go East and then South to the desert, Go East to some thorn bushes, the camel will clear these. Go to the small room North and West of the kitchen in the Ice Castle. Move the painting and pull the lever revealed to get into a secret lab, get the key and unlock the chest then examine chest and get the tissues. Drop the key and return to the meeting point. Go West to the barren field then South, East, South, West, South, East and South to the statue on the Mountain. Read the plaque then go down to the girl in the paddy fields. Talk to the girl then give her the bow, she gives you a bowl of rice in return. Go back to the statue and feed the statue to be given some information then go East and read the message. Say

"Beware" and a passage will open. Light the lantern and go through the tunnels to the dwarf. Talk to the dwarf and give him the tissues, he gives you a scroll in return. Read the scroll and go East. Say "Offray" to open the rock and continue East to the pyramid.

Climb the pyramid and say "Lav Nacinnood" the sandman will now appear. Give him the sand and you wake up and save you wife!!

BIGFOOT

Multiface Poke 1016 A7 Infinite Lives 0601 00 Invulnerability. Bigfoot's aim is to rescue his girlfriend who's been locked up in a cage by a sadistic madman. He must blow the lock on the cage by connecting a high voltage wire to it. There are two breaks in the electricity cable, the first being by the pylon. Big foot must drop soup tins from the top right of the pylon to bridge the gap and make the connection good. The second brake in the cable is by the cage - cut a piece of wire from the Discs sign and use it to make the connection.

Controls

Move Left	A
Move Right	S
Hang On/Climb Up	O
Enter/Exit Menu	K
Jump	Space
Throw Rock	Space/Fire

HINTS

Find 6 pieces of Fusewire, link them in the right order next to the TNT. Use the Firebrand to light the fuse. Drop all the soup tins next to the pylon.

Use the Wirecutters on the Discs sign. Use the wire to blow the cage lock and free your girlfriend.

TIPS

East Fairy Cakes for temporary protection. East Spinach to increase maximum energy level for each life. Throw Rocks to kill swarms of bees. Loading. On the CPC 464 Type Run (Enter) On the CPC664/6128 type Tape (Enter) Run (Enter).

BRAINSTORM

The object of the game is to trap the ball(s) on a red area of the grid, since your score will depend on the time the ball spend travelling over each particular coloured area. There are 26 screens, each presenting different problems for trapping the ball. The lines which are used to trap the ball are selected by moving the pointer to one of the coloured control bars at screen right and pressing FIRE> Once selected the bar will pulsate.

Now move the pointer onto the playing area and press FIRE. The line selected will move across the playing area to the position the pointer is at. Each screen is played against a time limit, shown at the right hand panel. In order to complete a level you must beat the score you gained at the end of the previous level. Both scores are shown at the screen right. If you fail to beat your previous levels score the game is over.

THE GRID

Blue and Black section have no effect. Red increases your score. Magenta loses points. Green causes the ball to jump randomly to another area.

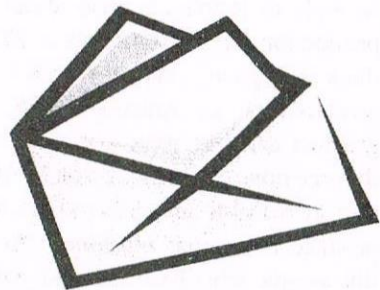
That's All Folks

More about Brainstorm next month. Till then. Happy playing.

Angie Hardwick

Fair Comment

with Uncle Clive



**Please send all letters on disc (if possible) to: Frank Neatherway,
3 Glebe Close, Rayleigh, Essex. SS6 9HL**

THEN THERE WERE LETTERS

Dear All, a world without letters would be a much sadder place. I know that phone calls are both cheap and immediate, but once you've put the phone down you forget much of what's been said and you don't have a permanent memento of the occasion.

Nor do you have anything that you can send in to Fair Comment to assist our esteemed editor in the task of producing WACCI. Please write, it fills WACCI and only costs 26p for a first class stamp:

Delving back through past issues I arrived at WACCI 4, which was the first issue to have been printed. Issues 1 to 3 (should that be 1, 2, 3) were distributed on either Tape or Disc, and were only translated to paper at a later date. WACCI 4 contained a whole page full of letters, and have read the page carefully I feel that two of them are well worth repeating. The first mourns the passing of the tape magazine and the second has the first mention of that dreaded subject of "what does WACCI stand for?"

PITY ABOUT THE TAPE

MAGAZINE: I appreciate the difficulties you have in providing the magazine on tape, and therefore accepts the new format for January - It's a pity, though, as it was a good way of storing the issues.

The main thing, however, is to receive the articles which I find very useful and essential for a relative beginner like

myself. When I find the time I'll be trying out some of the suggestions in the technical section. Perhaps a get-together could be arranged for members to exchange ideas, and view the latest games and utilities.

Ken Walker

Darlington.

<<I agree Ken, it's a shame that I've had to stop the tape/disc copies, I rather liked them myself, but necessity dictates otherwise. As for a get-together Alex (Aird) and myself (Jeff no-legs Walker) will be going to the Amstrad Show at the Novatel on Sunday 11th January (1987). If you, or any other members would like to meet us there, please get in touch, pronto. Ed. (Jeff Walker)>>

<<So there you have it, in January 1987 Ken (and others) were saying sad farewells to the Tape/Disc Magazine that was being replaced by the now famous and beloved current format. As for the get-together, it took almost 9 years and lots of hard work by Angie Hardwick and others before the first convention was arranged. Clive.>>

WACCI'S GOT A BAD NAME

After talking to a few people about WACCI, only one thing spoiled each conversation - the name "WACCI".

"Sort of fanzine is it" was an average reply. I think we should put the W.A.C.C.I. initials by its logo every month. Something like "Worldwide Amstrad Computer Club International". *Glen Carey*

<<Got your point Glen, but I suppose we are a sort of Fanzine really, even if we all, like yourself, detest the word. As for putting what WACCI stands for by its initials every month, well, WACCI means many different things to many different people. If that, for you, is what WACCI stands for, then it's fine with me. You won't see us claiming international status just yet, though - Ed. (Jeff Walker.)>>

<<So there you have the first definitive answer as to what WACCI stands for: it stands for whatever you was it to stand for. Jeff (no legs - he's not that tall) Walker should know, WACCI was, and still is, his brainchild. WACCI stands for honesty, integrity, loyalty and the National Anthem. If Auntie John had chosen WACCI, it would have stood for "We're All Computer Crazy Individuals". If Joolz (from the days of Steve Williams and Peter Creosote) had chosen WACCI it would have stood for something like "We've A lot of Crazy Cats Inside." And there you have the definitive answer, from the founding member of WACCI, as to exactly what WACCI'S initials stand for. Best wishes. Clive.>>



**Put pen to paper and
send me your letters...**

MORE SUPPORT FOR JOHN

Dear Clive. Nice edition of WACCI. In reply to John's question about the production of WACCI on a PC, I think it is great. When WACCI was produced on an Amstrad 6128, the graphics and text were not as clear as they are now. If it means that WACCI is more readable and clear to read, then produce it on that machine. As for silly people who wish to hold you to ransom, in that you must produce WACCI on an Amstrad, well if they want to be so silly, let them. I honestly can't believe that they are being so petty.

To be honest, I never thought much of the production of WACCI on an Amstrad because it was a lot harder to read, and I certainly wouldn't be happy if production returned to the pre-PC days.

Yours truly,
Mrs J. M. Owen
Wolverhampton

<<Hiya J.M. Although, by now, John has probably had more than enough letters telling him not to worry and to keep doing a good job, I'm sure that every one will help him to reach the right decision. If one or more people ever succeed in holding the club to ransom, then the club as we know it would have ceased to exist.

As editor John has the right (and the duty) to do what is, in his opinion, the best for the club, and the members must respect that right.

Me, I liked the idea of a CPC magazine that was produced on a CPC for CPC users, as it showed just what could be achieved with a bit of hard work (and sticky tape.) However, my opinion doesn't matter, the editor's decision is the one that counts.

I trust that you are feeling well? I'll look forward to seeing you at the next convention (or sooner if time allows.) Very best wishes to you (and Chris, and the cats, and the young lady from across the street, and everyone else. Clive.>>

A BLOODWYCH PROBLEM

Dear WACCI, It has been a while since I have written to WACCI but that's because I have been busy lately, what with GCSE exams and all that. After my exams I will of course be able to submit all of the articles which I have been preparing over the last six months amongst other things.

I thought however that there are some things that cannot wait as they have been bothering me for some time. The other day when I was playing Bloodwych I came across and interesting bug in the game.

It seemed that it only happens with a particular character in the game, but when I clicked on something on the wall the screen went all funny and noise was coming out of the computer in the form of tape noises - the ones you hear when a tape program is loading - and random notes.

Now the interesting thing was, after opening up the computer, that the sound was not coming from the speaker but from the little black box that controls tape operation. Does anyone think that it is possible to control this box to play notes? I know it sounds stupid but I would be interested to know...

The other thing that I found interesting was whilst I was looking through a Windows Utilities Magazine, I found out that the editor was none other than Roland Waddilove - the old technical editor and program writer of ACU or CWTA (I can't remember which). Perhaps, with a little persuasion, he could return as technical editor for WACCI...

I was playing around with Flik the other day (the program that turns a 6128 into two 64k machines) and thought of trying it with D.E.S. to enable task-switching.

It's great, being able to switch between D.E.S. and Basic with the touch of 3 buttons but unfortunately it only seems to work if you have RODOS

installed. If you don't have RODOS then when you catalogue the disk when in Basic, the computer resets! Maybe with a little tweaking Flik could be made to work...

Finally, I have some interesting programs that people may want but I can only send them after my exams as I don't have time yet: A program typed out from ACU that speeds up Stop Press printing but still gives excellent quality, The Safesoft Disc Archiver for people with 2 drives and a Disc Compactor that speeds up the organisation of disc files to make your files load quicker.

* Also, for people with Brunword Elite, I have some extra fonts as I have a Dart Scanner and the Font Editor - allows you to scan in your own handwriting or create your own Elite Fonts - perhaps I could do a service to let people's handwriting to be scanned if I send them a template, and the Finetype fonts can finally have a hash sign incorporated. Or maybe you can buy the program yourself to make your own - Peter Brunning may still have some more copies as I purchased mine only last week and it cost a mere £15.00 with manual.... Keep up the excellent work.... I like full stops....

Regards,
Simon Lucas
Hampton Court

<<Hiya Simon, I hope that all that work on your GCSE's pays off, and that you avoid the resits, which will leave you plenty of time to play with your CPC and to write the articles that John from Peterborough really needs.

Musical tunes on the black box? You may be able to do it, but why oh why oh why (a little bit of points of view for you) would you want to. To achieve a note (or noise) you'll have to find a way to write or output data to the little black box. The problem here is that the black box belongs on my 464 to the tape drive mechanism, which is a standard tape drive that has been removed from it case and placed in the Amstrad. The black box is part

of the tape drive, and as such it was never meant to be written to or used for musical purposes. Of course if a bug in Bloodwych can do it, so can you, the hard part is finding out how.

As the black box is not part of the intended hardware you could spend the rest of your life trying to emulate a bug that has no purpose. Mind you, that's a lot more fun than GCSE's.

The Roland Waddilove of ancient CPC fame writing for WACCI, if we could get Roland (an anagram of the Arnold) what a coop. And if we could persuade Auntie John to write as well Nice thoughts but I'm sure that they are both very busy and have left their CPC days well behind them

Mind you, that'll not stop me trying, please let me know which windows utility magazine you saw him in and I'll drop him (them) a line.

Sad to say I've never used Flik, however I have used D.E.S. which is a very useful tool (program) to have around. Even sadder, I've never used RODOS, however, I seem to remember that there were problems with RODOS and disk corruption due to the use of the non-standard file directory system used. (I hope that's RODOS and not some other program.) Perhaps you meant ROMDOS, and RODOS is a typo.

Anyway, to make a short reply even longer, having never used two of the three programs that you mention, I don't think I can assist you in your quest, however, I'm equally sure that there's a member out there who can assist.....

When time allows I'm sure that a correctly accredited reprint of an ACU type-in that speeds up Stop Press printing would be greatly appreciated by all.

Extra fonts using the Dart Scanner (that's the one that you (or a fiend) fixed (it was a temporary fitting) to the print head on the Amstrad DMP2000 (and DMP3000?) printer) and the

Font Editor would be a nice touch. As for full stops (.), they're not my (or my wife's) cup of tea (or coffee), me, I like (brackets.). Once again, and finally, we wish you all the best with the GCSE's. Clive.>>

<<Once more in to the world of spell-checking, PC Protext reject Waddilove in favour of Walkover, Brunword becomes Barnyard and DMP (of DMP2000 fame) becomes DUMP. Part four of having fun with your spell-checker is available from any good bookshop. Clive.>>

<<I was going to tell you that Haydock Park in Lawrence Grundy's letter spell-checked as HADDOCK, but you'd have thought that something fishy was going on. Clive.>>

WHATEVER TURNS YOU ON !

Dear Uncle Clive, Amazing! In WACCI Issue 120 March / April 1998 Page 14 the introductory paragraph of the Article "LOVE AT FIRST SIGHT" describes the author's sexual activities with a computer disc drive. Fantasy? I sincerely hope so. Unfortunately he does not mention if he took any precautions. Was his "utility" write protected? Is he unaware of the risk of computer software virus and A.I.D.S. (Acquired Input Disc Syndrome)?

Seriously, I believe that the sub paragraph is inappropriate for a "serious computer magazine", especially with a subscribing and therefore almost captive readership of both sexes and all age groups. I hope that such material will not be published in WACCI again.

I know that there may be times when it may be difficult to fill up space in WACCI but surely the situation is not so bad. For those who want to read it there is plenty of such material available in other publications.

In general WACCI is a very good magazine, produced by a dedicated team, but perhaps I should remind the "management" that the style and

content of a publication is taken into consideration at subscription time. Although I have been a member of WACCI some five years, not being a great writer myself, this is the first time that I have written to Fair Comment.

Lawrence Grundy
Bolton

<<Hiya Lawrence, it seems (and is) a long time since I saw you at the All Formats Computer Fairs at Haydock Park - I trust that time has been kind to you? And that all is well (football excluded) in Bolton?

I had to get out WACCI 120 as much to my shame I couldn't remember the passage from the article in question. (I hope that Jonty and JB will forgive me for that comment.)

I had read it, but like so many things in life I'd speed read it to get to the interesting (and very interesting they were) bits.

Well I've read it again, and this time I took my time and read it very carefully.

Well I must be honest, I thought it was funny. However, I do agree with you there will be some members from both genders, and all age groups that find this kind of humour not to their liking. We should (must?) bow to their wishes and steer a middle course between humour and correctness. Me, I'm 45 and can see (and agree with) both sides of the discussion.

Apart from the intro, I thought that the article was incisive, interesting and well written and only missed one point, and unless Jonty has a PC he wouldn't have noticed, and in fact I didn't until I read it a second time.

Jonty was using HD (that the 1.44mb) disks. They are the ones with two holes in the top, one if the write protect hole and the other is used to automatically mark the disk as 1.44mb when it's read by a PC. If you use DOSCOPY the wonderful PD program to format 3.5 inch disk to the

standard 720k MSDOS format that it uses. And then use DOSCOPY to copy files between a standard Amsdos 178k disk and the standard 720k MSDOS format disk you've just created. You end up with a 1.44mb HD Disks that's been formatted as a 720k disks, which cannot be read by PCs as the second hole automatically tells the PC that it's 1.44MD disk, but it's not, it's a 1.44mb disks that's been formatted as 720k and so you get a read error, and you lose your temper and get very very unhappy.

To clarify a long story, don't use 1.44mb HD 3.5 inch disks on the CPC as you could end up with a real problem when you want to use them later on a PC. You should use the standard 720k 3.5inch disks.

