AMTIX!

THE WORLDS BEST CPC MAGAZINE
AND PREMIER CPC CLUB

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Looking forward to seeing you at the convention 97.

WACCI

the world's best CPC magazine and premier user group

The Club

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Benefits of Membership

* The best magazine for serious CPC users.
* Index covering issues 1-104.
* 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 WEB

Matthew Phillips. The URL, is:
HTTP://USERS.OX.AC.UK/
~CHRI0264/woww.HTML

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WACCI

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 (Tigger) DiRichleau

Copy Date: *20 September1997*
Membership: *272*

Yes! Your WACCI is late again, not a very good start to my editorship is it, but I've a reason and that is I didn't get enough articles to fill your magazine with. I hope that this is a temporary set back due to the hot weather and holiday season. This issue is for August and September in the hope that things will get back to normal in the next few weeks.

SPECIAL THANKS

Without the following peoples help this issue wouldn't have been possible and so I would like to give them my sincere thanks. Philip (Tigger) DiRichleau, Frank Neatherway, Angie Hardwick, John Hudson, Matthew and Stephen Phillips, Jonty Jones, Angela Cook, Richard Fairhurst and of course my Wife Carol. If I've forgotten anybody from the above list then I'm sorry.

ARTICLES URGENTLY NEEDED

I'm sorry to go on about this but I do need more articles, over the last month I've been so worried that I've nearly pulled all my hair-out and bitten my finger nails to the quick, so please get writing.

CONVENTION UPDATE

The convention 97 at Bescot, Walsall is on, if you've bought your ticket yet, it still not to late, since you can obtain your ticket at the door. Angie has worked very hard arranging the convention and she is disappointed on the lack of response from members and so this convention could be the last, so lets make it a good one to remember.

WELCOME

Membership has gone up to 272 and I'm getting on average 9 enquires a week, so the future is looking bright. All is needed is articles to ensure WACCIs future.

To those who have recently joined us on behalf on WACCI welcome and I hope that you will be with us for a long time to come.

SAD NEWS

Brian Barton of Goldmarks has sadly departed from us and gone to a far better place in the sky our best wishes go to Brian's family.

A SPECIAL OFFER

PC Protext - A Special Offer exclusive to WACCI members for a limited period.

The most widely used word processors on the CPC/CPC Plus computers are the various versions *(Amsdos disc/rom and CP/M)* of Protext. It terms of the program's features and ease of use it is very hard to find a word processor which comes anywhere close to Protext's coat tails. Brunword users please form an orderly queue! As many WACCI members nowadays use a CPC and a PC, according to suitability, for their various computing tasks, it seems sensible to use versions of the programs with which they are most familiar on their PC as well as their CPC.

As well as the obvious convenience of using familiar keystrokes and commands, which eases the re-learning process considerably, the files which all versions of Protext create are readily portable from one computer and its programs to another computer and its.

Fortunately, thanks to the recent rescue, Protext is now available again in two new versions for use on the PC *(plus one for the Atari)*.

Both of the PC versions offer considerable feature enhancements over the CPC *(and PCW)* versions, while still retaining the original CPC versions' ease of use. V6.7 is the very latest PC version, including a Thesaurus, a huge number of printer drivers, and loads of other features. A Facts Pack on v6.7 is available for an A4 SAE.

This latest fully featured version 6.7 is really superb, but not everyone will want to pay out £49.99 to get it. Fortunately there is a more modest alternative for WACCI members. Because of the terms of the agreement with the copyright owners *(Silverdock Ltd)*, the PC versions of Protext cannot normally be discounted.

However, special agreement has been obtained for version 4.3, a very good

intermediate version between the two extremes, to be made available exclusively to WACCI members and for a limited period at the special price of £30; that's a whopping 20% off.

The special offer price for v4.3 is only available for two months from the appearance of this in WACCI. Anyone trying to order at the reduced price after the expire date will be charged the full fifty quid, so don't hang about!

The special WACCI offer price for v4.3 includes a fully registered version of the program, a lie-flat A5 ring bound manual, and free user support through the free Protext Software helpline. What a bargain.

For this special offer send your cheque for £30 *(payable to BA Watson)* and order, quoting this issue of WACCI's number, to Brian Watson, "Harrowden", 39, High Street, Sutton-in-the-Isle, ELY, Cambs CB6 2RA.

THANKS FOR THE MEMORIES

This is just a recap for the Past WACCIs on Disc article that Christine Raisin did for us. You may remember that it was reported in issue 113 that Christine had begun the massive task of re-typing those past WACCIs and putting them on to a disc format so you an complete your collections of wonderful WACCI. These magazines were no longer available and as demand for them rose, so did the need to do something about their absence.

As Steve Williams had very generously donated his magazine file discs, Christine rose to the challenge of re-arranging the text so the complete magazine could be put on to disc and made available to you. They have been done on Protext and saved as an ASCII file.

To date, we have issues 18 - 25 ready and waiting for you to order. Just send your 3 or 3.5" disc with a SAE for its return and they will be done.

Once again a very big **thank you** goes to Christine for all the hard work she is putting in to this project for us so make sure that you take advantage of it and order your Past WACCIs On Disc soon.

Christines address is

117, Tilbury Rise
Cinderhill, Nottingham. NG8 6DE
0115 9133181

JUST TO REMIND YOU

Whilst were on the subject of past WACCIs, don't forget that we still have back issues available from Frank Neatherway. You will find the complete listing on page 31.

CONVENTION REVISITED

At this year convention we have some special people of the CPC scene from Europe coming.

HOW DO I GET THERE

Below you will find a map giving you details of the roads you need to take, so hopefully you won't get lost as I did last year.

ALSO THERE

You can sit back and enjoy a good meal for only £5.99p *(please check with Angie for any price changes)*. The convention will start at 10am and go on until 5pm, so we should have time to have a good chat over a cup of coffee or a pint of your favourite brew.

SARCASM OVERDRIVE

Some members seem to want to complain about the ticket price. And rightly so. Why on earth should you pay the huge sum of four pounds just for a day in a football stadium *(only the directors lounge after all)* with a bunch of nutters who all happen to own a CPC? Because you enjoy it!

That four pounds is not expensive in any light. **"But the first year was free."** I hear you cry. That's because we had a lovely Mr. X who dug deep into his pocket for us. **"Last year was only two pounds."** That's because WACCI stumped up for the shortfall. We can't do that this year as the hire charge has gone up.

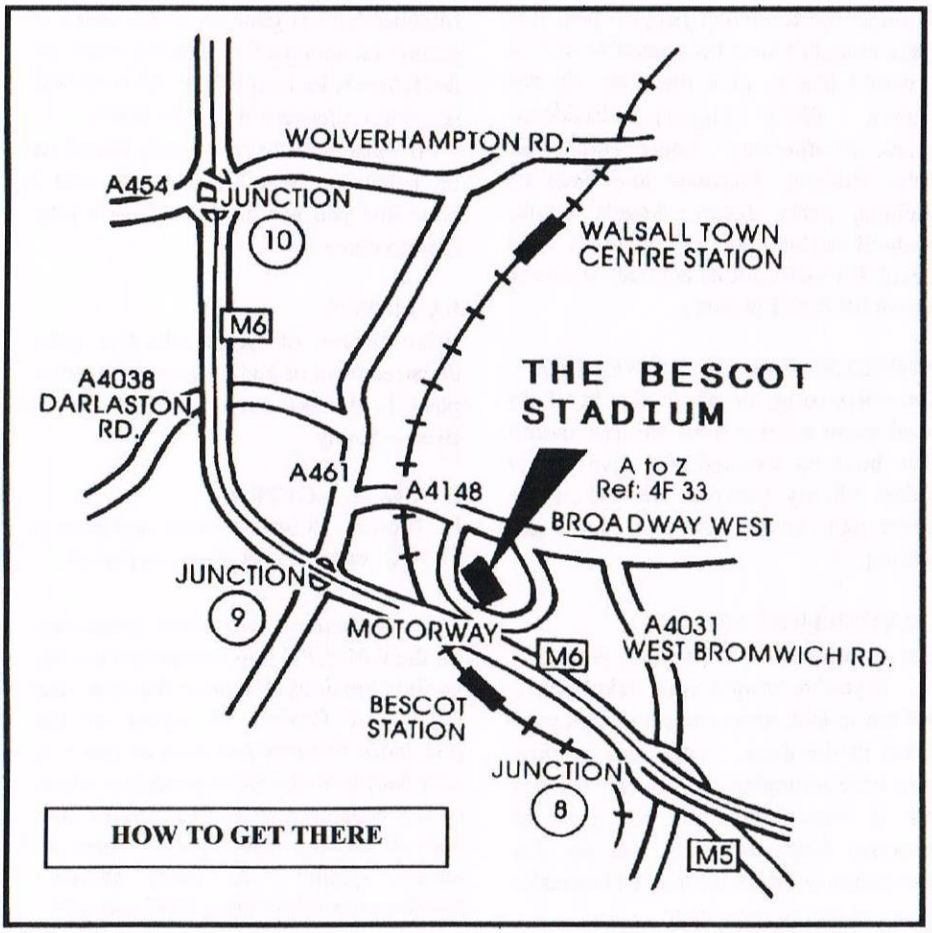
MR X

But as you all know another Mr X has come forward and that's why the convention is still on, so on behalf of the members I would like to thank Mr. X for his offer.

DON'T FORGET

WACCI will be back in October, so please please get writing so that I have something to put into your magazine and if you're going to the convention, Carol and I will see you there.

Happy reading
John



Fair Comment

with Philip DiRichleau

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

Dear Editor, In WACCI 109, the then Editor *<<Was that me by any chance? -Philip>>* asked why I didn't take on Fair Comment - well, partly because I'm fairly busy but mainly because my work goes in fits and starts and I couldn't guarantee to be able to do the job regularly. I can manage to fit letters and articles into my less busy periods even put them together on a business journey.

But my rate of production tends to be rather uneven -a situation which was emphasised last winter when I got involved in dealing with a very difficult situation in a local charity and had to put a lot of things to one side - including responding to those kind remarks. But, in any case, I don't think I could quite bring the turn of phrase that is needed for Fair Comment.

In response to Jeff Morton's query in WACCI 110 about the 8-bit box drawing characters in Mini-Office, you can generate them if your printer has them - proper Epson-compatible 9-pin printers don't because Epson put the italic characters there. Enter f1 *(or SHIFT-f1 - depending on which version of MO II you have)* to bring a ^ onto the screen and then type 27,62. It should look like ^27,62 All subsequent printed characters will be from ASCII 128-255 until you cancel the command with ^27,61 but Mini- Office II will show you the corresponding ASCII 0-127 characters on screen.

If you use either command anywhere other than on a blank line between paragraphs or a box drawing, they will take up three spaces when Mini-Office prints out. Though it isn't quite as elegant, I have found using | and _ enough for my needs; don't make the overlap the | at the ends of a box and you can get something surprisingly presentable. Making them bold will give added solidity because most printers produce bold by moving the second impression of the character slightly to the right.

James Huskisson asked how to get a hash sign instead of a pound sign in Brunword. I don't know whether it is practicable to get a hash sign on screen in Brunword but you should be able to get it on the printer by sending the escape codes from within Brunword to turn on US English. The Epson codes are ESC R 0 *(27,82,0 or 1B 52 00)*. To turn pound signs back on send the same codes with the last digit set to 3 or 03. This tip works with any wordprocessor, including Mini -Office II, that can send escape codes

Isobel Swade *(WACCI 111)* mentions problems with control codes but does not say what they are; the general advice with control codes is to use them **ONLY** with commands which are not supported by your wordprocessor. I think the DMP 3160 will support both Epson and IBM control codes; if a word processor can produce box drawing characters, it may go the whole hog and operate in IBM mode, in which case many Epson control codes will not work

Angela and Paul's comments about using PCs for databases *(WACCI 112)* are really a comment on the lack of a hard disc. I bought dBASE II for the CPC over ten years ago in Germany where it was being actively promoted and, after waiting in vain for the promised CPC hard disc, have put most of my dBASE files onto a PCW with a hard disc.

Because dBASE II relies heavily on disc access, it always seems slow on a CPC but makes up for this with its functionality which is way ahead - even now - of most PC data bases.

On a PCW with a hard disc its responses are almost instantaneous; on a PC, it works so fast that I have had to add routines to slow it down so that I can read what is on screen!

As Angela points out, lots of members have non-CPC machines and I have had to have PC access for several years for parts of my business; I chose the PCW because its large screen is so much better for creating readable database screens and I wanted a hard disc; I also wanted a multilingual word- processor. I intend to make a Mac my next purchase not because it will supplant any of the other three but to do things I cannot do easily on any of the other three.

I appreciate the fairness of WACCI's approach to copyright but, as with PD programs, I think WACCI contributors should allow free reproduction of articles in WACCI in any other non- profit journal as long as WACCI and the original author are credited. I take this approach to anything I write which is not commissioned *(and there- fore not morally the property of a commissioner)* and where no one else is going to make money directly out of my work.

