AGI

THE UK'S ONLY SERIOUS CPC MAGAZINE

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WHO'S THE LEADER OF OUR GANG
A FRIEND TO YOU AND ME.

M.I.C.K.E.Y
C.L.I.V.E

LETTERS, PROGRAMMING, ARTICLES, PUBLIC DOMAIN SOFTWARE
MACHINE CODE, BASIC, ADVICE, REVIEWS AND MUCH MORE....

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PRODUCTION METHOD

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WACCI is digitally reproduced and collated by lots of helpers and a well known Scottish company!

WACCI is distributed by: Russell MacDonald, Luck, and they who put the cost of stamps up!

WACCI: The club for Amstrad CPC computer owners.

FRONT COVER: by Sally MacDonald (aged 10.)

THE TELEPHONE HELP-LINE

BOB MOFFATT, (09945) 509, Pendine, Carmarthen.
Masterfile III, MAstercalc, Qualitas & Protext.

STEWART PEPPIATT, (0245) 353903, Chelmsford, Basic, M/Code, DMP2000, VDE, Scrivener & general problems.

PETER CAMPBELL, (041) 554 4735, Glasgow, OCP Art Studio, Vidi, Basic, MicroDesign & Art Programs, ProPrint, CPC plus m/cs and VideoMaster.

FRANK FROST, (0983) 882197, Isle of Wight
4pm to 10pm, VDE, CP/M and Protext.

IAN NEILL, Work (0926) 416157 9am to 5pm, Warwick
Eprom blowing, Hardware, Electronics and more.

MARK STEWART, (0773) 822599, Belper, 5pm to 9pm, PAW Adventure Creator, Basic and general help.

PAUL DWERRYHOUSE, (0244) 534942, Deeside, Clwyd, Basic, Bankman, PD Planner, Ispell, Accounts, etc

LAURENCE SAUNDERS, Herts, (Work) 061 480 4900
Maplins & technical help. Now at Stockport.

NIGEL MELLS, (0784) 250763, Ashford, Tape to disc problems, Basic programming and a general natter.

MIKE LYONS, (0942) 59942, Wigan, Basic, Stop Press, Dk,tronics Speech Synth, Rodos and general help.

STUART GASCOIGNE, (0272) 777828, Bristol, Basic, Machine code and PD Discs 19 to 36.

CLIVE BELLABY, (0602) 725108, Nottingham, 8 to 9pm
Basic, Cobol, Forth, CP/M, Writing, Editing.

JOHN BOWLEY, (0733) 260616, Peterborough.
Help and advice about the Book Library.

MARTIN YOUNG, (0224) 480217, Aberdeen, M/c code, The audio/video chips, Page Setter 64, C and the (by special request) RAM Music Machine.

CHRIS GREEN, (0895) 633641, 5pm - 9pm, Middlesex, MS800, CP/M Protext, PowerPage, Art Studio, NC100 and NC200 notepads, The Plus computers and DTP.

NIGEL CALLCUTT, (0664) 68738, Melton Mowbray.
Technical advice, hardware and CPC repairs.

RICHARD AVERY, Tasword 464, GPaint, Another World.
35 Marlborough View, Cove, Farnborough, GU14 9YA

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

WACCI

Edited By: The Management

Owned By: The Club Members

Phone: 0602 725108

Conceived and Founded
By: Jeff Walker
In: October 1986

Developed and expanded
By: Steve Williams

You'll be happy to know that I'm feeling a lot better, following my severe attack of Aprilitis. Apologies for the late delivery of last months WACCI, it left here on time, however the printers let us down (and left Russell MacDonald pulling his hair out.) It's the last time we'll that company.....

APRIL FOOL?

Were you caught out by last months gag about my college course work? Did you read the speed test before you did it? You did? I believe you!

Did you believe Paul Dwerryhouses letter about my 'ill health', and the reason for re-issuing WACCI 2.

Did you believe all those spelling errors in WACCI 76 were deliberate? If you did, then you are gullible!

I OVERHEARD THIS PHONE CALL.....

Athers: We've first innings lead, now what do we do?

Lords: Blow it in the second innings.....

AVATAR AGAIN

Once again we have been inundated with complaints about Avatar - whatever you do, don't send them any money, unless you like being ripped off.....

Phil Craven is refusing to accept delivery of registered letters, that makes it harder to take him to court, as you must tell him about the case!

Meanwhile it is worth considering a different option - If you placed your order with Avatar, then why not chase Avatar and Mrs Harris for your money? She wrote to us and said Phil Craven had no connection with Avatar, and she was the sole proprietor of Avatar. So she must bear all of Avatar's debts.

We are also reliable told that Mrs Harris is the wife of a close friend of Phil Craven - Who said so? Phil the Craven to many members!

I OVERHEARD THIS CALL AS WELL.....

Avatar: Of course we deliver the Rombox by the 11th May.

Customer: Which Year?

Avatar: If you're going to be awkward we're not going to supply you.

PHIL CRAVEN IS A NASTY BIT OF WORK

Paul Dwerryhouse wrote a nice letter to Phil Craven, asking him to fulfil his orders. Phil's second reply was so rude as to be unprintable in WACCI.

PHIL CRAVEN IS VERY STUPID

Phil has finally paid Mike Lyons the money he was owed (for three years.) I say Phil, it was a cheque from Avatar who've no connection with Phil Craven, other than they both rip off members of the public. Why do I say Phil is so stupid? Because he sent Mike Lyons a very nasty letter with the cheque. The man must be stupid to do that!

If this sounds like a warning about Avatar and Phil Craven, it is, please don't do business with them, unless you want to be ripped off.

THREE INCH DISCS

Maxell has stopped production, so that just leaves the italian Amsoft discs in production. Supplies are hard to come by as wholesalers are using this situation to push up the price - up from 95p to 139p (plus VAT) over the last two months. Please bear with us.

Supplies should be back to normal by the end of April, however, the price will have gone up to around £17.50 per box of 10 discs. We'll do all we can to ensure that any rise is kept to an absolute minimum.

ALL FORMATS COMPUTER FAIRS

If you haven't been to a show, why not pop along and see what its all about! If you've been, here are the dates!

Apr 23 Washington Leisure Cent. Dist 1
24 National M/Cycle Museum, J6 M42

May 15 Brunel Centre, T.Meads, Bristol
21 Haydock Park Racecourse, J23 M6
22 National M/Cycle Museum, J6 M42

FINALLY: THE FRONT COVER

In WACCI 71, page 16, there's a photo of me. This was scanned using a DART scanner, converted to MicroDesign, the ears added, and printed. This was done by Sally MacDonald, Aged 10 - Magic!

COMPETITION SPOT

WITH JOHN BOWLEY

By entering Johns compos, you give him such great thrills, cos he didn't get much post before, only circulars and bills. He looks forward to your entries and to do his best - he tries! So enter ye this April compo, XeXor is the prize. By Carol.

JANUARYS RESULTS....
Has I wrote in last months competition spot I could not decide the winner myself, so I chickened out, sent four of the entries over to Peter Campbell so that he could decide the winner and the runners up and after much head scratching, these are the results.

* 1st - Harry Gubby ProPrint *

* 2nd - Jack Lipsey 2 PD Discs *

* 3rd - Keith Jones 1 PD Disc *

The entry that Harry gave was this.
The three Roms that Arnor do that are not part of the Protext family of Roms are Utopia, Maxam and BCPL and the reason why he should win ProPrint in no more then 30 words went like this.

An old Amstrad printer have I
with its infamous NLQ font,
I read about ProPrint and sigh,
it must surely be ProPrint I want!

ProPrint is available from CampurSoft price on disc £14.40 or on Rom £22.50 and their address is : 10, MacIntosh Court, Wellpark, Glasgow. G31 2HW.

PLEASE NOTE....
ProPrint and other CampurSoft products will be on offer in the very near future and my grateful thanks goes to Peter Campbell of CampurSoft for his help in judging this competition and for his generous support of prizes.

SPECIAL THANKS....
John Craven of GVL Microform has very kindly donated two CT1 units (Radio & clock) for you to win in the future.

FEBRUARYS RESULTS....
I had lots and lots of entries to this competition so I turned to the old faithful, no! Not the wife! A bowl and picked these names out.

* 1st - John Randell 3 PD Discs *

* 2nd - Ken Stone 2 PD Discs *

* 3rd - Derek Cooper Dust cover *

How did you get on with the questions? Well just look below and see for yourself and make your own mind up.

1. Battle of Hastings.
2. Signs of the Zodiac.
3. Letters of the Alphabet.
4. Dalmations (Walt Disney).
5. Wives of Henry the Eighth.
6. Hours in a Day.
7. Weeks in a Fortnight.
8. Leagues under the Sea.
9. Pensylvania (Glen Miller).
10. Feet in a Yard.
11. Sides of a Fifty Pence Piece.
12. Bakers Dozen.
13. Deadly Sins.
14. Battle of Waterloo.
15. Lines on a Television Screen.

CHOOSING YOUR PRIZE....
Will you please put on your entry 3 PD Discs that you would like even if you want the prize on offer as this would save Wacci postage and me some time in dealing with your prize(s). *<<Thanks>>*

SEND TO....
John Bowley. c/o Wacci Competitions. 97 Tirrington, Bretton, Peterborough, Cambs. PE3 9XT. Tele no. 0733 260616. Please phone between 6pm - 8pm. *<<Ta>>*

APRILS COMPETITION....
In issue 73 of Wacci Ian Parker did a review on XeXor, thats on offer this month. XeXor has been kindly donated for you, by Richard Wildey of Sentinel Software, their address is: 41 Enmore Gardens, East Sheen, London, SW14 8RF. Telephone no. 081 876 7032. XeXor is available from Richard at a price of £14.99p and 10% off for Wacci members.

Aprils Competition has been set by David Liggins so here goes. *<Ta David>*

What do the abbreviations stand for?

1. WYSIWYG
2. WIBNI
3. WYPFIWYG *(ask Peter Ceresole)*
4. TPA
5. ASCII
6. RSX *(should be RSE)*
7. EPROM *(for the techies)*
8. AMSDOS
9. BASIC
10. NLQ
11. COBOL
12. BBS
13. CPC *(Not on a mono monitor!)*
14. ITMA *(See WACCI #59)*
15. WACCI *(Ho! Ho!)*

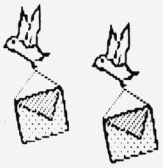
Answers to be with me no later than the 29th May please and Dont forget to include 3 PD Discs on your entry, even if you want XeXor. *<<Thank-you>>*

WACCI BOOK LIBRARY UPDATE....
All books will now be lent out for a period of 6 weeks and also you can ask for extra time by simply giving me a call or writing. But please ask before the books are due to be returned.

THATS IT....
Well thats it for this month I do hope that you enjoy the competitions and please enter I need your support.

Fair Comment

Mike Lyons
85, Leigh Road
Hindley Green
Near Wigan
WN2 4XF



POINT TO POINT

Dear Mike, This could almost be an article picking up a series of points in WACCI 75.

Though Ron Izett says he has "upgraded to 6128", I wondered if that meant both the 40025 ROM and CP/M Plus disc - leaving out either could cause problems for some programs.

While I realise that upgrading to 6128 may be a good long-term move for Eric Lothian's son, Tasword is a remarkably competent word processor for the 464 and VDE will run with the addition of a DD1 interface - so there are alternatives to a full upgrade.

The Star LC printers use the old Epson JX standard for colour printing but, as far as I am aware, no one else does - so, unless Edwyn Stevenson-Bryan can confirm that the Seikosha uses the JX standard, direct colour printing is a no-no. The earlier Colourdump2 has the facility to print colour as four separate passes; if single colour ribbons are available for the Seikosha, it might then be possible to use Colourdump2 to print colour on the Seikosha.

Colourdump3 is available from O.J. Software, 273, Mossy Lea Road, Wrightington, Nr. Wigan. WN6 9RN, (Tel/Fax 0257 421915) - whom I recommend as speedy and efficient.

I like Tic of Beng, even though I am unlikely from pressure of mortgage, kids, etc. to have enough time to explore the byways he describes - so I disagree with Paul Dwerryhouse and I do hope WACCI does not become a stuffy magazine - all power to Tic's elbow.

Finally, I was amazed at the slating the NC100 got. Mine *has* crashed twice in 18 months, but each time it was associated with switching off and my suspicion was that I had inadvertently touched the on/off switch while withdrawing the mains lead - they are rather close together. I didn't lose everything (a) because I use it so much I have a memory card, (which has its own power supply), and (b) because only some of the dates in the diary disappeared. Strictly speaking, I don't think mine crashed in the sense of there being a firmware/software fault; the symptoms were more of an interruption in the power supply.

I did experience a problem at one time with the battery contacts which meant it did not come on and I had to clean the contacts and try again - but that has not happened in 6 months.

Yes - I would like a backlit 16-line screen; but as an almost daily user of the NC100 and not a fan of Protext, (which I find very irritating because I cannot type continuously without moving my fingers away from the main keyboard for some of the simplest functions), I have still been very pleased with the NC100 overall.

I've just spell-checked this letter and find it doesn't recognise Protext as a word - it offers pretext, protect and protest instead.

Yours sincerely,

John R. Hudson
Lockwood
Huddersfield

<<Hello John, nice to hear from you again. Thanks for your comments re upgrades. An upgrade needs to be carefully thought out. It is possibly cheaper to buy a whole machine than to get the various bits and do the upgrade job yourself, (if Clive's prices are to be believed.)

I used to use Tasword until I found Protext. I agree with you that Protext on the NC100 is clumsy, but on the CPC I have no problems at all. I typed your letter in without moving my hands from their normal positions. Protext is so easy to set up to suit your needs and has so many and such flexible facilities that now I wouldn't consider using anything else.

I certainly wouldn't switch to using Wordstar, Wordpro, Newword or any of those supposedly wonderful PC word processors with their extraordinarily complicated sets of key presses. The NC100's method of inserting line and foreign characters is ludicrously clumsy, but only requires setting up in a template for Protext on the CPC.

Thanks for the info regarding O.J. Software. I hadn't known that this local company supplied serious software. I glance at their adverts in AA, but had them written off as a "games only" firm. In fact, one or two other people have written in to say how good their service is and I'm only sorry that I haven't had the benefit of the O.J. experience. Thanks also go to Martin Beddall.

Even if the Seikosha doesn't follow the same conventions as the Star LC colour printers it will have codes to set up printing in colour which Edwin can use from Protext. He can also use Selwyn Owen's method for printing Stop Press pages in colour, (published in WACCI 64 - the one with this month's date on the cover.)

I can't say that I find the 'modern-folksy-hip' approach of these pseudonym-med bods particularly attractive. However, I do think that this side of the CPC scene needs to be represented in WACCI and I can cope with the rather child-like, (as opposed to childish), antics of these brilliant coders. To be as good as they are, you've got to be a bit eccentric. I agree with you that WACCI should not be stuffy.