Back to your letter, I'm sure that members will have strong views as to where the bounds of taste and decency should be drawn - And I'm equally sure that they will let us (me) know when they've been crossed. Many thanks for the letter, please don't leave so long before you write again. Best wishes. Clive.>>

<<Having run this letter through the spell checker I noticed that both MSDOS and AMSDOS are rejected, and the spell checker offered the same suggestion of MASKS for both. Meanwhile Grundy is rejected and the best suggestion is Ground, which is quite apt considering your observations about the "earthy" language. Clive.>>

AND IT'S BB'S TO YOU

Dear Clive, Regarding Bulletin boards, I've found a couple of them that other WACCI members might find useful. Firstly, there's the CHIC BB on (01753) 890111, no CPC specific files, but CHIC (the user group) still support the 8-bit machines so you'll still find messages, adverts, etc. about these machines on this BB. You can connect at 2400,8,N,1 from 8pm Friday to 8am Monday.

The other Bulletin Board that I usually use is TRINITY, on (01392) 410210. Again, there's no CPC

specific files, but there's plenty of text files on all sorts of subjects, and, there's a FREE E-mail service. Trinity also makes it very easy to set-up the system to your requirements; for instance, when most BB's would ask if you can handle ANSI graphics, Trinity gives you a Test option. This will send some data to your screen, and then you will be asked if some boxes appeared on-screen or just some characters. You just give the appropriate reply and that option will be set accordingly. All of the set-up options have this type of Test facility. Trinity is available 24hrs. at 2400,8,N,1.

Martin Bela

Derby

Martin.Bela@trinity.dircon.co.uk

<<Hiya Martin, I trust that all is well in sunny Derby? Many thanks for the information on the two BB's that can be accessed by CPC users. When I upgraded my modem to a 56k high speed card that's inside my PC (sorry, but the CPC wouldn't cope with anything above 4k, so I had to use the PC) I found that I had great difficulty in getting it to connect at low speeds, by the time it had worked its way down to 2048 baud, the software had decided that it had had enough and disconnected me! That's my reason for not trying out CHIC or TRINITY.

Chris Smith used to run a WACCI BB many moons ago, perhaps now is the time to revive the WACCI BB concept? (I wonder if that idea will cause JB to lose a few more hairs?)

I'll have to think about who I know that knows enough about the CPC and about BB's and Modems to be able to do a good job? I can't think of anyone? Oh well, back to the keyboard!. TTFN. Clive.>>
<<Having written the reply, I ran ran it through the PC version of Protext's spell checker - Now I love some of the suggestions that it offers...

TTFN was rejected and the best suggestion was DOFFING! Wow, that's close. LOUISE always spell

checks as LOUISE. And I work in Basford, which Protext rejects and suggests Bushfire. This it much better than AmiPro v3 from Lotus which converts it to a swear word - so be warned! Cheers. Clive.>>

<<Yes! What a good idea, no! Not losing hair I haven't got enough to go around now, I meant the BB concept.

If any member out there can give me any ideas or help on how to set a WACCI BB up and running I would like to hear from you. But please not over the telephone I will need the details on paper

Now to finish off Carol would like to had her thought about the convention this year so take it away Carol. -John>>

WACCI CONVENTION 1998

As you will no doubt read on Angies Market Stall page, Angie is needing you to let her know whether or not you are going to be coming to this years convention. Merely saying to yourself that you will go and that perhaps your vote of confidence is not needed just yet or that maybe you think that others will come forward so there is no need for all the panic, is just not good enough. We need YOU to let Angie know NOW!!

IF YOU do not tell us that you want to go and either book or reserve your tickets then WACCI Convention 1998 will NOT take place.

Now I don't know about you but I have really enjoyed all the conventions. I have met the people I have only before read about, met people I have only spoken to on the phone. I have made friends from all these people and more and so can you so now is the time to book before it is too late.

Don't treat the convention as an afterthought because you could miss out on the chance to renew friendships and have a great time and above all you get to meet ME! If that hasn't put you off then I look forward to seeing you there.

Carol

First Steps In Machine Code

Final part

One of the wonderful things about the CPC, for the machine code programmer, is that it provides a whole host of easily accessible and well-documented built-in routines for your use. These do such things as access the screen, work the sound chip, get information from the keyboard etc.

The best reference guide for these is the official Amstrad Firmware Guide - however, this is no longer available, and other sources have also become scarce. Therefore I have listed some of the most useful routines available to the machine code programmer below.

Say, for example, you want to clear the screen and set mode 2. This is done by means of the "firmware call" as these are known) at &BC0E. However, this corrupts the registers, so if you needed to preserve HL, this is what you would do:

```
LD A,2
PUSH HL
CALL &BC0E
POP HL
```

This sets MODE 2 (and hence clears the screen) while preserving HL.

Note that "carry is true" means that the carry flag is set to 1, whereas "carry is false" means that it is 0, etc. If a register, register pair or flag is said to be "corrupt", that means that its value after the routine has been called is unpredictable.

The first set of CALLs are to the Keyboard Manager:

KM WAIT CHAR &BB06

Waits for a character from the keyboard buffer or expansion string. The character is returned in A, carry is true, and other flags are corrupt.

KM READ CHAR &BB09

Takes a character from the keyboard buffer or expansion string if one is immediately available, but will not wait. If a character is available it is returned in A and carry is true,

otherwise carry is false and A is corrupt. Other flags are corrupt.

KM TEST KEY &BB1E

Tests whether a specified key is pressed. Before CALLing this, you must load A with the key number (see your manual). On exit, the zero flag is false if the key was pressed, true if not. Carry is false, and other flags are corrupt, as are A and HL. C contains a number reflecting the state of the SHIFT and CTRL keys.

These CALLs are text routines:

TXT OUTPUT &BB5A

The standard character printing routine. On entry A must contain the character code (e.g. 10 to go down a line, 65 for capital A, 143 for square block) to send - see your manual. No flags or registers will be corrupt.

TXT RD CHAR &BB60

Gets a character from the current cursor position (like COPYCHRS on BASIC 1.1 machines). If a character was found, carry is true and A contains the code afterwards, otherwise carry is false and A contains 0. Other flags are corrupt.

TXT SET GRAPHIC &BB63

If A is 0, acts as TAG; otherwise, TAGOFF. AF (i.e. the A register and the flags) is corrupt.

TXT WIN ENABLE &BB66

Set up a window for the current stream. D and H are left and right column values, with E and L being top and bottom row values. On exit, AF, BC, DE and HL are corrupt. Note that co-ordinates are from 0 to 79, rather than BASIC's 1 to 80, etc.

TXT CLEAR WINDOW &BB6C

Performs a CLS on the current window. AF, BC, DE and HL are corrupt on exit.

TXT SET CURSOR &BB75

Equivalent to LOCATE in BASIC. H contains the column and L the row. Co-ordinates are (1-80,1-25) or whatever is appropriate to the current mode, as in BASIC. AF and HL are corrupt.

TXT PLACE CURSOR &BB8A

Place a cursor inverse "blob" at the current cursor position. AF is corrupt.

TXT SET PEN &BB90

Set the pen colour. A contains the ink number: on exit, AF and HL are corrupt.

TXT SET PAPER &BB96

Sets the paper colour. A contains the ink number, and AF and HL are corrupt on exit.

TXT STR SELECT &BBB4

Select a stream, held in A. On exit, HL and flags are corrupt.

The following nine CALLs are graphics CALLs. They require parameters in DE (X) and HL (Y). In the case of relative operations, a negative number is signified by that number taken from 65536 - so -1 would be 65535, i.e. &FFFF, -2 would be &FFFE etc. The TEST operations return the ink in A. AF, BC, DE and HL are corrupt by these calls.

```
GRA MOVE ABSOLUTE &BBC0
GRA MOVE RELATIVE &BBC3
GRA PLOT ABSOLUTE &BBEA
```


GRA PLOT RELATIVE	&BBED
GRA TEST ABSOLUTE	&BBF0
GRA TEST RELATIVE	&BBF3
GRA LINE ABSOLUTE	&BBF6
GRA LINE RELATIVE	&BBF9
GRA SET ORIGIN	&BBC9

To set graphics PEN and PAPER, these CALLs are used:

GRA SET PEN &BBDE

Set the graphics PEN. A should contain the ink number. AF is corrupt on exit.

GRA SET PAPER &BBE4

Set the graphics PAPER. A should contain the ink number. AF is corrupt on exit.

The following CALLs are to the Screen Pack.

SCR SET BASE &BC08

This allows you to set screen memory to start at &C000 (standard) or &4000. A contains &C0 or &40 on entry. On exit AF and HL are corrupt.

SCR SET MODE &BC0E

Equivalent to a MODE command in BASIC. A contains the required mode on entry. AF, BC, DE and HL are corrupt on exit.

SCR SET INK &BC32

Set the colours for a particular INK. A contains the ink number, B and C the colours on entry (set B and C the same if flashing is not wanted). AF, BC, DE and HL are corrupt on exit.

SCR SET BORDER &BC38

Set border colour - as above, B and C contain the colours. AF, BC, DE and HL are corrupt on exit.

SCR SET FLASHING &BC3E

Set the ink flash rate. H and L should contain flash times in 50ths of a second on entry. On exit, AF and HL are corrupt.

SCR ACCESS &BC59

Set the graphics write mode - A contains 0 for normal mode, 1 for XOR mode, 2 for AND, or 3 for OR. On exit, AF, BC, DE and HL are all corrupt. The following CALLs

are all to the cassette driver. However, if you have a disc drive plugged in, they will act on that instead (unless you have issued a dTAPE command).

CAS IN OPEN &BC77

Open a cassette input file (N.B. this can be ANY sort of file, not just ASCII). On entry B holds filename length, HL its address, and DE the address of a 2k buffer. On exit, if ok then carry is true, HL contains the header address, DE the start address (from the header), BC the length (from the header), and A the file type. If not ok, then carry is false. All flags and registers except IY are corrupt.

CAS IN CLOSE &BC7A

Close a cassette input file. AF, BC, DE and HL are corrupt.

CAS IN CHAR &BC80

Read one character from the cassette input file. On exit, if ok, A contains the character code and carry is true. Otherwise carry is false: if zero is also false then the problem was that the end of file was met. IX and other flags are corrupt.

CAS IN DIRECT &BC83

Read a complete file in to the address in HL onwards. On exit, carry is true if ok (and HL will hold the entry address to be CALLED if the file contained a runnable program), false otherwise. All registers and flags except IY are corrupt.

Note that you cannot mix CAS IN DIRECT and CAS IN CHAR. You can either read in the whole file at once, or read each and every character in (using CAS IN DIRECT).

CAS TEST EOF &BC89

Test for the end of file. On exit, carry is true if not met, false if the end of file was found (or ESCape was pressed). AF and IX are corrupt.

CAS OUT OPEN &BC8C

Open a cassette output file. B contains the filename length, HL its address, and DE the address of a 2k buffer area. On exit, carry is true if ok

(HL contains the header buffer address) or false otherwise. All flags and registers except IY are corrupt.

CAS OUT CLOSE &BC8F

Close a cassette output file. Carry is true if successful, false if unsuccessful, and all flags/registers except IY are corrupt.

CAS OUT CHAR &BC95

Write one character (in A) to the output file. On exit, carry true if ok, false if not: AF and IX are corrupt.

CAS OUT DIRECT &BC98

Write a whole file (which must be open first!). HL contains the start address, DE the length, BC the entry address, and A the file type (BASIC 0 - binary 2 - ASCII 4 upwards). On exit, carry true if ok, false if not, and all flags/registers except IY are corrupt.

The same restriction about usage applies to CAS OUT CHAR and CAS OUT DIRECT as does to the corresponding input CALLs.

CAS CATALOG &BC9B

Cassette (or disc!) catalogue. DE must contain the address of a 2k buffer area. This cannot be done if an input file is currently in use, in which case carry will be false - otherwise true. All flags/registers except IY are corrupt.

The basic sound CALLs are as follows:

SOUND RESET &BCA7

Reset the Sound Manager, silencing the sound chip and clearing all queues. AF, BC, DE and HL are corrupt.

SOUND QUEUE &BCAA

Add a sound to a sound queue, if possible. On entry HL contains the address of a 9-byte block defining the sound to be played: byte (HL+0) contains the channel number (see user instructions), byte (HL+1) the volume envelope number, (HL+2) tone envelope number, (HL+3) and (HL+4) the pitch, (HL+5) the noise period,

(HL+6) the initial volume, and (HL+7) and (HL+8) the duration. If successful, carry is true, otherwise false. AF, BC, DE, HL and IX are corrupt.

The Kernel routines deal with the heart of your CPC's operating system...

KL ROM WALK &BCCB

If you have just RUN a machine code program from tape or disc, rather than it being CALLED from a BASIC program or direct from BASIC, then the ROMs (which include the disc drive ROM) will be turned off. To turn them all on, DE should hold the address of the first usable byte in memory and HL the last (e.g. DE=&40 and HL=&ABFF would be the standard values).

On exit, DE and HL will have been updated, and AF and BC will be corrupt. If you don't do this, then the disc drive facilities (and other external ROM facilities) will not be available. However, if you're CALLING your routine from BASIC, this is not advisable, as BASIC will have done this already for you.

KL INIT BACK &BCCE

Initialises one ROM only. As above, but C should contain the number of this ROM (e.g. 7 for the disc drive) on entry.

KL LOG EXT &BCD1

Set up one or more RSXs. BC should hold the address of the RSXs' command table (which should have the format: the address of the name table, then a "JP address" for each RSX, then the names of each RSX with the last letter of each command having its high bit set, i.e. 128 added - this is the name table - and finally a 0 byte), and HL a 4-byte workspace area for the operating system to use. DE is corrupt on exit. Note that BC and HL must not be below &4000 or above &C000.

KL FIND COMMAND &BCD4

Search for an RSX name. HL should contain the address of the name (with

the high bit of the last letter set, i.e. 128 added). On exit, carry is false if not found, or true if found - in which case C contains the ROM number and HL the address. This can then be CALLED with automatic switching-in of the relevant ROM by a simple "JP &1B". A, B and DE are corrupt. If the RSX is the name of a foreground ROM (e.g. BASIC) then this routine will jump straight into the ROM.

The next few routines are from the Machine Pack.

MC BOOT PROGRAM &BD13

To load a program from machine code, write a routine to load it and put the address of that in HL, then CALL &BD13. The CPC will reset all its hardware and settings etc. then call your loader routine. The routine should be programmed to return with carry false if the load failed, or carry true and HL the entry address of the program loaded if the load went ok.

MC START PROGRAM &BD16

HL contains the start address and C the ROM number of a program to be run. This routine will jump to that program after resetting the CPC's hardware, settings etc.

MC WAIT FLYBACK &BD19

Wait for frame flyback (which occurs every 50th of a second at the point where the electron beam on the monitor is not currently drawing the screen but is "flying back" from the bottom right to the top left-hand corner). No registers or flags are corrupt.

MC PRINT CHAR &BD2B

Offer a character (in A) to the printer port. If ok, then carry is true, otherwise (i.e. if the computer waited but could not send the character) carry is false. A and other flags are corrupt.

MC BUSY PRINTER &BD2E

Test whether the printer port is busy: return carry true if it is busy or false if not, with other flags corrupt. There are many other firmware

instructions, but these are the most useful ones. Books you can try to obtain for more details include:

SOFT 968

Concise Firmware Specification,
publisher. Amsoft (recommended).

The Ins and Outs of the Amstrad
publisher. Melbourne House.

The Anatomy of the CPCs
publisher. First Publishing.

Amstrad Advanced User Guide
publisher. Glentop.

<<All of the above books and more are available from your friendly Book Librarian, but I'm sorry his name escapes me at the moment. Oh! Yes its me. - John>>

Alternatively, you can buy Thomas Defoe's Alternative Firmware Guide from WACCI (or download it from the Internet) - and note that BTL is currently running a complete listing of firmware calls.