Michael Quinn *(WACCI 113)* mentions a SCSI drive; now that really would be worth implementing on the CPC!

Lee Bragindon's problem looks like a problem in the parallel I/O or cable. 'acceegg133' is 61 63 63 65 65 67 67 31 33 33 in hex which means that line 0 is only transmitting "1"s. The sub-situation of s (73h) for 4 (34h) is less easy to explain.

The best cheap wordprocessor is probably VDE on WACCI disc 10. It has its limitations including quite a steep learning curve but it is by far the most powerful and flexible of the non-commercial wordprocessors. If there is enough demand, I would be happy to contribute some articles on VDE to help members get more from it.

In response to Christine Raisin's enquiry, it is perfectly possible to connect a CPC to a PC using a 25-9 pin null-modem cable and use PIP in CP/M and COPY on the PC to transmit files.

You need to use SETSIO or STAT and MODE to set up the respective serial interfaces. The main limitations are: use 4800 baud maximum; don't send files more than about 50K *(in CP/M Plus, 30K in CP/M 2.2)* to the CPC; send CONTROL-Z at the end of every file sent from the PC. The last two do not apply the other way round as the PC can handle larger files and the CPC sends a CONTROL-Z automatically to the PC.

There is a mistake in my article on Amstrad Disc Formats in WACCI 113 where, in Table 4, figures for the PCW 9512 DSM and DRM have been transposed; the correct sequence for the PCW 9512 is DSM 64 (100) 01 (256) DRM FF (255) 00. Perhaps you could highlight this point in some way.

I was interested in Brian Watson's comment about Protext files being fully compatible between all versions because, when I enquired of Arnor on behalf of a friend, I was told they are not backwards compatible from a PC to a CPC *(one reason why I have not deserted WordStar/Newword)*. Also I have been unable to load Protext files on my Notepad though it will happily accept WordStar files and, after suitable find and exchange, save them as Protext files. Does the new version of Protext now offer backwards compatibility from PC to the CP/M machines?

Angela's problem with Label Maker and the Stylus 800+ *(WACCI 114)* may be that the Stylus isn't Epson 9-pin compatible. With the introduction of 24-pin printers some line feeds were changed from 1/216" to 1/180" *(I think)*; so graphics programs that try to advance the printhead by n/216" end up advancing it by very slightly more - hence the appearance of blank lines.

Alternatively, Label Maker sends CONTROL-J, CONTROL-M (10h,13h) at the end of every line where the 800+ expects only CONTROL-M (13h). If this is the problem, changing the dip switch on the Stylus for automatic line feed should solve the problem.

Congratulations to Richard on the really excellent introduction to machine code.

I hope to be able to attend the Convention but have a slight problem, being reliant on public transport, in that there are no trains to Bescot Stadium on a Sunday. If anyone travelling to the Convention is able to pick me up from Stafford Station at 9, 10 or 11, it would be greatly appreciated.

Regarding the future of WACCI it is inevitable that the number of CPC users will decline but I would expect there will be enough of us to keep a club of sorts going for quite a long time. I don't know how the finances of the magazine work out but my guess is that the subscription barely covers the cost of printing and distribution.

The keys to longevity are that people share the jobs over time so that they do not 'burn out' and that what is in the magazine reflects what the membership wants.

Regarding whether we have a committee and more formal arrangements, I think it all depends in the end on the people. A benevolent dictator or a benevolent committee who keep in touch with the membership will always be OK; having a committee won't save us if the committee are out of touch with the membership. The main advantage of a committee over an individual comes from the support they can give the hard workers in the club.

As someone who works very hard for another 'club', I appreciate the amount of work that goes into getting WACCI out every month and the effort that so many people put into it. It is always an interesting read and I wish as many members of my other 'club' took the trouble to write letters as WACCI members do. Lets hope WACCI continues at least as long as CP/M's date function *(i.e. into the middle of the 22nd century)*.

Yours sincerely
John R. Hudson
Huddersfield

<<I thank all the odd gods that you don't want Fair Comment. I wouldn't stand a chance.... -Philip>>

Dear Philip, Can you help me? As you can see by this letter, the letters are not as they should be. Have you noticed how the tops of the letters are not, sort of, there? Can you help me? My printer is a DMP 3160. I can't really afford a new printer, do you know of a way that I can adjust the print head so that it will print the letters in full?

Nora Lees
Birmingham

<<Oh dear Nora. It sounds very much like you have a damaged print head (one of the pins is stuck). There might be a cure for this (it works sometimes but not others).

Remove the printhead (its not difficult, it slips out towards the back of the printer). Soak the whole think in lighter-fluid for a couple of days they dry it out but wrapping it in a dry cloth (not tissue as the lint could jam the head again).

Now put in back in the printer and do a few sheets of solid print. That could release the pin one more.

If that fails then it's a new print head, which costs far more than it's worth and is, in my opinion, a total con-job by the suppliers. You might like to try finding a broken DMP (the printheads are all the same I believe) and taking the printhead out of that. Sorry I can't be of more help but it's one of those printer errors which have multiple causes -Philip>>

Dear Fair Comment, Hiya, I'm Alive and Kicking guys and ready to rumble again! Yep, yours truly has spent a gruelling 4 weeks' experience in Land Rover so I'm a bit behind on WACCI news. Sorry I haven't been keeping up with buying the mag John but really for the past few weeks it has been murder!

Anyway, the real reason I'm writing is that somebody (who shall remain nameless) has kindly given me a 33.6Kps modem. I don't know what that means either, that's why I'm writing. I know it's very fast and I can get all the cables from Merline-Serve but will it be worth it since I've heard that the CPC can only handle modem speeds of 2400 baud. Is this true? I'd like it if any fellow WACCI members could respond soon to my plea because if I can't use it I'd rather sell it and the person who gave it to me said that this time of the year was the best time to sell modems. It hasn't any software or manuals or anything like that. I know it's American but not much more about it.

Anyone who can help can they please get in touch? My address should be printed on the bottom of this letter (I hope). If it isn't get in touch with John, he knows my address and will forward it to

you. It's at times like these when you start running out of things to write. I think I'd better say "byee" quickly before I run out of words .

Sajad Hussain
111 Ralph Road
Saltley
Alum Rock
Birmingham
B8 1NA

<<Good day to you Sajad. About this modem business. It's times like this that a with Bunny was still dealing with Fair Comment because I haven't the slightest idea what any of that lot means.

Mind you, to be honest, I think it might be time that someone wrote an article on basic communications using a CPC. It seems to me that there are a few members who would benefit. Oh Richard, that's a subtle hint in your direction -Philip>>

<<A subtle hint from a man who is currently telling me to "Invade! Invade!". And I thought he liked writing Fair Comment.

Anyway... the CPC can cope with modem speeds of 4800 baud, but only if you're using a comms program like ANSI.ARC (aka BBS Terminal). Faster than that, and the serial interface itself can't keep up. (KDS and Siren interfaces can't even work that quickly, being limited to 2400 baud operation.)

However, Rob Scott is currently working on another of his infamous mods, to allow the Amstrad and Pace serial interfaces to run at speeds up to 19200 baud - which is all the CPC is capable of, anyway. More details as we (sorry, they) get it. Hope this helps. - Richard>>

Dear Philip, Will you kindly give me this information about this 3.5" disc drive? As far as I know it came out of a PC computer, to be sure, because it has the case for the five and a quarter inch disc drive and the 3.5" disc drive is in that case. Will you be able to tell me if it will work as the second drive on the Amstrad CPC6128 computer, or how it can be adapted to work on the CPC6128?

If you know will you kindly give me the details on what I would have to do with it to get it to work on the 6128? If you don't know how it can be got to work you might know some member that is good at getting these things to work and knows the right things on them to change.

I bought it from J Bull Electrical but they cannot give me any information on it or how I would get it to work on the CPC6128 so I would be grateful if someone can help me to get it working and tell me what parts I will need to put into it to adapt it to the CPC6128.

This is the bit of information that I took off it, so this might be of help to you. It is a Sony 5v 3.5" disc drive, model MP-F17W-T7 SMM MFD-17W-10 7591100 9211, so that is all the information that I can get off it, hope you can help me. It is 1.44MB. All the best for now, and thank you.

Yours sincerely
J.P Jordan
Lanesboro
Ireland

<<Right J.P. Lets start at at the beginning. The drive is a 1.44MB, so that means you mustn't use 1.44MB discs in it to start with (they are the ones with two holes on the top edge instead on one). Use only Double Density Discs or the CPC will get very confused, very quickly.

Next, you'll have to rig a ready signal. You do this by earthing PIN 34. Do this by taking the two end pins on the connector (top and bottom) and jumping a wire between them. This creates the signal.

What next, connect to a power supply and then to the computer. It should work quite happily. Look through a few back copies of WACCI as well, I'm sure that you'll find a couple of diagrams giving a better description -Philip>>

Dear Frank, Philip and WACCI members, First and foremost I must congratulate John on bringing out WACCI this month. I know it was two weeks late, but under the circumstances of Paul's resignation, having to find another printer, rearranging the finance of WACCI, he has done a splendid job. He has put WACCI before his own feelings, hurt as they were. Believe me he was ready to throw in the towel at one stage.

I can only admire him, the way he handled it all, without malice or prejudice to anyone. I ask you all if our Editor can turn the other cheek, for the sake of WACCI, let us all do the same and follow in his footsteps.

This way our WACCI club will survive. John is working so hard to establish contacts with Europe and other countries, in the hope of extending our club. John, please accept our thanks, give yourself a pat on the back, but don't let it go to your head.

We need you at the helm, just the way you are. Congratulations, and many thanks.

Now I would like to say many thanks to Paul for all he did for the club and the help he gave to so many. Those thanks also go to all his family, who helped to distribute the magazine. Thanks again for everything. I wish you well in all you do in the future.

I wish the new Management Committee all the best, the members named are well established with the club. Therefore will have the best interests of the club at heart. The best of luck to you all. I hope the miles between you become shorter by far in the unity of one aim: our beloved WACCI.

Welcome back to Fair Comment Philip. John Adams idea of free ads is a good one. I've put one in Ad-Mag. I hope it works. David Simpson's article was what prompted me to do it. John says he's had requests from David's "LOOT" Ad. If we all did it maybe membership would rise.

Colin Hazell's letter on Software for PCW. I have just become an owner of one. I joined PCW TODAY.150, Oxford Road, Middlesbrough Teeside TS5 5EL. TELEPHONE 01642 816903. Membership £5.00 year. quarterly magazines, have large PD library. Your friend is welcome to contact me. Sorry for advertising, John.

DMP printer ribbons can be purchased from TOTAL COMPUTING, 16, Station Rd, Parkstone, Poole, Dorset BH14 8UB. Tel (01202) 717001, price £2.95. This firm does lots of printer ribbons, inkjet etc: paper, labels, etc.

I could go on and on, but others will have their say and so it should be. I must admit I do like to see the tutorials back.

What would we do without chaps like Richard Fairhurst. I enjoyed both his articles. I am going to try to follow you in Machine Code. I just can't get the hang of this Binary. Oh well, I'll keep at it.
I will be writing and begging Richard. The programmes I've seen or used of yours are great. Keep it up.

I can understand CPC sales being low if it is only a small group of loyal people left with CPC. Most would have what they need, or can pick up second hand quite cheap. I get my husband hunting car

boots for me. I did buy at last year's Convention, Protext for the PC at £40. I still have to get the reference book which will cost £10. I use Protext on all my machines. I can say that I have the least problems with the CPC version. The advantage is that I can transfer files between my machines.

Well that's my rambling on for this time. Thanks again John for all your patience and perseverance in successfully bringing out WACCI and what a great job you have done. Sorry this is long, but I felt that I needed to express it all. Happy computing to one and all.

Christine Raisin
Nottingham

PS You can let Colin Hazell have my address or print it in the magazine. Don't forget my Past WACCI discs are available. Hint Hint.

<<Hi there Christine. John has done a wonderful job in taking over the editorship of WACCI, especially at such short notice. However, I feel that there is a slight misunderstanding going on at the moment. Paul never did intend to take over as editor once more, he only took over for a single month when I dropped the whole editorship onto him from a great height; it was, quite probably, the only way that anyone would have had that months issue.

Turn the other cheek? I agree with you on that point but, only up to a point. We all turn the other cheek to an extent, but what happens when someone slaps that one as well. John is , on that score, a better man that myself. Boy is it great to be back doing Fair Comment -Philip>>

MARKET STALL MK2

Ian Thompson wrote to me to see if I would place an advert into WACCI since he is no longer a member. I said I would so here it is.

HARDWARE

CPC6128+ with CM14 colour monitor, 2 joypads, tape socket with rem lead, tape recorder, 9 PD Discs. £50.00
Multiface 2+ £10.00
Brunword Elite 11(Rom) £30.00
Parados (Rom) £5.00
DES (Rom) £10.00
Single socket ROMbox (slot 4) £5.00
ComSoft 8 socket ROMbox £15.00
dk'tronics mouse interface & logic 3 speedmouse £10.00
MP3 modulator (for use with old 6128 monitor) £10.00
Soundblaster amplifier with speakers £15.00
Quickjoy jetfire joystick £3.00

Software (serious)
Advanced Art Studio £5.00
Stop Press £7.00
Colourdump 3 £5.00
Bonzo tape-disc utilities £5.00

Software (games) **disc**
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Amstrad Actions 63-117 with covertapes **£10.00**.
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Will consider reasonable ofers for the entire system.