The NC100 is very temperamental about certain things. I use my friend's machine when I need portable WP power. I do not trust the machine to hold minutes of departmental and other meetings because of the number of times the damned thing has crashed. I usually transfer them onto a floppy via the serial port as soon as I can get near another machine. The most common cause of problems seems to be BASIC. Jenny Dwerryhouse is convinced that the BASIC installed in the NC100 causes all of her problems, probably including the burning out of several RAM cards as well as the loss of large quantities of coursework. My crashes have all happened after entering the BASIC environment, even accidentally, so I'm inclined to agree with her. As far as I'm concerned, John, a crash is a crash. If the NC100 was a car you

wouldn't nit-pick about the quality of the crash, would you? Let's face it, it shouldn't crash at all.

My CPC hasn't crashed once in 7 years, (except for once when I hadn't connected something up properly, and once when I broke something. -Mike.>>

<<To crash or not to crash - That is the question! However, I have a better question for you to answer. At work, Louise uses Word Star Express and when she uses spellchecks on her name Word Star Express offers her "Louse" as the correct spelling. It's no wonder she wants us to buy PC Protext. Mind you it may not be any better, CPC Protext offers "Louse" as well. -Clive.>>

DOUBLE TROUBLE - AND HAPPY WITH IT!

Dear Mr Bellaby, Emily and I had a very enjoyable day on Sunday 6th March at the "All Formats Computer Fair".

We would both like to thank you very much for all the help and advice which you gave us throughout the day.

We think the club is excellent, with very friendly people.

Thank you for introducing Stuart and Andre to us, (Gascoigne and Coutanche respectively - of "Flag of the World" fame) they both helped to convert our two games from tape to disc.

We are looking forward to the next Fair in Bristol, and hopefully we will see you again, Kind regards,

Hayley Neal (age 15)
Emily Neal (age 13)
Box, Wiltshire

<<Hiya Emily and Hayley, it is nice of you to write such a kind letter, and I am sure that Stuart and Andre are now blushing (I know I did!)

You hit the main reason for having a CPC club on the head - it's very nice meeting people who share the same hobby and who are also nice people, and they in turn like meeting other people, and so on .....

I hope that you are enjoying playing the games you purchased, and that you are not beating that nice chap who drove you over to often?

Did I remember to tell you that we publish letters, unless you tell us not. I'll look forward to seeing you at more "All Formats Computer Shows at Bristol, however, remember to read Thanx and Stuff (on page 3) to check if we'll be there. TTFN. -Clive.>>

CP/M - WE LIKE IT!

Dear Clive, Your article on converting CPM+ into a binary file proved to be very useful to me. Hopefully others will benefit in the way I did by making one small alteration to the file. My problem lay in the fact that CPM+ checks if it is being run on a 6128. It doesn't matter if you have an extra 64K attached to your 464 or 664 (like I have with my CPC664), you will only be told that: 'CPM plus will not run in this environment'. Fortunately the problem is easily rectified. This program will do it:

```
10 OPENOUT"d":memory &BFF:CLOSEOUT
20 LOAD"c10cpm3.bin",&C00
25 'To replace RET Z with RET use
30 POKE &CE0,&C9
40 SAVE"c10cpm3.bin",b,&C00,&6000,&C00
```

CPM+ uses the Rom probe firmware call at &B915 to find out what machine it's being run on. After running the above program CPM will still make the check, it will just not do anything about it.

I don't know how many people will benefit from this - the software that came with the DK'tronics RAM expansion had other means to get around the problem. I bought my expansion 2nd hand (with a silicon disc) and don't have the software.

A letter from Dennis McLaren in WACCI 74 mentioned Logo making calls around the &E000 mark. This of course would be to a paged in ROM which I suspect is the AMSDOS ROM if the information in 'The Anatomy of the CPCs' is anything to go by. At the bottom of page 70 it states that: 'The 16 Kbyte AMSDOS ROM contains all the main routines needed to operate the disc drive in approximately 8Kbytes.

The remaining 8 Kbytes contain part of the CP/M 2.2 LOGO Interpreter supplied on diskette.' This is the only place where I have heard of this fact but Dennis McLaren's letter suggests that it is true - calls to &E000 would be in the upper half of the ROM and the highest call listed in the AMSDOS section of the firmware guide is &C56C - in the lower half.

This still leaves a few questions unanswered, namely why Amstrad filled half the ROM with part of a LOGO interpreter. Just think what else they could have put on it (if not just a better version of AMSDOS).

In WACCI 75, Ron Izett wrote in saying that DosCopy was giving him all kinds of errors. My brother and I were met with similar errors and it was because we were running it in drive B.

It worked perfectly from drive A though, including formatting. I hope that this is of help.

Do you know what Avatar means? 'The manifestation of a god in human or animal form'. They're being slow with one of our orders (they haven't cashed the cheque) and getting through on the phone is impossible, it's either engaged or no-body (god) answers.

<<In issue 74 you mention about members at the Glasgow 'All Formats Fair' suggesting that some form of club meeting should take place, we think this is a good idea (partly due to the fact that we suggested the idea.) The United Amstrad User Group [UAUG] had a convention in Southampton (reported in Amstrad Action 99.)

In the December 1993 CPC USER (UAUGs magazine) Gordon Wooliscroft wrote that they hoped to arrange a meeting, this time in the Leeds area, this is a more centrally based location. I phoned Gordon today, unfortunatly he said response had been poor as only two people had contacted him.

Part of the reason for the poor response is that UAUG originated in the South of England and they have few members outside this area.

I told him that WACCI were hoping to have a convention at a central location and suggested that the two clubs get together and have a joint meeting as it would make it a far bigger and more exciting event.

He was quite enthusiastic about the idea but we both agreed that a joint meeting could be much more tricky to organise. I think that it might be an idea for each group to organise its own meetings and invite the other group to attend, ie UAUG arrange the conventions at the south of England and WACCI to organise the central meetings. -Gavin.>> Yours sincerely,

Callum Black
<<and Gavin Black.>>
Edinburgh

This letter should be on the enclosed disc. <<You can keep the disc but use it as a coffee mat or something - it's one of a dodgy batch of 'Sony Branded' discs bought from CPC Now.

<<Hiya Callum (and Gavin,) thanx for the CPM+ patch for the expanded 464's and 664's - I'm sure that many members will find it useful.

I've never been a fan of Logo, even after the turtles escaped to become movie actors and so on. If the manual says the calls to &E000 etc are in Rom then they should be reasonably easy to track down. Amsdos left all that space to allow Quantum to add Parados to the Rom some years later - or so I believe as I've never met anybody who's seen a copy of Parados.

Invite UAUG to a WACCI convention? Why not, after all, many members have belong to both clubs... All we need is a volunteer to organise the event!

Avatar, a god? perhaps, but only in the animal form! Snake might be okay, probably hiding in the grass!

A recent court ruling says we cannot mention Norman Lomont and Threshers in the same sentence - so until further we'll talk about "Lamont the Font" - after all, you can drink at a font!.

Mind you, I'm not sure that that advert was much cop, as adverts go, if doesn't seem to have much impact on record sales in the UK.

I'll be interested in hearing if Ron Izett has managed to get DosCopy working yet? I'm sure Ron Will Write.

It was/is nice hearing from you and your brother (notice how I avoided giving either priority. -Clive.>>

A SINGLE LABEL, PLEASE!

Dear Mike. At last I've got a round tuit. I've been meaning to write but I couldn't get a round tuit.

I've a question. Some time ago there was an interesting article on how the WACCI address labels were held on file and printed using mail merge. I wonder whether, using your filing system, you can print a single address.

I keep my addresses in a file in the form that they appear on the label and they take up some 13 pages. I transfer the required address using the cut and paste block markers. If the address is on page 13 it takes for ever for the 'find' function to find it.

Having been virtually blind for about twelve months and having got one eye working again, I have been reading the back issues of WACCI and I was struck by the number of comments about bad spelling. My reaction was the time honoured 'Round Objects'. It's the message that's counts. I heard a quote on the radio attributed to Mark Twain to the effect that 'he had no respect for a man who could only spell a word one way'.

Carry on the good work and thanks to the 'management'. By the way, who is Round and why does he object? Yours,

Ron Hobday
Bedford

<<Hiya Ron, Clive here ('cos most of the spellink mistooks are mine - So I agree with you, the message and the sentiment in the message are the most important features!) However, I shall continue to criticise myself for poor spelling, we should strive to achieve perfection. It's the struggle that makes us better people! (Wow, profound thoughts and it's only page 7.)

I'm sure that Paul Dwerryhouse will find a way to print a single label, if it can be done, he can do it. That bit should ensure that he sorts an answer out for you.

If anyone out there knows the answer will they please let Ron know.

As to those round thingies, I'm sure that either spelling is acceptable! I have deleted words (like programme) from my Prospell dictionary to ensure that only Program is used in WACCI. Mind you it hasn't helped. Live long and prosper! -Clive.>>

WHERE'S HE GONE - MUSIC MAN MISSING!

By now you'll be wondering why the 'er so humble Clive is answering letters instead of the forthright Mike. Nope, he hasn't been arrested for parking on Phil Craven (we thought about it.)

Mike is tied up with all the school work this month, and as you'll all agree this is far more important that editing letters for WACCI.

I'll take this opportunity to thank Mike for all hard work (that'll make him blush.) I'm sure that he'll be back to normal next month. -Clive.>>

RUSSELL - THANKS FOR A JOB WELL DONE

Once again we changed printers, this time we moved over to ProntaPrint in Nottingham. The reason, they do a good job at the right price! The move means that Russell MacDonald will lose the important (but boring) task of putting WACCI's in to envelopes, sealing them, labeling them, stamping them, and then rushing down to the Post Office.

Although this is probably the most boring job in WACCI, it does have one redeeming feature - Russell got his WACCI two days before anyone else!

I'd like to say many many thanks to Russell for the splendid job he's done over the past months. I will end with our usual method of showing thanks.

Many thanks Russell,
from Clive, and all at WACCI.

WELL DONE JOHN

Dear Mike <Clive>. I hope you are very well. <We are.> Could you please give a great big 'thank you' to John Bowley <T H A N K Y O U> of the competition spot fame. <It's done.> The reason for this is quite simple - over the past few weeks he has given me a great deal of various subjects. I'm very grateful for this as his advice has helped me a lot! WACCI is a great magazine and I would not miss it for the world.

Anyway, another great big thank you for John before I end.... Thanks....

Mark Johnson
Stanford-Le-Hope, Essex

<<Hiya Mark, Clive here. Many thanks for taking the time and trouble to say thanks! I'm sure that you have just added to the list of members who have gone all red and embarrassed!

I'm sure that John understands that you wish to thank him, if not...

JOHN - MANY THANKS!

A COLOURFUL REPLY!

Dear Mike. Referring to your reply to Edwyn Stevenson-Bryan (WACCI 75) about colour printing. The wonderful program ColourDump 3 (reviewed in WACCI 57, August 1992) is now available from O J Software at £15.95.

They advertise in Amstrad Action and on the many occasions I have ordered items from them, they have provided an excellent service. Their address is:

273 Mossy Lea Road, Wrightington,
Nr Wigan, Lancashire, WN6 9RN

If you don't want to write, or don't have the time to write, you can always ring O J on: 0257 421915. Yours.

Martin Beddall
Wombourn, South Staffs

<<Hiya Martin, many thanks for that information. It's always nice to hear of a supplier that has a good delivery record. There are others that are very good, these include:

O J SOFTWARE ..... SIREN ..... WAVE
S D MICROSYSTEMS ..... WIZARD GAMES
CAMPURSOFT ..... SENTINEL SOFTWARE
GOLDMARK SYSTEMS ..... MICROFORM

To mention just a few. If you have a problem with any of their products they will do all they can to put it right. Many thanks. -Clive.>>

PUBLIC DOMAIN SOFTWARE AND 3.5" DISCS

Dear Mike, As one of the WACCI PD Librarians I am only too well aware of the apparent shortage of new 3" discs. In fact with me believing that Paul had managed to place an order for more stock I have actually used nearly all of my own discs when my WACCI stock ran out, to satisfy members requests!

I think we should extend our PD Library service to include the use of 3.5" discs. From what I can recall many of those members that responded to the questionnaire did in fact possess a second drive of that size.

Therefore as far as my section of the PD library is concerned I would be quite happy to supply copies of PD discs on 3.5" discs as follows:-

OPTION 1.
Using a 3.5" disc with a Side switch, the disc formatted as per a standard 3" disc, ie. 178k per side.

OPTION 2.
Using MS800 I could supply a disc with a complete PD disc copied onto each 'side', with the use of a Side switch.

OPTION 3.
Using MS800 I could supply a disc with a complete PD disc copied onto the disc, for those members whose 2nd drive had no Side switch fitted.

The cost for options 1 and 3 could be £2.00 (1 PD disc), with option 2 being £3.00 (2 PD discs). Few members have MS800, but they would not require it as the discs contain an 'auto-boot' file to the first track of the disc.

Option 1 discs would be as stated completely standard, without the 'auto-boot' file.

Perhaps you should contact either or both Clive and Paul regarding this before you consider including this letter within Fair Comment.

I thought that I should offer some alternative service, as the last time I spoke to Paul, the usual suppliers had stated there was no stock, and there would not be any in the future. A fact since confirmed within the April issue of Amstrad Action.

I visited John Craven of Microform earlier this week as Clive had offered to include an advert from him free of charge within WACCI. However John stated that all he could supply to WACCI members was 3.5" disc drives, as business with the CPC range had become almost non-existent, he had dispensed with all of his CPC stock.

However if any member felt that he may be of assistance to them to contact him. In addition John wish to put on record the fact that he had NO business connection whatsoever with a certain Phil Craven (his brother), in fact John is acutely embarrassed by the current problems that his brother has at the moment!. Yours,

Doug Webb
Chorley, Manchester

<<Hiya Doug, Mike would have asked me, but he's tied up, so I'm answering the letter anyway! (Er, I think that makes sense when you read it.)

I have (we have) no worries about supplying PD Software on 3.5" discs, other than selecting the correct 3.5" disc format to use.

Those of us with 3.5" drives know of the problems caused when we are sent software that has been copied on a format we can't cope with.... Arrgh!

The only universal formats are the CPC System, Data and Vendor standards. These can (as far as I know) be read by all CPC 3.5" disc drive owners.

These three formats may not be a cost effective method of using a large format drive, but they certainly have a much reduced hassle factor!

Many of the discs need to be in Vendor format to ensure that CP/M 2.2 owners can quickly and easily use them.

Several discs have been protected by their originators, copying them on to a three inch disc might be difficult.

Both of these will be much easier to achieve if we use one of the standard CPC disc formats.

There is one other point to bear in mind, copying standard discs can be done easily, using DISCKIT3, UTOPIA or one of the many commercial of PD disc copiers, copying a non-standard disc format is a much harder task.

To the concept of PD software being supplied on 3.5" discs, magic! However I think we should use two 3.5" discs, each containing an exact copy of one side of the original 3" disc. We could keep the price at £3 per 3 inch disc, or £3 per two 3.5" discs.

Finally on the subject, many thanks for the idea of providing software on 3.5" discs - and many thanks for offering to provide the service.

That's enough from me - I hand this over to the members for an opinion and show of letters.....