I would like to thank Richard Fairhurst for allowing WACCI to reprint his Machine Tutorial which by the letters I've been receiving you have all enjoyed it. Sadly this is the final part. You can obtain this Tutorial and more from Richard Fairhurst (Robot PD) his address is:

Tea Cottage
Bottom Lane
Bisbrooke
Rutland
LE15 9EJ

Next Month

Next month we will be starting another tutorial, but this time its a Basic Tutorial written by Paul Fairman, it's very well written and takes you from the basics levels to the more advanced.

Just a thought! Has anyone ever written a Tutorial on CP/M? If you know where I can get a copy please let me know. Thanks. John.

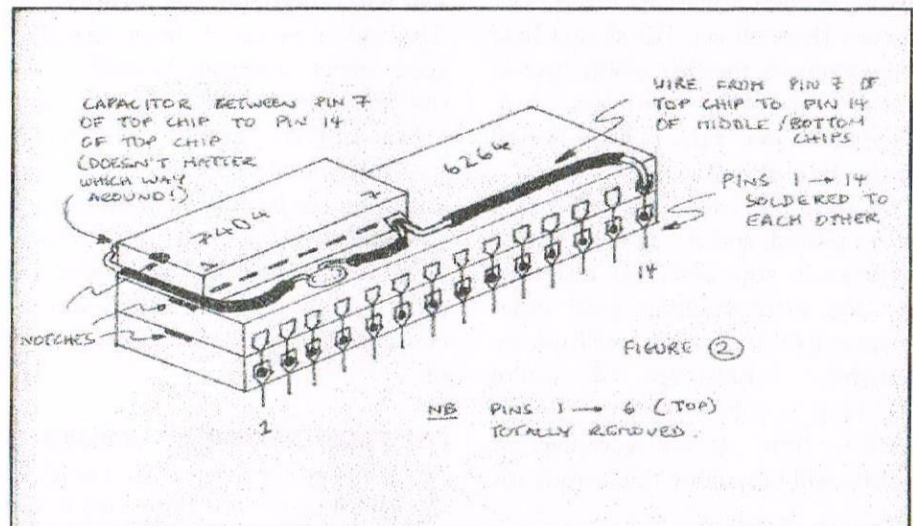
Chips With Everything

Ratz gets to grips with building a RamRom and waves goodbye to loading misery..Rom software on the CPC is not a new idea - I suspect that almost every person reading this has Protect et al hanging off their CPC (those people who have Brunword....grrrr!) Why is it so popular? Fast access, few memory constraints, and suchlike. Why has so little software ever been developed on rom? Because, from a programmer's point of view, it's a swine. Let me explain....

We all know that writing machine code routines is a major hassle - for a start, you have to learn the language, debugging takes ages and the process of "blowing" your masterpiece, testing, then erasing the chip for another attempt (typically 20 minutes) would leave St Peter himself putting his life savings into the swear jar.

Since that nice Mr Fairhurst is currently engaged in a machine code tutorial series, I thought it would be interesting to describe the construction and use of a RamRom - a device consisting of ram chips (which are programmed or erased instantly) that is connected to a romboard and pretends that it's a rom.

As well as constructing the unit itself we also need some software, so over the next few issues, I'll be describing how we can write useful programs to



put into the RamRom. That's going to start in the next thrilling instalment, so for your homework you should brush up on RSX's (roms are just flashy RSX's) and if anyone has a copy of CWTA July 1987 or AA issue 53 (I think...) have a brief look at that too.

If you don't have either, don't fret - all will be revealed. Without further ado, here's how to build the unit...

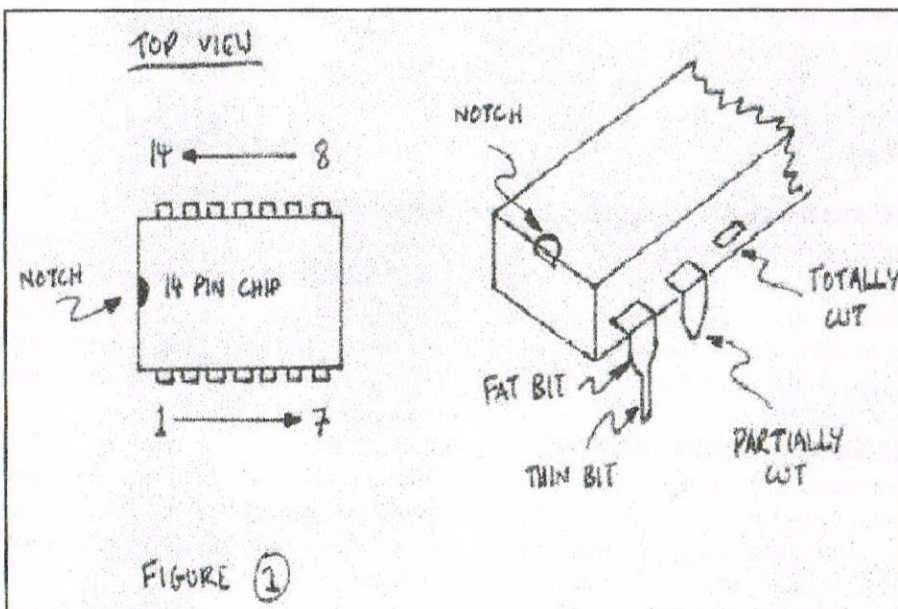
Construction

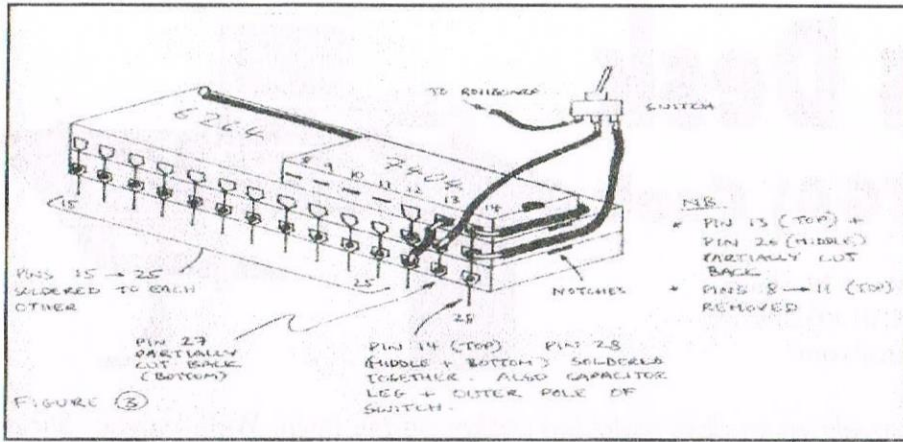
* Only attempt construction if you are confident you can do it. If you're not sure, contact me and I'll see what I can sort out.

* Never solder anything to the CPC/romboard whilst it's plugged in/switched on.

* I accept no responsibility for any knackered machines - every effort has been made to ensure that the following instructions are accurate. Firstly then, parts. For this project, you need:

1. 2 x 6264 ram chips
2. 1 x 74LS04 logic chip
3. 1 x 0.1 microfarad disc ceramic capacitor
4. 1 x single pole double throw switch
5. About 50 cms of thin, stranded interconnect wire. You should be able to get all the bits from Maplin or your





local electronics shop. The cost should be about £10ish. The construction phase is pretty straightforward, but please remember the following :

* The pin numbers are worked out as in figure 1, running anticlockwise from the bottom edge nearest the notch.

* The pins have a "fat" section and a "thin" section. To partially trim a pin means to remove the thin section. Likewise, to completely trim a pin means to remove the fat section as it leaves the chip body. Again, check the diagram. When the chips are piggybacked onto each other, partially trimmed pins should not touch the pin below.

* Chips are generally static sensitive - make sure you "ground" yourself by touching an earthed object (eg. radiator, water pipe, earth pin) every now and again and try not to rub against carpets or tigers, since they generate static electricity. Ok, I fibbed about the tigers.

Step 1

Take the 74LS04 chip and totally remove pins 1 to 6 and 8 to 11. Partially trim pins 7 and 13. Bend the remainder of pin 7 out to 90 degrees or so. Now put this chip aside - it will be the TOP chip.

Step 2

Take the first ram chip - this will be the MIDDLE chip. Partially trim back pin 26. Put this chip aside. Now take the other ram chip (you guessed it, this will be the BOTTOM chip) and partially trim back pin 27.

Step 3

Take the BOTTOM chip and place the MIDDLE chip on top of it. Make sure that pins 1 to 25 and 27 and 28 are in physical contact with each other (you may need to bend the pins in).

Bend out pin 27 of the BOTTOM chip so that when the unit is plugged into a romboard pin 27 DOES NOT MAKE CONTACT with the socket. Pin 27 of the MIDDLE chip may well need to be bent a little to ensure that it makes

From	To	Suggested length
Pin 7, TOP chip	Pin 14, MIDDLE chip	3 cm/1.5 inches
Pin 13, TOP chip	Pin 26, BOTTOM chip	1 cm/0.5 inches
Central pin of switch	Pin 27, MIDDLE/BOTTOM chips	15 cms/6 inches
Side pin of switch	Pin 14, TOP / Pin 28 MID/BOT	15 cms/6 inches
Remaining pin	* leave this end free *	15 cms/6 inches

contact with pin 27 of the BOTTOM chip. Now put a small amount of solder into the joints between pins 1 to 25 and 27 and 28. See diagrams 2 and 3.

Step 4

Take the TOP chip and place it on the MIDDLE chip so that pins 12 and 14 of the TOP chip are in contact with pins 26 and 28 of the MIDDLE chip. Hint - you may need to use a spot of super glue to hold the TOP chip down. Now solder these 2 joints.

Step 5

That's most of it done. Phew! All we need to do now is us a few pieces of wire to get everything connected.

Lastly, take the disc ceramic capacitor and bend the legs so that it can be soldered between pins 7 and 14 of the TOP chip (hint - use some left-over

insulation from the wire to cover legs). It does not matter which way around the capacitor is connected. See diagram 2.

Testing testing 123

Double check everything is as it should be by comparing with the diagrams. In particular, check that there is no connection between pin 13, TOP and pin 27, MIDDLE.

Similarly check that there is no connection between pins 26 of the MIDDLE and BOTTOM chips.

Now select a vacant slot in the romboard and plug the ramrom in. MAKE SURE that pin 27 of the BOTTOM chip does not make contact with the respective pin in the rom socket.

Take the final wire from the switch and solder to a point on the romboard

corresponding to pin 33 (WR) of the expansion port (usually easiest to find near the edge connector).

Double check everything again, then switch on your CPC. It should come on as normal, if not switch it off again pronto and check all connections etc. Voila, a bouncing baby RamRom!

Right, that's enough to be getting on with for now. See you next time when we'll try out some rom software. In the meantime, you can call on the number below or by snail mail or e-mail.

Ratz.

Simon Matthews, 3 New Coppice, St Johns, Woking, Surrey, GU21 1US (0973) 718706 (mob/voicemail)

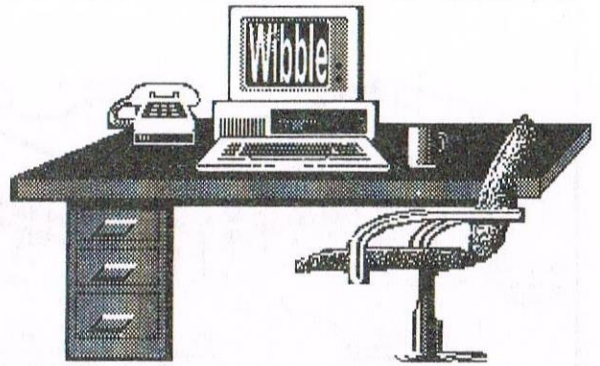
s.j.matthews@lhmc.ac.uk

The News Desk

with Angela (ITGA) Cook

Brympton Cottage, Brunswick Road, Worthing,
West Sussex, BN11 3NQ. Tel/fax; 01903 206739.

E-mail; angelacook@mcmail.com



It's getting on for the summer now, lovely warm days watching cricket on the lawn. Well, maybe. Sticky armpits and wasps more like it – but we'll survive. What's this got to do with a news page for the CPCs? Well, nothing at all, but it sounded good at the time, honestly.

AMSTRAD GOES LIVE

I recently had a French CPC magazine sent to me called Amstrad Live. The front and back cover was in colour and the layout inside was very nice. There were articles on programming rasters, about demos, fanzines and contacts over the internet, amongst other things. Amstrad Live is all in French though, so you'd need your foreign tongue to be up to scratch. Contact Thomas Bardenat for more details: 11 Av. Carriere, 31120 Lacroix-Falgarde, France. E-mail: amslive@mygale.org Website is at: www.mygale.org/09/asmlive

WEB UPDATE

Following my article on CPC websites, some more have come to my attention recently. These include Benjamin Fall's webpage (<http://ds.dial.pipex.com/graham.f/cpc.html>), theProtex webpage (<http://www.cix.co.uk/~mtlley/protex>) and one for the Trading Post too (<http://www1.e.brwebworld.com/tradingpost>).

WACCI

I had the bad fortune of working in Peterborough recently, but the good fortune of the Bowley Brigade letting me stay with them. During this time I spoke with John a lot about WACCI (*and my brakes seizing up*). It's hard seeing him work as he does – with literally no material to juggle. Issues of WACCI are more and more often being made up from articles he has to put in, rather than striking a good balance and having time to play around more with layouts to produce

something really stunning. So this is turning into a *“WACCI needs your input”* rant. But it's true. There are nearly 300 subscribers, so you obviously want a magazine. If you all wrote just one article, be it 100 or 1000 words, John would have more than enough. And don't be fooled into thinking you can't write something.

You all use your CPC's for one reason or another. You can tell us your views on the software you use, how and why you bought your CPC. Write about why you choose a certain spreadsheet or game over a similar product. Tell us all how you modified your computer so it now has a pink keyboard and says *“Hello Oh God from the Heavens”* each time you switch it on. Tell us what drives you mad – why oh why did Amstrad do *that* to their computers? And also we need ideas for more articles.

Richard Fairhurst and myself (*amongst many others*) are quite willing to write more, but coming up with ideas is a problem. So drop Ernie Ruddick a line with an idea or two please. It seems that some people have the attitude, *“Well, I buy the magazine and I expect other people to write it for me”*. That's not good enough. This is the magazine of the club and we need your support as the people that have been keeping the magazine together recently are gradually getting more and more brassed off.

If all else fails, write a provocative letter. We're not asking for *“John should be replaced with a robot and BTL members should be burned at the stake”*, but something to get our teeth

into would be nice. So, rant over for this issue, but only as long as you all start to take some more responsibility for the running of this club too.

RANT #2

I think I've been here before, but I'll mention it again anyway. The convention is only four months away. Blimey, less time than it seems. The ticket prices have been dropped to just £2 this year after many people moaned about last year. You all know where it is, you all know each other now, so there can't be many excuses left.

And if there isn't enough interest the event will be cancelled. Even if you just reserve a ticket because you're not sure about your attendance, that would be a help. Please support Angie, she's done such a good job over the years it would be a great pity to fail now. Besides that, I want to go and can't afford 100 tickets on my own....

This year is going to be multi-format, but don't worry about big PCs taking over the place. I don't think it's going to be that bad. It will just allow those members with interest in more than just their CPC to get more out of the day. And if it all gets too much for you, there's always the bar.

THINKING OF THAT

Anybody remember STS - Secretsoft Technical Services?. The original members were Simon Green, Rob Scott, Jason Burwood and Mike Wheeler. But they all split up for various reasons. Now STS is being revived. Hurrah. Ok, so maybe it's not for the CPCs, but it's still STS. The

people relaunching it include Paul Fairman (*of Sheepsoft fame*) and Rob Scott. They are going to be building PCs, doing repairs and upgrades. They're not quite there yet, still researching nasty things like tax and VAT, but they're well on the way. I'm sure we all wish them the best of luck and I'll keep you informed as to their progress.