Note that almost all above tape games have been multifaced to disc, ie will only run from disc on this computer with this multiface. All with manuals/instructions except Cybernoid.

Please contact:
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8BIT

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To say that I am a fan of Red Dwarf is just a mild understatement. I only have all the episodes on video plus numerous other books and associated paraphernalia. Brother number one and I swap insults disguised as quotes from the series and other very sad stuff like that. So with all this in mind, you can gather that I was more than a little interested when David Crookes announced in WACCI he had the Red Dwarf Guide on disc...

THE X-FILES

MAIL POD

So I sent off my cheque for the discs *(the X-Files one too)* and waited. And waited. And waited. Eventually they arrived and I loaded the Red Dwarf disc. I was greeted with a recognisable Red Dwarf intro screen. Nothing snazzy, or even neat, but it was effective.

SMOKE ME A KIPPER

There was a General Guide or a look at each episode in turn. The general guide gives you the low-down on series one to five *(there's now a six and seven)* episode by episode.

The text was all formatted well, it was readable and there were very few spelling mistakes. I found that some of the **"details"** were wrong, but I doubt that would matter to many people unless they were as sad as me and even knew Chris Barrie's inside leg measurement *(31 inches)*. This write up gives episode details but doesn't spoil the plot. It's great if you have gaps missing or just want to refresh the memory without having to watch an entire episode.

Looking at each episode gives you the script, and a very accurate one at that. And that's it. That's all there is to the Red Dwarf guide, and it stretches over one complete disc. Admittedly there's a lot of text, but not even I read it all. I think this disc is for die-hard fans only, and if they are reading it they already know what's there. This disc isn't in my personal collection, though it was worth a look. I may be a dedicated fan, but I'm not blinkered.

THE DISC IS OUT THERE

Now the X-Files guide, initially, is a much more professional looking piece. The loading screen looks as if someone has spent time on it rather than asking a young child to do the honours *(though young children do often create master pieces)*. Files to read on this disc include the Background, Twenty Frequently Asked Questions, Other FAQ, Series One Guide, Programme Guide, X-Files Interview and Survey with results. That sounds a helluva lot more interesting than the Red Dwarf disc.

The Background includes details about the show from a production point of view, addresses to write to in support of the show and fan mail, internet addresses to look at and a history of each season *(series)* including air dates. This all looked very familiar to me, as it was taken from the X-Files internet site which I last saw in the summer of 1995. My memory can't be as bad as I thought.

A detailed background on Mulder and Scully *(the FBI agents)* is interesting as are those on the FBI superiors and the recurring characters and even the makers/stars of the show.

Info on the series one gives a brief summary of each episode by name and includes writer, director and cast and similar information is given in the programme guides.

Then there is the interview. Not an interview as you would normally recognise it, this is in the new wave, the way of things to come. It's a transcript of a conference held across America On Line (AOL) an internet service provider. This is where you type in what you want to say and it appears on screen for other people to read and answer to. It's the basis for many of the things you see in films, such as Whoopi Goldberg's Jumping Jack Flash. The interview in question is with Glen Morgan, co-executive producer of The X-Files, and is quite comprehensive.

And then there are the survey results. These are again taken from the internet *(newsgroups in particular)*, as with all of the information on both discs. It's quite interesting, but nothing much to really talk about and very American based, as is the majority of the disc.

THE END

All the files can be listed to the printer if you so wish, which is a nice touch. It was a pain to flip disc sides then be told it couldn't load the main screen because it wasn't on the disc *(because you'd flipped - literally sometimes, I feel)*. In essence, both of these discs were not put together wonderfully, but they do work. The X-Files disc has terrible text formatting on it, whereas the Red Dwarf disc is nice and readable.

Both discs will be of interest to fans of the series though I shouldn't think anybody would read them again and again. They are PD, though they weren't officially so when David first tried selling them - it took me months to get him to say that they were.

Angela Cook

First Steps In Machine Code

by Richard Fairhurst

Chapter Two

There are four remaining reçisters: F, R, I, and SP. F is the flags register, and you can't put a value into it - it just holds eight bits, each of which has a separate meaning. They are:

Bit 7 *(MSB - most significant bit, i.e. 128 in binary)*

Sign flag - it contains the most significant bit *(bit 7)* of the result of any arithmetic or logic instruction

Bit 6 *(64 in binary)* Zero flag - set *(i.e. 1)* if an arithmetic or logic instruction has the result zero.

Bit 5 *(32 in binary)* is undefined.

Bit 4 *(16 in binary)* Auxiliary carry - if an arithmetic instruction moves a bit from bit 3 to bit 4, this is set.

Bit 3 *(8 in binary)* is undefined.

Bit 2 *(4 in binary)* Parity/overflow flag - some instructions *(logic, rotation etc.)* set this if all the bits of an answer add up to an even value. Others *(block instructions)* use it in a similar way to the carry flag *(see below).*

Bit 1 *(2 in binary)* Subtract flag - pretty useless: it's set when a subtraction is carried out and annulled by an addition.

Bit 0 *(1 in binary)* Carry flag - possibly the most important of all. Its basic use is to store the MSB *(most significant bit)* of arithmetic instructions, but the use you'll find most frequently is that it is set if an addition or subtraction results in an overflow *(below 0 or above 255).*

F can be paired with A, but this is of little significance because, since no value can be put into F, the pair AF cannot be used as a sixteen-bit register pair.

I is rarely used on the CPC, being a very technical register. R, too, is used internally by the Z80 to know then to **"refresh"** RAM chips by putting a pulse of electricity through them. Finally, SP is a sixteen-bit register and stands for Stack Pointer - it is another register used internally by the CPU and of limited use to most programmers.

There are seven more registers, the **"alternative"** set - A', B', C', D', E', H' and L'. These are actually used by the CPC's operating system - so messing around with them will probably crash your computer!

The simplest thing you can do with a register is **"load"** it. This is similar to the BASIC LET instruction: you would say, in BASIC:

```
LET A=32
```

or simply

```
A=32
```

In assembly language, the instruction to put the value 32 into A would be:

```
LD A,32
```

Or to put 1439 into the pair BC:

```
LD BC,1439
```

Of course, you can load one register with the contents of another, for example:

```
LD H,C
```

would put the value in C into H as well. You can look up a value stored in a memory location: to find that stored in memory location AF00 (hex) and put it into BC, you'd do this:LD BC,(#AF00) Notice that # signifies a hex number to the KIO-Fox assembler *(many other assemblers use an ampersand, &, or a suffix of an "h", e.g. AF00h).* The brackets mean **"address"** - remove them and you would have LD BC,#AF00 which simply means load BC with the value AF00 (hex).

You can do this with any sixteen-bit register pair - BC,DE,HL - the index registers - IX,IY - and the accumulator (A), plus the stack pointer SP. With a sixteen-bit register, you will get a sixteen-bit number - from the byte specified and the following one.

You can use HL as the address, e.g.

```
LD HL,#AF00
LD C,(HL)
```

In this case, the register to put the value in can be A,B,C,D,E,H or L - you will get an eight-bit number out. You can do a similar trick with the index registers, this time using an offset:

```
LD IX,#AF06
LD D,(IX-6)
```

It shouldn't be too difficult to work out that this puts the contents of location #AF00 into register D.

The A register is the most versatile of all. These loading opcodes are possible:

```
LD A,(BC)
LD A,(DE)
LD A,(addr) - you put the address in!
```

You could also - if you really wanted to - use LD A,I, LD I,A, LD A,R or LD R,A.

To put a value into a memory location, you can load the memory location with

address HL with A,B,C,D,E,H or L - e.g.LD (HL),B. Similarly, LD (IX+#56),A or LD (IY-17), D.

You can load any address with the contents of a 16-bit pair:

```
LD (#4000),BC
LD (#C730),HL
```

or with the contents of A:

```
LD (#BDEE),A
```

similarly:

```
LD (BC),A
LD (DE),A
LD (HL),A
```

You can see that the A register is the most versatile eight-bit register of all.

To load an address with a value, one final option is possible:

LD (HL),data - you put in the *(one byte of)* data

e.g. LD (HL),#32

Using the index registers, you could have LD (IY+27),#C9.

To load one sixteen-bit register with another, you usually need two instructions, such as:

```
LD H,B
LD L,C
```

performs the task of the fictional "LD HL,BC". The only exceptions to this are LD SP,HL, LD SP,IX and LD SP,IY.

That's the loading instructions finished off - but these are only a fraction *(albeit a sizeable and important one)* of the instructions the Z80 understands.

Having learnt of the registers in the Z80 and how we can load values into them, we can now learn how to manipulate these numbers. At this stage you might be thinking **"But it's all numbers!"** and, to a certain extent, you would be right.

Machine code is primarily concerned with what happens in the computer's memory: driving the hardware, whether directly or by firmware routines, is the flashy bit. However, any machine code program will be based on use of registers, as that is how everything is done with any CPU. We are lucky in that the Z80 has an ample supply of registers - compare it to its principal 8-bit competitor, the 6502 *(as used in the BBC and C64)*, which only has three 8-bit registers!

Anyway, there is more to machine code than just loading numbers into registers and into memory. For a start, you can do simple maths with it...

The most complicated maths you'll get is addition or subtraction. After all, multiplacation is just addition a number of times, so you'll need to write your own routine for that...

Most arithmetic operations are carried out with the accumulator, the A register. Simple addition is carried out by the instruction ADD. This works using similar notation to the LD command shown earlier, e.g.

```
ADD A,52  <-- or any one byte number you like.
ADD A,C   <-- any eight-bit register: A,B,C,D,E,H,L
```

The number, or register, on the right is what is to be added. A contains the result of adding this value to the old value of A.

You can fetch a byte from memory and add it, too:

```
ADD A,(HL)
ADD A,(IY-#7F)
```

There is a slight variant to include the carry flag in the sum. This otherwise works in exactly the same way as ADD: its mnemonic is ADC.

Subtraction, too, is possible:

```
SUB #20
SUB E
SUB (HL)
SUB (IX-1)
```

Notice that the mnemonic is **"SUB"** rather than **"SUB A,"** - this is because SUB only works on the A register, whereas ADD/ADC work on HL as well *(see below)*. There is a variant to SUB, too, which includes carry - the SBC instruction. However, the mnemonic for this is **"SBC A,"**, so the above examples using SBC would be:

```
SBC A,#20
SBC A,E
SBC A,(HL)
SBC A,(IX-1)
```

The reason for this is the fact that SBC can work on HL, too. These operations are as follows:

```
ADD HL,BC  <-- you can add BC, DE, HL or SP to HL
ADC HL,DE  <-- as ADD
SBC HL,DE  <-- as ADD
```

Finally for addition, you can use the index registers:

```
ADD IX,IX   <-- you can add BC,DE, IX or SP to IX - not HL or IY

ADD IY,BC   <-- you can add BC, DE, IY or SP to IY - not HL or IX
```

Moving onto a different, but related instructions, there is a simple version of addition and subtraction available - which you'll find yourself using probably more often. The instructions are **"INC"** and **"DEC"** - incoement and decrement - which are used to increase or decrease values by one.

```
INC A       <-- or B,C,D,E,H or L
DEC C       <-- or A,B,D,E,H or L
DEC (HL)    <-- or INC (HL): affects address in HL
INC (IX+2)  <-- or using IY
DEC (IY-#A) <-- or using IX
```

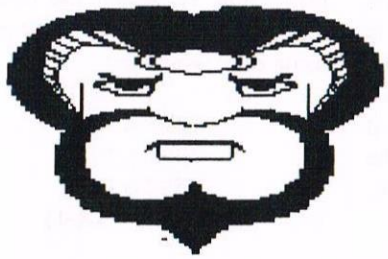
These instructions don't affect carry, but do affect all other flags. To increment/decrement sixteen-bit register pairs, these are available:

```
INC BC   <-- BC,DE,HL,IX,IY,SP
DEC SP   <-- as above
```

Unlike the eight-bit increment/decrement instructions, these don't affect any flags.

Till next time, now where did I put that torch?

Richard Fairhurst



Megablasters

by Jonty Jones

It's big, 1 meg big!... It's been around for a while and it's famous for being bugged, it's the biggest bomber man clone on the CPC... and it's BACK!... Re-released, bug free and cheaper. Yes, you guessed it, Megablasters is back in town...

A BLAST FROM THE PAST

A little over a year on from its first release on British CPCs and it's still hanging around, but this time it is fully play-a-ble. Thanks to some unfortunate mishaps when it was first released it Šsuffered no end of jibes from English or foreign shores alike. Most of us may have given up on it as a lost cause, but Radical Software never did. In reviewing Megablasters I found myself faced with two problems.