I do feel sorry for John Craven, the effect his brother has had on the CPC market cannot have helped him! I have always had superb reports about John and about the service that Microform provide for CPC users.

I understand that he has moved over onto the PCW market, and that he is doing quite well - we wish him luck.

One very hard working member is currently undertaking a detailed study of 3.5" disc drives in order to find those which meet the CPC's criteria. I expect the results in a month or two.

Meanwhile it's nice hearing from you (should that be reading from you?) and thanks again for the idea. -Clive.>>

REVISED LOADER FOR GOLDMARK'S 8 BIT PRINTER PORT (INCLUDES A PROTEXT LOADER)

```
100 'Goldmark 8 bit printer port loader
101 'Revised - April 1994 by Clive for Frank ......
102 '
110 RESTORE 180 : SYMBOL AFTER 256 : MEMORY HIMEM-64 : mem1=HIMEM+1
120 hi1=INT(mem1/256) : lo1=mem1-(hi1*256)
130 mem2=mem1+&17 : hi2=INT(mem2/256) : lo2=mem2-(hi2*256)
135 '
140 FOR x=mem1 TO mem1+63 : READ d$ : POKE x,VAL("&"+d$) : NEXT x
150 POKE &BDF2,lo1 : POKE &BDF3,hi1
160 POKE &BD31,&C3 : POKE &BD32,lo2 : POKE &BD33,hi2
170 POKE &BD2B,&C3 : POKE &BD2C,lo1 : POKE &BD2D,hi1
175 '
180 DATA f3,c5,f5,01,32,00,3e,f5,db,69,17,17,30,0c,10,f5,0d,20,f3,f1,c1,b7
190 DATA c9,f3,c5,f5,f1,01,01,ef,cb,7f,28,0e,e5,f5,af,26,08,ed,49,ed,79,25
200 DATA 20,f9,f1,e1,e6,7f,ed,79,f6,80,ed,79,e6,7f,ed,79,c1,37,c9,00
202 '
205 'Loader routine for Protext
207 '
210 INK 0,13:INK 1,0:BORDER 10
220 |TOKENS,300
230 KEY 151,CHR$(147):KEY 152,CHR$(154):KEY 153,CHR$(153)
240 KEY 154,CHR$(149):KEY 155,"|tokens"+CHR$(13):KEY 156,CHR$(149)
250 KEY 157,CHR$(150):KEY 158,CHR$(154):KEY 159,CHR$(156)
260 KEY 142,CHR$(155):KEY 144,CHR$(151):KEY 145,CHR$(159)
270 KEY 146,CHR$(157):KEY 148,CHR$(158)
280 KEY DEF 15,1:KEY DEF 11,1:KEY DEF 12,1:KEY DEF 14,1
290 MODE 2 : |PRINTER,"disc.ptr"
310 '
320 ' Finally - Load protext
330 '
340 |P
```

DESERT ISLAND DISC DRIVE

Hiya Clive. Help, I recently fitted a Goldmark 8 bit printer port to my CPC, and it promptly blew my disc drive?

Let me explain. After I fitted it, I loaded a file into Protext, the drive made loads of horrible noises and then refused to work ever again.

I've spoken to Brain at Goldmark, and Simon at Siren, they both think the 8 bit port and Romdos (or Romdos) XL clash by using the same work space. Is this the case, or is there a much more sinister reason (I'll accept a simple to understand and follow reason if you can find me one.) If not, can you please find me a KDS 8 bit port? Many thanks,

Frank Frost
Still a castaway in the Islands
Wooton, Ryde
Isle of Wight

<<Hiya Frank, nice hearing from you. Sorry about the delay in replying to your question - but I needed to obtain one of Goldmark's 8 bit ports in order to try it out ..... I fitted it, typed in and checked the loader code. Ran the code to activate the port. Loaded protext, loader a file and promptly sent the disc drive into a fit....

However, having been pre-warned, I was ready and managed to switch off the computer before any damage was done. (Apart from ruining the disc that was in the drive, it's completely corrupted and useless.)

The problem lies in the fact that the 8 bit port and both Romdos (or Romdos XL) try to use the same work area, so the 8 bit port destroys the correct disc settings, which in turn, sends the discs read/write head trundling off into the sunset.

A quick rewrite of the loader to locate the 8 bit printer port code just below himem and all is well.

I've tried it out for the past month and all seems well. So use the loader just like what I've rewrit above.

I'm still trying to set the drive damaged by the clash between the two programs, no luck yet! TTFN. -Clive.>>

ANOTHER WORLD, ANOTHER PRINTER!

Dear Mike, I'm sorry about this letter being in pen, but my trusty tasword won't print - 'cos my Citizen 120D has decided to pack up and print. Anyway, that's enough of my problems, let me get on with the point of the letter.

A while back I wrote to tell you about my new disczene, Another World. But in that letter I forgot to ask if any of the WACCI PD Libraries carry that most wonderfully good art package GPaint or GPaint II. If one of them does, please advise which one it is.

Sorry about causing any trouble. Just before I go, I'd like to say that all the nice people at WACCI are doing a fine job - keep up the good work.

Richard Avery
Another World
Cove, Farnborough, Hants

<<Hiya Richard, No problem. By now you will probably have received the full list of WACCI PD Programs/Discs.

You've got it? Good! GPaint is on WACCI PD Disc 30, which is available from Stuart Gascoigne at Bristol.

We only have the original version in the library at present - however, the later version will be available soon. Best wishes with the disczene. Have a good month. -Clive.>>

THE YANKS ARE COMING - POSTER REQUIRED

Hello Clive. Business first. Enclosed is a bit of paper and two gold coins for PD Discs 4, 74, 78 and 79.

A mention in despatches is required for Ron E Hobday of Bedford who ever so kindly sent me a tape which could have kick started my silly disc. Unfortunately the tape was for loading the 64k memory expansion (I think.) None the less, it was a kind gesture. please pass on my thanks.

Regarding the afore mentioned silly disc. I have mentioned the Rom Protext more than once. The Rom in the silly disc has 28 legs, and is inserted in a DIL socket. Can I take it out and fit protext in the socket, or do I have to buy a Rombox? If I have to buy a Rombox, I'll happily send you the silly disc to do with as you see fit!

Next a begging letter to someone out there who has a Colour Inkjet printer and who will do me and Charlie a very large favour, for a reasonable fee.

This year we are fitting out a team of youths who want to play American football. We have 28 chaps signed up ready to play. The largest drain on the money we have collected, is for the field and the transport.

We've sent out letters to local and national companies to try and raise some cash through sponsors. For this we designed a good letter head. This has been printed on a colour DMP, which as you can imagine, takes a long time. We need someone who has an INKJET printer, the kit, and the time to print some letter heads for us. If you feel that you can help, please ring me on, 0942 601837.

Tom Gordon
Leigh, Lancs

<<Hi there Tom, Clive here. I am sorry about the delay in sending your discs, I forgot, it's that simple, sorry!

I'm sure that you'll be able to find a member who has the time, patience and kit needed to produce the letter head, that hopefully will produce the sponsorship, that hopefully will allow the teams to flourish and grow!

Best wishes (you'll probably do a lot better than the English cricket team - you can't do worse!) -Clive.>>

DDT HELPS CURE JUMPS IN LOGO

Dear Mike, I would like to thank Bob Moffatt for his ideas regarding the jump table in high Ram/Rom.

Although I disagree with him, I am grateful for any ideas that anyone has concerning the working of the firmware called by that jump table.

I borrowed Soft 968 from the book library, it told me nothing about the jump table, but I found this sentence buried in an early chapter;

"The Disc Interface contains an Expansion Rom (16k), 8k of which contains the disc driving software, the remainder being used by DR Logo."

I also found; "The CP/M BIOS resides on the Disc Rom." Bob's on the right track but it's the BIOS rather than the BDOS. However, there are just too many jumps to match a CP/M + BIOS, let alone a CP/M 2.2 BIOS. The Rom could

---

could be dis-assembled, but without a port map (is there one?) the calls would be incomprehensible. There is a suitable Rom dumping program in Don Thomasson's book on the CPC 464.

An alternative line of attack would be to explore the Rom using a debugger such as DDT. As an example, to examine a direct call to &E0C9 using DDT you can try the instructions on your left;

There must be a better debugger than DDT. The "Dynamic Debugging Tool" is standard so I've used for the example. DEVPAC by Highsoft is reputed to be a very good debugger.

The other jumps could be tested using the T (Trace) command together with Xr (Examine Register) to preload registers with suitable parameters prior to the trace. Anything affecting the display would become immediately apparent. And so on.....

It's a big task - no wonder that no one's done it, after all Logo works on the CPC! I'll finish be repeating my thanks to you all. Yours sincerely.

Dennis McLaren
Cranleigh, Surrey

```
DDT - AN EXAMPLE, TO EXAMINE A DIRECT CALL TO &E0C9

A> DDT<ret>          ;your input underlined>
-LO<ret>             ;the mnemonics will be 8080 code - ugh!>
0000 JMP aabb        ;jump to BIOS warm start routine>
....
0005 JMP ppqq        ;jump to BIOS entry point>
....
-F100,pp00,FF<ret>   ;fill the available memory with Restart 7 this'll return
                     ;return control to DDT. I suggest you remove your disc.
-GE0C9<ret>          ;it's difficult to predict what'll happen, option include
                     ; * The Z80 gets stuck in an infinite loop
                     ; * An attempt is made to access the disc
                     ; * A Rom is switched on
                     ; * A section of memory is patched
                     ; * ? lots of other options

Hopefully the Rom will eventually return control to the main program (which
isn't there) and will find - &FF! Control will return to DDT which will
respond by displaying the minus sign. Type in the X command;

-X<ret>              ;to display the contents of the registers which DDT knows
                     ;about, together with the stack pointer and in particular
                     ;the program counter. The latter value will tell me the
                     ;exact entry point for Logo2, since the jump to &E0C9 is
                     ;at &0100, which is the more usual entry point!
```


The graphics for the ProPrint advert were produced using MicroDesign and an Amstrad DMP3160 9-pin printer.

In The Dark

POWER STATIONS AND GERBILS BY RICHARD SMITH

Just suppose that one day a bird dive-bombs a nuclear power station and shorts out the cooling system. The reactor overheats, explodes, vaporizing everything within ten miles. The explosion sends a power surge onto the national grid and into our very homes. Now suppose also that you have your toaster plugged in at this very moment. You are toasting a slice of thick bread. Goshomatic, that bread looks scrumny, doesn't it? It's just turning into toast.

OUR STORY CONTINUES.....

Lovely... Oh no, the power surge has hit your beloved toaster! The toaster explodes, showering your kitchen with bread crumbs. How are you going to toast bread now? *Use the grill!* I hear the Welsh shepherds chorus.

So you turn on the grill and prepare to toast some more scrummy thick bread...oops! You've run out! Just as you prepare to go round to next doors to borrow a slice you find a blueberry Pop Tart in your coat pocket. Gleefully you slip it under the grill and wait for it to brown. This takes some time, and you quickly get bored and start typing on your CPC. Merrily, you type away, totally oblivious to the time. Then, wumpf! The Pop Tart combusts and sets your house on fire, totally incinerating Janet the gerbil. If only you had had a clock.....

A CLOCK IN TIME.....

To avoid Pop Tart gerbil incineration, why not write a machine code clock program? This way Janet can always be safe (and cool.) A simple clock would just be a second counter, and look something like this:

```
LD A,(SECONDS)
INC A
LD (SECONDS),A
RET

Fifty eight, Fifty nine...
```

Every time the program is CALLed it adds one to the SECONDS counter. This is a pretty naff clock, as it only counts in seconds and goes back to zero after 256 CALLs. After sixty CALLs the program needs to set the SECONDS counter to zero and increase the MINUTES counter:

```
     LD A,(SECONDS)
     INC A           ;NEXT SECOND
     CP 60           ;MINUTE?
     JP Z,MIN.
     LD (SECONDS),A
     RET

MIN. LD A,0
     LD (SECONDS),A  ;ZERO SECONDS
     LD A,(MINUTES)
     INC A           ;NEXT MINUTE
     LD (MINUTES),A
     RET
```

This improved version compares the SECONDS counter with sixty and splits depending on the result:

```
If SECONDS=60 then SECONDS=0
            and add 1 to MINUTES.

If SECONDS<>60 then
                 add 1 to SECONDS.
```

The same thing needs to be done with MINUTES and HOURS. The HOURS counter will reset to zero every 24 hours. So our finished program looks like this:

```
SEC.  LD A,(SEC_)
      INC A           ;NEXT SECOND
      CP 60           ;MINUTE?
      JP Z,MIN.
      LD (SEC_),A
      RET

MIN.  LD A,0
      LD (SEC_),A     ;ZERO SECONDS
      LD A,(MIN_)
      INC A           ;NEXT MINUTE
      CP 60           ;HOUR?
      JP Z,HOUR.
      LD (MIN_),A
      RET

HOUR. LD A,0
      LD (MIN_),A     ;ZERO MINUTES
      LD A,(HOUR_)
      INC A           ;NEXT HOUR
      CP 24           ;DAY?
      JP Z,RES.
      LD (MIN_),A
      RET

RES.  LD A,0
      LD (HOUR_),A    ;ZERO HOURS
      RET

SEC_  BYTE 0          ;SECONDS
MIN_  BYTE 0          ;MINUTES
HOUR_ BYTE 0          ;HOURS
```

Now, the only problem I can see with this program is that it is totally useless unless you CALL it every second. This is not my idea of a fun time. What is needed is a way of automatically calling the program every second. Well strike me down with a stuffed otter, that's just what next months *I'm in the dark* is about. Bye.

DAMAGED DISCS

BY PETER CLEMENT, WITH THE ASSISTANCE OF HAMILTON AMSTRAD CLUB

AMSTRAD CPC Users Group of the N.Z.Microcomputer Club Inc. Box 6210. Auckland.

*DISC FAIL ****** This message, or more commonly "DRIVE FAIL" can be anything from mildly annoying to catastrophic. Although this problem has been mentioned several times before, there are still CPC users who are not familiar with it, so for the sake of the new chums let me outline it once more.*

YOUR FIRST STEP
When first confronted with this "Disc Fail" message, first remove the disc, replace it and re-try.

It might pay to switch the computer off between tries..

AND IF THAT FAILS, THEN .....
Try another disc to confirm that it is the disc and not the drive faulty.

AND IF THAT FAILS, THEN .....
Now decide whether you want to try and save the software on that disc? If not just re-format the disc.

Frequently the seemingly faulty disc will come right with formatting. The best formatter to use is FORMHELP.

This program will detect a faulty track track while it formats and will bridge this in the directory with a dummy file called:- CORRUPTE.D, thus preventing any further files being saved onto the bad track(s).

FORMHELP is only 5k and it contains very clear user instructions.

AND IF THAT FAILS, THEN .....
But you would like to save as much material as you can from that disc, so formatting is not a good idea.

In that case try a CP/M program called "Findbad" My copy is the 5.4 version and will only work with CP/M 2.2. There may be a CP/M+ version but I have not seen it.