SPECIAL OFFER

Merline-Serve is overflowing with goods and there is no space left in the house (*unless you count the loo, which we don't because people don't like that*). Therefore a sale is going on. A third has been slashed off of all prices of hardware to WACCI members until the end of July (*though obviously you don't get your 10% discount on those items*). Please help us clear out the house so we can live again. The address to send an A5 SSAE to is at the top of the page.

CHEAP CHEAP

Radio pioneer Marconi's company merged with the General Electric Company and are now one of Britain's biggest radar and electronics companies. They have renewed and enlarged the scope of their multi-user site licence for Protex, so Brian Watson and the lads must be very pleased. Brian would like to hear from anyone who has bought, or been given, an unofficial version of any of the Protex family of programs during the last year. No action will be taken against informants.

Brian is also going to be kept busy with some lovely bargains. All ComSoft software (*apart from CPC/PCW RoutePlanner*), and all WACCO (*ex-Arnor*) CPC software, except CP/M Protex, is half-price until further notice. But this is only while present stocks last and only if ordered by post through Brian (*cheques payable to B Watson*). No credit cards at these prices, but no carriage charges either. Send Brian an A4 SAE for full lists of what's included, or phone/Fax/E-mail: Brian's address and telephone is on page 2. brian@spheroid.demon.co.uk

Angela Cook

WACCI PC: Pause For Thought

Who would have thought over ten years ago when Steve started Wacci that the magazine would have lasted this long, mainly I feel to the great feeling of comradeship that has grown with the club and the people in it. Some folk who no longer use their CPC still subscribe to the magazine out of sheer loyalty, now that says a great deal!! Here we are in 1998, but the big question is will Wacci see the Millennium in or quietly slip away like the Titanic.

But why?

This article is our way of putting to the membership something that we all feel is of great importance to the future of WACCI? So much so, that with the club's present slow decline in membership, due to members upgrading to a PC. We feel that our thoughts should be in print, hopefully we will get a meaningful response from you all.

Common Interest

Many members like ourselves have purchased a PC without discarding our CPC's but there are some who have left the club forsaken the CPC to concentrate upon the PC. It is a fact of life that the PC has become as much a piece of normal furniture/equipment to be found within the home as the Colour Television. Our children use them at school and everywhere you go in the modern technology industry they talk of nothing else but the Net.

WACCI Must Go On

What concerns us at the moment is that we feel the membership could continue to decline and that the club may even have to discuss closure!

We fervently believe that WACCI must survive this inroad with it's unique position within the home by taking action now! To put things as simply as possible we feel that the most obvious action to take is to embrace, welcome if you like, the PC into that wonderful friendly association we all call WACCI. Hence this first article is PC related which we

hope will be a start to a regular page on PC related matters. Taking all in consideration how can we surely allow such an institution born and nurtured with some delight over the past decade to be allowed to just simply die without a fight.

One might say that there are plenty of professional magazines in existence that offer current information and help lines for the PC, but these are professional products that need to survive in the world of commerce by it's sales figures. They do not offer the same comradeship that exists within WACCI.

John has recently stated within the magazine that some members have complained and even threatened to resign because of his use of a PC in the production of the magazine. Recent letters within the magazine have proved this to be incorrect.

He also states that he is short of articles on the CPC.. In the world of the PC its full of material that as a club we want to bring to and give you the same kind of unbiased help and information, as we have done and still will for the CPC.

Our next article will be on a discussion on what to buy if you are looking to move to the PC and then hopefully the next one on how to transfer your information from your CPC to your PC. In addition we hope to set-up a Help Line similar to that of the existing CPC ones, but for the PC user. If you would like to be included on this Help-Line for the PC please get in touch with me or John.

Outro

How many of you actually read every single page of WACCI or are you like me, reading only the pages that are of direct interest to you. Will you really begrudge dual users a page of interest to them especially if this helps to keep WACCI going for another ten years? We welcome your letters and comments through Fair Comment.

Angie Hardwick



WACCI PD Disc Library

PUBLIC DOMAIN DISC 55 AMSDOS - UTILITIES 2

SIDE A Teach Yourself Machine Code series.
 EPIC Extra commands and boxes to Protex.
 VT Video Titler - menu controlled.
 TOOLKIT Play with the computers memory.
 ED Disc sector editor.

PUBLIC DOMAIN DISC 56 STARTREK PICCYS, MUSIC

Side A: Startrek Picture Show: Crew1-3, Data, Doctor Crusher, The Enterprise, Ferengi 1-2, Geordi 1-2, Picard & Riker, Picard 2, Riker, Troil-3, Wes Crusher, Wil & Troi and Worf.

Side B: Music Programs

1	JL Digitiser	6	Maestro
2	Edimusic	7	Keyboard
3	Sound Effects	8	Digitiser
4	Music Box	9	Digiteditor
5	Music FX	10	Digitiser Demo

PUBLIC DOMAIN DISC 57 CP/M UTILITIES

SIDE A: The ZDE Word Processor: CP/M 2.2 or 3.1 ZDE contains all of the features you'd expect and more. ZDE will run under both versions of CP/M, v2.2 users are advised to use VDE266 (on PD 10) for the best results. Also included is QTEXT which speeds up text under CP/M 3.1.

SIDE B: CP/M Utilities - CP/M 2.2 or CP/M 3.1 (plus)

DISC Instructions & disc contents.
 B29 Library file and disc utility.
 E86 Expert 86 (Complete expert language system).
 DISZ80 Intelligent Dis-Assembler.
 FILER11 Card index style database / filing system.

PUBLIC DOMAIN DISC 58 AMSDOS - OVERSCAN

Lots of good quality full screen pictures - Overscan pictures take up the whole of the VDU screen. They cannot be loaded into an Art package - For fun viewing only.

PUBLIC DOMAIN DISC 59 AMSDOS - DEMO 5

Includes lots and lots of superb quality demos. The Face Hugger's Ultimate (stunning) Megademo is to be found here.

PUBLIC DOMAIN DISC 60 DIGITAL DREAMS

The disc that contains dreams and nightmares. The music and pictures are good but the screens will not convert to Amsdos standard screens for loading into an Art package.

PUBLIC DOMAIN DISC 61 AMSDOS - WORD GAMES 1

CROSSFIRE Two player game playing with letters.
 JAM Cram those words into a box if you can.
 SET Fast moving trivia to the rules of Tennis.
 WORD WARS Battleships played with words.
 DICCED Create, save, load and merge dictionaries.
 DICDUMP Select and load ASCII or binary dictionaries.
 DICSORT Check word files and sort into order.
 ANAGRAMS Generates anagrams of a chosen word.

PUBLIC DOMAIN DISC 62 - AMSDOS - WORD GAMES 2

BUSTER A quiz game for word freaks.
 NOBBLE Word board game that gets you nobbled.
 LOOT Maze game, move the man or the maze.
 WARREN Travel around the warren and make words.
 ARREST A game of strategy on the board.
 WORD DOMS Dominoes played with words.
 SLIDE Making words by slipping around.
 SWAP Board game involving letters.
 DOUBLE X Board game involving words.
 STRAIN Anagram game.
 PIECES OF 8 Mastermind with letters.
 WORDWALL Mega hangman game.
 MEGAGRAM Megatastic, anagrammatic, the ultimate.

PUBLIC DOMAIN DISC 63 AMSDOS - ADVENTURES 5

The Lost Phirus Trilogy game and story, Caves 90 game and story, Craal, Kidnapped, Revenge.

PUBLIC DOMAIN DISC 64 AMSDOS - DEMO'S 6

Logon Revolution, Merlin Demo, Hack Demo, Jupiter, Crash, Zap 'T' Balls, Violin, Desperate Dan Demo, Tom and Jerry and Kreator Demo.

PUBLIC DOMAIN DISC 65 AMSDOS - GAMES 3

Crystal Mission, Crazy Snake, Driller, The Space Duel, Give Us A Break Quiz, Give Us A Music Break Quiz. Also included are: Question Editor: Break and Question Editor: Music.

PUBLIC DOMAIN DISC 66 AMSDOS - OVERSCAN 3

Superb quality pictures but some are a bit over the top.

PUBLIC DOMAIN DISC 67 AMSDOS - DEMO'S 7

Croco Passion Demo #2, Explode! from Robot PD, New Wave Crackers PC1512, The Twin Blast Demo, WACCI Demo #2 by Dave Carter, Atland Game Preview, Bart Simpson #19, CS Demo Glenco Basic, CopyParty Demo #1.

PUBLIC DOMAIN DISC 68 AMSDOS - UTILITIES 3

JL-COPY & CRIME Disc and file copiers.
 MAGIC DOS For large format discs.
 IQTEST An IQ test program.
 CAT3A.ASC etc George Ho-Yow's super CAT database.
 CVMO2 Convert MO2 text files to Protex.
 GHOST Ghost effect printing on screen.
 MULTIFAC Run programs saved with a Multiface.
 WORKTOP Windows style worktop program.
 CAT Catalogue discs to your printer.
 MPACK Improved BANKMAN.BIN.
 FINDTEL Convert STD codes into towns/cities.

PUBLIC DOMAIN DISC 69 AMSDOS - FANZINE 1

CCC fanzine issue number 4 - A french fanzine.

*** Please order your PD Discs from Dave Stitson ***

PUBLIC DOMAIN DISC 70 AMSDOS - FANZINE 2

DiscFull fanzine issue number 6 - A french fanzine that includes a disc verify and format utility.

PUBLIC DOMAIN DISC 71 AMSDOS - FANZINE 3

DiscFull fanzine issue number 7 - A french fanzine.

PUBLIC DOMAIN DISC 72 AMSDOS - DEMO'S 8

Christmas Demo by Paradox, Amstrad Magic Club Demo, Magic Demo #1a by C&F Soft, Tenerife by Blond Soft, Revenge Demo by Wild Thang, Wild's Thang's Demo #3, The Scanline Demo.

PUBLIC DOMAIN DISC 73 AMSDOS - DEMO'S 9

AST's Atlantic Demo, AST's No Inspiration Demo, Overflow /Logon Systems Demo, AST's System Production Demo, LogoGryfikks Demo #2.

PUBLIC DOMAIN DISC 74 - AMSDOS - UTILITIES 4

SIDE A: Epic v1.1 by Michael Beckett. The new and much improved version. Epic works with the Protex ROM and greatly improves the way Protex will talk to your printer without the need for an eight bit port. The package comes with its own font designer so you can design your own characters or complete fonts. Fully documented and much easier to use, Epic v1.1 is a PD program of superb quality.

SIDE B: Assorted utilities as follows:-

ANIMATOR	Basic animation program.
ASCII	View the computers memory contents.
CRUNCH	Save space & create runnable crunched files.
DATAFILE	Easy to use database.
DISCTRACK	Helps you keep track of your disc contents.
DRUMKIT	Make and play your own tunes.
E-BASIC	Extra commands with some easy to use RSX's.
FORMAT	Fast, easy to use disc formatter.
ITSMAGIC	Sound sample of Its magic.
LABPRINT	Label printing program.
LBASE	Label printer and database.
LEDGER	Cashbook style ledger system.
NOTEPAD	Pull down notepad.
OVERSCAN	Create & display overscan pictures.
PHONE	Keep track of phone numbers etc.
SOFTARC	Archive programs easily to tape.
SPREADSHEET	Gosh yes, it's a spreadsheet.
SYMBOL	Character designer.
TVSAT	Calculates the position of TV satellites.
WORDPRO	A WordPro.

PUBLIC DOMAIN DISC 75 AMSDOS - UTILITIES 5

SIDE A:	The Allen 'The L Plate' Cooper special.
DISCNDEX	A disc index utility for all disc drives.
DISCOUT	A single drive version of the above.
DSCOUT.BIN	M/c by Stewart Peppiatt for the above two.
CPCLABEL	A disc labeller utilising 160 CPI printers.
LABEL.AMS	As above but for any printer.
EVERYDOS	6128 only labeller for 3/3.5 inch drives.
MANUALBL	Protex file for overfull discs labels.
CASSCARD	Cassette inlay for your program cassettes.
ALPHABET	Large style font for use with Protex.
CPM.BIN	Load CP/M, set Drive B to 792K D20 format.
EDIT	Set up the keyboard for Pascal editing.
NSWPBOOK	NSWP instructions in book form for Protex.
PROGRAM.BAS	BASIC programming aid.
TYPING.TUT	Typing tutorial.
FONT-FIX	Correct small defects in MD+ fonts.

VARIOUS IC/DR
TT/TT2
CARNUM
GODWIN
TUTOR
WALES

Examples and new MD+ fonts.
Typing tutor.
Car registration number locator.
Large screen dump utility.
Another typing tutor.
Explore Wales by Robert Fisk.

PUBLIC DOMAIN DISC 76 AMSDOS - DEMO 10

The MegaPartyDemo II disc. Contains eleven truly excellent demos under the party banner. A must for demo fans and if you think you don't like them try this one.

PUBLIC DOMAIN DISC 77 AMSDOS TEXT & PICTURES

SIDE A: Computex: This is a teletext style program that is more fun than real use but you might disagree.

SIDE B: Pictures: 2010, Stargrid, Medieval, Advert, City, Fortress and Imperial Shuttle.

PUBLIC DOMAIN DISC 78 - AMSDOS - GAMES 4

21ORBUST	Another variation of Pontoon.
ADDICTED	Are you a computer addict.
ATOMIC	Play with atomic particles.
ATTACK	Defend yourself from the alien attack.
CLUEDO	Follow the clues. Solve the mystery.
DALEKS	Get Dr Who back to the Tardis.
DOTMAN	It's a bit like Pacman.
GOLDMINE	Collect all the gold to win.
HANGMAN	Guess the word before it's too late.
HUNT	A treasure hunt.
ISOTOPE	Avoid the walls to stay alive.
MOONLAND	Land safely on the moon.
MOWER	Learn how to mow the lawn safely.
OXO	Play a game of noughts and Cross.
PENTOMINOES	Between dominoes and a jigsaw.
RACEGAME	Go horse racing and betting.
REFLECT	The piec's shuffle.
ROBOTRON	Robot must crush the Ice Monsters.
STUNTBIKE	Calculate the fuel needed to survive.
TILES	Take the last tile and you lose.
WHACKIT	Hit the moles to score.
ALLOUT	Play cricket against Australia.
BOUNCER	Get the ball though the hole.
DINO	Guide Dino though the caves to win.
FORCEFIELD	Escape the ForceField.
LEAGUE	Manage a football team.
PONTOON	The card game.
PRIZ	Escape from the planet Priz.
POWERTETRIS	Power Tetris.
RALLY	Guide your car though the tunnel.
SEQUENCE	What comes next.
SNAKE	Eat mice and win.
SPACEBASE	Defend the Space Base.
WIPEOUT	Knockout the bricks to score and win.

PUBLIC DOMAIN DISC 79 AMSDOS - GAMES 5

CASTLE	Adventure type game.
CEDRIC	Two player game. Make toys.
DABELLS	Guide Mr Humpy across the screen.
DESTROY	Depth-charge the subs.
EGGBLITZ	Clear the runway of scouts.
ISOBOT	Find the crystals and escape.
MELTDOWN	Strategy type game.
METRO	Draws a Metro car.
MUSIC	Moonlight sonata by Beethoven.

MUSICDOCS	Music on the CPC help file.
PLUMBER	Reconnect the pipework.
SPELLING	Educational Spelling game.
STARS	Animation experience.
WAR	Fight and win or lose.
3D-TTT	3D Tic Tac Toe.
ALLEYCAT	Sort the cars into order.
ANNO	Calculate moveable feasts.
BIO	Draws Biorhythms.
C4	Connect 4 style game.
HTOWERS	Towers of Hanoi.
JACKPOT	Fruit Machine Simulation.
KNIGHT	Move the knight.
NIM	Take the last match to win.
NINEMEN	Variation of noughts and crosses.
PROVERBS	Complete the proverbs to win.
SOLITARE	The game.
YAHTZE	A game with dice.
BOTTLES	Variation of hangman.
FLAGS	Flags of the world. Some anyway.
THOMAS	A.I. on the CPC.
PONTOON	A very popular card game.
TIME	Enter the correct time to win.
BBCEMULATOR	Make your CPC look like a BBC.
LUNARLANDING	Land your craft but don't crash.
LISSA	Lissajoux patterns.

