

THE UK'S ONLY SERIOUS CPC MAGAZINE

Issue 54 £1.50

# WACCI

## WACCI PROBE:

John Major: Quote -  
"Don't blame it on me,  
I voted WACCI."  
Maggie "John who?"



## IN THIS ISSUE:

Beginners Basic, The ABC of PD, Letters, BJ10 Printer, Comms, Telephone Help-Line, The WACCI Archives, Forth, Machine Code, Spell Checkers, Adverts, Public Domain Software, Homegrown Software and much more .....

# CONTENTS

2 Contents & Help-line	<i>If you are stuck !?!?!?</i>
3 Thanx And Stuff	<i>More of my ramblings</i>
4 Fair Comment	<i>Your letters answered</i>
13 Very basic Basic	<i>Basic similes !?!?!?!?</i>
15 Inspiration	<i>Machine code and Basic</i>
17 Forth	<i>The alternative language</i>
19 Treading The Bauds	<i>Comms at its best</i>
20 The WACCI Archives	<i>Issue 6 revisited</i>
23 Spell Checkers	<i>The new mini-series</i>
25 The ABC of PD	<i>DU gets the treatment</i>
27 The BJ10ex review	<i>More about this neat printer</i>
28 The Competition	<i>Win a prize in WACCI</i>
29 The PD library Discs	<i>There's 30 discs in there!</i>
30 The Homegrown Discs	<i>As ever, there here again</i>
31 Who's Who	<i>Pass the buck time ....</i>

Copyright WACCI 1992(c). Material may not be reproduced either in whole or in part without the written consent of the copyright holders. WACCI cannot undertake to return unsolicited material unless it is accompanied by a suitable stamped, self-addressed envelope. No payment whatsoever can be offered or made for any material selected for publication.

Production Method : WACCI is typeset, produced, edited and laid out using, Protex, Promerge, Prospell, OCP Art Studio and Micro Design Plus on the CPC 6128 and printed using an Epson LQ-400 24 pin printer.

Front Cover designed by Clive Bellaby and Andy Frame.

WACCI is Printed by :

William J Butler & Co Ltd, Town Hall Printing Works,  
Station Road, Bulwell, Nottingham, NG6 9AR, 0602 278929

Lithographic and Letterpress Printers

WACCI : is the computer club for the Amstrad CPC and PCW computers. The Club magazine is distributed monthly.

# The Telephone Help-Line

Tony Walker, (0772) 651698, Preston, 10.00am to 10.00pm, Comms, Protex, Prospell, Tape to disc, CP/M on ROM.

Robert Heaton - Withdrawn temporarily - Robert's gone to College and cannot be contacted, We hope you pass !

Norman Buxton, (0260) 223257, Macclesfield, Basic and farming? <<Control codes a speciality -Ed.>>

Stewart Peppiatt, (0245) 353903, Chelmsford, Basic and Machine Code, DMP2000, VDE, Scrivener and general problems. <<A Tech-Head -Ed.>>

Peter Campbell, (041) 554 4735, Glasgow, OCP Art Studio, Vidi, Basic, Micro Design & Art Programs, CPC plus machines. <<A Comms Guru as well -Ed.>>

Frank Frost, (0983) 882197, Isle of Wight, 4.00 to 10pm, VDE, CP/M and Protex. <<He LOVES a chat but nobody seems to call him up -Ed.>>

Peter Ceresole, (081) 878 0391, London, Protex, Promerge, Utopia and Nukes (amateur status) <<Total nutter to be avoided at all costs -Ed.>>

Paul Graves, (0304) 812342, Ash, All varieties of Pascal (inc Turbo, JRT & Standard). Phone between 5.00pm and 9.00pm Weekdays.

Paul Dwerryhouse, (0244) 534942, Deeside, Clwyd, Basic, Bank Manager, WACCIWORD, WACCI SPELL (ISPELL), and a sympathetic ear. <<He's pretty good at accounts. -Ed.>>

Rob Scott \*\*\* (0252) 24721 \*\*\* Aldershot, any hardware problems plus tape to disc, disc to disc etc. << An electronics genius, -Ed.>> Now with extra Bonzo.

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

Mike Lyons, (0942) 59942, Nr Wigan, Basic, Stop Press, Dk,tronics Speech Synth, rodos and general help.