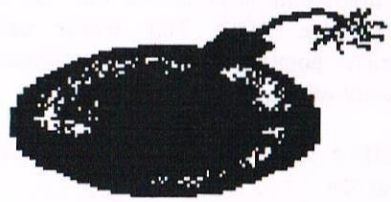
1) How to give a fair review that didn't come from my friendship with Angela and use this friendship to gain points in Megablaster's favour?

2) How to review something that has been reviewed and criticised so much in this last year? In the end I did two things, I installed the cheat and sat in front of my CPC for five hours, and ignored MB's past history, and then I switched it into two player battle mode and gave to the offspring to have a go at it.

JUST CLONE-NING AROUND

I personally prefer a meatier sprite than something that resembles a coloured marble that doesn't even simulate rolling when it's moving around, but after four screens of bomb dropping, baddie popping weapon grabbing chasing around it didn't matter any more.

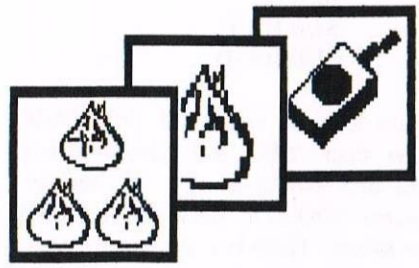
I wanted to see what baddies were next for the chop. The overscanned screen adds to the fun a lot, as does the freedom of the sprites as they speed around the screen. There's no jerky sprite responses or delay in key presses. Whether you have extra speed or not the action is smooth and addictive. The special weapons are revealed as you blast your way around each level removing parked toy cars and the like. Be warned though, drop a bomb before you grab the special weapon or sweet for energy and the bomb **WILL** take it out too.



BOOM BOOM SHAKE THE ROOM

Whilst your bombs are limited you can revive them in two forms, the first being self-exploding type and remote controlled exploding types. Whilst the bomb sizes and shapes remain the same they are very easy to tell apart.

The special weapons and energy appear in excellent icon style, their details are very well defined, and speak for themselves in what they do. **SHOES** for speed, **FIRE** for extra bomb power **SWEETS** for energy and points, etc. As well as the end of level baddy there is the chance of gaining extra life and points by building up the word **BONUS** as you bomb your way along each level. If you are careful enough **NOT** to blow up the single letter that can be found in each level you'll gain access to a bonus world.

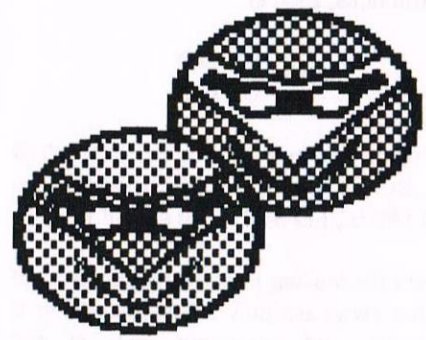


STAY LEVEL HEADED

As the levels and indeed worlds are met so do the baddies speed and staying power improve too. I hate little green baddies that won't die in less than three hits, don't you? By the time you reach world two it's no longer a game, it's personal... It's **THEM** or **YOU**. It becomes very easy to gain multi bombing skills and forget your objective - **STAYING ALIVE** cheat or no cheat, and just chase the baddies down bombing as you go. Sadly you don't get to keep the weapons or skills you've found as you move onto another screen or world, but you **DO** keep the sections of the word **BONUS** as you go, so not all is lost.

HAVE WE MET BEFORE?

In each level or world the baddies change in form as quickly as they do direction. Just when you think it's safe to bomb a pile of something unsavoury looking, it springs to life and runs over you. Or as you run past what looks like a stool with



ears it too comes to life and makes you wish you'd just stuck to bombing like crazy as you went.

Black holes open up to reveal huge gaping mouths with sharp teeth. Mind you, **ONE** of these does lead to a secret world! Rocking horses run wild in the path of any foolish enough to run the wrong way. Blue marble like creatures turn into snapping mouths, again with teeth if you bomb them. If I end up with nightmares I'm taking legal action!...

There are ?? tunes to accompany the worlds as you go, but I found in some cases it was nicer to just listen to the bombs going off to be honest, and thanks to the **DEL/CLR** keys it was easy to switch between the two sound effects.

DON'T GO IN THERE!
Some of the BONUS and end of level games are just as interesting and difficult as the main game itself *(watch out for the lost level to get a look at the programmer himself, George!)*. Some of them I found resembled some old CPC classics such as, SNAKE, SPACE INVADERS PAC MAN etc.

RAW HIDE
By the time you get to world five, be you using a stick, pad or just plain old keys your wrists begin to ache,or in my case finger tips, feel like they've been sanded off!, but it's gone beyond even personal now, now I had a mission...

I was going to reach the end of this thing even if I did have the cheat on and wasn't really winning in the end. I've read and heard it said that the game is too big! I can't understand that, 1 meg of action on a CPC too much?

True it did take forever and a day to get to the end and I had to have the cheat installed to do it! But there was just something satisfying about seeing the end story and credits.

DADDY BASHING?
I tried a game in BATTLE MODE with my eldest daughter *(11 yrs old)* and as weird as this sounds actually enjoyed getting the stuffing blown out of me!

Anna-Louise isn't one for any kind of computer game be it CPC or anything else, but put MB in **BATTLE MODE** and her eyes light up, she even allowed me to cry *"CHEATER!"* at her and not get a lip on,such was her enjoyment of the game.

Rivalry with her and her brothers was quickly and easily swept under the carpet as they set about blowing each other up.

There aren't many CPC games that allow you to leave sworn enemies in a dining room with a stack of CPC equipment that's more precious than life.

From morning to night all I hear is *"DAD put MB on in battle mode PLEEEEEEEASE!"*.

When they found out I was getting hold of a bug free copy to review I regretted agreeing to doing it.

ONE LAST GO!
Like everything else that comes out on release for the CPC this game was quickly copied and passed around illegally. And I have NO doubts that the bug free version will too at some point or other. But bear this in mind, a non legitimate copy is one thing but a new bug free copy from Radical Software is the best move you can make especially if you have children. I have five and three of them can be tied up for anything up to six hours easily with MB... **WONDERFUL!**

IT'S A BLAST
So what did I rate this infamous game at then?

GAME PLAY	100%
GRAPHICS	100%
SONICS	WELL ERR!
VALUE FOR £	101%
OVERALL	100%

If you haven't bought it yet and you have children(?), do it now. If you have a useless bugged copy and are waiting for another hacked copy from that friend don't waste your time, buy an original copy from Radical Software you'll enjoy it a thousand times more.

Jonty
the GHOUL
Wiv sore fingers now, thanx Ed!

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Radical Software Titles include, Megablasters, Who Said That, Star Driver/Masters Of Space and Routeplanner.

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What is Tribal MAG?

Tribal Mag was a discmag (magazine on disk :-)) on the Amstrad CPC computer. Published since '93, it was well established in the international (well, european...) scene. It covered all scene-activities during the releases, including many articles, "in-text-graphics" and songs. The 14 columns were ranging from scene-news to reviews (of disc- and papermags, games, tools and demos) to interviews and adverts, and a lot of crazy chatting and other funny things.

The TM "disc version" as it is has been published till February '97 (TM #7) needed 2-4 discsides containing the mag itself, a textconverter and a setup-program to configure it individually. Because it became more and more difficult to receive articles from the readers, the effort was too high to continue the TM in this form. So the TM died in with its last disc-issue No. 7. But...

The Tribal Mag continues!
As many CPC freax can get access to the internet nowadays or even publish their own stuff there, I've decided also to "jump on the train" and let the good ol' Tribal Mag live on. Doing so, I hope to reach more readers who are interested in the CPC computers - all over the world! If you are one of these people who still love their CPC-machines then you are at the right place here.

The new TM concept
TM online - For those CPC-Freaks who can get access to Internet same columns, many articles, interesting layout, regular release *(because of less effort)* -> more topical!

Here software-reviews, chatting stuff, meeting-reports, hardware-infos and more around the CPC will be found.

Additionally more "nice things" are planned:

* Meeting photos
* Links to other CPC-concerning web pages
* Archive for downloading all released TM-issues
* a BIG chatting-corner!

I cannot tell you by now how TM online will develop in the future - it all depends on the people who are reading TM and participate actively on it!

If **YOU** like the concept of TM online and want to help building up the first issues, why not start writing a few lines - about everything on CPC you want!? The more who contribute, the better!

TM paper - For those CPC Freaks who cannot get access to Internet

With TM paper I thought to print nearly all articles from TM online - of course in another layout. TM paper will be released parallel to TM online. A subscription will cost between 10 and 20 DM and will go one year. If you want to subscribe TM paper then you can contact me and can be noted down. Again: The more who participate, the better!

Planned columns in TM online and TM-paper:

Scene-Life: News from the scene
Adverts: Offer/Search-Ads etc.
Hardware: Tips+Tricks, instructions, Projects Chatting :discussions, silly chats Utilities, Demos, Fanzines, Playtime! : Software-Reviews Meetings : Meeting impressions with reports and photos, Coding coding-courses, help etc. Tod+Teufel: *(=Death 'n' Devil)*- the ultimate HATE-corner!

Special :every issue a special issue :-)

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CPC

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The Puzzle Page

with Carol Bowley

Dear me is that another month gone already, I can't believe that the time has gone so fast.

The convention is nearly upon us now and I am wondering if you have your tickets by now, if not - why not!

PRIZE PUZZLE ANSWERS
Thanks to all of you who entered the prize puzzle this month. I know it most certainly wasn't easy and I didn't know many of them myself so I had to rely on Ians answers.

1) It Doesn't Matter Anymore
   Buddy Holly

2) Please Don't Tease
   Cliff Richard

3) Poetry in Motion
   Johnny Tillotson

4) House of the Rising Sun
   Animals

5) Whiter Shade of Pale
   Procal Harem

6) Space Oddity
   David Bowie

7) Don't Cry For Me Argentina
   Julie Covington

8) Imagine
   John Lennon

9) Hello
   Lionel Ritchie

10) Lady in Red
    Chris de Burgh

11) He Ain't Heavy He's My Brother

12) Don't Look Back in Anger
    Oasis

There we are then, if you didn't send in your entry did you get them all - or any!

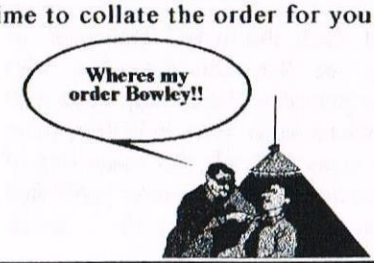
Frank Smart queried the words to No 1 as being "I've thrown away my nights", instead of "rolled away" and the year for No 8 being 1981 but as I am unable to answer him on that so if he is right, then I'll just say it's Ians fault!

And the winners are:

1st Frank Smart
2nd Keith Bull
3rd Dennis Jordan

Well done guys. Your vouchers are on the way.

VOUCHER NEWS
If, or should I say when, you are the proud winner of one of the WACCI vouchers and require a multiple order, would you please send the voucher to Doug Webb. If you only want one item *(or more but from the same librarian)* then please send it to the PD librarian dealing with that particular item. This will ensure that your order is dealt with more promptly than sending it to me then I have to wait for John to find the time to collate the order for you.



The rest of the answers are as follows:

PUZZLE ONE
The Taj Mahal

PUZZLE TWO
Dog in a Manger

Right now on to this months short puzzles.

PUZZLE ONE - DINGBATS
Find the familiar phrase, saying or name in this arrangement of letters.

WAGERREGAW

PUZZLE TWO - GUESS WHERE
Nelsons Column, Cleopatras Needle, Pudding Lane and Pall Mall. In which City would you find these?

PUZZLE THREE BRAINTEASER
This question was sent in by John Shaw of Berkshire to test those little grey cells of yous.

I have a limitless number of first and second class stamps. *(26p and 20p respectively).*

What is the highest even amount of postage I cannot match exactly?

PUZZLE FOUR
PRIZE PUZZLE

What is the most commonly spoken language in the world?

Easy or what! Answers to be with me by September 20th

My address as always is:

97 Tirrington
Bretton, Peterborough
PE3 9XT

Tel: 01733 702158

Bye for now. *Carol*

Surfin' CPC

by ChaRley TroniC

reprinted with permission from issue 3 of BTL

As Hangman observes in this issue's editorial, the CPC is currently undergoing a new lease of life courtesy of all those nice CPC emulator things. Nowhere is this more true than on the Internet, where like-minded saddos can gather, discuss topics CPC-related, and make their programs freely available for download.

WHAT DOES IT ALL MEAN

Internet resources are largely divided into three categories. First up are the newsgroups (aka Usenet), a huge bulletin board with thousands of different sections for discussion on anything from JavaScript programming to armpit noises.

Then there are FTP sites - File Transfer Protocol - chocker full of programs ready to download. Imagine being able to wander around someone else's 100 gigabyte hard disc, copying whatever you like. Finally, there's the much-feted World-Wide Web (WWW), a super-Teletext system with millions of pages stored on computers all around the world.