PUBLIC DOMAIN DISC 80 CP/M 3.1 - SMALL C

SMALL C. Is a complete version of the language that will produce stand alone COM files. Comes with complete documentation.

SMALL C INTERPRETER . Is a cut down version of the language C and it has been designed to assist in the learning of C. Complete with documentation.

PUBLIC DOMAIN DISC 81 CP/M 3.1 - PRINTMASTER

Printmaster is the CP/M graphics program that is so easy to use and follow. Full instructions on how to create a work disc.

PUBLIC DOMAIN DISC 82 CP/M 3.1 - UTILITIES

SCAT ETC	A full disc cataloging suite of programs.
EINSTRAD	Read and write to Einstein discs.
MAXI	MaxiSweep review and information.
MS	MaxiSweep the updated version of NSWP.
PS	Printer and screen controller utility.
UNERA	Unerase erased files.
VIDEO	Make and print video tape labels.
ZX3	Superb disc utility.
B40-80	Formats discs as 80 tracks, includes notes.
BLANK	Blanks the screen to save wear and tear.
CPM2	CP/M 2.2 Emulator for CP/M 3.1
DISCKITA	General purpose disc formatting utility.
MAXELCAT	Easy to use catalogue program.
MENU	Super CP/M Menu program.
PCW	Allows you to read PCW discs.
SC2DATE	Improved date options for SuperCalc 2.
SDUMP	Screen dump RSX for CP/M 3.1.
SIDEWAYS	Prints spreadsheets sideways down the page.
WRDCOUNT	Counts the words in text files.

PUBLIC DOMAIN DISC 83 - CP/M 3.1 - PRINTMASTER GRAPHICS 1

These new graphic libraries considerably enhance the graphics available for Printmaster. The graphics come with exact details of how to create new working discs.

PUBLIC DOMAIN DISC 84 - CP/M 3.1 - PRINTMASTER GRAPHICS 2 Another new graphic library to add to your Printmaster library. Again details of how to set up working copies of Printmaster discs are included.

PUBLIC DOMAIN DISC 85 AMSDOS MICRODESIGN 13

This disc contains the five complete fonts sets that are used to design WACCI page headers. The DR files are named firstly after the character height (printed using a 24 pin printer) and, secondly, after the character names eg the 23mm high font containing the first part of the alphabet is called 23-ABC+.DR, the middle of the alphabet 23-KLM+.DR and the end section of the alphabet is called 23-UVW+.DR and that's all there is to it. The disc was reviewed in issue 71, page 24. Also included are ten clip art files made up of smaller pieces of artwork.

PUBLIC DOMAIN DISC 86 AMSDOS - UTILITIES 6

DOSCOPY	Shareware AMSDOS to MS-DOS to AMSDOS file transfer program. It also formats too.
FIRMWARE	An extensive text file with its own viewer which outlines the Firmware commands.
FM7	File Manager number 7 would you believe.
JS-DBASE	The program needs the Arnor ROM Utopia and a printer hooked up to your CPC for it to run.
LINKPROG	This is a 6128 only brainstorming program.
LOGIFILE	Another very good database.
SIGBASE	And yet another database program.
TABLES	Record your school time table.
TURING	A living mathematical pattern generator.
WISDOM	Random wise saying - you will love them.
DLAN	by Campbell Systems. DLAN stands for Display LANguage and the results are truly excellent.

The package comes complete with full documentation.

PUBLIC DOMAIN DISC 87 - CP/M 3.1 - SCRIVNER

The complete database and spreadsheet program complete with documentation that will ensure endless hours of enjoyable reading and complete mastery of the program.

PUBLIC DOMAIN DISC 88 - RUNDSCHLAG - GERMAN

MAGAZINE 8Print, Hide, Snow, TicTac, Check, EuroCup, Huepf, Ram, Raster, Scroll. Side B: Megablasters demo.

PUBLIC DOMAIN DISC 89 AMSDOS - PICTURE 11

Alien, Apple, Bengal, Gulls, Haunted, Honda, Imaginat, Imcruiser, Indian, Its, Jdean01, Jupiter, Kingtut, Kitty, Ladyf, Ladyf1, Ladys, Notang, Oldeagle, Parrot, Straw and last but not least Swimmer. Astro3, Blastoff, Coyote, Dione, Dougal, Dragon1, Dragon2, Fish, Goofy, Gravity, Kirk4, Ladyc, Monarch, Saturn, Stooges, Waterfa1, Waterfa2, Worldne, Worldnw, Worldse and would you believe Worldsw.

PUBLIC DOMAIN DISC 90 AMSDOS - VOYAGE 1993

MEGADEMO In the year 1993 the world was dark and cold but some guys made a voyage to bring back fire. Demo by the BENG crowd.

IT ONLY COSTS:

£2.50 to buy a 3" disc full of great PD software or £1.50 to borrow and please return the disc as soon as possible.

** 3.5 discs are £1.00 each and NOT available to borrow. **

**** Please make cheques payable to WACCI ****

Market Stall SALE!

Angie Hardwick 23 Station Place, Bloxwich, Walsall, West Midlands. WS3 2PH Tel: 01922 449730

Here we are in May 17 tickets sold for the Convention and three reserved I need to tell you frankly that if I have not sold at least 70 tickets by July then I will cancel, I am quite happy to reserve tickets for you if you don't want to send the money now but I do need some encouragement from you otherwise I feel as if I knocking my head on a brick wall!!!

FOR SALE

CPC 6128, CTM644 Colour Monitor, 2 off CPC6128 Plus's, 2 off CPC464 Plus's, CM14 3 off Colour Monitor for Plus.

FD1 3" B Drive and Cable, DD1 3" A Drive and Cable, 5.25" B Drive and PSU & Cable, 3.5" B Drive and PSU & Cable. Tape Recorder and leads.

Star LC100 9 Pin Colour Dot Matrix Printer c/w cable and 9 black, 3 colour ribbons, MP2 Modulator for 6128, MP3 TV Tuner for CTM644.

2 off Rombo 8 Slot Romboxes, Microgenics 8 Slot Romboard, Honeysoft 4 slot Romboard, Pace RS232 Interface and Commstar, Amstrad SM2400 Modem c/w PSU and manual.

Amdrum, DK 256K Silicon Disk/memory, DK Speech synthesizer and speakers, DK Real Time Clock, Ram Music Machine, Rombo Vidi Digitiser, John Morrisson Rom Blower c/w software on disk and Rom, AMX Stop Press c/w mouse and interface, 4 off Amstrad Joypads, Quickshot 11 turbo, Printer switch box, RS232 <> Parallel Convertor.

Software

9 cartridges all different titles, 220 plus tapes games, 200 plus disks (games & blanks, some unused), 150 plus Magazines, Lots of books and manuals (immaculate condition).

Roms

3 off Utopia, 3 off Protex, 2 off Prospell, Promerge, Proprint, DES, Maxam, 2 off Parados, Nirvana,

Rodos, Romdos, 2 off MS800, Bonzo Super Meddler/ Minidos, Maxidos, Bonzo Doo Dah, Silicon Disc Rom, Disc Demon, Micro Music Creator 1 and 2, Procopy.

All the above items are fully working and complete, most items are as new.

Items Not working or Incomplete as follows:

CTM640 Tube OK, DMP2000 pcb us but head Ok, 3.5" B Drive, GX4000 complete, Star LC24-10 works but no head.

THIS IS MY ENTIRE CPC COLLECTION (A SAD DAY) BUT I WOULD LIKE TO SELL IT AS WHOLE LOT FOR AROUND £300 TO £400.

I would be willing to part with some of the duplicate items seperately.

PLEASE CONTACT: Dave Simpson 9 Belmont Gardens, London Road, Raunds, Northants, NN9 6RN Tele: 01933 622692

e-mail: djsimpson@micromat.net

Wanted

CPC Contacts for game swapping etc

PLEASE CONTACT: Paul Wass, 86 Jenford Street, Mansfield, Notts NG18 5QZ TEL: 01623-451464.

WANTED:

Chas Stephens wants back issues of Wacci 4 to 13 and 15, 22, and 23 if your can help

PLEASE CONTACT: Chas at 99 Oakes Road, Bury St Edmunds, Suffolk IP32 6QF TEL: 01284-764936.

WANTED:

The Dart Scanner and The Teletext Adaptor and Decoder for the CPC6128

PLEASE CONTACT: Ray Neal Tel: COVENTRY 01203-362063.

For Sale

Please note these prices are for sales in the uk only. Please make cheques payable to **M. R. Wilson**. All orders of £15 or over include postage. Orders under £15 add £3. I get a certificate of posting when I send item(s) as insurance. Buy £30 or more of goods and I'll include half that value of software/mags of my choice free of charge. Remind me of this when you order to get this offer. Always willing to consider swapping stuff either for the CPC or other computers/consoles.

Hardware and Sundry's

5 1/4 40 track bare disk drive for use with CPC6128 as 2nd drive. Meaning ability to use cheap 5 1/4 disks instead of 3 inch. Requires cable and psu. £7.

Amstrad CPC464 plus (just computer no monitor or basic cartridge) £17.

Amstrad CPC464 plus (*just computer no monitor with basic cart*) £22. Amstrad CPC464 (*just computer no monitor*) £15 or with colour monitor £40. May also be able to help with connectors and cable for making up leads and info on monitors if you have a modulator and wish to connect a monitor.

Magazines (*are for swopping for mags I don't have*) Amstrad Actions issues: 25 (*missing cover*), 30, 35, 38, 40, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 60, 82, 94. Other mags: CPC computing Nov 88 & Amstrad Computer User march 86

Books 100 programs for the Amstrad. Basic Programming on the Amstrad Computers for £2 each. The Amazine Amstrad Omnibus including tape £6, Games and Graphics Programing on the Amstrad computers £3, Made Easy £1.25, Epson lx86 printer manual £4, Amstrad Micro Guide £1.

CPC plus range cartridges complete as new for £7 each. Navy seals (*excellent shoot em up but hard uses enhanced features*), Operation Thunderbolt (*3d sh/up not enhanced*), Robocop 2 (*enhanced and excellent but hard*), Barbarian 2 (*excellent beat em up adventure but not enhanced*) and Batman (*excellent beat em up/mainly platform game*).

Games disks compilations

The Gold Collection 2; contains Kungfu Master, Gunflight, Knightlore, Desert Fox, Bounty Bob and Questprobe. £5.

The Magnificent Seven; contains 8 games which are; Head Over Heels, Cobra, Short Circuit, Frankie Goes To Hollywood, Arkanoid, Wizball, Great Escape, Yie Ar Kungfu. £6

Wheels Of Fire contains; contains Turbo Outrun, Chase HQ, Hard Drivin, Power Drift for £6.

Cyrus II 3d Chess. Highway Encounte. Jumpjet. Footballer Of The Year for £2 each. Theatre Europe (*no case/instructions*). Spitfire 40. They Stole A Million (*no instructions*). Centre Court (*no instructions*). The

Living daylights (*no case*) for £1.25 each. Elite £9. Lord Of The Rings £4. Grand Rrix Rally Two £1.50.

Serious software on disk

Word Perfect by Supersoft (*complete and boxed in plastic case with manual*) £5 (*good, simple word processor package*), Tasword 6128 by Tasman (*complete in wallet with full manual. its more sophisticated than word perfect*) £10. Ultrabase £3.

Creative software

3d Construction kit by Incentive. Cassette also contains Spectrum version. complete as new with manual. enables you to design 3d game like Driller and Darkside. The Animator on disk for £4 each. The Graphic Adventure Creator cassette (*complete with manual in original plastic case*) £5, The Graphic Adventure Creator disk £1.25, Model Universe by Arnor (*Gatecrasher on reverse side of disc*) £2, Rainbird OCP Art Studio complete disk version £7.

Cassette games Captain Blood £2.50 Raffles £1.50 Driller £3.

Cassette compilations Arcadia contains; Operation Thunderbolt New Zealand Story Chase HQ. Special Action contains; Driller, Captain Blood, Vindicator, Daley Thompsons Olympic Challenge, Sd I for £3 each. Battle Stations contains; Operation Wolf, Typhoon, Guerilla War £2. Summertime Specials contains; Solomons Key, Bravestarr, Captain America, Trantor, World Class Leaderboard, Rygar £2

Single games

The Real Ghostbusters. International Karate. Ranarama. Run The Gauntlet. Livingstone I Presume for £1 each. Shinobi. Vindicators. Krackout. Blasteroids for £1.50 each. Bloodwych and Gryzor for £2 each. Get Dexter 2. Starfox and Operation Wolf for £3 each.

Milk Race x2, Kentilla x2 Mindtrap x2, Sweevos World. Any one of these games free with 2 from below Hyberbowl x2. Rygar. Spindizzy. Snooker by Amsoft. Cascade 50

Compilation for 50p each. Dan Darex2. Street Machine. Nigel Mansells Grand Prix. Road Blasters.

Redcoats (*no inlay*). Matchday (*oversized case*) and Ninja for 75p each. Batman. R Type. Thundercats. World Cup Soccer Italia 90. Silkworm. Battleship. Octoplex. and 720 Degrees for £1 each.

Magazine covertapes June 92 tape with Forbidden Planet (*complete game*), Sprite Designer and Addams Family demo. AA covertape with Puzznic demo. AA covertape with Hydrofool and Dizzy (*complete games*). Total Recall demo and AA toolbox. AA covertape with Defenders Of The Earth (*complete game*) plus PD Tetris and Supersonic util. AA covertape with Predator 2 demo. How To Be A Complete b..(*complete game*). Biggles (*complete game*) and AA toolbox. AA covertape with Mastercalc and Biff game. Lost Caves (*complete game*). CPC Computing tape with lots of PD and Protex demo for 75p each.

AA covertape with Shinobi demo plus PD. AA covertape with Untouchables demo and PD. AA covertape with Total Eclipse demo and PD. AA covertape with Contraption (*complete game*) and Instant Recall for 50p each.

Other stuff

Arcadia cassette compilation. Incomplete no instructions or Chase HQ just Operation Thunderbolt and New Zealand Story £1.25. Forgotten Worlds instructions free on request.

Driller disk (*needs Novella*). Demons And Drivers (*incomplete just Turbo Outrun*). Four great games volume 2 (*no case*) includes Battle Of The Planets, King Tuts Pyramid, Future Shock, and Copout for £1 each.

This list is never quite totally upto date some stuff has been removed and some stuff added. So please give alternatives and always mention anything your looking for specifically just in case I have it.

Contact: Martin Wilson, 32 Grass Royal, Yeovil, Somerset, BA21 4JW Tel 01935 425974

PRINT ENHANCING THE PROTOTYPE WAY

Peter Rogerson

So why does this page look different, then? I'd better explain. It's about Prototype, a print enhancer for cheap 9-pin printers, so that's what it's been done on: Prototype and Prottext, a CPC 6128 and a Citizen 120D 9-pin printer with an elderly ribbon. Oh, and I used Pro-Ext for the Headline.

They can snigger, can't they, those ant-heads surrounded by a wealth of Pentium nonsense, Millenium Bugs and Lazer-jet printers complete with snazzy fonts and crisp output. And if the only vision they have of CPC printed output is from an elderly 9-pin printer, then that sniggering can be quite easily understood.

We all feel a little bit humiliated, don't we? On the surface they seem right. The output from our geriatric 9-pin printers is archaic, to say the least, and we've totally forgotten that one of the last CPC products created by our lamented buddies at Arnor was a little print enhancer called *Prototype*. In fact we probably do remember something about it, maybe we saw it advertised in the CPC press and marvelled then that anything as crass as a print enhancer could produce documents as up-to-the-minute perfect from a machine as limited as a nine-pin printer with a dodgy ribbon running off a CPC. But it can, and this little article's meant to do two things: 1, remind those of your who are long enough in the tooth to know all about *Prototype* what the program does and 2, introduce it to more recent members of the CPC club. So here goes.