Clive Bellaby, (0602) 725108, Nottingham, 8.00pm to 9.00pm, Basic, Cobol, Forth, VDE CP/M, Protex, Promerge. <<Dominoes a speciality. -Me.>>

Chris Smith, (0252) 24721, Aldershot, Comms, BB's, Protex, Promerge, Prospell, Utopia, Brunword and general programming problems.

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

If I receive reports of this service being abused by software pirates I will close it immediately.

# W A C C I

Edited by 'The Management'

0602 725108

Owned By

The Club Members

Conceived and Founded by

JEFF WALKER

Developed and Expanded by

STEVE WILLIAMS



*Once again, I sit facing my VDU and thinking to myself, what on earth can I write about this month? Oh well, on with the task of plucking letters from the back of my mind and arranging them into words on the page.*

## THE STATE OF PLAY

Membership continues to increase, we still have more money in the bank than we owe in members subscriptions, disc sales (PD, Homegrown and blank) are better than ever (we now have thirty discs in the PD library) and touching wood I don't foresee any problems.

The magazine is self funding, blank, PD and Homegrown discs make a small surplus. The Book and Tape libraries just about break even.

## NEW PRODUCTS

We now have stocks of 2 in 1, the CPC to MSDOS file transfer program. These are available to members at £20 (the usual retail price is £24.95) This deal was arranged by Peter Campbell.

We also have stocks of a replacement 'firmware guide'. 80 pages of A4 paper crammed full of information and a disc full of example machine code programs for only £7.95 inc p&p.

## DISCOUNTS

Stamper Metcalfe has taken on this daunting task and is busy negotiating discounts. There will be more details in WACCI 55. If you are in a hurry you can ask Stamper for an upto date list.

There are a lots of loose ends to tie up, but we expect between 10 and 14% off Brunning software products and 10% off all Siren products. And there will be more to follow.

## CLUB SECRETARY

Following several requests for full details of what this job involves, I'm writing a full job description which I will send to those who are interested.

## THE FUTURE

The future of WACCI is secure in all areas bar one. We have cover for every job except mine. Should I shuffle off this mortal coil (or upgrade to a PC) we have no cover. Production of WACCI would halt. The hard earned expertise would be lost and the new editor would have one heck of a job producing the next issue of WACCI.

I find this a bit worrying and think it's about time we did something about it. We need to find and train the next WACCI editor. Now!

I have no intention of upgrading to a PC, falling ill, or shuffling off this mortal coil. We do, however, need to know your opinions. How should this potential problem be handled? What is the way forward? It's your club!

## TIME .... FOR AN APOLOGY

Time caught up with me this month and I was unable to send the magazine off for proof reading without delaying the distribution date. So if you spot more

typos than usual, my apologies, it's all my fault. Normal service should be resumed with issue 55.

## SHOW TIME

WACCI will be at these 'All Formats' shows, why not pop in and say hello.

London	- 16th May
Glasgow	- 7th June
Haydock Park	- 14th June
Birmingham	- 19th July

## SPECIAL THANKS

To Chris Carter-Bown and JS Nelson for helping at the Birmingham 'All Formats Show'. The items donated by Richard Bowler have been sold, raising £100ish (net) for club funds. £47 of this has been spent on nine books, (including a Soft 968) for the Book library.

## THE 1992 WACCI SURVEY

If you haven't sent the survey form back to Richard Burton yet, please do so, it's your chance to tell us what you want from your magazine.

## WACCI & AMSTRAD ACTION

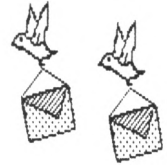
AA are now publishing a monthly WACCI page, in which we get to write about a serious topic or application. Jess Harpur wrote the first (Cheers Jess!) "Art Studio and large format drives".

This could be your chance for fame! Do you want to be published? Send your ideas or copy to me WACCI and we'll sort something out. Bye for now.

# Fair Comment



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



## SPORTS REPORT

Dear Clive, Please will you include this advert in WACCI, thanks,

Mark Johnson  
Essex

<<No sooner said than done. We are always happy to place club members adverts in WACCI. -Clive.>>

## FOR SALE

Five-A-Side Soccer on tape

In good condition, it's a bargain at £ 2.50

Mark Johnson, 13 Ashway,  
Corringham, Essex, SS17 9EB

## STUDIO TIME

Dear Mr Bellaby, <<Clive, please>>, In WACCI 46, Dec '90 Jess Harpur produced a loader program for Advanced OCP Art Studio with Romdos. He didn't indicate which computer it was to be used for but I presume that it was for a 6128.