There's something in all of these for CPC users, so we've reviewed and rated each one in turn. Don't forget that the Internet also offers e-mail, letting you send an electronic letter to any one of a hundred CPC gurus. For example, you can e-mail BTL at btl@systemeD.u-net.com.

Those URLs explained in full

A URL, which stands for 'Universal Resource Locator', is the essential piece of information needed to retrieve any web page or file off the 'net. *(Newsgroup postings have URLs, too, but you'll rarely need to use them.)* Think of it as a global filename.

Each URL can be divided up into several bits. Take this one, for example:

http://www.compapp.dcu.ie/~c1pgarga/davrob/davrob.html#cpc

The http:// part describes how your computer should retrieve the document in question. HTTP stands for Hyper-Text Transfer Protocol, which is how WWW information is shipped around, so it's a fair bet that this is a web page you're dealing with - although programs can occasionally be retrieved this way, they're usually indicated by ftp://. A third, comparatively rare information system is gopher://, which is like a text-only version of the WWW.

The next bit, before the first slash, is the address of the machine where the file is stored. You read these from right to left, with the bit on the far right usually indicating the country - in this case, ie for Ireland.

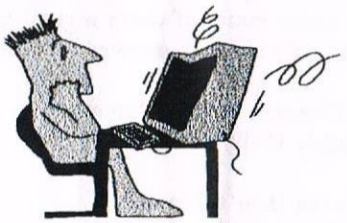
Then dcu indicates Dublin City University, compapp that the machine in question is one of those belonging to their Computer Applications department, and www that it's their web server.

The rest indicates the filename for the page on that machine, with .html being the standard suffix for web pages *(it stands for Hyper-Text Markup Language)*. Slashes indicate changes of directory, just like on a PC. You'll notice that this particular page includes a final #cpc element, which tells your web browser to go straight to the part of the page which is designated as dealing with CPCs.

Ireland isn't the most connected of nations, so they can get away with directly preceding the country code with the machine name. Here in Britain, there are so many netheads that some sort of subclassification is necessary: you'll find addresses ending with .co.uk *(commercial)*, *.ac.uk (academic)*, *.gov.uk* (government), and so on. It gets even more complicated with the Americans, who started the whole thing without any concern for internationality: so .edu *(no country code)* indicates a US educational establishment, and .com a US company.

Many UK companies like to add an international tint to their image by buying .com addresses rather than .co.uk.

All clear?



Carrying on with internet theme ChaRley explains how you can connect a CPC upto the internet, so take it away Richard.

Get netted

It's all happening on the Internet, you know. And you can be part of it with just a CPC and a few peripherals. Richard Fairhurst.

(richard@systemeD.u-net.com) explains how.

If John's reprinted the explanation of what all those arcane net addresses actually mean *<<Yes I have -John>> (BTL: we're not just there for the nasty things in life)*, you should now have some idea of what to expect from the Internet. But everyone's been bombarded with 'net hype over the past few years, and you need compelling reasons why you should sign up to the alleged communications medium of the future right now.

Here are a few. First of all, e-mail. E-mail combines the precision of the written word with the immediacy of the telephone.

Of course, there's no point in getting hooked up to the 'net if you don't know anyone else with e-mail access. But you probably do: several WACCIites can be contacted across the electronic ether, almost all university and college students have free access to the Internet, and large companies are increasingly installing e-mail systems both to aid efficiency and as a perk for their employees.

Secondly, newsgroups, the discussion fora *(mind your Latin)* of the Internet.

The discussion can sometimes gets a little heated, and it's important to keep a sense of perspective: but these can be great places to exchange views with those of a similar interest. For those with a CPC, comp.sys.amstrad.8bit is essential reading. European CPC users, WACCI and BTL writers, and even the designers of the CPC are regular contributors: discussion ranges from new program developments, via help for existing users, to low-down dirty gossip.

BEHAVE YOURSELF

The Internet is a distinct community with its own etiquette, and it's important to keep one or two basic rules in mind when contributing to discussions. Bear in mind that the 'net is a unique co-operative venture which functions only through the goodwill and generosity of its many contributors. Help others and join in existing discussions, and your own requests will be treated with much more respect than if you simply barge in and shout **"I want"** a lot.

And just as you wouldn't write a letter to Fair Comment without having read a WACCI or two, don't try to force your opinions on others when you've only been surfing for a few weeks. It sounds a snobbish thing to say, but more discord is caused by **"newbies"** posting to the wrong newsgroups, asking questions which have been answered a thousand times before, or trying to impose their subjective tastes on a long-established newsgroup, than by genuinely-held differences of opinion. Internet aficionados are fond of blathering on about freedom of speech: this invariably means you won't agree with all the strongly-stated opinions you'll read. Learn to live with it.

GET YOUR KIT OFF

99% of Internet users use a PC, a Mac, or a Unix machine as their access route to the *(here we go)* **"information superhighway"**. That's not to say that you can't do it on a CPC, though.

First of all, the good news: you can use practically any modem with your CPC. It has to be an **"external"** model, rather than an **"internal"** one *(a bare circuitboard designed to be slotted into a PC)*, but almost all modems are available as such. The bad news is that it won't plug straight in, and that you need to buy a serial interface first.

How come? After all, you can plug any standard printer into the CPC without buying an expensive interface. Well, yes, but that only involves a one-way flow of information - from the CPC to the printer. You'll want to both send and receive stuff from the Internet, and as luck would have it, the CPC's expansion port *(which can work both ways)* is completely non-standard. Hence the need for a serial interface.

SERIAL KILLER

Several such beasties are available for the CPC. Your choice of interface will largely be governed by what you can find in the second-hand ads, but here are two pieces of advice: don't be swayed by the built-in software, since PD alternatives are invariably much, much better: and whatever you do, don't buy a KDS or Siren model. These nasty boxes are chockablock with design flaws that make them incompatible with most communications programs.

What's more, they run up your 'phone bill. Modem speed is measured in baud: the greater the baud rate, the less time information will take getting down the 'phone line to your CPC. Most interfaces will work happily at 4800 baud, or 9600 at a pinch, but a KDS or Siren model will struggle to manage 2400. STS, the people who brought you the 6k copymod, are working on another hardware tweak to let CPC serial interfaces run at speeds of 19200 baud or even faster. Since this won't work with the KDS and Siren varieties, your best bet is to seek out an Amstrad, Pace, or Cirkit design.

A THOROUHLY MODEM MAN

Once you've got your interface, pick up an external modem from your local computer shop: whizzy 33600 baud modems cost around £100 these days, so if you're not planning to buy a PC in the near future, you can save money by buying an older model which runs at the more sedate speeds of a CPC.

Plug the serial interface into the expansion port, the modem into the serial interface, and the 'phone line into the modem, and you're ready to go. All you need now is the Internet's 'phone number. Er... problem.

WILLO THE ISP

It doesn't have one. Not as such, anyway. To get onto the Internet by 'phone, you need to open an account with an Internet Service Provider, or ISP for short. They'll charge you money for this: not a lot, but money all the same.

Most ISPs don't offer a service compatible with CPCs. I have an account with a company called U-Net: Rob Scott is linked up via BT Internet: Brian Watson subscribes to the popular Demon Internet service. All of these ISPs require you to be running a piece of software called TCP/IP. Guess what? It's not available for the CPC.

There are some companies, however, who provide a text-based service ideally suited to the Amstrad. Foremost amongst these is CIX, an abbreviation you'll recognise from its appearance in Peter Campbell's e-mail address: get details from them on 0181 390 8446. Many bulletin boards now provide Internet e-mail, too. Aspects, whose modem number is 0161 792 0260, has traditionally been a popular choice for Amstrad users. There are bound to be others: if you're using a CPC to access the Internet, do tell us which ISP you're using.

The much-vaunted world wide web *(see Paul's article in WACCI 112)* is pretty tricky to access using a CPC, due to its graphical nature, but you might be lucky and find an ISP which offers a program called 'Lynx' - a text-only equivalent of web browsers like Netscape and Internet Explorer. Few commercial websites will co-operate happily with Lynx, but enthusiasts' pages *(such as Matthew Phillips' WACCI site)* should display satisfactorily.

AND FINALLY

Those PD alternatives to the built-in software that I mentioned. There are loads, but the best of the lot is BBS Terminal - a friendly comms program from down under capable of running at gloriously fast speeds. If you've got a spare ROM slot, Robot Software *(c/o Brian Watson)* can also flog you the ex-commercial Charley's Comms ROM for a few pounds, a flexible package suited to the communications initiate and novice alike. But then, I would say that.

RC-Quest

by Ray Powell

Those of you of a nervous disposition may be pleased to learn that RC-QUEST is not a nerve wrecking joystick breaker, but more of a brain wracking thought provoker. Yes, this is a puzzle game. (By Jaysoft of Mops. Don't you just love these Pseudonyms? Hi CRTC!!)

PLUS MINUS.
RC-QUEST is a 'Crunched' program. This makes it unfriendly to Plus machines. However, there is a free program *(PDPlus.)* on the KAD catalogue disc which will sort out the problem.

MILES OF TILES.
Being coded by a member of a continental group, you are faced, on loading with the inevitable, *(And irrelevant to all but the recipient.)*, messages.

These can be hastened by pressing 'Space'. Next you are given the choices of keyboard or joystick, and a grotty tune or fairly good sound effects. Eventually we come to the game screen.

This is in two parts. There is the playing grid on the left, and a mass of icons on the right. The icons represent a detonator, direction arrows, tiles, jumps etc'. On the playing grid is one or more 'Home' square. These resemble sub-miniature chess boards. The rest of the grid is taken up with 'Tiles' in various patterns, depending on the level. On one of these tiles is a small car which has to be guided to a home square. This is where the icons come in. Once started the car travels in a straight line. By placing appropriate arrows etc' in its path, the car can be directed home.

The route must be worked out and installed in the grid before starting the car, which does not stop until it reaches a home square, runs out of fuel, or runs off the road. Sounds easy? Not when you are restricted in which, and how many icons can be used. There are also two types of tile, permanent ones, and temporary ones which disappear when the car has passed over them. This makes retracing, or, without jumping, crossing your track impossible.

CLEAR AS MUD.
By way of illustration I will go through an imagined and simple level. The car is four tiles in from the right on the bottom row, facing up. All four corners are homes. Available to you are one right hand arrow, one jump, three explosions, and one down arrow.

You have to pass one checkpoint which is two tiles down and two tiles in at the top left hand corner, and there is plenty of fuel. So we will need the car to go up to the same row as the checkpoint and turn left. But we have no left arrow, so we will need to turn right and let the car come back off the right hand edge of the grid.

This will mean that a jump will be needed to get over the arrow on the way back. A down arrow is then put into the left hand column to take the car home at bottom left. Arrows or whatever are placed by putting the game cursor over a space, selecting the icon needed with the cursor keys, and pressing fire.

Tiles are removed to make room for icons with the detonator. If you make a mistake, the level can be restarted by clicking on the NO icon. The car is started by clicking on the exclamation mark icon. GO FOR IT.

There are twenty five levels to the game, each with it's own password. If anyone would like these, I can supply them.*(All worked out with my own brain, without cheating!!)*

The difficulty curve is a little uneven, but not bad. This is a well written, colourful, and absorbing game.

If you like to exercise your brain, then send off for PD Disc 92 and give yourself a workout!! If the existing levels are not tough enough for you, there is a level editor to design your own.

There is no time limit on any level, so the puzzles can be worked out at a leisurely pace. A very good game, and well worth having.

Ray Powell

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Well It's here the school holidays so if you can't get hold of me don't panic, I'll be around in time to send out any tickets for the convention or at least let you know they will be at the door. Talking about the convention I have to say that I'm unhappy about the lack of response this year and quite honestly I don't need the worry of it all so as far as I'm concerned this will probably be the last. There also seems to be some confusion about the Free PD when you get your ticket you will get a voucher for free PD of your choice but you MUST send a DISC to the librarian or you won't get your PD.

FOR SALE:
Amstrad CPC 464 with Green Screen Monitor in good working order but no handbook.

PLEASE CONTACT *T.J.Ward, 4 Stanhope Gate, Ashburton Road, Southsea, PO5 3JS TEL: 01705-837104.*

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PLEASE CONTACT: *Ray Powell, 36, Priory Place, Sporle, Kings Lynn, Norfolk. PE32 2DT TEL: 01760-723317*

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GT63 Green Monitor	£10.00
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DMP 2160 Printer c/w manual	£30.00
CPC 6128 Manual and CPC 664 Manual	£5.00 each.
3" Drive Mechaniam	£20.00
Soft 968 Firmware Guide	£20.00
Soft 157 Concise Basic Spec's	£5.00
3.5" 2nd Disc drive c/w cable	£45.00
DK Tronics 64K Rampack with manual and software	£20.00
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Mastering Machine Code on the 464 and 664	£2.00
Trivial Pursuit	£2.00
Frank Bruno's Boxing	£2.00
Taswod 464	£2.00

Loads of tapes at 50p each contact Dave for list. Amstrad Cover Tapes 20p each.