To start with, in order to print a letter or a page using a print enhancer you're going to need to set aside *time* in which to do it. Your old Star or Citizen or Mannesmann nine-pin might happily churn out pages of dotty draft in next to no time, but that dotty draft is what we're trying to escape from. And its going to take that printer of yours the time I italicised just now.

Let's look at some of the features supported by *Prototype*, and in order to illustrate as much as I can I'm going to actually use them, starting with the bullet(●).

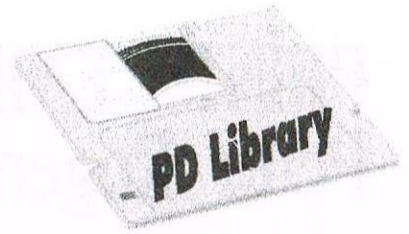
- There are three fonts resident in memory and these can be exchanged quite simply at any point in the text (via an embedded command) with other fonts. There are seven on the *Prototype* disc for starters.
- Italics. One of the poorer aspects of default 9-pin fonts is the *italic* set, and *Prototype* put that right by having a font totally dedicated to italics.
- The CONTROL-X of Prottext is replaced by the f0 key - abit easier than the old double-press!
- Just about every foreign accent is catered for as well as a goodly selection of other symbols - here's a fragrant little nosegay of some of them, the more commonly required, é, à, û and so on, to less frequently used little delights, like æ, ©, ø, σ, ʙ and so on, there's quite a lot of them.
- Finally we can get away from the spaces that pad documents out in order to create right-justification. Instead *Prototype* uses proportional fonts (the i takes up less space than the m), kerning (arranging letters according to the characteristics of their neighbours) and set the whole lot off by then using proportional spaces, so the whole things looks professional and not the work of an old nine-pin thingy.
- You can even encircle ③ numbers or letters, put them in square boxes, 4, but only with the smaller fonts (here I've slipped to a small font, encircled the number and then slipped back to the larger font).
- There's provision for box graphics using the function keys, witness the line at the bottom of this article.

There are loads of other features. Side two of the disc, for instance, allows you to incorporate the features of *Prototype* in programs of your own without it installing *Prottext*. But there is one limitation that won't please our 64k owning chums who've so far neglected in investing in a RAM pack: *Prototype* uses the extra 64k of memory, three banks of 16k for the three fonts it holds in memory and the one remaining bank for itself. In fact, it uses very little of the main 64k.

Right. To conclude, then. If you actually and desperately require modern, top-notch output from your old 9-pin printer then get hold of a copy of *Prototype* It might just make you think again when you start wondering about upgrading in order to produce documents with a decent appearance.

Poking Around

with Ian Parker



Here we are again. Don't forget that where possible I will try these programs out on a CPC464 + 64K RAM + Disc drive using DD11. Surprising as it may seem we have more than one disc reviewed this month due to a lack of comprehensively descriptive things to say about them. It really gives a chance for those of you that like demo's to indulge yourself a little. So this month I am going to look at no less than four discs of demo's for you. They will be PD's 58, 59, 60, 64 & 67.

First up is PD Disc 58

The first disc for this month is PD 58 and it will run on the above '464. This disc is an overscan demo picture show. Overscan means that the picture extends across into the borders of the screen. You get an image that goes fully from side to side of the VDU.

Because of the clever bits needed to put these pictures on the screen they will not readily translate into a form that an art program can use. This means that it not so easy to alter a picture to look a bit like Groucho Marx. The Pictures themselves are pretty good, I think I like the one called Indiaral best (*it's on Side 1*).

The disc contains 7 images per side and are shown by the small program called "disc". Which is handy for starting the show quickly with RUN"DISC.

Second is PD Disc 59

On to the next disc, number 59. Here we have a disc full of demo's. I can almost hear one of you say "*What's a demo's?*" Even for anyone that didn't ask I'll still tell you anyway. A demo is a program that shows the capability or intimate knowledge of a machine and for the person putting the bits together. The results are often quite stunning when one considers the limitations of the system.

A series of groups, seemingly mostly on the continent, came into being, in the early to mid eighties. They exchanged and developed ideas and techniques in their demos, including in them messages of greeting and so on. Each demo was eventually regarded as an indication of the prowess of an individual or group.

Some of the demos appeared with "secret" key operations, an example is in the Face Hugger demo (*option 7 - side 2*) where the space bar will switch various displays in the first section. The second section (*The lemmings*) uses Ctrl-H for an effect.

It's up to you to find the keys in some demos, always assuming there are any keys to find. During the setting up for this review, I scanned this disc with ParaDos. It proved interesting in that it reported that the programs used 192K of space out of a total 169K available. Now tell me, is it my calculating fingers working incorrectly or *what?*

Followed by PD Disc 60

Onwards, ever onwards. Now to PD 60, another picture show in overscan. This disc is called Digital Dreams but some of the dreams are less than sweet.

This disc will partly run on the above '464 but many of the screens give an error or just plain fail to load. Having said that, the detail in a few of the screens is quite surprising. I am running out of things to say about this disc. That is only after 70 odd words or so. *Shame isn't it.*

It looks as though I will have to go on and look at some more PD for you then 'cos I've got the rest of the page to go yet.

Finally PD Disc 64

Right then, PD 64 Demo' Disc 6. Side A or as some would say - Side 1: The LOGON Revolution, A warning about this not always working on older CPC's didn't seem to upset my '464. I didn't think my '464 was very new so there y'go. I think what I will

do with this disc is to rush on and simply list the demo's and include any bits that stick in my mind about them.

The Merlin demo - it's the eyes, they fascinated me so such that I missed most of the screen action and scrolls. That's another thing - if you are going to make a demo PLEASE choose colours that allow the scrolling message to be read against the background else the message may well be wasted because it is illegible.

Now comes The HACK Demo - erm sorry can't recall it. The JUPITER demo is misspelt twice, once in our library supplement and one in the screen menu. Dear Oh Dear and we have to work with this lot. All these spelling mitsooks makes you want to turn in your crying doesn't it?

Finally on this side is The Crash Demo. Another early work that does not stand out in my memory. Which is a shame because the writer was probably really rather pleased with their handiwork and it may have taken a lot of time to put together. So to say that I don't remember it is not a nice thing to say about anyone's efforts, so I must submit my humble apologies here and now and admit that I probably couldn't do as well, so I'm sorry and there's an end to it.

Having got the air cleared we go on to side number 2, or for the numerically challenged, Side B. Here the Plus Machine hardware is mentioned to say sorry but it may not work. Demo's 6 (I & II) will crash my '464. And to save you worrying about my saying four discs looked at in my introduction this month and then going on to talk of six discs, the answer is simple - *I lied about my GCSE pass!*

Programmers` Patch by Matthew Phillips

It's a wet and windy night, and I am sitting in front of the computer trying to think of a good beginning to the article. What will grab the attention of the WACCI reader and entice even the most timid programmer to read a load of technical information on the dulllest aspects of MIDI? Well this won't for sure...

MORE STATUS CODES

Last month I went through most of the MIDI status codes you are likely to meet. There are a few more that are worth knowing about. Some you may want to send to a keyboard for special effects. Other messages you may meet when receiving data from a keyboard, in which case it is useful to know what it is safe to ignore.

First we have Control Change, with status code `&Bx`, where `x` is the channel (*0 to F for channels 1 to 16*). This allows you to change all sorts of things. It is followed by two bytes, the first of which is the number of the control to change, and the second is the new value for that control.

For example, to turn the sustaining pedal on for channel 1 you might do:

```
|SEND,&B0,64,127
```

and `|SEND,&B0,64,0` would turn it off again. The sustaining pedal is often control no. 64. There are lots of other control numbers, but not all of them are applied in a standard way from one keyboard to another.

Probably the most useful control is Bank Select, which is control zero. This allows you to choose a bank of instruments. Remember that `&Cx`, Programme Change, allows us to choose an instrument for the channel out of 128 different instruments. If your keyboard has more instruments available, Bank Select is used to swap in a different set. Actually Bank Select

occupies controls 0 and 32, and the two values are combined to allow you to choose from 16384 banks of sounds, each with 128 instruments! If `m` is the bank number, then you select it by sending:

```
|SEND,&Bx,0,a,&Bx,32,b
```

where

```
a=m\128  
b=m MOD 128
```

and `x` is 0 to F for the channel number. Running status may allow the second `&Bx` byte to be missed out, but I am not sure about that. I doubt there is any keyboard available with over 2 million instrument sounds, but there we are...

SYSTEM MESSAGES

The other big set of messages are the system messages, occupying status bytes `&F0` to `&FF`. These come in two varieties, system common messages, from `&F0` to `&F7`, and system real-time messages, `&F8` to `&FF`. System real-time messages have the unique property that they can be sent at any moment, even in the middle of another message.

The most common of these messages is the timing clock, code `&F8`. This signal is sent out 24 times in every crotchet to keep all the equipment in synch. When the music slows down the clock signal is sent less frequently. The reason it is sent 24 times in a crotchet is to make timing triplets

possible. Another important system message is the system exclusive message. This is used to send special data specific to a particular type of keyboard. The message starts with `&F0` and is followed by data bytes, the first of which indicates the manufacturer of the keyboard (*e.g. 65 for Roland*). The end of the data bytes is marked by `&F7`. System exclusive messages are used for all sorts of purposes, but most frequently for saving data from the memory of the keyboard. Most keyboards can transmit their drum, tune or sample memory as a system exclusive message, which can then be picked up by the computer and saved to disc.

PLAYING A TUNE

Well, I promised a program to play a tune, and here it is. Type in Listing 1, with line 300 adjusted to the number appropriate to your MIDI interface. You will need to run Listing 1 from last month's article first to install the RSX commands, or you can type this month's listing on the end of last month's and run them both together. If you choose to do that then add an extra line:

```
5 IF PEEK(&9D00)=1 THEN 300
```

This will stop the RSXs being installed again if you run the program several times. Installing RSXs twice without resetting the machine causes problems.

When you run the program you should get the first half of a well known tune played on your keyboard

in beautiful three part harmony. The program itself is quite simple. Line 320 sets up an interrupt which is called every 12/50ths of a second. Alter the number to change the speed of the music. Line 330 then just hangs around waiting for the signal that the music has stopped.

The subroutine at 400 is where all the work is done. The program reads the data in lines 500 onwards. All of the positive data numbers are read and sent to the MIDI interface. When a negative number is reached (*eg at the end of line 500*), it is not sent to the interface. Instead *t* is set to the equivalent positive number. This indicates the amount of time to wait before reading the next batch of data. Line 400 is where *t* is gradually decreased until it is zero again, and only when *t* is zero do we read the next set of data.

The value -100 indicates that the end of the piece has been reached, so if you want to save typing you could put -100 at the end of line 570 and stop there.

How does the data work? Well basically it is a load of MIDI commands, as explained last month. They are all Note On commands, apart from one Polyphonic Key Pressure in the middle of line 650. Turning notes off again has been done by using Note On commands with a velocity value of zero.

Just to get a feel for what is happening, let us go over the first few lines of data. In line 500 we turn on a note on channel 1, by sending &90,64,50. This plays an E at a medium volume. Two notes are turned on on channel 2: &91,52,40,55,40. Pitch 52 is an E an octave lower than before, and 55 is a G. The velocity values of 40 mean they should be slightly quieter than the note on channel 1. The -4 is a signal to say "*now wait four beats before we send any more data*".

The next line, 510, just turns off the E on channel 1, and then immediately starts another E. We then wait two

beats before reading the data on line 520. This turns off the E again, and also turns off the notes on channel 2, which have lasted a total of six beats since the start of line 500. There is no negative number at the end of line 520, so we read the data on line 525 straight away. This starts three more notes playing.

We could have missed out the &90 from the start of line 520, as running status means that it would still be in force because it was the last status byte used, but it is probably more readable with it in.

Of course there is a lot of scope for improvement - the rest of the tune could be added for a start! You can also use other MIDI commands apart from Note On. For example, adding the following data to the start of line 500 would choose the instruments for the two channels:

```
&C0,41,&C1,1
```

You could add more of these types of MIDI command to change the instruments during the piece.

RECEIVING MIDI DATA

Up till now we have concentrated entirely on sending data to the MIDI interface, but it is also possible to receive data sent by other MIDI devices.

Bit zero on the MIDI interface status port indicates whether a byte has been received, at which point the byte can be read on the data read port of the interface. See Table 1 for the port addresses. For example, the following little program would wait for a byte to be received and print the hex value on the screen:

```
10 WHILE (INP(&F8EE) AND  
1)=0:WEND  
20 PRINT HEX$(INP(&F8EF))
```

The WHILE WEND loop could be replaced by an example of the little-used WAIT command: 10 WAIT &F8EE,1 but if nothing is received, you have to reset the computer to break out of it! The port values are

those for the RAM Music Machine - just change the numbers according to Table 1.

Reading bytes from the MIDI interface in BASIC is not really very practical, as MIDI operates at 31250 baud, which is fast. Even machine code could have trouble keeping up. The only software I have written for receiving MIDI data used rather specialised features of the RAM Music Machine, so some practical examples of receiving data will have to wait until I have had the opportunity to do a little more experimenting.

A LOOK TO THE FUTURE

You may be relieved to read that next month we will be going back to some ordinary programming and leaving MIDI alone for a bit. I have compiled a very short list of books that I found in my local library which may be useful if you want to learn more about MIDI. Your library may have similar books, but if they haven't got anything useful they should be able to get some of these on inter-library loan for you.

If any of you would like us to cover any other aspects of MIDI, write in to Fair Comment and let us know. In fact, write in with any suggestions on what you would like us to cover in Programmers' Patch, and we will see what we can do!

USEFUL BOOKS

Practical MIDI handbook, by R.A. Penfold, 3rd ed., PC Publishing, 1995 ISBN 1-870775-36-8

A good general introduction to all aspects of MIDI. Perhaps geared more towards the musician than the computer user. It even mentions 8 bit computers, but don't believe what it says about the Archimedes being no good for MIDI.

Advanced MIDI user's guide by R.A. Penfold, 2nd ed., PC Publishing, 1995 ISBN 1-870775-39-2 Not so useful as the Practical MIDI handbook, but may be worth dipping into if you come across a copy. Music technology reference book by Peter Buick and Vic

Lennard, PC Publishing, 1995 ISBN 1-870775-34-1 Full of technical detail useful for programming MIDI software. Well worth reading if you want to find out the details of the areas I have skated over.

TABLE 1: MIDI interface port addresses

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

LISTING 1

```

300 |CHOUT,0:REM 1 for EMR, 2 for DHCP
310 RESTORE 500:t=1:GOSUB 400
320 EVERY 12 GOSUB 400
330 WHILE t<>100:WEND
340 END
400 t=t-1:IF t>0 THEN RETURN
410 DI:READ a
420 WHILE a>=0:|SEND,a
430 READ a:WEND
440 t=-a
450 EI:RETURN
500 DATA &90,64,50,&91,52,40,55,40,-4
510 DATA &90,64,0,64,50,-2
520 DATA &90,64,0,&91,52,0,55,0
525 DATA &90,71,50,&91,52,40,55,40,-4
530 DATA &90,71,0,71,50,-2
540 DATA &90,71,0,&91,52,0,55,0
545 DATA &90,66,50,&91,50,40,57,40,-3
550 DATA &90,66,0,67,50,-1
560 DATA &90,67,0,66,50,-2
570 DATA &90,66,0,&91,50,0,57,0
575 DATA &90,64,50,&91,52,40,55,40,-6
580 DATA &90,64,0,&91,52,0,55,0,55,45,-2
590 DATA &90,71,70,-2
600 DATA &90,71,0,&91,55,0
605 DATA &90,74,75,&91,54,50,57,50,-2
610 DATA &90,74,0,&91,54,0,57,0
615 DATA &90,76,80,&91,52,55,&91,55,55,-4
620 DATA &90,76,0,&91,52,0,&90,74,75,&91,52,60,-2
630 DATA &90,74,0,&91,52,0,55,0
635 DATA &90,71,70,&91,55,65,62,65,-2
640 DATA &90,71,0,&91,55,0,62,0
645 DATA &90,73,60,&91,57,65,64,70,-2
650 DATA &90,73,0,69,50,&A1,57,60,&A1,64,65,-2
660 DATA &90,69,0,&91,57,0,64,0
665 DATA &90,71,40,&91,52,40,67,40,-6
670 DATA &90,71,0,&91,52,0,67,0,-100

```

Matthew Phillips

THE DIRECTORY

ComSoft

For products like Protex, Utopia, Prospell, MicroDesign+ contact Peter on telephone no. 0141 554 4735. Credit Cards welcome.