I have a 464 with: 3 and 3.5 inch drives, Dk'tronics Ram pack and Romdos thus my setup is similar to a 6128 in memory size and Art Studio happily runs on it. However, when I use the loader program I always get the message "Memory Full in 30".

Is there any chance that you could refer this query to Jess Harpur? Does it fail because I am using an expanded 464 or is there some other reason? Is it possible for Jess to tell me how to modify the program to run on my setup? I appreciate your assistance in this matter, sincerely,

D Hudspith  
Croydon

<<No sooner said than done. -Clive.>>  
<<Dear D, (Is that Dave or Donny?), I'm sorry to hear that you're having trouble with the Art Studio & Romdos loader. As it happens, I seem to remember someone else having a similar problem. I'm pretty sure it was Frank Frost. As far as I can remember, the

solution was simply to delete all the unnecessary bits and RUN what was left. So, to be specific....

1. LOAD the loader into memory (OK. I know that's obvious!).
2. DELETE lines 1,2,3,10,90,100,110, 120,130 & 140.
3. LIST the program. If it reads like this....

```
20 MEMORY 5000
30 LOAD"studio.bin",&1400
40 FOR a=&600 to &625
50 READ b$:POKE a,VAL("&" + b$)
60 NEXT a
70 CALL &600
80 DATA 21,00,14,11,00,08,01,00
81 DATA 84,ED,80,0E,FF,21,13,06
82 DATA CD,16,BD,11,40,00,21,FF
83 DATA AB,0E,07,CD,CE,8C,0E
84 DATA 1
85 ' ^ ROMDOS select number
86 DATA CD,CE,8C,C3,86,09
```

...then save it back to your working disc. If it doesn't look like this, but it's *only* the line numbers that are different, then it'll be Okay and you can save it anyway.

If there are any other differences, type NEW [RETURN], type in the program as above and then SAVE it. If it still doesn't work then DELETE line 85 and try it again.



If this does not work, then you could always purchase a copy of MicroDesign Plus, which includes (at no extra cost) a ROMDOS compatible loader for the ART STUDIO, written in machine code, which automatically locates and initialises ROMDOS whichever slot in your romboard you care to put it.

Damn fine program (don't you know), but then I would think that, because I wrote it! I hope this sorts out the problem. Regards. -Jess Harpur.>>

## A SHORT REQUEST

Dear Mike, This is a short note to ask whether anyone out there could lend me copies of WACCI numbers 1 to 14, (some of them, if not all of them). If so, I would copy them and promise to return the originals to their owner and refund the postage.

If I can get these numbers then I would have a full set of WACCI's. Depending on the ease and cost of copying, I may then be able to offer a back issues service. I will write again if this looks feasible. (Please, please, no back orders yet!) Please print my phone number and anyone daft enough to let their precious WACCI's out of their sight can ring me.

Stuart Gascoigne  
42 Oak Close  
Little Stoke  
Bristol BS12 6RB  
Tel 0454 614520

<<Hello Stuart. I'm not sure about the copyright on WACCI issues, but I seem to remember that material in WACCI is the copyright of both the individual members concerned and WACCI itself. I know some of the back issues are out of print, but I'm sure Uncle Clive is likely to try to get them back into print soon-ish. If you could wait a while you might be able to buy them from us. It will probably be cheaper than copying them yourself. -Mike.>>

<<Hi Stuart, Clive here, as far as I'm concerned club members can happily copy material for their own use. We will not be able to reprint the early WACCI's, however there will soon be a full set of issues 1 to 39 in the book library. If I send you some of the early issues can you do a second copy for the library? Please let me know. Best wishes. -Clive.>>

## FOREIGN LANGUAGE STUDENT

Dear Mike, Following the receipt of Issue 52 in response to my initial enquiry to Uncle Clive I have forwarded my subscription for 6 Issues to Paul. (A mite cagey, but I'm only an O.A.P.) I received Issue 53 a few

days ago and read all that both interested me and that which I could understand. No disrespect to all who made contributions but whereas I'm quite understanding of BASIC, machine code and Forth etc are quite alien to me. <<And me. -Mike.>>

Should I therefore attempt to understand machine code or, accepting my age, go for Advanced BASIC? I have looked around for quite some while now for any acceptable books about m/c, both in shops and the local library, but I don't really know what I want.

WACCI seems to have a really good selection of books in The Lending Library, perhaps you would be so kind as to recommend which if any would possibly interest me.