To use it put the faulty disc in your 'B' drive and load CP/M 2.2 in 'A'. Then put the disc with FINDBAD in the 'A' drive and type in Findbad B: NOTE both the space before B and the colon after it are important. Without them you will be checking the disc in the 'A' drive, thus living in a fools world. After checking the directory area Findbad will check each track in turn printing a row of * to indicate a good track. When it finds a dud one it will chatter and stop, printing the message "Drive B read fail: Retry, Ignore or Cancel?" Press 'C'. Findbad will then proceed on to the next bad track, where the process is repeated or to the end if there is only one.

When you then CAT the faulty disc you will find a dummy file called [UNUSED].BAD. This occupies 1k for each faulty track on the disc.

IF YOU ONLY HAVE ONE DRIVE .....
"But I only have one drive: can't it be used on a single drive?" I hear some of you say. Well yes, it can but it is not quite so simple. Load CP/M 2.2 and, when the prompt comes up type FINDBAD and press RETURN.

Then, as soon as it starts to print the heading, press [control] S. This stops the action and you can then replace the disc with the one to be checked. To restart press [CONTROL] Q.

Having bridged the faulty track(s) with CORRUPTE.D or [UNUSED].BAD, it is advisable to make these files READ ONLY with a utility such as ODDJOB, as If you erase them at any time the disc will again be faulty.

AND THE NOISY DRIVE IS .....
When running FINDBAD, if the drive chatters a bit and then goes on, this indicates a track that is borderline, and it's advisable to run Findbad over the disc several times. Better still copy valuable material onto another disc and reformat it with FORMHELP.

SO THAT'S WHAT VENDOR FORMAT IS.....
If the faulty track is in the (front) Directory section, then neither of the above aids will help.

About the only thing to do then is to re-format it as "VENDOR". This can be found in DISCKIT 2 or 3 on your CP/M master discs, or with most other formatters. In VENDOR the disc is formatted to 169k with the front 9k (containing your bad track!!) unused. It can then be used the same as a data formatted disc, but with 9k less.

PRINT OUT ASCII FILES .....
Before doing this, (and thus loosing valuable files) it is possible to print out ASCII files from the disc with DISCOLOGY or some other similar utilities. For instructions to do this see file DISCREM.

SALAVING FILES .....
To salvage files from corrupted discs load Discology, put cursor over Editor, press Copy, put cursor over Options, insert bad disc, press Copy, put cursor over Ascii Only, press Copy, put cursor over Modes, press Copy, put cursor over Disc Editor, press Copy. Then enter;

First track:- Type 0, press Return
Last track:- Type 39, press Return
Current track:- Type 0, press Return,

Go to menu at Bottom for Previous, Current or Next Sector. In this case, select Next. Then press Copy twice to cancel cursor and go to the next sector. Keep this up till you come to

the sectors that you want printed out. To print a sector, press Copy to cancel cursor, then go to System on top menu and press Copy.

Go down to print Current Page and press Copy. Printer must be on.

Note that in searching for your text you just press Copy twice for each screen full. Give it a second to load.

Note also that the Sector Numbers don't come in order (as shown at top left) but this is the order in which any file is stored.

After 9 sectors have been displayed the program automatically goes on to display track 1.

Of course, you don't have to start at track 0. You can get the utilities to tell you the track and sector your file is on, then start there. After all starting a the beginning is good.

OUTRO

And there you have it. The definative guide to dodgy discs, and overcoming dodgy disc problems. Happy formatting, so until next month..... Byeeee.....

VAT

ON

FUEL!

IT

DOESN'T

WORRY

THIS

FELLOW

AT

ALL.

ENGLAND

CHOOSE

NEW

OPENING

BAT.

GREAT WACCI SERIES OF YEARS GONE BYEEEE....

BANKMAN by Alastair Scott

Welcome to this new feature within the pages of WACCI. Over the next year or so I'll be presenting some of the series that have appeared in WACCI over the years. The reasons for this feature are twofold. One: the library index pages being in a separate publication allow the room and Two: WACCI has many new members that can benefit from the series. Why re-invent the wheel when excellent series already exist. The first I have chosen for you comes from the period 1988/89 and it was written by Alastair Scott and simply entitled BANKMAN.

INTRO

Here we go. You can either pant loudly *(don't get too excited)*, write to Mary Whitehouse or feel hurt, alienated and resentful; lie down on the couch and I'll ask you a few questions. <<*What a very strange way to begin a series, I think I know what Alastair meant but it didn't come out right -Paul.*>>

1. Do you have a 6128 and do you find the extra 64K Mr Sugar kindly gave you about as much use as an unformatted chocolate digestive?

   Yes - go to section 2
   No - turn the page

2. Are you a student?

   Yes - go to section 3.
   No - go to section 4.

3. The Bank Manager is that super compassionate person who gives you £100,000 every term to help finance your purchase of the Old Peculiar Distillery. Now go to section 5.

4. The Bank Manager is a horrible ogre with a twisted face who sends you scary letters and who managed to steal the extra money cuddly Mr Lawson <<*who?*>> put into your ninety-day account. Now go to section 5.

5. The Bank Manager is a little program stored on the same side of the CP/M master disc as the DISCKIT3 program you use to format digestives. Nobody really understands it, not even the man who wrote the 6128 User Guide.

Well, I think I understand a little about it, so the rest of you come in, gather round *(don't all sit on the couch - it's got woodworm)* and I'll tell you everything I know.

THE TRUTH ABOUT THE MANAGER

Bank Manager consists of two programs: BANKMAN.BAS and BANKMAN.BIN. Now every time you need to use Bank Manager in your own BASIC programs, the User Guide tells you to run BANKMAN.BAS before loading your own effort. This is annoying, especially if you can't be bothered swapping discs, so here's what to do.

Firstly, copy BANKMAN.BIN to your working disc. This is easily done by putting the CP/M master disc *(side one)* into Drive A, then typing:

```
|cpm
pip b:=a:bankman.bin
```

and changing to your working disc when prompted for Drive B. After this, tack the following loader onto the start of your program.

```
100 ON ERROR GOTO 140
110 |BANKOPEN,0
120 ON ERROR GOTO 0
130 GOTO 180
140 MEMORY HIMEM-1318
150 loc=HIMEM+1
160 LOAD"bankman.bin",loc
170 CALL loc
180 REM
190 REM the rest of your program
200 REM
```

Of course, if you're not using Bank Manager within a program, just type the normal RUN"bankman" with side one of the CP/M master disc in the drive.

As you will probably have guessed, BANKMAN.BIN is the vital part of Bank Manager. BANKMAN.BAS, like my loader program earlier, loads and initialises BANKMAN.BIN, but it is unnecessarily complicated - it does peculiar things like checking whether you are trying to use Bank Manager on a 464 or 664. You wouldn't do a silly thing like that, would you? If you want to have a good laugh, look at the original loader. It's protected BASIC, so you'll have to load and deprotect it before typing LIST *(using DEPRO from the Homegrown library or Utopia's |LOAD and |LINK commands.)*

WHAT IS IT?

BANKMAN.BIN is a great *(big)* chunk of machine code, 1317 bytes long. It should really have been stored in ROM *(all complaints to Amstrad please)* so that it was available immediately on switching on the machine, but we'll

just have to make do. The best thing about this machine code is that it is completely relocatable. This means that the following:

```
start=something
MEMORY start-1
LOAD"bankman.bin",start
CALL start
```

will load and initialise the code at the memory address start, as long as something is any address above or including &8000. With most machine code programs, you can only load and initialise them at one address - try another and the computer will crash. In my loader, the code has been loaded at the highest address it can go, just below HIMEM, so you have as much free memory as possible.

WHAT'S IT ALL ABOUT ALASTAIR?

What's the point of all this? Once you've loaded and initialised the code, you'll have, to your amazement and mine, six new commands added to BASIC. They are, of course, preceded the notorious ¦ *(SHIFT-@)* symbol, just like the disc commands ¦DUNCAN, ¦EVANS, ¦ERA and so on. They are:

¦SCREENSWAP
¦SCREENCOPY

¦BANKOPEN
¦BANKREAD
¦BANKWRITE
¦BANKFIND

As you will soon see, they fall naturally into two groups. The first two relate to storing screens in the extra 64K memory and are not much good. The others allow the memory to be used for storing strings and are very useful. I will take the two groups separately.

SCREENS

With Bank Manager you now have five screens available for text and graphics and you can switch between them at any time. Let's call them, fairly logically, screens 1, 2, 3, 4 and 5. The golden rule is that screen number 1 is always visible but screens 2 to 5 can never be seen unless you copy them to screen 1. How do you do this? Easily.

¦SCREENCOPY,s1,s2

copies screen s2 to screen s1. "Just imagine putting s1 and s2 the wrong way round" you might say. Yes, I know it's ridiculous but that's why the guys in a straitjacket! Try this short little program:

```
10 MODE 1:CALL &BC02:INK 2,14
```

To start off, you're dealing with screen 1. CALL &BC02 sets all colours to their default values.

```
20 GOSUB 100:PRINT "This is screen 2"
```

Puts coloured blocks everywhere, then prints a rather inappropriate message on screen 1. Silly? No as the next line makes sense:

```
30 ¦SCREENCOPY,2,1
```

Now screen 1 has been copied to screen 2 and logic prevails, which is very unusual for WACCI.

```
40 MODE 1
```

This clears screen 1.

```
50 GOSUB 100:PRINT "This is screen 1"
```

This prints something sensible on screen 1.

```
60 WHILE INKEY$=""
70 ¦SCREENSWAP,1,2
80 FOR delay=1 to 500:NEXT
90 WEND:END
```

This sets up a loop which continues until you press a key. The ¦SCREENSWAP command swaps screens s1 and s2 around, so screen 1 is moved to the invisible screen 2 and screen 2 is moved to the visible screen 1. Repeat the command and you are back where you started. So you can swap screens ad nauseam and create some very crude *(or so very crude)* animation that will have you calling for the sickbag.

```
100 FOR block=1 TO 200
110 bx=INT(RND*40)+1
120 by=INT(RND*25)+1
130 bpen=INT(RND*3)+1
140 bppr=INT(RND*3)+1
150 PEN bpen:PAPER bppr
160 LOCATE bx,by
170 PRINT CHR$(207);
180 NEXT
190 PEN 1:PAPER 0
200 LOCATE 11,10
210 RETURN
```

This prints little chess boards *(ASCII code 207)* all over the screen in various shades to give you the false impression that there are more than four colours in MODE 1 and so you must be sitting in front of a Spectrum. *(Yes - I had one many moons ago as well, we all have our weaknesses!)*

Returning to the Bank Manager, you could, if you wanted, try something like ¦SCREENSWAP,4,2 which would swap screens 2 and 4. You wouldn't see the swap taking place - remember that screen 1 is the only one that is ever visible. The same thing happens with copying screens. ¦SCREENCOPY,3,5 would copy screen 5 to screen 3 but nothing would appear to happen. As you can imagine, it is very easy to become confused as there is no indication of a successful swap or copy.

REMEMBER THE SCREEN

On running the program you can immediately see the drawback with these commands. They are messy. The problem lies with the Amstrad's screen memory, which occupies 16K *(compare the Spectrum at 8K, the British Broadcorping Castration Micro at anywhere between 1K to 20K and the Commodore 64 at 4K to 8K.)*

More screen memory means better resolution, more colours and a good opportunity to laugh at the other computers mentioned but it takes longer to move 16K from memory to screen than it does with 8K. This is only too obvious as you can see an effect like venetian blinds opening and closing as screens are swapped. *More about the blinds next month.*

LD A,CODE

UNCLE CLIVE POKES ABOUT IN MACHINE CODE

The hardest part of any article is thinking about what to write about! I'm here with a whole two pages to fill, and I've nothing to fill it with. Hang about a mo, that's it - I'll write about how to fill memory using machine code, and I can tie in last months LDIR command, and I can contrast the difference in speed between Basic and Machine Code, Machine code is faster .....

A SCREEN CLEARING OR TWO

We know how the clear the screen using Basic's CLS or MODE commands. This is not about clearing the screen. It is about filling memory, and we will be using the screen memory area in the example programs.

Why? Because it's the screen memory area, so we can see what's happening as it happens..... So this makes it ideal for the tasks we've to perform.

A STARTING POINT

To set the scene, and to demonstrate the difference in speed between Basic and Machine code I'll write Basic and Machine Code programs to do the task.

So it's get typing time again as you enter program 23. (You will of course remember to save the program before you run it - wont you?)

PROGRAM 23: FILLING THE SCREEN

```
100 'Filling The Screen Area
105 'By Clive Bellaby, March 1994
110 '
120 FOR i=&C000 TO &FFFF
130   POKE i,0
140 NEXT i
150 END
```

And there you have it! When you run the program then screen memory area is filled with 0's - this has the effect of CLearing the Screen.

Apart from the fact that the program works correctly - you'll notice that using Basic is very slow indeed. We're almost into the paint drying league for the event! Machine code is faster!

You can change the effect by changing POKE i,0 to POKE i,10 (or any other value you care to use.) This will, in effect, fill the screen memory area with a pattern (rather than clearing the screen memory area.)

MACHINE CODE MAGIC

THere are extensive in-program notes for program 24, however, I would like to emphasize a few points.

Any 8 bit register; h, l, a and so on can hold a maximum value of 255 (or &ff hex.) Any 16 bit register; hl, de, bc and so on can hold a value up to 65535 (&ffff hex.) Once the maximum value a register can hold is exceeded, the register is reset to 0 and the carry flag in the f register is set.

A 16 bit register is made up of two 8 bit registers - and we can use this to spilt a 16 bit value into its two 8 bit components. Let's suppose that the hl register contains &89e1. This can be split as h = &89, and l = &e1.

So if we want to know when the hl register exceeds &ffff, we can test the h register, when the h register reaches &0, we know the hl register has exceeded &ffff.

Finally, we need to ensure that the two 'ld hl' commands are understood. So here comes the explanation....

LD HL,value

The loads the specified value into the hl register pair. The value should be in the range &0 to &ffff.

PROGRAM 24: FILLING THE SCREEN MEMORY AREA USING MACHINE CODE

```
org &8000       ;the memory address where the compiled code is stored

ld hl,&c000     ;load the hl register with the screen memory start address

.loop           ;the start of the main program loop
ld (hl),0       ;load the address held in the hl register with 0. (this is the
                ;same as the poke i,0 in the Basic Program.)
inc hl          ;increase the address held in the hl register by 1. So &c000
                ;becomes &c001, then &c002 and so on until &ffff is reached,
                ;at this point the register resets to zero and the carry flag
                ;is set. &ffff if the highest value we can hold is a 16-bit
                ;register. The h register contains the first two bytes of
                ;the value (&c0 at the start) and the l register contains the
                ;last two bytes of the value (&00 at the start.)
ld a,h          ;All we have to do is wait until hl register exceeds &ffff
cp 0            ;and becomes &0. At this point the h register will contain &0
jp nz,loop      ;and the program will end, until then, jump back to the start.
ret             ;quit program and return control to Basic.

Compile the code, then save the code to disc with: SAVE"mc24.bin",b,&8000,13

To run the code use: 10 MEMORY &7fff : load "mc24.bin",&8000 : call &8000
```

LD (HL),value
Stores the specified value (range 0 to 255 inc) in the memory address stored in the hl register pair.
If hl register contained &1234, and we used, ld (hl),&56 - &56 would be stored in memory address &1234. Equal to Basics: poke (hl),value

LD A,(HL)
Copies the value at the memory address in the hl register, to the A register. Equal to Basics A=PEEK(HL).