H.E.C.

(Amstrad Repairs)

47-49 Railway Road, Leigh, Lancashire WN7 4AA

Telephone 01942 261866/672424

Quality repairs with most at standard charges. Free technical support, advice and information on all repairs carried out. A 10% discount is available to WACCI.

CrystalX Software

11 Vicarage View, Redditch, Worcs B97 4RF

Stellar Outpost, excellent strategy game. Tape £2.50 Disc £3.99

(Cheques payable to A Swinbourne)

Merline-Serve/KAD

Brympton Cottage, Brunswick Road

Worthing, Sussex BN11 3NQ

Tel/Fax 01903 206739

If you can't get hold of a CPC item, then try us, because we have probably got what you want. The latest Catalogue. KAD, a disc based PD library containing over 200 discs. For a catalogue send a disc (3" or 3.5") and a SSAE.

Three Inch Drive Belts

AJ Howard, 65 Altyre Way, Beckenham, Kent BR3 3ED

For the CPC and PCW. Flat fitting with instructions.

Only £2.25 including P&P.

AKTIV

The printer supplies specialist. Cheap but good quality printer ribbons and cartridges. Tele: 0115 9308200 for details. Their address is AKTIV, Computer Products Ltd, Unit 1, Lyndal Court, Manners Industrial Estate, Ikeston, Derbyshire. DE7 8YA

WACCO

Brian Watson, "Harrowden" 39 High Street, Sutton-in-the Isle, Ely, Cambs CB6 2RA.

Tele: 01353 777006. Protex for the CPC, PC and Atari. Pipeline Tutorials, 8BIT Magazine and The Independent Eight Association and more. Call for details..

DSK-CPC by Divine Coding

Divinely Appraised

One of the little joys one discovers when one is downloading software via the Internet is the .DSK file. It all happens like this.

The software initially appears as a .ZIP file, maybe 60k long, which is just about right for CPC software that includes a loading-screen. Once downloaded the ZIP file needs treating by an unzipper (*stop sniggering*), and this produces a .DSK file which has the absurd length of over 190k. I mean, 190k for a CPC!

These files are apparently used to run CPC games by emulators on higher-spec. machines. I've discovered what I know by watching a friend download CPC software on his Amiga, so it doesn't have to be a PC, the Lord be praised.

As an aside, this same friend has a CPC emulator on his Amiga and is of the opinion that the good old 8-bits best chance of survival may well lie in the use of emulators on PCs and the like. With a wider user-base due to this kind of usage, he suggests, the odd piece of new software may profitably be produced. Maybe he's right, but anyway, right or wrong, it's an interesting idea.

So what do we, CPC owners, do with a 720k DOS disc containing three games in .DSK format? (*Work it out - you can only get three 190+k files on a DOS disc*). We clearly need a piece of software to put everything right. And that piece of software is DSK-CPC by Divine Coding, available, believe it or not, via the Internet. At least, that's how I got my copy. The program is "Almost PD", a grey definition of its status which I understand means that it can be freely

copied between friends and colleagues as long as the author's copyright is respected and no profit is involved. Upon loading, the program presents us with a simple screen containing four options.

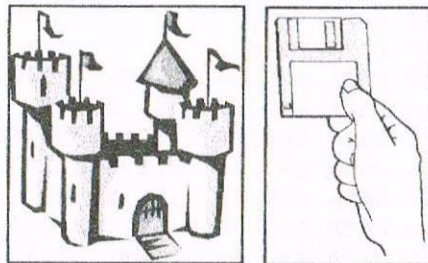
- 1: Select .DSK file
- 2: Options
- 3: Help/Instructions
- 4: Exit from DSK-CPC

The Instructions are comprehensive enough for one to be able to proceed straight into the program. The one thing that might need to be altered from default setting is the gap#3, which might need to be adjusted in order to facilitate the transfer of "difficult" formats. The normal thing to do, though, is to select (1) and let the program go about its business. It works like a charm, reading the source disk track by track and formatting and copying onto the A (3 inch) drive with ease of a silicon deity. It made me cackle when a 191k file was reduced to the 9k of Chuckie Egg!

If you would like to be able to convert files intended for emulators on other machines back into a useable form for your CPC, then this program does everything you could want of it. I'm not so sure where you might get hold of a copy other than via the Internet, though it may be resident in some PD libraries. I've sent John a copy and maybe he can see about putting it in our library.

Peter Rogerson

Merline-Serve/KAD,
Brympton Cottage,
Brunswick Road,
Worthing, West Sussex,
BN11 3NQ.
Tel/Fax 01903 206739



Merline-Serve is a non-profit making service run by CPC enthusiasts, for CPC enthusiasts. We supply software and hardware no longer available from the commercial software houses and publishing companies. We stock many books, magazines, fanzines, ROMs, hardware, software (*both games and utilities*) on disc, tape and cartridge. Our items are in good working order, or your money back. We will consider swaps, part exchanges and purchases ourselves. If you can't get hold of a CPC item, then try us, because we have probably got what you want, can get hold of it or know someone who can. We also run King Arthur's Domain, a disc based PD library containing over 200 discs. For a catalogue, send a disc (3" or 3.5") and an S.S.A.E. to the address above and we'll get one on it's way.

Amstrad Technical Magazine

Available from: Roy Everett, 2 Coldnailhurst Avenue, Braintree, Essex, CM7 2SJ

Telephone: 01376 344572

It would seem that some European discmags are being modified. But what's new from our own shores, is anything new even possible anymore?

ATM?

I would appear that the way forwards is not just to re-vamp old games, why not re-vamp old technical articles too, throw in a few new ones add a leisure section, then do the obvious thing - bung it on a disc and call it Amstrad Technical disc Magazine? As strange as that may sound it's out there, or at least at the time of writing this review issue's 1&2 are out there at least. But how did it fare under the weight of so many discmags that have come before?

RUN"ATM"

I have both issue's 1 and 2, so I can judge from the worst time of all for a discmag onwards how the discmag is likely to proceed in later issues. ATM it has to be said, is a bit of a mixed bag in the first two issues, but as I've stated the first releases are, a make or break time for any discmag. I've decided to run the review around issue#2 of ATM simply because it is the most recent and therefore the most relevant of the two at this stage at least.

On running ATM the most eye catching feature is the lack of features. Having run many discmags in my CPC years, I have come to know a wide variety of menu formats, some excellent yet confusing, with their set-up routines or overly fast cursor actions. ATM simply gets on with it.

STOP, LOOK, LISTEN?

ATM lacks many features that not only have I personally come to appreciate but I have then also come to want in a discmag. Having an avoid left pupil means stark, garish intro's not only cause great pain, but also make me want to switch off and run something else instead. This is a

shame in some respects, especially seeing as one of the articles featured within ATM actually mentions subtle changes that not only should have been installed into the likes of TASWORD etc, but it also asks why not make these changes yourself to back up copies? ATM runs solely with a WHITE paper and border option. It's a shame really when all it would have taken to allow the user to alter the colours to suit their own tastes.

LISTEN...

ATM has no music, which I have found in most respects a lack of music to be a relief. Not that I don't like CPC music, I love it and hope one day to compile an audio cassette of my fav' joints. No music no problems there, you can't get annoyed listening to the same three tunes over and over again. I did find the menu set-up sequence at little too long in the tooth, oh it works, but I prefer a much simpler load the actual menu options - hit a single key to run my choice there and then routine. ATM display's a menu of sections that appear in the issue in an index format, but then on say choosing the articles section you have to go through the whole procedure again of selecting an article from a listing of 1-15 from a SECOND MENU!. If the problem was trying to save disc space then surely a single menu option not only saves space but also runs faster?

BUT IS IT FUNNY?

We all have our own funny little quirks in life, ME?, I like anything I buy or ask for in the scene to be what it say's on the label or the front cover. ATM, whilst it does meet a large section of what it claims to be, a TECHNICAL magazine, it sadly has

an annoying habit of injecting, though funny, somewhat out of place jokes and or nasty insinuations at just the wrong times. If humour is to be used in any technical magazine then if not a toned down humour, surely a separate section for the jokes should be added? In and around the jokes the technical items so far from MY stand point were both intriguing and well noted for future reference.

IN BLACK AND WHITE

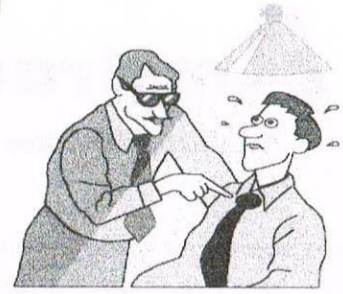
There is a printing option for those among us who prefer to get text etc onto paper, I believe there is an optional screen dump too. I have to state for the record that I HAVEN'T tried this section of ATM so I won't even go into it at this time. The screen display's of actual technical drawings are of an exceptional high quality, clear, precise and easily understood in seconds. Descriptions that accompany the artwork is brief, but in no way lacking in being a helpful asset. We have all come to expect some form of artwork to accompany any technical review etc, but it is very rare a discmag will go that far, well done and thanks for that option Roy.

SOUND OFF 1.. 2.. 3?

After reading issue one of ATM I found I DEFINITELY WANTED to read issue two, first impressions and all that being the main driver. I really wanted to know if ATM two was going to be the same or as I hoped, and found, a much better release. Pity about the crude jokes and insinuations which ruins it I would like to see some changes there but that's me for you.

Jonty Jones

Members Spotlight On Doug Webb



There is more to life than being a chairman of a computer club, to start with it helps if you are retired I enjoy having plenty of spare time, don't tell my wife Doreen that I said that. I am always being reminded that there such tasks as decorating, gardening etc, etc!

IN SIGHT

My very first introduction to computing occurred way back in 1944 whilst I was in the Fleet Air Arm, I was an Instrument Repairer and one of the many items that I had to service and indeed maintain was something called a 'Torpedo F Sight' which was fitted into any aircraft that could carry a torpedo. To use it, the pilot when sighting a target vessel would enter such data as the speed of the vessel, the angle of approach, together with various other items of data. This set of data was computed into a signal that when transposed into the gyroscopic controls of the torpedo would when the pilot decided to launch his torpedo would (or should) collide with the enemy target vessel with the desired result, it's sinking.

Being of an inquisitive nature and never being permitted to take notes of any details of this instrument made me become first a nuisance then an interested student of the civilian expert who's task it was to ensure we could service and maintain this beast of an instrument.

Gone up in smoke

Never really thought anymore about computing until about 1970 when the company I worked for installed a main frame computer that fed monitors around the factory with production requirement statistics. Initially this was of minimal use to us production people due to the data being at least 24hrs old. Things improved very slowly with the data becoming only 12 hrs old. Then the worst happened we had a major fire, this caused the total

destruction of the manufacturing portion of the plant. However we managed to persuade the USA management to rebuild a new manufacturing establishment.

As one would expect being new and USA orientated this plant had everything that was going at that time. Computer monitors were everywhere, but with varying degrees of use so that by now the data it displayed would be very topical. At this time I was the production planner and the monitor that I had in my office became if I flicked a switch a PC, albeit using 5 ¼ discs and a suite of programs called *Lotus Symphony 2*.

I was able to develop my knowledge and understanding of computing. One of the attributes of my monitor/PC was that I had limited access to the mainframe computer where I could install the factual production requirements, adjust/amend as need be, this then provided everyone who required to know an extremely accurate picture of needs against performance. I enjoyed most of the job, but as we all know there are moments of disbelief in what you are trying to do, but I never gave in and at worst compromised?.

And now

Currently I have a 6128 plus with a colour monitor with two ROM boards connected containing Protex (*what else*), Prospell, Promerge Plus, DES, Nirvana, Utopia and Parados, finally all this connected to an Epson Stylus 800+ printer. Not so very far away in the same room is my PC, this was built for me by John Craven of Preston, the specification being Cyrix 686 166mhz,

2.1 Gb hard drive, 32Mgb RAM, a six speed CD ROM drive, an internal modem all coupled to an Epson Stylus Colour printer.

The software I have is very comprehensive all based around the MS Office Professional suite of programmes preinstalled by John Craven. I am sorry to say this but my 6128 plus does tend to pale into insignificance when compared against my PC, but I shall never discard the 6128 it still affords me a great deal of pleasure mainly due to providing members with their PD Library requirements. This latter function has to a great extent almost faded away, such is the obvious inroads that the PC has made into the reign of the CPC's.

Here might I say that WACCI's continued survival could be supported by allowing the PC to be accepted within the WACCI set-up, there are many members who have a PC, and there are many ex-members who did not renew their membership when they bought a PC and I am sure that these could be persuaded and welcomed back into this lovely warm and friendly society we all know as *WACCI*.

My background is that I was born in London just a stones throw from the Lord's Cricket ground where I supported Middlesex, Denis Compton and the like. Understandably I also supported Arsenal and as a young boy thought that their players were the greatest, by the way Denis Compton played for them also! I was serving my time as a centre lathe turner when in 1943 I interrupted this to join the

Fleet Air Arm, upon my eventual demob I was fortunate enough to have my time in the service accepted as the completion of my earlier occupation.

This time onwards I was employed as a turner, the business mainly concerned with the manufacture of gears, the company was eventually taken over by the USA company called Eaton who wished to establish their transmission (*gear boxes*) into an established transmission specialist business.

It was shortly after this that they then purchased a similar concern at Walkden near Bolton, at that time I had moved into the Production Engineering Dept and was seconded to this fresh plant to assist in the change over of their produce.

I suppose I must have been successful for me to be offered the position of Training Officer which after discussion with my wife I accepted. At that time (1967) my two daughters were 14 and 11 so the move only caused a slight problem with the elder one finding the new school to be at a variance to what she had been doing. She did in fact complete her final years schooling before going on to Technical College, my youngest daughter had in fact just completed her junior schooling and was going to change schools anyway, so she went straight into Chorley Grammar school.

They have now both long been married, the eldest having two children and the younger three children.

Doreen and I have been married for 47 years, I am in my 74th year, reasonably fit I don't do any heavy exercise just plenty of walking, my wife Doreen is three years younger than me is remarkably well she accepts the computers in the house but never really takes too much of an interest in them, but is very much aware of WACCI and of my interests as she answers the telephone many times for me. Apart from computers, my other hobbies are photography, crosswords, walking, driving and caravanning but top of the pops enjoying my grandchildren. Two boys and three girls the eldest 17 and the youngest 10 with never a dull moment, they will

ring up to speak to Doreen or myself about all manner of things. They have often told me that Mum has stated go and ask grandma/granddad they will know!

So that's me, I hope that you all know a little more about your current chairman, a position I am very honoured to fulfil as it is something I have always enjoyed doing. One of my own beliefs is that if I belong to and enjoy being part of a pastime organisation then I should be prepared to put something back into it. So since the war I have played cricket whilst being secretary, I enjoyed small-bore rifle shooting and being secretary. At this I was considered proficient enough to represent the Middlesex B team a number of times. I have also been chairman of the Sports & Social club coupled to the firm where we were employed. So once again I am enjoying and contributing towards the existence of this fine club of ours called WACCI.

Looking forward to meeting many of you all at this years Convention in September.