I originally had a 6128, but passed this on to my eldest grand-daughter when I purchased my CPC 6128 plus in September 1990. Attached to this is a Rombo Romboard with Protext and Prospell, a 3.5" Microstyle 2nd Drive and a Citizen MSP20 printer.

Recently your good Rob Scott modified my Plus to load and save tapes. Further to this some 3 weeks ago I spotted, in a 'Catalogue Bargain Shop', a 464+ for £112.50, brand new, complete with monitor. So I bought one. The manageress told that three people had each bought one just to have a spare monitor. I just thought that the 464+ would be handy for them to play games on when descending upon me, instead of commandeering my 6128+. <<Damned good idea>>

I have put this letter on a disc using Protext without any printer codes as it appears better for you if you wish to use the letter. As you can see I have created a WACCI disc for all such correspondence, don't worry I have a back-up copy in my library. Best of luck to all. Yours sincerely.

Doug Webb  
Chorley

<<Hello Doug. It's nice to hear from a fellow Lancastrian, especially as Chorley is just up the road from Wigan. We're practically neighbours.

The letter is just fine, though it caused me a bit of consternation until I did a RUN"DISC to get MS800 working.

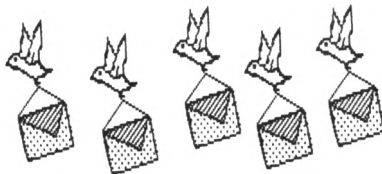
I use ROMdos and it looked as though you'd sent me the wrong disc at first because I couldn't find any files on it. Every language is alien to us when

we start to learn it. I had awful problems learning Arabic - it was like a foreign language to me for years, (and it still is.)

The fun is in trying. Books on m/c abound. Good books are as common as rocking horse droppings. I know the feeling of either being bored stiff or drowned in esoteric babble. You might try books 18 and 19 from the library.

These are "M.Code routines for your Amstrad" and "Master M.Code on your 464 & 664. I don't know what they're like, but they sound easy-ish.

I own a tape-based machine-code tutorial called "The Complete Machine Code Tutor" which is an assembler simulator and a course of 35 lessons - all on tape. I will send it to you, so you may already have it by the time you read this. I would like it back if you decide you don't want it or when you've finished with it. If you like it, please let me know how useful it is to you. -Mike.>>



#### A DOUBLE DOSE OF L PLATES

Dear Mike, Having donned my "L Plate" and suitably positioned myself at the controls, I will now attempt to get some help.

As you all know I drive a Microstyle 3.5" and ROMDOS, most of the time. A few days ago, I had a horrendous crash, whilst going up the Forth Road. I use CP/M+ quite a lot, but not CP/M 2.2 which must be used with Forth as it stands at the moment. I never had any trouble with CP/M+, but my whole system went suddenly dead while trying to save some Forth screens.

I switched off everything and tried to restart, but nothing would work. Power was going into the keyboard unit, but no response was forthcoming from the VDU; not even a raster; it appeared to be dead.

I removed all the peripherals, ROMs, printer and disc drive and tried again. To my relief, the monitor lit up again, but when I added the ROM box, and tried again, all was as dead as Hector. I then replaced the other bits and pieces and tried without the ROM box and everything worked happily.

This seemed to indicate a problem with the ROMs, so I removed them, one by one, (Switching off before doing so.) The first one from the box happened to be ROMDOS, and when I restarted the gear, Protext and all the rest came up as usual. I replaced the ROMDOS and all failed again, so that was where the problem lay.

It would seem that something had *done-in* my ROMDOS, whilst I was trying to save the screens. I have obtained another copy of ROMDOS, but I decided to remove the ROM board before using Forth again. It also occurred to me that someone else might have some idea what to do about that. Another version of Forth that would work with CP/M+, might be the best answer.

Recently I read somewhere that one cannot use 3.5" drives with CP/M, and I concluded that such a statement was nonsense, since I use both together all the time. Now I am wondering if the person who said that was trying to use CP/M 2.2 with a 3.5" drive. I know that ROMDOS cannot work with CP/M of any kind at all but, as I have already said, I have had no problems with ROMDOS and CP/M+.

Having learned a salutary lesson, (and having removed the ROMboard before I started), I then proceeded to enter the MENU program into Forth. It worked, after Uncle Clive told me that in issue 49, there should have been a semicolon at the bottom of SCREEN #41 of the EDITOR, just before the --> thingy. I decided to SAVE those words into the Forth Dictionary, but I could not get them to appear when I restarted. The four screens were there 50 - 53, but the words did not seem to have been saved.