SIMPLE SIMON'S EXAMPLE
Here's a short, simple and very easy to follow example that demonstrates the three different commands.

PROGRAM 26: SIMON DOES VERY LITTLE

```
org &8000      ;assemble address
ld hl,&7500    ;address to peek or poke
ld (hl),65     ;poke hl,65
ld a,(hl)      ;a=peek(hl)
call &bb5a     ;display value the VDU
ret            ;back to Basic. J Major?
```

THAT BIG PROGRAM ON THE RIGHT!
I'd better explain it, well outline it at least. The commands have been used before, so it should be relatively easy to follow. After all, it's there to assist your understanding.

1. We copy the screen memory area from &c000 to &4000.

2. We wait for a key press.

3. We clear the screen by filling it with ascii code 0's.

4. We wait for a key press.

5. We copy the screen memory at &4000 back to &c000 (and thus we restore the screen!)

6. We wait for another key press and then return control to Basic.

7. It also demonstrates the use of tried and tested routines.

OUTRO
With luck and a good wind the programs will work first time - if not you've a typing error (cos I've tried them out) in your work. If you've a problem, let me know and I'll try to help. -Clive.

PROGRAM 25: COPYING, FILLING AND MOVING BLOCKS OF MEMORY

```
org &8000          ;the address to store the compiled code

.copy_scr_down     ;copy the screen to &4000 in memory (see WACCI 76)
ld hl,&c000        ;the screen ram address (source address)
ld de,&4000        ;the destination address
ld bc,&4000        ;the number of bytes to move
ldir               ;move the bytes

call press_key     ;display message and wait for a key press

.clear_screen      ;clear the screen by filling it with 0's
ld hl,&c000        ;load the screen ram address in to the hl register

.cls_loop          ;start of the screen clearing loop
ld (hl),0          ;poke 0 in to the address in the hl register
inc hl             ;increase the address
ld a,h             ;load the first two bytes in to the A register
cp 0               ;are they 0 yet?
jp nz,cls_loop     ;if not, jump back - if yes, carry on to the next bit

call press_key     ;display message and wait for a key press

.copy_scr_up       ;copy the screen back to &C000 in memory (see WACCI 76)
ld hl,&4000        ;the screen ram address (source address)
ld de,&c000        ;the destination address
ld bc,&4000        ;the number of bytes to move
ldir               ;move the bytes

call press_key     ;display message and wait for a key press

ret                ;return control to Basic

;                   subroutines

.press_key         ;the press a key to continue message
ld hl,message1     ;the message to be displayed
call print_txt     ;displays the message
call &bb18         ;wait for a key press
ret                ;return

.print_txt         ;display a message on the VDU (see WACCI 74)
ld a,(hl)          ;get a character to display
cp 255             ;character 255 is the last character in the message
jp nz,print_txt_2  ;it's not the last character so display it
ret                ;it's the last character so return

.print_txt_2
call &bb5a         ;print the character
inc hl             ;increase hl for the next character
jp print_txt       ;nip back for the next character

.message1  defm "Press Any Key",255
```

Compile the code, then save the code to disc with: SAVE"mc25.bin",b,&8000,&53

To run the code use: 10 MEMORY &7fff : LOAD "mc25.bin",&8000 : CALL &8000

VERY BASIC BASIC

Written by Alan Tilling

Letters to -
Very Basic Basic
65 Lawrence Road
Altringham
Cheshire
WA14 4EL

HELLO EVERYONE, 'TIS I TAKES A SCREEN TEST AND HEADS FOR FAME!

Most of the programs that are written will be for experimenting with, learning or just for good old fun, but occasionally you will develop one that you will feel worthy of keeping and giving a professional look to. So to help towards that end here is: not a single..... not a triple..... but a double (ooh! oh! ha!) loading screen. The first one can be used over and over and over again and the second one is a screen customised to suit the program it is heading.

PLAN B

The simplest method of laying out your screen display is to make yourself a DIY screen display planner.

Take a piece of squared paper and draw a line 25 squares down. Now draw a horizontal line 20 squares if in mode 0, 40 squares if in mode 1 or 80 if in mode 2, across.

Complete the box and copy the planner as many times as you need. From this you will see that there are 25 lines in all screens no matter what mode but the number of columns change with each change of mode.

FIRST THINGS FIRST

My first screen has the wonderfully brilliant and original caption of "ALAN SOFT Presents etc.." and just to make this horribly garish I'll write it with red lettering on a bright yellow background.

Before we go into too much detail, the content of the display needs to be established. As I've said I'm going to use ALAN SOFT Presents ... The way I designed this was to write the words lightly in pencil on the planner but I found that I was too far to the right so I rubbed it out and rewrote it.

Eventually it looked reasonable so the pencil lines of the characters were overwritten with As for the letter a, Ls for the letter l and so on. The finished planner still looked good so I carried on with the coding.

Have a quick look at Program 1, but be very careful. Because of formatting problems I've used the * to represent a space. So please remember, when you read * press the spacebar not the shifted [:] key.

Just looking at Program 1 gives a fair idea of what the screen will look like. To make life easier on your pinkies, every time you see PRINT use the ? key and the CPC will change the ? to PRINT automatically. That's very obliging isn't it?

Before you type Program 1 in, I will run through the coding.

When Basic starts, it goes to the first line in memory and does whatever it's told to do!

So it goes to line 1, skips line 2 and ends up at line 3 which means "when the escape key is pressed twice [ESC][ESC] go to the sub-routine resident at line 1000, otherwise does nothing. When [ESC][ESC] is enacted the screen is cleared changed to 80-column mode (mode 2), the paper and ink are changed to black writing on blue paper and then the program is listed out ready for you to make the necessary changes.

As this lot is being typed in, every so often type goto 2[RTN] and the program will be saved and "Break in 2" or similar will be reported.

When the program has been developed and is satisfactory, lines 1,2 3 and 1000 can be deleted.

PLAY TIME

Some people call it rum time but I'm more realistic. Lines 10 to 35 set up the 20 column mode, the red writing on the yellow screen and also show that I forgot about the poor old border when I first scribbled down the program.

Line 40 says PRINT:PRINT:PRINT or actually print nothing then feed a line, print nothing and feed a line and so on, so three lines are left at the top of the screen.

line 90 is very similar. Lines 50 to 150 combine to give the effect of huge letters on the screen. They are

PROGRAM ONE by Alan Tilling

```
1 GOTO 3
2 SAVE"prog1":STOP
3 ON BREAK GOSUB 1000
10 MODE 0
20 INK 0,24
30 INK 1,6
35 BORDER 24
40 PRINT:PRINT:PRINT
50 PRINT"***A**L****A**N**N"
60 PRINT"**A*A*L***A*A*NN*N"
70 PRINT"**AAA*L***AAA*N*NN"
80 PRINT"**A*A*LLL*A*A*N**N"
90 PRINT:PRINT
100 PRINT"***S***O**FFF*TTT"
110 PRINT"**S*S*O*O*F****T"
120 PRINT"***S**O*O*FF***T"
130 PRINT"****S*O*O*F****T"
140 PRINT"**S*S*O*O*F****T"
150 PRINT"***S***O**F****T"
160 LOCATE 8,23:PRINT"PRESENTS..."
170 END
1000 MODE 2:INK 0,14:INK 1,0:
     BORDER 14:LIST
```

all very similar so I'll only look at line 50 which says (don't forget since I can't readily show spaces replace each * with a space) PRINT "[SPACE] [SPACE] [SPACE] A [SPACE] [SPACE] L [SPA... and so on".

This builds up into the require words - come to think of it you could make any shapes you like this way.

In line 160 the cursor is told to locate (column) 8, (and line) 23 then print PRESENTS ... and 170 is the end marker. An end marker is important at this stage because without it, Basic will action the program up to 160 then reach 1000 and wipe the screen and put up the listing as if [ESC][ESC] had been pressed. Right that's the first screen nearly finished. *(nearly?)*

SCREEN 2

Sounds like one of these very modern cinemas doesn't it? Righty oh, at the moment I am developing a program to help with electricity meter readings so I'm going to make the second screen to introduce this. Skip down and have a look at program 2. Welcome back.

Lines 1, 2, 3 and 1000 are the same as before ... only the names have been changed to protect the innocent.

Line 10 titles the program and the next few lines are as before but line 80 makes the cursor go to position x=4 and y=4 and print ELECTRICITY.

The x and y are just like a graph. X is the number of character positions along (columns) and y is the line number. The call &BB18 at line 100 is only for test purposes, it stops the ready prompt messing up the screen.

PROGRAM TWO by Alan Tilling

```
1 GOTO 3
2 SAVE"prog2":STOP
3 ON BREAK GOSUB 1000
10 REM Loading screen by
11 REM Alan Tilling for WACCI 77
20 MODE 0
30 INK 0,24
40 INK 1,6
50 BORDER 24
60 LOCATE 4,4:PRINT"ELECTRICITY"
70 LOCATE 7,8:PRINT"METER"
80 LOCATE 6,14:PRINT"READINGS"
90 LOCATE 6,22:PRINT"Now loading.."
100 CALL &BB18
999 END
1000 MODE 2:INK 0,14:INK 1,0:
     BORDER 14:LIST
```

THERE'S MORE

To make it a little more interesting the lines in Program 3 can be added. By the way they can be added at any time, not just at the time of first typing. Line 35 sets the ink in pen 3 first to red and then to yellow (then back to red etc). Line 85 says use pen 3 and 86 depicts the speed with which the "inks" are changed. Finally 95 returns use to pen number 1.

The effect caused by this is that Now loading message flashes on and off at regular intervals. Have a play with the parameters in line 86 but be careful; flashing lights can cause health problems. (Even VbB's not free from government health warnings!)

PROGRAM THREE by Alan Tilling

```
35 INK 3,6,24
85 PEN 3
86 SPEED INK 50,25
95 PEN 1
```

PATCH IS A DOG?

We're nearly there. All that's needed now is to patch the screens together and make one call the other. At the moment I'm afraid you will have to imagine that you have a program called ELECTRIC. If you use this idea for heading your programs, you will use your own file name. So to get this program to operate you need to type Run"Electric and then Screen 1 will load, wait a while, be replaced by screen 2 which will wait a while and then Electric will be entered.

Once you've got programs 1 and 2 working, delete lines 1, 2, 3 and the two last ones from each. They will have to be on the same disc as the program called Electric so that will have to change. So CAT the disc and then type

```
¦ren,"elcode","electric" [RTN]
```

(¦ is the shifted @ and ren is short for REName. The full syntax of the command is ¦ren,"newname","oldname") Your drive will burst in to life and Electric will be RENamed to elcode, or what ever else makes sense to you. Please repeat the operation changing prog1 to electric, as follows:

```
¦ren,"electric","prog1" [RTN]
```

WAIT A BIT

To make sure there is enough time to see the screen, a delay must be coded. This only needs to be a simple for-next loop so in prog1, errm, sorry I'd better call it electric now, type:

```
170 for delay=0 to 1000:next delay
```

This will overwrite the end command at present in 170 and replace it with a delay loop. To lengthen or shorten it, change the 1000 to suit. To make prog2 load automatically you please type:

```
180 run"prog2
```

Don't forget to save it (as Electric) or all these minor changes will be ignored. Turning to progran two, in exactly the same way trim off the first and last few lines. The name can be left as prog2 but 100 needs to be replaced just as line 170 above to incorporate a delay the 110 needs to be entered as:

```
110 Run"elcode
```

or what ever you called it. And there you are; by typing run"electric [RTN] the first loading screen appears, is displayed for a while then is replaced by the second screen and eventually the main program is entered, just what was wanted. If you are loading your programs from tape you will get the familiar Press play then any key message all over your bright shiny loading screen so suppress it by adding an exclamation mark as the first character of the filename, eg 110 will be: 110 run"!elcode".

Well, I've rambled on enough for now so till next month, Bye for now, Alan.

From: Angie Hardwick, Bloxwich

Q. How many programmers does it take to change a light bulb?
A. None! It's a hardware problem!

HAND TO MOUTH A PROJECT

by Ron Izett

During my life as an engineer and D.I.Y. enthusiast I've never given much thought to the fact that without my hands much of my career would have been impossible.

Idle speculation on the difficulties birds must face with only a beak to do everything with was brought rather sharply into focus by pictures on the T.V. of a poor little African child with both hands blown off.

This started me wondering if it would be possible to program/adapt the Amstrad CPC to enable someone of limited manual ability to enjoy at least some of the pleasures that we with our ten fingers and flexible arms have quite literally at our fingertips. Much is made in the papers of charitable organisations raising thousands of pounds to provide specially adapted computers for the odd fortunate few and it seemed to me that with a little thought a relatively cheap machine like the Amstrad could be put to use without too much hassle.

Well, it's a challenge and that's what programming is all about (I think!)

FIRST THINGS FIRST

After some thought it became obvious that many of the areas of normal computing were closed, given the parameters within which I had decided to work i.e. what would be the minimum practical physical effort that one could reasonably expect from someone disabled to the point where they would need specialised soft and/or hardware anyway. Not surprisingly, programs like Databases, Spreadsheets, general Word-processing and the more exotic games were out, given the multiple inputs required and more to the point, my limited programming abilities.

This made me decide to concentrate on some simple well known games that were reasonably entertaining and were normally played with a minimum of key presses. This in turn led to the question of how many keys my player would want to cope with: the short answer to that being one!

In the event I managed this for three out of the four games I tackled, the odd one out requiring two, a single "key" to do all the work with a spare to handle difficult situations.

GAMEPLAY

I had already decided that four games would be enough to start with, given the unforeseen difficulties that were likely to crop up and bearing in mind the ease of play and not least, the boredom factor. The four I chose are not too stressful and, I hope, will provide a few hours of enjoyment.

They are all familiar to most early games players and don't include zap, bang, blood and thunder. (Maybe later perhaps?) They are PARAMAN, a simple target type of game more for practice than anything, and the only one that requires the use of a second key; TOWERS OF HANOI, a golden oldie; the inevitable NOUGHTS AND CROSSES; and a version of DRAUGHTS, the last two being played against the computer.

HARDWARE

Having decided the minimum number of input devices there then arose the question of what form these devices should take. (It's not very easy this computing lark is it?) However, being of an engineering disposition I had a few ideas sculling about in the cranial wilderness, centring about the joystick port and consisting of the joystick itself for a player with some hand movement, a simple two button box, a sort of static mouse if you like, for the player with very little hand movement, and a mouth operated diaphragm switch for the totally disabled player giving two states, blow for left and suck for right. The design of these last two items needed to be such that they could be made with the minimum of tools, not everyone having access to the workshop facilities that I enjoy. Hopefully I'll be able to expand on these later.