PLEASE CONTACT: *Dave Simpson at 9, Belmont Gardens, Raunds, Northants. NN9 6RN TEL: 01933-622692*

Advert reprinted due to telephone number error.

Sorry Dave it was my fault - John>>

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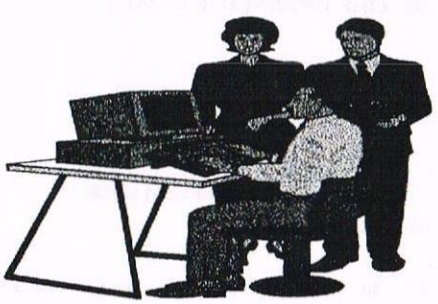

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If you've not sent for your convention tickets yet and you would like to come to the convention. You can always pay at the door.

Submit

by John Hudson

If you have been keeping up-to-date with the PC and Mac worlds you will have noticed increasing emphasis on scripting. Apple has begun to develop AppleScript, Lotus, who brought out LotusScript several years ago, has advanced its cause in the most recent edition of SmartSuite and Microsoft has made its BASIC into a scripting language under Windows 95.

Ironically, all three have previously turned their backs on scripting languages, Apple and Microsoft because they thought a windows interface wouldn't need it and Lotus because they thought it would be sexier to have embedded macros rather than imitating Supercalc's scripting language.

But 664, 6128 and DD1 users can all use the grand-daddy of microcomputer scripting languages - CP/M - to do much the same things as Mac and Windows users are now being encouraged to do.

While CP/M 2.2 can run scripts, CP/M Plus can run entirely on scripts. It is programmed to look for PROFILE.SUB as its first program to run.

PROFILE.SUB usually contains a series of CP/M commands to customise your machine and load your favourite program. The .SUB ending tells CP/M to invoke SUBMIT.COM which places the commands in a special temporary file.

But the ability to use the commands in the special temporary file is present in both CP/M 2.2 and CP/M Plus. At the end of every program *(including SUBMIT.COM)* and before offering you the prompt, CP/M looks for the special temporary file; you may have noticed CP/M checking for this file when it appears to hesitate just before offering you the prompt.

If it finds the file, it reads, then deletes and executes the last command in the file. It does this each time it exits from a program until there is only one command left when it deletes the file. So if the last program leaves a new temporary file to execute, you will never return to the prompt.

WRITING A MENU

In WACCI 77 Uncle Clive showed us how to create a menu from BASIC for use with CP/M Plus. You can replicate Uncle Clive's example menu in CP/M Plus by creating two .SUB files each of which can be called from PROFILE.SUB. 1.SUB will consist of the line: SC2 and 2.SUB will consist of the line: DIR

However, to get CP/M to respond to "1" or "2" on its own, you have to tell it to look for ".SUB" files rather than ".COM" files. The line:

```
SETDEF [order=(SUB,COM)]
```

in PROFILE.SUB will do this and you need to make sure SETDEF.COM is on the system disc.

PROFILE.SUB might then consist of:

```
SETDEF [order=(SUB,COM)]
;
;       1   Supercalc
;
;       2   Dir
;
;       Enter 1 or 2 and then press
<RETURN>
;
```

As in assembler and some other languages, semi-colons are used to indicate the start of a comment. They can come after the command or, as in this case, at the start of a line so that the whole line is treated as a comment. If you don't like the semi-colons, you can get rid of them by creating a file called MENU with a wordprocessor.

```
    1   Supercalc

    2   Dir

    Enter 1 or 2 and then press
<RETURN>
```

and amending PROFILE.SUB to read:

```
SETDEF [order=(SUB,COM)]
TYPE MENU
```

You can further refine this by adding the line TYPE MENU to the end of the 1.SUB and 2.SUB files so that, when CP/M has carried these commands out, it always returns to the menu, though adding it to 2.SUB may push a long directory display off the screen.

Because CP/M is showing you the prompt at the end of MENU every time anyone can break out of this sequence by typing an alternative CP/M command like PIP which does not result in a new .SUB file being created. So you may want to add a further line to MENU saying:

```
To return to this menu,
  enter TYPE MENU
and press <RETURN>
```

SUBMITTING A BATCH

However, the idea for CP/M SCRIPT did not come because people wanted to write menus; the early CP/M computers had single line screens so could never have displayed a menu.

The idea came from mainframe computers where you gave your jobs to a technician who, in order to use computer time efficiently, would submit' a 'batch' of jobs to the computer using a series of 'job control' commands. You can use SUBMIT.COM to create the necessary

temporary file in both versions of CP/M. But you need XSUB.COM to do some things in CP/M 2.2 which you can do automatically in CP/M Plus. This is the main downside of using CP/M SCRIPT; you have to have SUBMIT.COM on a disc to convert your commands in a .SUB file into a form CP/M can read and, if you want to do the more fancy things in CP/M 2.2, XSUB.COM as well.

CUSTOMISING PROGRAMS

Before looking at the 'job control' functions of CP/M, I will run through the main customising programs. To enable CP/M 2.2 users to customise the machine Locomotive Software provided SETUP.COM but CP/M Plus users are expected to set up the 'profile' of their machines every time they switch on by using PROFILE.SUB.

Digital Research provided a number of customising programs but Locomotive Software created several more to enable the 6128 machines to be configured for a range of users. These are not standard CP/M commands; they were added by Locomotive Software and will only work on Amstrad machines. As far as I am aware, these Locomotive Software programs are not PD, unlike the programs created by Digital Research.

If you want to use dates under CP/M Plus, the first command you would normally put in PROFILE.SUB is Digital Research's DATE SET *(or John Elliott's XDATE SET)* which will run DATE.COM *(or XDATE.COM)* and prompt you to enter the date. Then, if you want to use menus, you need to add

SETDEF [order=(SUB,COM)]

and you may also want to use

SETDEF b:,*

to ensure that CP/M searches both drives starting with drive b: for any files. Then, if you have an unconventional setup - a serial printer, for example - you can use DEVICE.COM to set it up.

Next you would normally put in Locomotive Software's offerings. PALETTE.COM allows you to choose a background and a foreground colour within the range 0 - 63 with 0 being black and 63 being bright white; since the CPC cannot reproduce 63 colours, you will find repetitions in the sequence. PALETTE 16, 51 produces a bluish white on a green background. PALETTE 63, 0 produces a black on white screen on Plus machines and colour monitors and a black on green screen on the older mono monitors.

LANGUAGE.COM allows you to choose which of the first 8 ISO languages will appear on screen - ISO 3 is English with pound signs; so LANGUAGE 3 makes pound signs appear.

SETSIO.COM takes a series of parameters to set up the serial interface; however, unless you are trying to communicate with an unusual terminal, SETSIO 4800 or SETSIO 2400 *(to set the baud rate to 4800 or 2400)* is usually enough as the default settings for all the other parameters are fairly standard.

Whenever you run PROFILE.SUB with SETSIO 4800 or SETSIO 2400 in it, SETSIO.COM will also list all the other parameters which it has set automatically.

SETKEYS.COM and SETLST.COM set up the keyboard and printer respectively. They both need a separate file containing the keyboard or printer definitions. KEYS.WP supplied with 6128s contains all the definitions needed to run TASWORD and some other word processors. KEYS.CCP contains the standard CP/M definitions but you can ignore these unless you are into hacking CP/M programs. My more ambitious key definition file for use with Supercalc 2 was published in WACCI 79. Printer definition files are constructed in a similar fashion.

Putting all these regularly used commands in PROFILE.SUB means I can switch on and be into my word-processor in less than 90 seconds - which is about the same time as it takes Windows 95 to sort itself out and let you get into your word-processor. Funny how a computer running at 50 times the speed of a CPC still takes about 90 seconds to let you start working!

CHANGING PROFILE

You can change the keyboard settings under CP/M 2.2 by using several discs each set up differently using SETUP.COM, one for your wordprocessor, one for your database and one for your spreadsheet. This works well enough since you always have to have a system disc in drive a: when using CP/M 2.2. However, once you have loaded CP/M Plus and configured your machine using the commands in PROFILE.SUB, you can put away your system disc and work entirely from data discs.

So I keep shorter .SUB files for my word-processor, database and spreadsheet because usually the only things I need to change when I swap from one to the other are the keyboard settings.

So VDE.SUB consists of
SETKEYS KEYS.VDE
VDE266
while SC2.SUB contains
SC2DATE
SETKEYS KEYS.SC2
SC2.COM JRHUDSON

Entering VDE or SC2 *(or even VDE.SUB or SC2.SUB if you have not used SETDEF [order=(SUB,COM)])* is a lot quicker than typing everything in every time and having to remember the '266' in VDE266! SC2.COM has to be written out in full in the .SUB file if you have used SETDEF so that CP/M doesn't call SC2.SUB again and interpret JRHUDSON as a parameter of the .SUB file. If you haven't used SETDEF, you can leave ".COM" out of the last line.

SUPERCALC SCRIPTS

Supercalc2 has its own scripting language for which you have to store scripts in .XQT files. So I have a series of Supercalc commands in JRHUDSON.XQT which load a particular spreadsheet and carry out various operations automatically. By including JRHUDSON after SC2.COM I can move smoothly from CP/M's scripting language into Supercalc's.

But Supercalc is fussy about quitting to CP/M and will only quit properly to a file it can find on disc. If you add another CP/M command after a line like SC2.COM JRHUDSON and quit normally from SC2, CP/M will take over straight away.

If a line like SC2.COM JRHUDSON is the last one in a CP/M script, you need to use 'Quit To' in SC2 and give the name of a CP/M script or program on the same drive as SC2 for SC2 to quit without a fuss and for automatic progress to continue.

John Hudson

Tappers

by Richard Fairhurst

It's back! The ever-popular listings pages return with a handy program to let you make use of the countless clip art discs in the WACCI library, courtesy of Richard Fairhurst. And you even get an explanation of how (most of) it works.

The rationale

If you come across a piece of Stop Press clip art *(with a .CUT extension)*, you can load it into practically anything you choose: MicroDesign Plus, PowerPage, any number of file viewers, and surprisingly enough, even Stop Press itself.

On the other hand, if you don't own MicroDesign, you won't have a chance to load the .DR clip art files produced by said program. The new version of PowerPage 128 does it, but it's also not quite finished yet. So in the interim, here's a simple BASIC routine which will load any .DR file you care to throw at it.

Read, type, but don't inwardly digest.

First of all, you have to find some way of loading the .DR file into memory. You can't satisfactorily do this in BASIC, so I've prefixed the main program with a little bit of machine code. Type this bit in, but unless you're feeling particularly masochistic, don't worry about what it does and how it does it.

```
100 MEMORY &3FFF
110 DEFINT a-z
120 FOR n=&9000 TO &9027
130 READ a$
140 POKE n,VAL("&"+a$)
150 p=p+VAL("&"+a$)
160 NEXT
170 IF p<>5084 THEN PRINT
"Error":END
180 DATA DD,6E,00,DD,66, 01,46,23
190 DATA 5E,23,56,EB,11, 00,C0,CD
200 DATA 77,BC,D0,E5,DD, E1,DD,36
210 DATA 41,FF,DD,36,42, 00,21,00
220 DATA 40,CD,83,BC,D0, C3,7A,BC
```

As ever, save the program at regular intervals - especially when you're dealing with machine code, which will crash your computer given the slightest excuse.

One line you might be interested in is line 110. CPC BASIC is pretty flexible when it comes to numbers - anything from -0.736 to 50 billion can be stored happily. With this flexibility comes a price: speed. Storing numbers to this degree of accuracy takes time, and when you're only dealing with small-ish whole numbers, you can do without that.

By putting DEFINT a-z at the start, you tell the CPC that all numbers will be between 0 and 65535. This is the natural range of the Z80 *(the main chip inside our computer)*, so it takes virtually no time to process. Right! On with the program.

Loading the file

```
230 :
240 LINE INPUT "Filename: ",a$
250 CALL &9000,@a$
260 :
```

Lines 230 and 260 don't do anything. A colon separates two commands from each other - or rather, it would if we had any commands in this line. Placed on their own, they simply break up a long monotonous listing, and let you identify individual sections more clearly.

Line 240 asks the user for the name of the file to be loaded: LINE INPUT is a more flexible version of INPUT, which doesn't worry about commas or stuff like that. Note that there's a comma rather than a semi-colon after the prompt, to suppress the tatty "?" that BASIC usually prints.

Line 250 uses the machine code routine to load the file. The @ before the string name is a historical curiosity - 664, 6128 and Plus owners don't need it. But given that it doesn't actually cause any harm, you might as well ensure 464 compatibility.

Setting up

```
270 h=PEEK(&4000)+PEEK
(&4001)*256
280 w=PEEK(&4002)+PEEK
(&4003)*256
290 m=&4004
300 s=&C000
310 MODE 2
```

When the machine code has loaded the .DR file, it puts it at &4000 in memory. The first few bytes of the file contain the height and width of the picture - lines 270 and 280 get the values into BASIC variables. The picture starts at &4004. .