GX4000 CONSOLE

How many of you out there are lucky(?) enough to own a GX4000? Out of those, how many actually own one that works? If you fit into both of these categories, then this item may be of interest to you...

A Surge Of Power

For those not lucky enough to own one of the Amstrad Plus machines, a GX4000 is the only way they can play the excellent cartridge games that were released for these machines.

Unfortunately the GX4000 power supplies are not quite as robust as they could be. A small surge from the output of the power supply, to the console, can be enough to blow it. A warning, not to plug the supply into the mains before connecting to the console, was stuck on to the case, almost as an afterthought by Amstrad. If you have a plus monitor, then this is not a problem, as the monitor provides

the power anyway. If you have not, then the only solution is to find an alternative supply, but the 11V supply required by the GX4000 is quite unusual, and so difficult, if not impossible, to find. However, a 12V power supply will work with the GX4000, but I have not tested this for continuous use, although it is doubtful that it would cause any problems as the supply would be regulated inside the console. If you would rather use the original unit then a simple repair can be carried out:-

I've blown it

The problem lies with a fuse within the power supply itself. However, this can easily be replaced. To replace the fuse, you will need:- A medium size cross head screw driver. A short length of thick wire (*coat hanger*). A drill. A small drill bit, preferably slightly thinner than the wire. A replacement glass fuse.

Problem

The first problem is getting into the power supply. Having forced one apart, I discovered that beneath the three circular indentations in the front of the casing, there are three screws. These indentations are in fact plugs.

Lay the power supply, with the three mains pins facing upwards, on a sturdy hard surface, or ideally in a vice. Carefully drill approximately 5mm into the centre of each indentation.

Insert the wire into the drill holes and pull out the plugs. You may have to bend the wire slightly to get a tight fit. The plugs are about 10mm deep, so do not drill too far or the screw heads will be damaged. Remove the three screws from the casing, and remove the back.

You will now see the fuse and holder. Simply replace the fuse with one of the same or similar rating. Glass fuses are available from most electronics outlets, such as Maplins and Tandy. With the new fuse in place, replace the three screws and plugs. You should now have a working power supply.

Dave Simpson

Services



**Got a problem?
Then call the Help-
Line, that's what
we're here for.**

Homegrown, PD Extra, PD Discs 1-onwards:

Dave Stitson, 4 Connaught Avenue, Mutley, Plymouth, PL4 7BX. Tele: 01752 254404

Homegrown

H1	Aj's Concept Disc	59	Demos 5, Face Hugger
H2	Aj's Twilight Zone	60	Digital Dreams
H3-5	Utilities 1-3	61-62	Word Games 1-2
H6-9	Games 1-4	63	Adventures 5
H10-14	Utilities 4-8	64	Demos 6
H15	Pagesetter 64	65	Games 3
H16	Family Tree	66	Overscan demo (18")
H17	Family History	67	Demos 7
		68	Utilities 3
		69	CCC 4 fanzine
		70	Disc Full 6 fanzine
		71	Disc Full 7 fanzine
		72-3	Demos 8-9
		74	Epic, utilities 4
		75	Utilities 5
		76	Megaparty Demo
		77	Computext, pictures
		78	Games 4
		79	Games 5
		80	Small C & Interpreter
		81	Printmaster
		82	CP/M utilities
		83-84	Printmaster Graphics
		85	MicroDesign fonts
		86	DOScopy, DLan
		87	Scrivener
		88	Rundschlag PD disc
		89	Pictures 11
		90	Voyage 1993 demo
		91	Protracker, Discomag
		92	Games 6
		93	Utilities 8
		94	Demos 12
		95	Print Enhancer
		96	CP/M PrintIt
		97	Des demo
		98	CPC Emulator for PC (deleted)
		99	Crossword Compiler
		100	WACCI index
		101	Promerge tutor, RAMbase 4
		102	Utilities 9
		103	Clip art 1
		104-8	AMS music discs
		109	AMS-MIDI, MusicPack
		110	Word games
		111	Pictures 12
		112	Demo-makers, Basic tutor
		113	CPC Emulator for PC
		114	B-ASIC for CPC plus
		115	Animal Quiz, Francis
		116	Smart-, Fluff for CPC Plus
		117	Bankbase
		118	Games 7
		119	Cribbage, Blackjack
		120	Adventures 6
		121	Soundhacker v2
		122	Soundhacker modules
		123	Otto 1-2 fanzine
		124	Mr Men slideshow
		125	CPC Guide
		126	Street Warriors
		127	PowerPage support
		128	BTL 1 fanzine
		129	BTL 2 fanzine
		130	Ghoul's Writer

PD Extra

X1	Maxidos, Procopy
X2	Super Meddler, Hack Pack
X3	Bonzo Doo Dah
X4	MS800, Bonzo Blitz
X5	Big Batch
X6	Flash Pack

Public Domain

1	Forth Programming	81
2	CP/M utilities	82
3	MBasic	83-84
4	PowerPage, RAMbase, PD Planner	85
5	CP/M Games	86
6	Games	87
7	CP/M+ utilities	88
8	Comms	89
9	CP/M utilities	90
10	VDE, I-Spell	91
11	Adventures	92
12	Cobol	93
13	Demos 1	94
14	Amiga Graphics 1	95
15	Flags, Animator Demo	96
16	PPC Pascal, ZBasic	97
17-8	JRT Pascal	98
19-21	MicroDesign Art 1-3	99
22-4	Pictures 1-3	100
25-6	MicroDesign Art 4-5	101
27	Mini Print Shop	102
28-9	MicroDesign Art 6-7	103
30	GPaint, RSXlib	104-8
31	Amiga Graphics 2	109
32-4	MicroDesign Art 8-10	110
35	Picture 4	111
36	Teach Yourself Pascal	112
37	Adventures 2	113
38	Games 2	114
39	Logos, Women & pics	115
40	MicroDesign Art 11	116
41	Eve of Shadows & advs	117
42	22disk/22nice for PC	118
43	Pictures 5	119
44	Demos 2	120
45	Paradise Demo (Paradox)	121
46	The Demo (Logon)	122
47	Utilities 1	123
48	Adventures 4	124
49-53	Pictures 6-10	125
54	Parrot demo & clip art	126
55	Utilities 2	127
56	Star Trek pics, music	128
57	ZDE & CP/M utilities	129
58	Overscan Pictures	130

Other WACCI services:

Tapes: Arthur Cook, Brympton Cottage, Brunswick Road, Worthing 01903 206739

Books: John Bowley, 97 Turrington, Bretton, Peterborough, PE3 9XT 01733 702158

Past WACCI: Frank Neatherway, 3 Glebe Close, Rayleigh 01268 784742

Market Stall: Angie Hardwick, 23 Station Place, Bloxwich, WS3 2PH 01922 449730

Discs: Frank Frost, 4 Rectory Close, Wootton, Ryde, IoW, PO33 4QB 01983 882197

£1.50 for 3", 35p for 3.5"; minimum order two. Alternative Firmware Guide, £3.99p

Bob Moffatt 01454 329875
Weekends only please. Masterfile III, Mastercalc, Qualitas and Protext.

Frank Frost 01983 882197
4pm-10pm, VDE, CP/M Protext and WACCI Services.

Angie Hardwick 01922 449730
Market Stall, Game Page and Convention tickets.

Jonty Jones 01670 852835
5pm-8pm, SATURDAYS MicroDesign, OCP Art Studio and PowerPage.

Malcolm Brabbin 01502 716344
8pm-11pm, but not Saturdays. Basic Programming.

Mark Stewart 01773 822599
8pm-10pm, PAW Adventure Creator, Basic and General help.

Stuart Gascoigne 0117 9831361
Basic, Machine Code. New PD is to be sent to Stuart please.

John Hudson 01484 423252
MOIL, CP/M, Wordstar, Newword, dBase, CP/M PD, CPC-PCW-PC.

John Bowley 01733 702158
WACCI Book Library, Subscriptions, Distribution and WACCI in general.

Dave Stitson 01752 254404
Central Librarian. WACCI PD library enquires.

Richard Avery
Tasword 464 GPaint, Another World, 35, Marlborough View, Cove, Farnborough, GU14 9YA.

Nic Rayner *Mobile: 0850 992747*
CPC Emulators for the PC.

Arthur/Angela Cook 01903 206739
8pm till 10pm, Tape Library, Repairs, General CPC, Merline-Serve/KAD and Angela's new magazine for the PC called Wibble.

Ernie Ruddick 01642 898091
Wish-list manager, What articles do you want? Do you want to write for WACCI? Please contact Ernie.

Frank Neatherway 01268 784742
Past WACCI's and Fair Comment letters.

Christine Raisin 0115 9133181
Past WACCI's on disc, phone for what's available.

Do you want to be a Help-Liner? If YES then give me a call and this space could be yours.

PLEASE NOTE:

This help-line is provided on a voluntary basis by club members to assist other members. Please call between 7pm and 9pm, unless stated otherwise.

THE Printer Supplies Specialist

AKTIV DIRECT

LOWEST PRICES DIRECT FROM THE MANUFACTURER

Price includes VAT & Postage

THE PRICE YOU SEE IS THE PRICE YOU PAY

AKTIV Computer Products Ltd
Unit 1, Lyndal Court
Manners Industrial Estate
Ilkeston
Derbyshire, DE7 8YA

Tel: 0115 9308 200 Fax: 0115 9308 210 email: aktivcpl@aol.com

SPECIAL OFFERS

COMPATIBLE CANON BJ4000
1 X BLACK & 1 X COLOUR

£9.99

COMPATIBLE EPSON 400/600
1 X BLACK & 1 X COLOUR

£18.99

Canon Cartridges

REF	ORIGINAL	RE-CYCLED	REFILL KITS
BC01	£14.99	£11.99	£9.99
BC02	£15.99	£12.99	£9.99
BC05	£17.99	-	£9.99
BC08	£18.99	-	-

COMPATIBLE

SERIES BLACK COLOUR SPECIAL OFFERS

SERIES	BLACK	COLOUR	SPECIAL OFFERS
BJ4000 BK	£3.81	£8.99	One of each for £9.99
BJ4000 COL			
BJ800 BK	£2.81	£2.99	One Black and 1 X Magenta, Cyan and Yellow for £10.99
BJ800 COL EACH		each	
BJ800 BK HC	£2.99	-	3 For £7.99
BJ800 BK	£4.99	£4.99	One Black and 1 X Magenta, Cyan and Yellow for £18.99
BJ800 COLS			

Epson Compatible Cartridges

MODEL	ORIGINAL REF	BLACK	COLOUR	DUO PACK 1 BLACK 1 COLOUR
200 BLACK	S020047	£6.16	£10.40	£15.99
200 COLOUR	S020097			
300 COMBINED	S020138	-	£14.99	£14.99
400 BLACK	S020093	£6.94	£12.99	£18.99
400 COLOUR	S020089			
500 BLACK	S020093	£6.94	£10.40	£16.99
500 COLOUR	S020097			
600 BLACK	S020093	£6.94	£12.99	£18.99
600 COLOUR	S020089			
800/1520 BK	S020108	£8.77	£12.99	£20.99
800/1520 COL	S020089			
STYLUS BK	S020034	£6.64	£11.79	£17.99
STYLUS COL	S020036			
STYLUS BK	S020093	£6.94	£12.99	£18.99
PHOTO COL	S020110			
820/11/111 BK	S020047	£6.16	£9.64	£14.99
820/11/115 COL	S020049			

Compatible Printer Ribbons

AMSTRAD DMP 2000	£1.78
AMSTRAD DMP 4000	£2.89
AMSTRAD 8256 MS	£2.43
AMSTRAD 8256 FN	£2.54
AMSTRAD 9512 MS	£2.33
AMSTRAD 9512 FN	£2.04
CITIZEN 120 DV SWIFT 8/24	£1.97
EPSON LQ 100/150	£2.15
EPSON LQ 200/400/800/870	£2.57
EPSON LX80	£1.73
NEC P2/ P2200	£3.21
OKI 182/183/182/83/84/	£1.82
PANASONIC KXP 1080/1180/90	£2.08
PANASONIC KXP 1123/24	£2.08
PANASONIC KXP 2123/2124	£1.83
STAR LC10	£1.78
STAR LC 200	£1.80
STAR LC24-10	£2.19

Hewlett Packard Cartridges

SERIES	REF	ORIGINAL	RE-CYCLED	REFILL KITS
500 BLACK	51626A	£18.99	£12.99	£6.99
500 COLOUR	51625A	£19.99	-	£9.99
600 BLACK	51629A	£18.99	£12.99	£6.99
600 COLOUR	51649A	£19.99	-	£9.99
800 BLACK	51645A	£19.99	-	£6.99
800 COLOUR	51641A	£21.99	-	£9.99

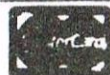
Other Cartridges

PRINTER	ORIGINAL	REFILL KIT
LEXMARK 1000 SERIES BK	£22.99	£8.99
LEXMARK 1000 SERIES COL	£24.99	£9.99
LEXMARK 2070 BLACK	£24.99	£8.99
LEXMARK 2070 COLOUR	£26.99	£9.99
OLIVETTI JP SERIES BK	£18.99	£8.99
OLIVETTI JP SERIES COL	£29.99	£9.99

PAPER SUPPLIES

Quick-Drying High Gloss Photo: 10 sheets £4.99
Standard Photo Gloss: 20 Sheets £5.99
T-Shirt Transfer Paper: 5 Sheets £4.99

ALL TRADEMARKS ARE RECOGNISED



**CREDIT CARDS
WELCOMED**

INKJET REFILL KITS

**£6.99 Black
£9.99 Colour**

**T-Shirt
Transfer
Paper**

**£1.25
per sheet**

We stock consumables for 100's of printers please call if yours is not listed

AMSTRAD

THE UK'S ONLY MONTHLY MAGAZINE AND SUPPORTERS CLUB FOR THE AMSTRAD CPC

Help and advice on the following computers: 464, 464+, 664, 6128 and the 6128+

The club offers its members not only the best CPC magazine but also Public and Homegrown disk Library's, a Book Library and telephone help-line to help you get the most from your Amstrad CPC. WACCI's vast PD Disc Library is also open to non-members. For a free sample copy of the club magazine, send a 39p stamp to:

WACCI, 4 Lindsay Drive, Chorley, Lancashire. PR7 2QL

Chairman: Doug Webb Tel: 01257 411421

Editor: John Bowley Tel: 01733 702158

Dear Members,

When placing adverts into your local newspapers would you please also state somewhere in the advert that we are a "**Amstrad CPC club**". I've had calls from some people who have seen these adverts and then enquiring about other Amstrad computers. *Thanks*

Special limited offer, If you recommend anyone and they remain a member for three months. I will then credit you with a extra month membership.. *John*

WACCI SERVICES

Frank Frost	Ex-software house discs ready
4 Rectory Close	formatted and labelled. £1.50 ea.
Wootton, Ryde	for 3" and 35p for 3.5". The
Isle of Wight	minimum order is TWO discs.
PO33 4QB	<i>The Alternative Firmware Guide</i>
Tel: 01983 882197	<i>and disc now only £3.99</i>

PAST WACCI

Frank Neatherway	01-03,20	50p
3 Glebe Close	40-42,44,46-49	50p
Rayleigh	52-62,65-69	50p
Essex	70,72-73,75-79	£1.00
SS6 9HL	80,83,88-98	£1.50
Tel: 01268 784742	99-120	£2.00

SUBSCRIPTION FORM (121)

UK _____ issues @ £2.00 each (12 for £24)
EUROPE _____ issues @ £2.50 each (12 for £27.50)
OVERSEAS _____ issues @ £2.50 each (12 for £27.50)

Name _____
Address _____
Postcode _____

From issue no _____ to _____
Telephone no. _____
E-mail: _____

Please send your cheque or Postal Order to:

WACCI
97 Tirington, Bretton, Peterborough
PE3 9XT

Subscription includes membership.

WACCI will be back next month. **John**