BREAKING AND ENTERING

This is where the whole thing nearly stumbled to a halt. the trouble is that people who write games tend to use all sorts of odd input methods which at first glance (and the second and third) are not at all clear, and finding an entry point in a series of nested loops can be a very long and frustrating business.

Trial and error seemed to be the order of the day, but once I got the hang of the game play it got quite a lot easier. The basis of all the subsequent re-jigging of the inputs rests on the evolvement of the "Timed Switch" routine in Figure 1.

The line numbers are arbitrary: it depends where you put it, usually on the tail end of the program.

FIGURE 1: THE TIMED SWITCH ROUTINE

```
10 count%=0
11 WHILE INKEY(74)<>0:WEND
20 WHILE INKEY(74)<>-1
30 count%=count%+1
40 if count%=1000 THEN count%=1
50 WEND
60 RETURN

100 IF count%<=80 THEN Do this
110 IF count%>80 THEN Do that
```

Lines 10 and 11 wait for a key press (left joy, left button or a short puff on the diaphragm switch).

Line 30 increments count%. Line 40 prevents count% from zooming into outer space, and when the key is released. Lines 60 and 70 do various bits depending on the value of count%.

This works well enough for any YES/NO input and in fact the normal WHILE/WEND loop suffices for any "Press key to continue" situation that may be required. Complications began to arise however where direct inputs of specified keys were called for, where the player would normally press a letter or number key, as these numbers and/or letters have to be presented visually to the player to allow a choice to be made and this takes place in Fig.2. Note if you will how Fig 1 is now incorporated in the wider scheme of things.

Note also that the key re-defining routines are separated from the main body of the selection routine because occasionally one needs to access them directly as in the case of the last two which are "Y" and "N", a specified input needed in one of the games i.e a short flick of the switch for YES or a longer pressure for NO.

I should add here a note that I also incorporated a momentary colour change to the border to indicate when the switch had been held long enough.

FIGURE 2: MORE SWITCHED ON?

```
200 num%=0
210 GOSUB 10
220 IF count%>80 THEN 260 ELSE 230
230 num%=num%+1
240 IF num%=4 then num%=1:
        LOCATE x,y:PRINT num%
250 GOTO 210
260 IF num%=1 THEN
              GOSUB 300:GOTO 290
270 IF num%=2 THEN
              GOSUB 310:GOTO 290
280 IF num%=3 THEN
              GOSUB 320:GOTO 290
290 num%=0:return
300 KEY DEF 74,1,49:RETURN
310 KEY DEF 74,1,50:RETURN
320 KEY DEF 74,1,51:RETURN
330 KEY DEF 74,1,89:RETURN
340 KEY DEF 74,1,78:RETURN
350 KEY DEF 74,1,242:RETURN
360 WHILE INKEY$<>"":CALL &BB09:
                    WEND:RETURN
```

Lines 230 to 240 increment the numbers and x,y locates them on the screen wherever there is a convenient corner. So now you can flick the key to cycle the numbers round and round, when you reach the number of your choice, a steady pressure on the same key will re-define the key and on its release, input that number into the system.

Immediately after this a step to 350 returns the key to it's original definition, and this is followed by 360 which flushes out the keyboard buffer. Clear as mud isn't it?

This method, with small variations worked a treat for TOWERS and NOUGHTS and CROSSES but oddly enough, the simple PARAMAN defied all the odds by requiring two keys to make it work on account of the need to guide the falling man onto a target, and the fact that it nipped through the play loop quicker than I could get the key re-defined. You can't win 'em all!

DRAUGHT INCLUDER

Silly word play, but I liked it. The draughts game presented a different set of problems in that although the technique of cycling the numbers to present a choice seemed to be the way to go, there is in total thirty two choices to be made.

To complicate matters the program reverts to the standard input consisting of two elements, a letter and a number followed by an ENTER.

I decided to split these up, cycling and entering the letter, doing the same with the number, combining the two into a string and swapping it with the original input variable. As it's a FROM/TO movement the input has to be repeated for the destination, this is not a game for the impatient.

However it all seems to work, the "Timed Switch" effectively flipping between choice mode and input, and having made the letter choice the number choice automatically follows on. You can happily play the computer at draughts using just one key!

INSTRUCTION PLEASE

As far as game play instructions go I have tried not to be too wordy, limiting the foreword to one screen in Mode 1, so that they are relatively easy to read, but if these efforts reach anybody at all they are likely to be children because I suppose they are childish games really, and children have helpers who hopefully will be able to show them how to play. Whoever it is will need someone to load the computer for them and plug in and arrange the hardware so I don't see many difficulties arising.

OUTRO

Well, that's about it really. There may be something amongst the preceding ramblings that will help somebody, even if it only allows Granny to play games while doing her knitting at the same time. With any luck perhaps the Honourable Clive will allow me a bit of space in future to offer a few notes on constructing the diaphragm switch (I'm working on it) and if you're lucky, a drawing or two.

As to the ever present question of copyright, these games have all been published over and over again in books and magazines mostly as D.I.Y. "Type-ins", and in innumerable versions, and I believe that as long as they're not sold for commercial gain no-one could really raise any objections. However, I feel it's only right that I should acknowledge my sources which I do below with grateful thanks. Without them I would never had started !

PARAMAN. (My title)
Taken from "WORKING GRAPHICS ON THE AMSTRAD" by Mike James,Kay Ewbank and S.M.Gee. Published by Argus Books Ltd.

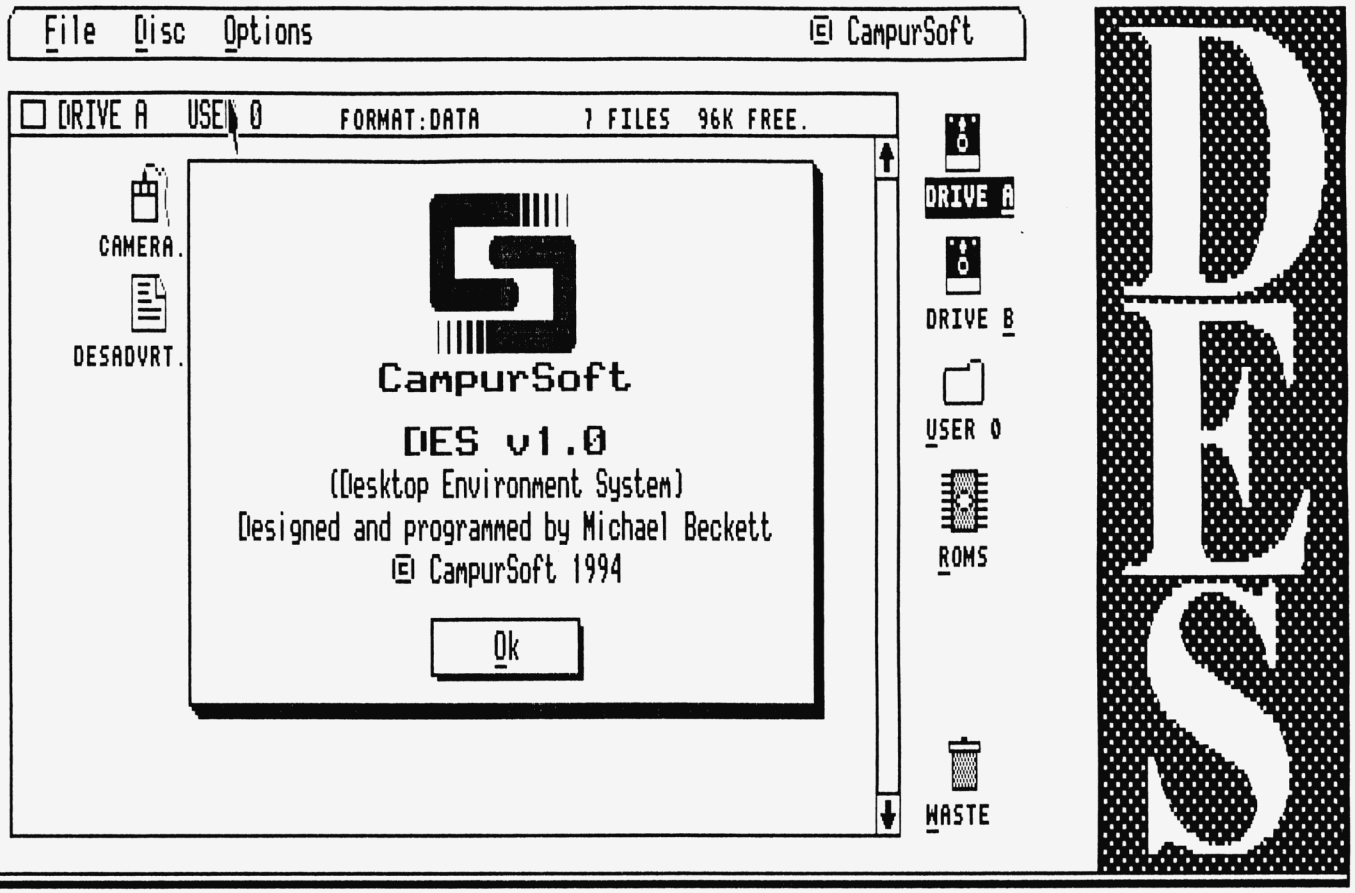
TOWERS OF HANOI.
Copied from a magazine many years ago. Many, many versions, doubtful if any copyright exists.

NOUGHTS AND CROSSES.
Taken from "COMPUTER CHALLENGES FOR THE AMSTRAD" by R Hurley and D Virgo, publishers Duckworth Home Computing.

DRAUGHTS.
Also from "COMPUTER CHALLENGES FOR THE AMSTRAD" by Richard Hurley and David Virgo, published by Duckworth Home Computing. Both were published about eight to nine years ago.

AND NOW, AT LAST, WE PRESENT!
Finally (at last they cry) I may have a go at a game of cribbage if I can learn how to play. Trouble is, I've never played cards much in my life so that should be a challenge in itself, to say nothing of Backgammon which is a mystery I have yet to unravel. I wonder who thinks these things up ?

Ron Izett



THE REVIEW by STAMPER

Maybe some of you can recall that I was scheduled to do a review on a program (ROMDOS XL) some time ago and you may have wondered why it did not appear. Quite simply one cannot do a review of a program which is released full of bugs. How pleasant it was to receive from CAMPURSOFT a program that works without any difficulty. No one likes to part with hard-earned cash and purchasing DES one is assured that they are getting a program that works without any snags. DES was due for release earlier but in true spirit it's release was held back until all bugs and snags were eradicated.

INTRO DES

What would you think had happened when switching on you did not find your usual blue screen *<or dark green in my case Stamper -Paul>* but a glaring white one? This is what happens if you have Campursoft's latest CPC product in your Rombox. Switch on with DES on ROM and you are ready to operate.

Desktop Environmental System comes on two ROMs and is compatible with Protext, Promerge+, Romdos, Utopia, Maxam, or Proprint in your Rombox.

THE ODD ONE OUT

Hiccups occurred when I had ODDJOB also installed in my Rombox, probably because they both have similar attributes, and when comparing them together I have decided to retire my ODDJOB since Dessie *(who)* does all that ODDJOB can do and more besides.

DES will work on the 6128, 6128+, 664, 464 Plus and the 464 with a disc drive. It does not require 128K of RAM and is completely at home with either an AMX or DATEL mouse and is compatible with ROMDOS large capacity discs, although I have only tested it out using the D20 format.

WHAT'S IN A NAME

Desktop Environmental System or DES for short has such a friendly way with it that I can see it having a friendly name amongst us. I already think of it in terms of "DESSIE" *(No! I never was a fan of Dessie Arnez but I am a sucker for Neighbours.)* It has that ease of use with it that until now a modicum of knowledge of either BASIC or machine code was needed to carry out many operations with other products.

Many programs have instruction manuals that surmise that the operator has a sufficient knowledge of how the program works or they take far too many things for granted. However, DES's instruction manual is simplicity itself and following it caused me no problems whatsoever.

No longer is necessary to know a great amount of machine code because DES is a one of those WIMP Systems. A system that works with Windows, Icons, Menus and Pointers. Not only is the program controlled by a wimp system but the commands are also accessible via the Keyboard.

TURN ON AND TUNE IN

On switching on you are presented with a white screen with a Menu Bar across the top and you have a powerful set of Disc utilities all ready to be accessed. In the centre of the screen is your Pointer which you can move about using either the mouse OR the Cursor keys. Holding down the 'SHIFT' or 'CONTROL' keys speeds up the movement of the pointer. When the pointer is over the required Icon or object then all you do is press either Return, Enter or Space. When using a

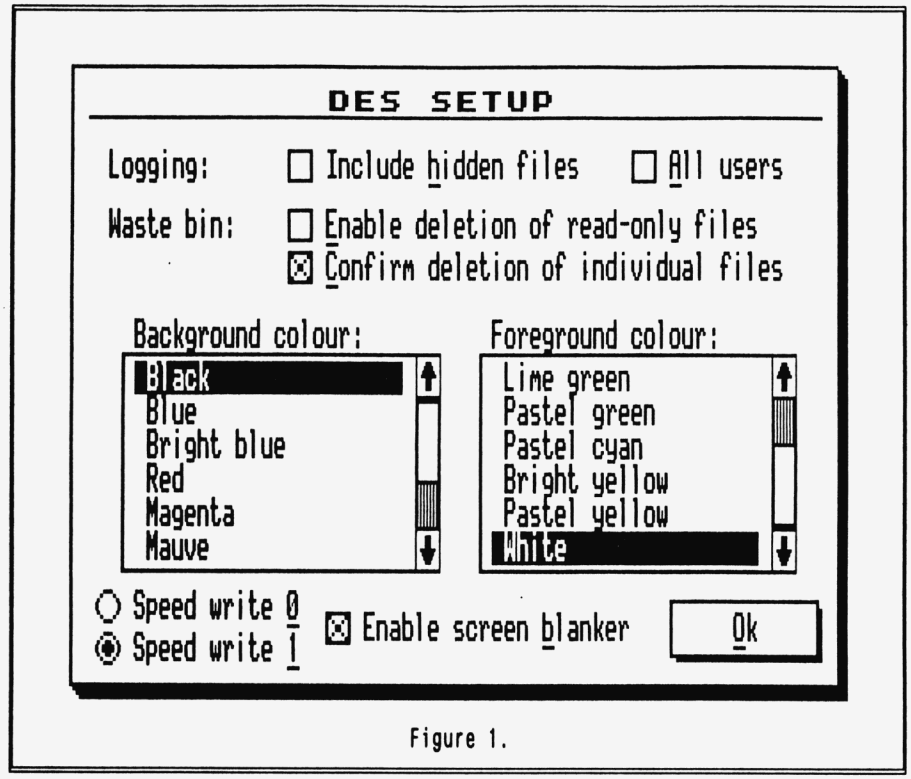


Figure 1.

mouse you just click either the left or right button. If the pointer is NOT over the object or Icon then a "pinging" note is heard.

OPTION TIME

On the left hand side of the Menu Bar are displayed:- File, Disc and Options. Click on with the pointer to select. Down the right-hand side are five icons:- Two discs, an empty box shape, a ROM and at the very bottom a waste bin.