We'll be treating it byte by byte, so line 290 stores the starting point in variable m. Instead of plotting single points on the screen, which would take forever, we're going to take advantage of the fact that MicroDesign sensibly stores points in the same fashion as the screen memory, and copy them straight from file to screen memory. Line 300 sets s to the address of the top left-hand corner of the screen.
Again, you needn't worry about how this works unless you're feeling particularly brave.

Drawing the screen

```
320 FOR y=1 TO h
330 FOR x=1 TO w
340 GOSUB 500
350 POKE s+x-1,b
360 NEXT
370 s=s+&800:IF s>=0 THEN s=s-
16304
380 NEXT
```

This bit is surprisingly easy. Each line is stored in the file one after another, and the lines just run from left to right.

Let's take the left to right bit first. The GOSUB 500 gets a byte from the file *(that'll be explained later)* and puts it in b.

All we have to do, then, is poke it into screen memory. So if we do this once for each byte that the file is wide, poking the value into s *(the address of the start of the line)* plus x *(the current left to right position)*, we'll have it sussed. That's what lines 330 to 360 do: the -1 compensates against a slight shift to the right that you get otherwise. Try missing it out and see what happens.

Lines 320 and 380 consist of a loop to do this for each row of the file, from top to bottom. 370 moves onto the next screen line, and again, is something for tech-heads only.

There's an explanation of how screen memory works in BTL 4's sprite course, if you think you fit that description...

```
390 CALL &BB18
400 END
410 :
```

Line 390 is a short way of waiting for a keypress: if you didn't have this, the Ready prompt would appear on top of your picture straight away. And line 400, er, ends the program.

The clever bit

One of the reasons that .CUT files are more popular is because they're simpler to display. Simon Hargreaves, the programmer of MicroDesign, came up with an ingenious enhancement for .DR files which complicates them a little. Most pictures aren't square. But since you have to save them in a square box, there's lots of white - or black - space around the edges, which takes up valuable disc space when saved. The solution is to replace eight bytes of solid white with a byte saying "solid white" and another saying "eight bytes wide", thus saving six bytes.

This compression technique is known as run length encoding (RLE), and is used by Advanced Art Studio, SQ23, PowerPage, and countless other programs to reduce the length of files. By the way, Simon Hargreaves most recently popped up as programmer of the operating system for Amstrad's new PCW16 word-processor. Said OS is rubbish, but I digress.

```
500 IF rle>0 THEN rle= rle-1:RETURN
510 b=PEEK(m):m=m+1
520 IF b>0 AND b<255 THEN
RETURN
530 rle=PEEK(m):m=m+1
540 GOTO 500
```

Ignoring line 500 for the time being, line 510 peeks a value out from the current location in the file, and puts it into b. It then advances to the next location by incrementing m by one.

If the value isn't 0 *(solid white)* or 255 *(solid black)*, then there's no run length encoding, so we can just return and carry on as normal - as per line 520. If it *is* a solid colour, though, we need to find out how wide it is. This is stored in the following byte, so we get that into the variable rle, and increment m again.

From then on, when the program does a GOSUB 500 to get the byte from the .DR file, this routine will just say "Stuff off! We haven't run out of the last one yet." That's what line 500 does: it just returns, forcing the old value to be used, if the rle count is greater than 0.

This is decremented by one each time, so by the time it's been called eight times *(to follow the above example)*, it'll be back to zero and we can proceed to get the next byte.

Hope that makes sense. If not, er, it's a useful routine anyway.

Postscript

This routine won't work with files bigger than the normal screen size: your machine might even crash if you try it. Adding a few lines to check for this is your challenge for the month *(hint: put them between 280 and 290)*.

Other frills you could add include a catalogue display before the filename prompt, and an option to save the screen out as a standard screen file when it's finished. To do this, just put a command like this onto line 395:

```
SAVE "filename",b,&C000,&4000
```

And if you're feeling particularly clever, you might like to try writing the picture out as a PC-compatible .BMP file. But that's another story...

Richard Fairhurst

THE DIRECTORY

Sentinel Software
41 Enmore Gardens, East Sheen,
London SW14 8RF
Telephone 0181 2877330
10% off all software,
phone for up-to-date lists.

H.E.C. (Amstrad Repairs)
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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% discountis available to WACCI.

Merline-Serve

*The Wizzard 8 bit Printer Port is now available at £15.00 - remember that members get 10% discount.

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)

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.

The Directory

This full directory will be printed periodically in the magazine. If you are mentioned and don't want to be, aren't mentioned or your listing is incorrect then please let me know and it will of course be corrected. Also, don't forget that WACCI has it's own book, software, tape and disc PD libraries, just look at page 30. Remember to send an SSAE if you can, it makes peoples jobs easier, and please mention WACCI when making any contact.

'Zines And User Groups

8Bit - Brian Watson, Harrowden, 39 High Street, Sutton, Ely, Cambs, CB6 2RA. The magazine for all 8-bit computers. A single copy costs £3 *(cheques payable to BA Watson)*.

IEBA - See above for address. The International Eight Bit Association, for users and supporters of all 8 bit computers. Send two first class stamps and return self addressed label *(no envelope)* for more information.

Bonzo's Scrapyard - Dave Caleno, 29 Chapter Road, Strood, Rochester, Kent, ME2 3PX. Generally bi-monthly publication to compliment Bonzo suite of programs and tape to disc transfers.

CPC Format - Leon Brown, 43 Gwydir Street, Toxteeth, Liverpool, L8 3TJ. Tape 'zine, contributions welcome.

CPC South West - Dave Stitson, 4 Connaught Avenue, Mutley, Plymouth, PL4 7BX. Not just regionally based magazine dealing in general CPC matters with it's own PD library. A5 bi-monthly £1 plus postage.

Eurostrad - Thomas Fournerie, La Hameliniere, 50450 Hambye, France. CPC Magazine with the majority of French article translated into very good English. A very good read. Free membership, each magazine costing one International Reply Coupon.

UAUG - & **Prism PD** Martyn Sherwood, 13 Rodney Close, Bilton, Rugby, CV22 7HJ. United Amstrad User Group and CPC User magazine.

Independent Suppliers And Services

Capri Marketing, Computer Cavern - 9 Dean Street, marlow, Bucks, SL7 3AA. Tel 01628 891101 fax 01628 891022. CPC Soft and hardware items. Credit cards accepted. Send SSAE for list.

ComSoft - 10 McIntosh Court,Wellpark, Glasgow, G31 2HW, Scotland. Tel/fax 0141 554 4735 *(24hr ansaphone)*. Email: cam1@cix.compulink.co.uk. Sells own developed plus other hardware and software. Credit cards accepted.

CrystalX Software - 11 Vicarag View, Redditch, Worcs, B97 4RF. Stellar Outpost, excellent strategy game. Tape £2.50, disc œ3.99 *(Cheques payable to A. Swinbourne please)*.

Dave's Disk Doctor Service Ltd - 01892 835974. Disc salvage, data transfer and conversions. All profits from the company are covenanted to charity.

H.E.C. *(Amstrad Repairs)* - 47-49 Railway Road, Leigh, Lancashire, WN7 4AA. 01942 261866/672424. Quality repairs with most at standard charges. Free technical support, advice and information on all repairs carried out. Offer 10% discount.

1) Merline-Serve, 2) Radical Software, 3) King Arthur's Domain - Brympton Cottage, Brunswick Road, Worthing, West Sussex, BN11 3NQ. Tel/fax 01903 2067 E-mail:MerlineServe@sussex.co.uk. **1)** Service supplying mainly second hand hard and software as well as some general computing supplies, **2)** MagaBlasters, Who Said.That, Star Driver/Masters Of Space & Routeplanner. **3)** Stock of 160 PD discs call for details on all above.

Officeland - 10 Sterte Close, Poole, Dorset, BH15 2AT. Tel 01202 666155 fax 01257 421915. Stocks contain toner cartridges, laser labels, laser transparencies, laser paper, printer ribbons *(including DMP range)*, Deskjet supplies, PCW supplies etc. Phone for CF2 disc prices.

O.J. Software - 237 Mossy Lea Road, Wrightington, Nr Wigan, Lancs, WN6 9RN. Tel 01257 421915/01267 421915.

SD Microsystems - *(Department Z)*, PO Box 24, Attleborough, Norfolk, NR17 1HL. 01953 483750. CPC, PCW and PC specialists in software, supplies and hardware. Tasman Software main dealers.

Three Inch Drive Belts - AJ Howard, 65 Altyre Way, Beckenham, Kent, BR3 3ED. Disc drive belts for the CPC and the PCW. Flat fitting, with instructions. Only £2.25 including P&P.

Trading Post - Victoria Road, Shifnal, Shropshire, TF11 8AF. Tel/Fax 01952 462135. CPC soft and hardware items. Some Plus/GX4000 items also. Credit cards accepted.

Tronics North - PO Box 7149, Garbutt, Queensland, Australia, 4814. Tel/fax 0061 77 253766 *(international)*. Possibly the only Amstrad dealer in Australia supporting the CPC and PCW.

WACCO - See **8BIT** Send A4 SAE for current information on Protext, Maxam, Utopia, Office, Model Universe and other new CPC product releases and upgrades.

WoW Software - 78 Ridpole Lane, Weymouth, Dorset, DT4 9RS. 01305 187155 (1-10pm). Support for both the CPC and PCW.

Public Domain Libraries

Hammer PD - Leon Brown, 43 Gwydir Street, Toxteeth, Liverpool, L8 3TJ. New library, any help would be appreciated.

Presto 2 - Brian Key, 87 Sweetmans Road, Shaftsbury, Dorset, SP7 8EH.

RSPD - Robert Sparrow, 27 Rosendene Avenue, Greenford, Middlesex, UB6 9SB. About 170 selections, just revised catalogue.

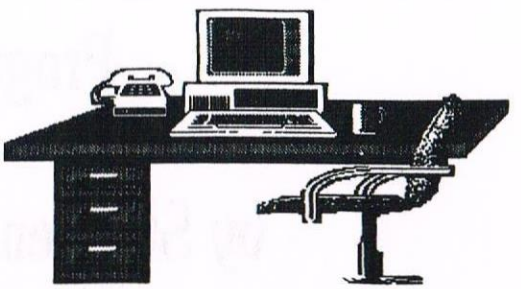
Ultimate PD - Paul Edwards, 26 Woodside Road, Irby, Wirral, Merseyside, L61 4UL. PD on 3" discs or tape.

If you know of any traders, services or PD Libraries that are not on this page then please let me know.

I hope that you will find this directory useful and I would like to thank Angela Cook who complied this directory in the first place many thanks Angela. *John*

The News Desk

with Angela (ITGA) Cook



Brympton Cottage, Brunswick Road, Worthing,
West Sussex, BN11 3NQ. Tel/fax; 01903 206739.
E-mail; angela.arthur@virgin.net

I didn't think I'd do it this month, get some news together and manage to fill as much of this page as I have. It's all very easy to say "You should do a news page", Richard, but it's much more difficult to find relevant news than I imagined. Ho hum.

LIFE OF BRIAN

I expect you will already have read this from Thanx and Stuff, but it is with great sadness I tell you that Brian Barton died recently, I believe, of a heart attack. Brian was famed for Goldmark Systems, a company which produced many simple but excellent programs for the CPC.

I dealt with Brian on several occasions and always found him to be a very competent and efficient individual.My condolences go to his family. Rest in peace Brian.

CPCSW CONVENTION

It's official, the CPC South West Convention date has been set. October 18th in Plymouth. I went last year and it was a lovely day. I only hope it is half as good this year.

Any enquiries for CPC South West or the convention in general should be sent along to editor and convention co-ordinator Dave Stitson at 4 Connaught Avenue, Mutley, Plymouth, PL4 7BX.

BTL MEETING

Over the weekend of the 18th of July BTL held a meeting. A weekend where much alcohol and pizza was consumed and dodgy articles written. It was the weekend where BTL was essentially coming together after much hard work. By the time you read this BTL will have been released in all it's glory.

You can get a copy from a range of sources including Richard Fairhurst *(Tea Cottage, Bottom Lane, Bisbrooke, Rutland, LE15 9EJ)*, KAD *(Brympton Cottage, Brunswick Road, Worthing, West Sussex, BN11 3NQ)* . Please make sure you enclose a 3" or 3.5" disc, return postage and any costs that the libraries may charge. More about the BTL meeting elsewhere in a WACCI near you.

PCW EMULATIONS

An emulator is a package that fools the a computer in to thinking it's another machine. A PCW emulator is now available for the PC on download from the homepage of John Elliott.

To use the emulator you will need an i386 or above CPU (P75 or above to run at a reasonable speed), 800x600x256 VESA-compatible display, 2Mb or more of DPMI memory, a hard drive and a keyboard with at least 102 keys. It always makes me laugh that you need such a powerful PC to emulate an older and essentially smaller machine.

Anyhow, John says that the emulator being version one is still very basic but it supports CP/M and Locoscript 3 and is good enough to develop programs under. The web address is;

http://www.seasip.demon.co.uk/pcw.html

ROUTING THE PCW

Whilst on the subject of the PCW *(wonder who will moan?)* by the time you read this, release one of Richard Fairhurst's RoutePlanner PCW should be available. Contact ComSoft for more details.