Everything on the screen can be called up by using SHORT-CUT Keys. These can be used instead of the pointer. In DES they are indicated by an Underlined character. e.g. A for the A drive, B for the B drive, R for ROMs etc. I found that using the Short Cut keys saves time, especially when the pointer is at the other end of the screen. A question mark is displayed when DES asks a question and an exclamation mark when Des is giving you a warning.

Activating any of the words on the Menu Bar and a list of options is displayed as a pull-down menu, or select the option using the short-cut key. If however you have "clicked" the wrong option this can be aborted by either pressing ESC or moving the mouse over a blank space and then pressing a button. Having selected your option the pull-down menus have two types of "buttons" to click onto, either push buttons when something will happen or radio type buttons where only one option from a group of choices is allowed *(eg. A for Drive A* or B for Drive B.)

CHECK IT OUT

Check boxes are found on some of the menus and these allow choices to be selected in which case a cross denotes that particular choice made. Scroll Bars are used to scroll up and down a list of items that are too large to be displayed all at once eg colour choice of both foreground and background *(see fig 1.)* These are to be found in List boxes. Text boxes are where a piece of text or a number is displayed and by pressing the associated shortcut key or clicking the mouse will put you in edit mode.

FORWARD MARCH

So much for the background to DES. Now let's switch to the menu bar containing the labels "File, "Disc and "Options". Clicking on any of these reveals a menu. Click on the Drive A or Drive B icon and a percentage indicator is displayed scanning for all the files in that drive. When the scan is complete then all the files appear in the box in the form of icons. Text or Data files appear as a document, Binary or machine code files appear as a group of 0's and 1's, and Basic files appear as a BAS Icon *(see figures 2 and 3).*

If you have chosen the "All - Users" feature in the OPTIONS/DES SETUP then files in user 0-15 are displayed. The user icon enables changes to be made *to a different Disc user - handy when used with ROMDOS high capacity discs. The ROM icon enables access to other Roms without using the RSX bar command from Basic. Clicking the ROM ICON two smaller windows are shown, the first one contains the list of Roms and the other a list of commands from within the chosen Rom. A scroll bar at the side of each window allows for choices*

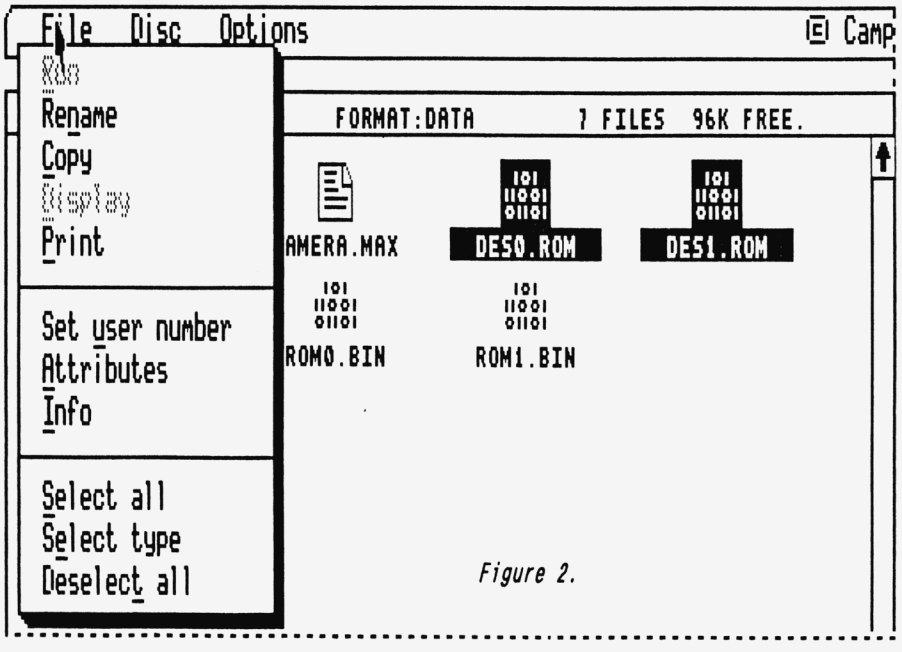


Figure 2.

to be made. Moving the pointer down the list of Roms, automatically changes the list of RSX commands displayed in the second window *(see Figure 3 below.)*

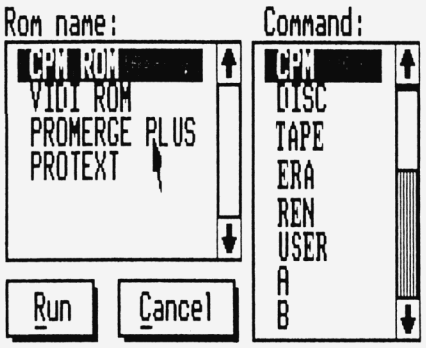


Figure 3.

The Waste Icon deletes all selected files from the disc chosen. An alert message is shown thus allowing one to abort the deletion.

SO JUST WHAT CAN DES DO?

RUN executes a file; RENAME is a multiple file renamer; COPY files; DISPLAY text files on the screen; PRINT text files to printer; SET USER NUMBER will move files to other user numbers; ATTRIBUTES sets files to R/O, hidden, R/W etc; INFO shows header info and attributes; SELECT ALL or SELECT TYPE or DE-SELECT ALL are selection filters *(see figure 2.)*

FORMAT *(see figure 4)* disc to Data, Vendor or Ramdos; VERIFY Checks disc for errors; COPY discs; COPY B: with buffer disc faster copy for Romdos discs; ARCHIVE disc to tape and tape to disc; RUN CPM starts CPM; DES SETUP change DES colours and settings; ABOUT DES displays copyright info.

Selecting a File - On selecting drive A or B, the files are displayed on screen. A particular file is selected and another File window is revealed. This allows you to Run, Rename, Copy, Display or Print the file. DES can copy files from AMSDOS discs to ROMDOS discs and vice versa without any difficulty whatsoever.

Clicking the Print button gives you a range of options:- 11" or 12" paper, continuous print or print page numbers, width of page (in columns), left margin *(in columns)*, send Epson control codes of which you can choose Pica, Elite or Condensed.

File attributes gives file type, Start address, length and entry point. It is also possible with one key press to go to either the previous or the next selected file.

Select file type gives a menu for Basic,Binary and Text/Data also files with extension. Format provides a much faster alternative to Diskit3. Discs can be formatted to Data or Vendor as also formatting discs in drive B to Romdos D1, D10, D2 and D20.

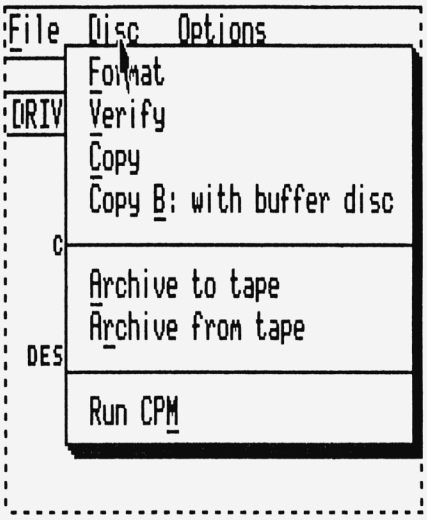


Figure 4.

Verify checks discs for errors. Choose either A or B by using the buttons or Shortcut keys. Copy byte by byte from A or B to A or B. Copy B with buffer disc is used for copying Romdos high capacity discs in drive B. A blank three inch disc is used as the buffer disc in drive A.

THE OPTIONS MENU

DES SETUP allows changes to be made in settings of the program, such as colours, screen blanking *(see Fig 1)* changing the setup of the Waste bin and disc scanning.

Logging sets whether or not DES includes hidden files when scanning the disc. Tape save rate gives the choice of two speeds No.1 is the fast and No.2 is the slower but safer rate. Now Screen Blanking. If you do not activate something on DES, or leave it alone too long *(eg to answer the phone)* you will find the screen is blanked out. As Corporal Jones would shout "Don't panic, Don't Panic" This is supposed to happen. All you need to do is press any key and the screen is again turned on to the point where you left it. Screen blanking prevents possible screen damage by leaving the same static display on your screen!

This can be overridden by using the options DES setup.

POWERUP KEYPRESSES

When you switch on your computer the default screen for DES is Black on White. Holding down TAB when switching on gives White on Black. Holding down COPY gives a Black on Orange screen and holding down COPY + TAB will leave you with Orange on Black display. If you do not wish to use DES when you switch on then all you do is to hold down the SPACE bar and you are into normal basic.

PCW DISCS

With ROMDOS in the Rombox it is possible to transfer data since DES recognises PCW 173K discs in drive A and PCW 720K discs in B drive. It will not run PCW programs. It is only for the transfer of Data between the two different formats.

OUTRO DES

I have the following criticism of DES and that is the absence of the Number of K for each file when scanning takes place on either of the Drives. Scanning of discs is not as speedy as CAT in BASIC but then BASIC does not give as much information.

So why buy it? Because I think it's ease of use and what it can do represents value for money. I think this is one of those programs that is the next best thing to sliced bread. It is a must for the CPC. I personally am especially pleased with it, and am prepared to "PUT up or SHUT up" and put my money where my mouth is. My order is already at Campursoft. By the time you read this I hope my DESSIE is safely installed at No 32 and the full program *(two Roms and manual)* kindly donated by Campursoft will be here waiting to be used as a super prize in some future competition.

Campursoft are prepared to let WACCI members have the full program on two Roms for the discount price of £19-99, for the period of *one* month from the appearance of this review. Why not grab a fiver's discount off Dessie while you can. *Stamper.*

ABCDEFG

Windows 3.1 Style

By PAUL DWERRYHOUSE

I have a confession to make - yes it's true, I've been playing with Windows 3.1 on a 486 PC. Why I hear you ask, well because it's there and I wanted to see what the new TrueType Fonts (only released with Windows 3.1) were like. They are scalable fonts, sent to your printer by Windows, so you don't have to have an expensive Laser printer with mega fonts on board or pay the earth for font cards for your printer. The Epson Stylus 800 comes with a Windows 3.1 driver so I installed it and turned to the Windows program WRITE.....

INTRO FONTS

I regularly use WordPerfect at work so I loaded a text file produced by it into WRITE. A conversion takes place if the file isn't in WRITE format and the pure ASCII file I had created for this exercise loaded just fine.

I played around and set a few fonts within the text and sent the file to the printer. Even faster than the speeding bullet the Epson spat out two pages worth of rather good looking text. Yes, I have to admit, the output of WRITE was truly excellent, these new fonts are little beauties.

bmp &dr

A little thought leap into my mind. I'd seen Clive at one of the Haydock Park All Formats Fairs showing how Windows .BMP format files can be converted to AMSDOS screen files. Could I do the same with these fonts?

FORGET WRITE

The other Windows package that uses these TrueType fonts is PAINTBRUSH, which saves its files in the .BMP format. So off I go see what I can do with it. Armed with only keys to press *(there is no mouse hooked up to my PC)* I boldly go in search of fonts. Well I had to look at the help file first to find the keys needed (TAB, INS, ARROW and ENTER do the trick) but after that there was no stopping me.

The first exercise was to determine the relationship between the Windows PAINTBRUSH screen and the good old CPC screen. How did the convert program translate between the two. All I needed was one dummy run as the relationship is simple - the default window size of PAINTBRUSH equals a CPC screen *(not quite true height wise, the CPC screen is about 80% of the PAINTBRUSH window.)*

CONVERSION TIME

In order to carry out the conversion I need a couple of PD programs by the FACE HUGGER viz: DOSCOPY and BMP-CON as well as a PC running Windows and a CPC running MicroDesign Plus.

Load up Windows PAINTBRUSH on the PC and select a font, scale it up to the maximum 72 point, select ABC *(text mode)* and type ABCDEFG etc. When the screen is about full select Cut and mark the area to be saved with a box. You don't save your work in the normal Windows fashion as this saves the screen equivalent of an A4 page of paper. We only want a CPC screen size, so you can think of this as an Art Studio WIN file if it helps. Chose Edit and Cut To File. Hey presto, all the Windows work has been done.

THE MISSING LINK

Copy the Windows .BMP file to a 720K MS-DOS disc and it's time to fire up the CPC. Load DOSCOPY and transfer the .BMP file to an AMSDOS disc *(it will be about 45-50K but don't worry about that.)* load BMP-CON, convert and save and the file is now a 17K AMSDOS screen file and nearly a third of its original size.

PLUS BITS

After firing up MicroDesign Plus and converting the AMSDOS screen to a DR file, I was ready to view the work. And did it work? Well very nearly. All the characters were half width. Not to worry, back into MD+, double the width and now those beautiful Windows fonts are available from within MicroDesign.

OUTRO FONTS

I suppose the moral of this tale is that at last I've found a use for Windows. Maybe MicroSoft will bring out a .DR to .BMP convert program when there read this article. Anyway, I bet MicroDesign Three will have scalable fonts in it. *What about it Pete/Jess?*

THE WONDER OF PIP

THE PERIPHERAL INTERCHANGE PROGRAM BY JOHN R HUDSON

Well here you are at the second and final instalment of "The Wonder Of PIP" which as you all know, is an advanced file handling program and nothing to do with a character from Charles Dickens. We have very great expectations of this series!

As will be clear already PIP can take a whole range of additional commands which affect the material being transferred in one way or another. For a full list, consult one of the CP/M text books; the following are the ones I use from time to time.

[a] is only available in Version 3 and and sets the archive bit on the file.

Whenever you use [a], PIP ignores files with the archive bit set and sets it on every file it copies successfully. When programs next use the file, they write the file name to disc without the archive bit set.

So PIP always knows which files are new versions. This works with CP/M 2.2 and AMSDOS files so you can back-up Mini-Office files, for example, on 6128s using [a]. The archive, read only and system bits are the eighth bits on the file extension. CP/M only shows seven bit characters on screen but Supercalc2, and some other CP/M programs, show all eight bits which explains why a disc directory in Supercalc may look a little odd.

The archive bit is also useful if you find corruption on a disc. PIP will stop copying if it finds corruption and will tell you the name of the file in which it occurs. You can use SET D:filename.ext[archive=on] to mark the corrupt file and PIP will skip this file and copy all the sound ones to a fresh disc if you use [a].

[c] - another Version 3 facility - it lets you confirm each copy. Rather than entering individual file names, if you use PIP a:=b:*.*[c], PIP will list all the files on the drive and ask you to say which ones you want transferring. You can restrict the ones that are listed and then transferred with *.BAS or *.DOC or prog*.* if you want. This is DR's answer to tagging in NSWP and can be quicker in some circumstances and slower in others.

[g] followed by a number instructs PIP to look for or add the relevant user numbers. [g] stands for GET because USERs were originally an MP/M facility which CP/M 2.2 cannot use.

So, for compatibility, DR needed a way to get files from an MP/M disc into use under CP/M 2.2. PIP b:=b:filename.ext[g5] gets the file in USER 5's area and copies it into user area 0 where CP/M 2.2 can use it.

There is no 'move' command in PIP because 'moving' the file would mean USER 5 would not be able to use it under MP/M. You cannot copy the file back under Version 2 but in Version 3 you have direct access to all user areas under CP/M 3.1. However, we are stuck with [g] for compatibility.

[l] and [u] I only use in one context - transferring sound commands between BASIC and LOGO; these commands are identical except that they're in upper case in BASIC and lower case in LOGO. [l] not unsurprisingly turns all upper case characters to lower case and [u] does the opposite. In practice, you need to make an ASCII save in BASIC and then a find and exchange with a word processor to get the BASIC commands into LOGO format and you could use the same find and exchange within a word processor to convert the case but PIP is much quicker with a long sequence of commands.

[o] stands for object file. As I mentioned above, PIP looks for CONTROL-Z as an end-of-file marker but this could be a legitimate character in a binary file. [o] tells PIP to ignore CONTROL-Z and copy to the end of the last sector mentioned in the disc directory. It should be used with .COM, .BIN, .CAL and .DBF files.

[p] is mainly useful for setting the page length when using single sheet feeders with LST:; the default is 60 lines but you can change this by adding a different figure after the p.

[r] stands for read system files. PIP ignores system files as it assumes you will normally only be transferring data files. So you need to add [r] to tell it you really do want to transfer a system file.

[v] stands for verify and PIP will check what it has written to disc against the copy it has in memory (not against the original).

Though this may seem to be a problem, I have found this sufficient when copying between a silicon disc and a floppy disc where the differing speeds of the two media has caused problems for other file copying programs, particularly on long files.

[w] stands for write over a read only file. PIP assumes that you do not want to over-write a read only file and gives you the option of stopping the transfer every time it encounters a read only file with the same name; you can stop it throwing up the prompt every time it encounters a read only file with [w].

[z] zeros the eighth bit; in other words, it creates an ASCII compatible file. As some word processors use the

ASCII characters below 32, it does not strip out these control codes but it allows you to display text files on screen without confusing characters. I have also used it to create ASCII files for transmission to others. But in this case, it is important to remove all control codes from the original document first and to save it in ragged right format. Otherwise PIP will create a right-justified file which is a pain to reformat on any other word processor!

ALMOST THE END

Finally, PIP Version 3 recognises passwords created under CP/M 3.1 and will not copy a protected file without the password. You add the password with ;password after the file name before any additional commands and PIP copies the password and sets the protection level to READ on the copy PROVIDED the destination disc is already set up for passwords.

PIP does not warn you if you are copying a protected file to an unprotected disc. I cannot think of any way of preventing potential confusion between source and destination discs but I think the programmers could have put in a warning similar to the one with read only files to warn people if a protected file would not be protected following transfer.

EXAMPLE PIP COMMANDS

B:=A:*.*[cv]
copy all files from drive A to B, confirm the file is to be copied, verify it's been correctly copied.

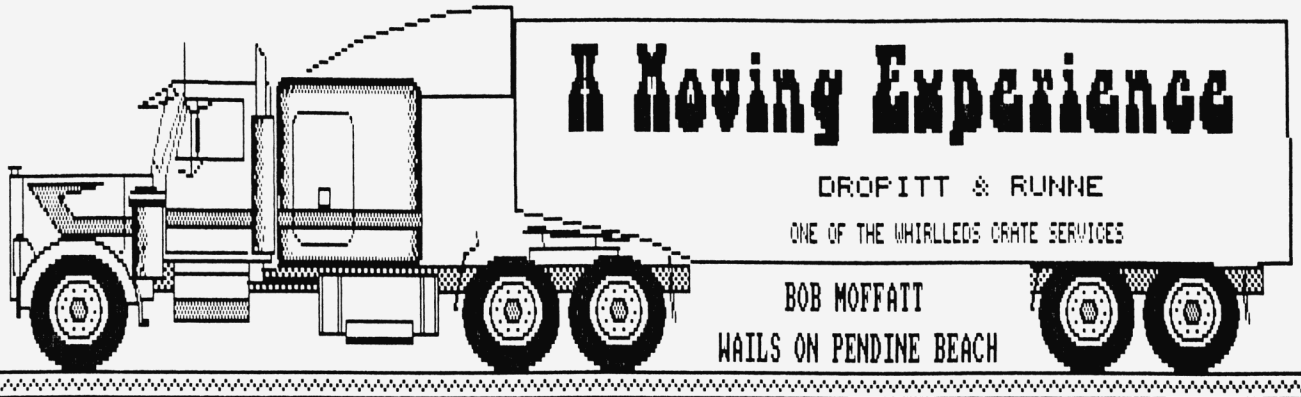
B:=A:y*.*[v]
copy all files on drive A which start with 'y' to drive B. Verify they've been correctly copied.

OUTRO

Otherwise, as you will see, I find PIP Version 3 a very satisfactory and a remarkably versatile program for daily use and even PIP Version 2 has a collection of facilities not elsewhere available in a single program. Until next time, have fun copying all your files. Pip Pip! John R Hudson.

STANDARD CP/M FILENAME EXTENSIONS

Extension	File Type / Description
*.ARC	Archive File. Long term storage file. Also called *.ARK.
*.ASM	Assembly language source code file. (See also *.HEX).
*.BAK	Backup file. Created by saving a file twice on the same disc.
*.BAS	Basic source code / program file.
*.BIN	Binary file. Often used for machine code programs.
*.C	C language source code file / program.
*.CBL	Cobol source code file / program. (*.COB may be used instead.)
*.COM	Command file. Transient CP/M program that can be run under CP/M.
*.DOC	Ascii document. Usually unformatted, with no control codes.
*.FOR	Fortran source code file / program.
*.HEX	Hexadecimal file created by MAC or similar machine code assembler.
*.HLP	Help file. It probably contains help of a specific topic or area.
*.INT	Intermediate work file. (Oft created as part of a whole program.)
*.LIB	Library file. Probably contains subroutines (for a compiler.)
*.OVL	Overlay file, (*.OVR). Program that is loaded by another program.
*.PAS	Pascal source code file / program.
*.PRN	Print file created by a compiler like MAC, Cobol etc (Also *.LST)
*.REL	Relocatable file created by the RMAC assembler.
*.SUB	Submit file - used in conjunction with SUBMIT.COM.
*.SYM	Symbol file. Contains the Symbol table created by RMAC, MAC etc.
*.SYS	System file - used by CP/M.
*.TXT	Ascii document - usually formatted and containing control codes.
*.XRF	Cross-reference file.
*.ZAS	ZBasic Basic source code / program file.
*.?Q?	Indicates a file that has been squeezed using NSWP (NewSweep.)
*.?Y?	Indicates a file that has be crunched using LT29.
*.?Z?	Indicates a file that has been crunched by CRUNCH.COM
*.$$$	Temporary file. (May be a part complete file!)



Youngest son wrote (well printed actually) a letter thanking me for the Romdos XL and 3.5" drive I posted to him. The drive was fine but Romdos didn't work. He'd tried it all ways round (!) and in every spare slot in the Rombo. A flurry of letters followed - had he remembered to switch the right Rom select switches? Yes Dad, of course - how brightly should it glow anyway?

SNAIL ON THE ROCKS

This was just what I wanted. We were about to move house and I wanted to cut down on mail, it was near Christmas and the Royal Snail would be a bit pressed to get everything delivered on time. Oh to heck with it. A quick letter to Siren - rush me another Romdos, no I don't eat them, yes they do work when installed correctly, and send it to me please, not idiot son.

A MAIL FETISH

I've moved house a fair few times. It saves paying the newspaper bills. Promerge+ was bought especially for such occasions. I'd had dreams of one letter giving my new address and date of move being merged with a data file of the people who plague me with bills. Four moves later and I've never used it for that. Some firms want a phone call - Direct Insurance and BT for example, others insist that you fill in one of their forms - 'Notify any Change of Address on the Back of this Form'. Oh well, out with the quill and sand shaker.

GETTING YOUR OWN BACK

End of term so it's off to Warwick to collect youngest. CPC, 'dead' Rombo, 3.5" drive, printer and a polybag of lecture notes and dirty socks are stuffed in the back of the car. My wife collects daughter who had decided, thankfully, to leave her CPC in digs. The house is chaos, my study having been chosen as the repository for all items boxed for the move. Cursory examination of youngest's Romdos XL chip (swap it with my chip) confirms it was zapped. Ominously his whole Rombo doesn't seem to work. Don't say he managed to zap that!

NO BUSINESS LIKE SNOW BUSINESS

By some miracle Siren manage to beat the rush and a new Romdos XL chip arrives. Works in my Rombo but boot-up snowstorms on son's machine. Well, no time now to sort it out now, after Christmas perhaps. I pack another two crates ready for the move while my dear wife unpacks seven crates of Christmas decorations and strews them in festive fashion. Christmas? Humbug!

PEACE ON EARTH
(ADVISED THE SPANISH ELECTRICIAN)

Christmas Eve and my last day at work in the old job. Vultures are hovering over my PC and printer while I try to remove incriminating evidence from the hard drive. Full of booze, clutching bulky farewell gifts (how on earth can they be packed for the move) but without my disc of Wordperfect macros, lovingly developed over four years, I finally stagger home.

LOUNGE SLITHERED

The lounge is un-navigable. Discarded WH Smith and Ryman bubble-packs make the floor more treacherous than a Norwegian glacier in spring. So far I have shielded my dear wife from the fact that our youngest, (19 years old), is beginning to question the existence of Santa Claus.

My motive is simple, an excuse for a last glass of sherry and a mince pie before retiring. The childrens' motives are equally primitive - how do you re-load a Bambi stapler?

CIVILISATION?

Upstairs two of the three boys are clustered around a PC plotting the downfall of another civilisation. Youngest is back to sleep - he knows what he is good at.

Daughter plays Lead Madonna, or something similar, at high volume and pretends not to smoke with the help of an open window and a joss stick.

BUG OUT(RO)

"Dear Sirs, thank you for your quotation of 15 Dec 93. I am pleased to accept it and confirm that I will be ready to move on 4 Jan 94. ....". Get bored, load 'Lords of Chaos', WHILE NOT Christmas Lunch, give Elbo Smogg and Ragaril a hard time, WEND.

ONE SIN - ROYAL DAVID'S SETTEE

Masterfile III was made for "Christmas Day." Bleary eyed I feel my way downstairs to enter Christmas gifts in the household insurance database.

Qty	1	Socks, grey	£1.25	Spencers, Marks &
Qty	1	Aftershave	£3.00	Spice, old
Qty	3	Handkerchiefs	£3.00	Linen, white
Qty	1	Tie, unwearable	£3.00	Plum & custard colour
Qty	12	Truffles, Rum Thorntons	£3.50	(eaten)
Qty	1	Cray Super II	£50M	(dreaming)

CP/M+ EXTRA

UNCLE CLIVE POKES ABOUT WITH CP/M PLUS (v3.1)

Dear Clive, as a comparative newcomer to WACCI (from issue 68) with just a basic 6128 and an old Star NL10 printer I have at last found something of real use to me - your CP/M+ EXTRA in the current issue, I typed it in immediately and I am delighted with the result.

I mainly use my computer for SuperCalc2 and Mini Office 2's Word Processor so your program one now sits proudly on one of the former's word discs. It has since occurred to me that you might be able to go one further, gigantic step forward with a patch that will go straight into the SC2 system from square one. I look forward to hearing from you. Aubrey Sinden, Rye.

<<Hi Aubrey, it always nice hear from new members and a happy new member as well. Your suggestion follows on from last months article nicely, so here goes.....>>

A BIT OF HISTORY

As it happens I have a copy of SC2, so I'm able to talk authoritatively about the program and how it works.

CP/M programs are normally designed to work on a variety of CP/M based computer systems, and as a consequence they use a loading routine to select the correct environment (monitor type, keyboard layout etc.)

SuperCalc 2 was specifically adapted to run on either the CPC or PCW, and it has a setup option that only has to be run once (and of course, that's the very first time you use it.)

TO RUN SUPERCALC

Running SuperCalc is very easy to do, you load CP/M and then you type at the A> prompt SC2 and then press Return. SuperCalc then happily loads.

CREATING A SUPERCALC LOADER

1. Before doing anything else make a copy of your SuperCalc2 disc - (that's the one you load SuperCalc2 from) then if it all goes wrong, you'll have lost nothing but time and patience.

I use DISCKIT3 to copy discs on a single drive system and UTOPIA to copy discs on a twin drive system.

2. Put the original disc away in a safe place before it gets damaged. Now you need to copy SUBMIT.COM on to the new disc (it's on the System Discs that came with the 6128.) I use PIP to copy files between discs. When that's done, you need to copy the C10CPM3.BIN file you created in WACCI 75 on to the SuperCalc2 disc.

3. All done? Now we need a short Basic program to bring it all together and create the SuperCalc2 autoloader.

But first another bit of history, in WACCI 76, I altered the name of the PROFILE.SUB file in order to create a selection of automatic loaders.

This month I'm using a different technique, I'm going to make the CP/M loader write its own PROFILE.SUB file to disc, and because the file is on the disc when CP/M loads, it will automatically action the commands.

4. Hello, it's get typing time as your first Basic program appears.....

```
10 'Program Six
20 'By Clive Bellaby (c)1994
30 '
40 OPENOUT "profile.sub"
50 PRINT #9,"SC2"
60 MEMORY &BFF
70 CLOSEOUT
80 LOAD "c10cpm3.bin",&C00
90 CALL &C00
```

That's all there is to it - when you run the program it will autoload CP/M, then autoload SuperCalc2. Now who was it who said that life was difficult?

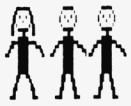
BEYOND THE BEGINNINGS

You can add a whole load of frills to the loader, such as different options, clearing the screen, doing a DIRectory and almost anything else....

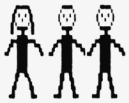
You can of course add these options to the previous two months ideas and create your own customised superloader for CP/M. The world will marvel.

Once again I follow the age old style of writing a longer more complex program that demonstrates exactly what I mean, so get typing again.....

```
100 'Program Seven
110 'By Clive Bellaby (c)1994
120 '
130 MODE 2
140 PRINT"Options"
150 PRINT
160 PRINT"1. SuperCalc 2"
170 PRINT
180 PRINT"2. Clear Screen & DIR"
190 PRINT
200 PRINT"3. Quit"
210 PRINT
220 PRINT"Press The Right Key Please"
230 '
240 '** Select an option
250 '
260 i$=INKEY$:IF i$=""THEN 260
270 IF i$="3"THEN CLS:END
280 IF i$="1"THEN i=1:GOTO 340
290 IF i$="2"THEN i=2:GOTO 340
300 GOTO 260
310 '
320 '** Action Option Selected
330 '
340 OPENOUT"profile.sub"
350 IF i=1 THEN PRINT#9,"SC2"
360 IF i=2 THEN PRINT#9,CHR$(27);"E";
370 IF i=2 THEN PRINT#9,CHR$(27);"H"
380 IF i=2 THEN PRINT#9,"DIR"
390 MEMORY &BFF
400 CLOSEOUT
410 '
420 '** Finally, Load CP/M+
430 '
440 LOAD"c10cpm3.bin",&C00
450 CALL &C00
```



WHO'S WHO



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