SPIDER'S PARADISE

Matthew Phillips runs the WACCI web site for us and he has been gradually updating bits and pieces on the web.

The site is full with lots of contacts in many different countries around the world, including some groups in Australia and some disc/magazines that I am trying to find more about.

WACCI on WWW

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

INFORMATION TECHNOLOGY

For anybody not too crash hot on information technology - or IT - there is a plain English IT guide and details of local IT For All events. All this is part of the Government's IT

For All campaign and a free telephone hot-line can take the misery out of technology. Just call 0800 456567, answer a few questions and receive your booklet and details.

I've just phoned for mine and will let you know what it's like in a forthcoming issue.

REMEMBER, REMEMBER...

The 14th of September. Not long to go now folks, so get ready for the WACCI convention held at Bescot Stadium in Walsall, Birmingham. Tickets are œ4, a meal is about a fiver and you can fill your plate sky high *(John knows...) <<What do you mean by this Angela I only had a little bit of everything, I can't help if the plates were small can I?-John>>*, book meals and tickets with Angie Hardwick. 60 odd tickets have been sold so far, make sure you buy yours.

DID YOU KNOW...

That about 6000 CPC 664s were sold. Neither did I. Apparently PCW worldwide sales peaked at around 50,000 month and the CPC's at around 25,000 with about half of those probably going to France.

Thanks to Cliff Lawson who posted this tit bit of info on the 8bit newsgroup.

Angela

Programmers' Patch

by Stephen and Matthew Phillips

"What's on the menu for this month?", we hear you cry. Well, if you had known what the article was going to be on, you would be ashamed at phrasing the question like that, as it is such a predictable pun, and not really up to the standard of humour we can expect from WACCI. But since you didn't know, we'll pretend to find it amusing and then get on with the article, which strangely is all about menus...

A BREATH OF FRESH AIR

To make a change from working our way through a single program, we thought we would present a useful subroutine that you can incorporate in your own programs.

The easiest way to learn programming is to alter programs written by other people. When you get more experienced in a computer language, you then find that the easiest way to write a program is to alter one that you have written before.

Programmers tend to build up libraries of routines for performing useful tasks which they can just slot in to any new program being written.

AFTER THE LECTURE

Lines 1000 to 1017 of Listing 1 form a subroutine for producing menus with a scrolling bar that the user moves up and down to select the menu item required.

Type in lines 1000 to 1017 on their own and save it in a file. They will not actually do anything on their own, but we will be using them as the basis of several example programs over the next few articles.

In fact the subroutines will squash down into just two lines. Lines 1000 to 1009 can all be typed in together as line 1000, and the rest of the lines can all be typed in as line 1010.

Although it would have been more impressive to show off with a two-line menu system, we have listed it in eighteen lines to make it easier to follow.

Once you have saved the subroutines, you can then type in the earlier lines in the listing and run it to see the first example.

HOW DOES IT WORK THEN?

Don't worry about how the subroutines work to start with. It is quite easy to use them in programs without knowing how they do the work. In fact that is one of the good things about subroutines. Once you have one that works and does the job you want doing, you shouldn't need to be bothered with how it works any more.

Instead, let us have a look at how the main program (lines 10 to 90) works in relation to the subroutines. Our example prints up a short menu, allows the user to move the menu bar up and down with the cursor keys, and then choose a menu item with the COPY key. The program then prints up a message telling the user which item was selected.

Lines 10 to 30 set up some variables which tell the menu subroutine important information about the size and position of the menu (see Table 2).

One of these variables, mp, is also used by the subroutine to pass information back to the main program. In line 10 mp is set to zero, which makes the menu bar start off on the first item on the menu.

Change it to 1, 2 or 3 and it will start off on one of the other menu items. After the program has returned from the GOSUB 1000 in line 70, mp tells us where the menu bar has ended up.

Ignore the mf variable for the moment by setting it to zero. We will do some examples of what it is useful for later.

SIZING IT UP

On line 20 mcol determines the colour of the menu bar. If you have a background of PAPER 0, then mcol should be set to the PEN colour you want for the menu bar. As the menu bar is printed up usingXOR graphics, if you have a different background things are more complicated. If x is the background pen, and y the pen you want for the menu bar, then mcol should be set to

x XOR y

The rest of the variables on line 20 are to do with where the menu is on screen and how big the menu bar should be. For example we could print the menu more spaced out by altering line 50:

```
50 FOR x=1 TO mch:PRINT:PRINT"
Item"x:NEXT
```

Run the program again. Although the menu text is spread out, the menu bar is still in the same position as before. To correct this you could alter line 20 as follows:

```
20 mcol=1:msp=32:mx=24:my=399-
3*16+8:mbh=32:mbl=16*7-2
```

Have a play around and try out different values for these variables. The msp variable should be set according to how far apart the lines of text are. If each menu item takes up one line, and there are no gaps between them, msp needs to be set to 16, as there are that many graphics y-coordinates for each text line. You can even have menu text printed every one and a half lines and set msp to 24 if you feel so inclined.

The variables mx and my hold the graphics coordinates of the top left pixel of the menu bar when it is over the first menu item. All the other coordinates needed are worked out using msp.

Finally the actual size of the menu bar is stored in mbl and mbh. The height, stored in mbh, is measured in graphics

coordinates. This could be the same as msp, but making it larger or smaller will produce different effects.

The variable for the length of the menu bar, mbl, does not work quite like mbh because the menu bar is drawn using the DRAWR (draw relative) command. Work out the width of the menu bar in graphics coordinates, and then take off one pixel's worth and set mbl to that. In line 20 we calculated mbl as 16*6-2, which is 16 for each of the six characters of the menu text, less two, which is the width of a pixel in MODE 1. In MODE 2 you would do eight times the number of characters, and only take off one.

If in doubt, just experiment with the values until it looks right!

KEYS TO SUCCESS

In line 30 we are telling the menu routines which keys we want it to take notice of. We have chosen the cursor keys and COPY key by setting the variables to the appropriate key numbers, but you could use any other keys by changing the numbers, or even allow the user to redefine the keys

The keys indicated by "up" and "dow" make the menu bar move up and down on the screen. The other three keys, "le", "ri" and "fi" can be used by the programmer to provide other features. The key flags, variable kf, indicate which of these three keys the routine will look out for. In our example we are only interested in when the user presses COPY to select the menu item. To do this, kf has been set to 4. More on how kf works later.

THE REALLY EXCITING BIT

Once all the variables are set up, we do GOSUB 1010 in line 60, which prints the menu bar up on the screen. The GOSUB 1000 in the next line calls the main menu routine, which lets the user move the menu bar up and down until the COPY key (in this case) is pressed. Line 80 then informs the user of the position of the menu bar. This must be the most useful menu ever!

If you want to remove the menu bar from the screen again after returning from line 1000, all you have to do is GOSUB 1010 again. You might of course want to leave it in place ready for the next time the menu is used. Once the variables are set up, the routines are really easy to use. If you wanted to have several different menus in one program, you could do it just by altering a few of the variables for each case, and then use the same lines 1000 to 1017 to provide the basic menu system.

TELL ME MORE

Well, unfortunately, we have run out of space, so you will have to wait until the next thrilling instalment, when we will explain all about kf, and demonstrate a few more interesting menu examples. Before then, have a go at designing a few simple menus to get the hang of setting up the variables.

mch	Number of choices on the menu
mp	Menu bar position (zero for first item on menu)
mf	Menu flags (to be explained later)
mde	Menu delay
mcol	Pen to use for the menu bar
msp	Vertical spacing of menu items in graphics coordinates
mx, my	Graphics coordinates of top left of menu
mbh	Menu bar height in graphics coordinates
mbl	Menu bar length in graphics coordinates
up, dow	Set these to the INKEY numbers of the up and down keys of your choice
le, ri,	Set these to the INKEY numbers fi of other keys that you want the menu to respond to.
kf	Key flags (to be explained later)

Table 2

Figure 1:

```
10 MODE 1:mch=4:mp=0:mf=0:mde=0
20 mcol=1:msp=16:mx=0:my=399-2*16:mbh=16:mbl=16*6-2
30 up=0:dow=2:le=8:ri=1:fi=9:kf=4
40 PRINT"Menu":PRINT"----"
50 FOR x=1 TO mch:PRINT"Item"x:NEXT
60 GOSUB 1010
70 GOSUB 1000
80 PRINT"You have chosen item"mp+1
90 END
1000 kp=0:md=1:mz=0
1001 WHILE (kp AND kf)=0
1002 WHILE (2^mp AND mf)>0 OR mz
1003 mz=0:GOSUB 1010:mp=(mp+mch+md) MOD mch:GOSUB 1010
1004 WEND
1005 md=(INKEY(up)>-1)-(INKEY(dow)>-1):mz=md
1006 kp=-(INKEY(le)>-1)-2*(INKEY(ri)>-1)-4*(INKEY(fi)>-1)
1007 WEND
1008 WHILE INKEY$<>"":WEND
1009 RETURN
1010 PRINT CHR$(23)+CHR$(1);
1011 MOVE mx,my-mp*msp+(md=-1)*(mbh-2)
1012 FOR mc=1 TO mbh/2
1013 DRAWR mbl,0,mcol:MOVER -mbl,-2-(md=-1)*4
1014 FOR delay=0 TO mde:NEXT
1015 NEXT
1016 PRINT CHR$(23)+CHR$(0);
1017 RETURN
```

Stephen and Matthew Phillips

Clishmaclaver

It's still Scots for gossip

Welcome to yet another page of chatter. I have some more information to write to you about this month so I hope you will continue reading this page. I thought it might be nice to introduce you to some new members that have taken the plunge and signed up with our number one WACCI then we can say a big HELLO to them. Don't forget your convention tickets for 14th September from Angie. I hope to see you there.

HEEL PROBLEM UPDATE

I went to a party recently, just next door, and it was held in the garden so we could enjoy the warm Summers evening. I got up to leave and my poorly foot found the only hole in the lawn and jerked to the side. At this point I must tell you that I had only had a small lager and two glasses of coke all night!

Within minutes my foot had swollen again and I was in agony all night long but like a martyr I was back at work the next day. Another hop to the Docs needed though. All together *aaahhh!!*

A SMART REMARK

You may remember last month that I told you about Frank Smarts love of curry.

Well, I received Franks entry for the puzzle page the other day and he has signed himself the Vindaloo Kid!

WEBB-SITE NEWS

As you know this page is for, among other things, sharing our celebrations with you. This month I would like to draw your attention to some great news that has come to me and definitly needs sharing.

Doreen Webb, the lovely and very charming wife of our esteemed Chairman Doug, will be celebrating her 70th Birthday on August 30th.

We all hope you have a wonderful Birthday Doreen and send our very best wishes to you.

RAISIN' A NEW BOWLEY

Good play on words there I think. Last month I told you about Christine and Chris Raisins new kittens. Well as it happens we went to see the Raisins and their new family a couple of weeks ago and just as I thought would happen we came back with one of their beautiful kittens.

We have called him Max and he has settled down nicely. Thank you to Christine and Chris for letting him become a Bowley!

WELCOME NEW MEMBERS

It is my immense pleasure to introduce you to some new members that have been added to our WACCI database file.

They are:

Robin Choudhury of Lenton, Notts
Richard Hornsby of Essex
Paul Morson of Ludworth. Durham
Robert Olsen of Queensland, Australia
D. Hay of Atherton, Manchester
John Helm of Mkt Drayton, Shropshire
Ian Simpson of Belfast
Brian Whitehead of Tring, Herts
Paul Wass of Mansfield, Notts
J.C. Franey of Guildford, Surrey
Richard Avery of Hailsham, East Sussex

I am very sorry if I have missed anyone this time around. We would all like to take this opportunity to welcome you to WACCI and hope that you enjoy reading the magazine and playing your part at being a member of the worlds number one CPC club.

MEMBERS FORUM

Yes I know that technically our Fair Comment pages are indeed a members forum but I would like to expand on the theme. Starting from next month I will be writing to members chosen at random and asking them to tell us a little about themselves, ie, what type of machine they use, what is their favourite PD disc, why they joined WACCI, and so on. I thought it would bring a little more closeness,to the club if we knew a bit more about who we are.

So if you are one of our lucky members who receive a letter from me, don't feel daunted by it. If you feel you would rather not be mentioned then say so, I will not be offended.

SPLASH OF HUMOUR

I saw this joke and thought you might like to have a giggle - I did but then thats nothing new!

Two widows were talking about how their husbands had died,

1st widow - my husband fell into the river and drowned.

2nd widow - Thats terrible, did you run down to the bank?

1st widow - Yes but he'd already withdrawn all the money!

THATS ALL FOLKS

More information needed please to keep me happy or I may take a leaf out of another CPC magazine and begin making up stories.

My address as always is:

97 Tirrington
Bretton
Peterborough
PE3 9XT

Tel: 01733 702158

Bye for now. Carol

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