In case some of you are wondering why I used 50 on and not 40 on, as we were told to do in issue 49, I am now using the latest version, FORTH121. I have not panicked, as I have the screens, and can re-compile the words if I want them. So what went wrong?

I used SAVE from Forth, and entered the line that it told me to enter, but something went astray. Suddenly the light dawned. The SAVE word had not been updated to tell me to save the new version filename.

I should have saved FORTH121.COM but I saved FORTH.COM. And there it was on the working disc. Both filenames were now on my disc. And the new words were

indeed in the FORTH.COM dictionary, which was now really FORTH121.

I would now like to redefine the word SAVE, using screen #55, (found in FORTH121.PT1), fixing the instructions to save the filename "FORTH121.COM", but I shall await the words of wisdom from the experts. Up-dating can be a problem chaps.

An observation: I used ZAP to save a stand-alone version of MENU.COM and a COM file was saved but it would not work properly in CP/M+. The menu was there but not in Mode 1 and the lines were not spaced out, nor did the cursor appear. It worked perfectly in CP/M 2.2. I am suspicious that it was actually FORTH, hiding under the name MENU, as it was 14K long? Did I do something wrong?

I have sent you the disc with the programs on it, (and a SAE for it's return.) Side A contains FORTH.COM, FORTH121.COM and MENU.COM all at 14K. Side B contains this letter, saved as FAIR-COM.313 (6K) and FORTH121.COM. The disc has been set up to go into Forth 121 directly on Side A, but not so on Side B. Ta for now.

Al 'The L Plate' Cooper  
County Antrim



Dear Mike, Further to my recent letter on the problem with FORTH, ROMDOS and CP/M 2.2: I might have discovered the answer to my problem. In my last letter, I said that the problem had occurred during an attempt to save a screen or some such program. I was wrong. It was during a LOAD. I was preparing a booklet file for the FORTH DOC files when the crash took place.

I removed my new ROMDOS and went on with that work. I noticed that when I tried to load the FORTH.DOC file from the WACCI PD Disc 1 there was an unusual effect on the screen - almost as if the fault that had hurt my ROMDOS was trying to recur. The VDU seemed to be experiencing an overload and was on the point of failing.

Now, my colour monitor does suffer from overload if I try to use it to load a tape into my 464 - evidently some problem with the power supply -

but my green-screen monitor does not suffer from this fault. The result of such an overload causes the same symptoms, monitor-wise, as the ROMDOS failure. I noticed that the phenomenon didn't appear when loading other files from the disc. What to do about it?

I decided to save the file, which I had managed to load into PROTEXT, and try again. I put a fresh disc in the drive and saved the file. I then tried to load it again and it loaded without a problem. After fooling around with both discs for a while, observing the effects on the VDU I decided that the problem was in the FORTH.DOC file that had been copied with NSWP to the PD disc - and nowhere else.

Just what the problem was I know not, but it had been shed between the loading and re-saving from PROTEXT. I concluded that copying the file with NSWP, PIP or FILECOPY had taken the fault along with the file, but saving from PROTEXT had left it behind.

I returned to my original PD disc and deleted the offending file which I then saved to it again from PROTEXT. On re-assembling my ROMDOS and all in the ROMbox I again tried to load the new FORTH.DOC file with no sign of the previous problem.

It is clear that the problem had nothing to do with CP/M 2.2 as I had thought at first - unless it was a combination of factors between it and the file.

I wonder if this problem has been seen on any other copy of PD Disc 1 or am I the only victim? Ta for now and God Bless.

Al 'The L Plate' Cooper  
'still learning the hard way'  
County Antrim

<<Well, well, well. What a sorry tale of woe. A deceased ROMDOS, a 'tired' monitor and an odd file. It's better than Dallas.

I have given your letters a great deal of thought. I cannot conceive of any program which could cause actual physical damage to a ROM, unless you were to bang the two together with a small sledge hammer. The idea of a ROM is that it is PERMANENT MEMORY. The only ways I know to alter the contents of a ROM are to apply a high-ish voltage across it and to use an Ultra-violet eraser which will wipe it clean. Other than this, ROMs can be

expected to retain their contents for a very long time, (we are talking decades here.) I feel it is much more likely that one of the following causes is responsible for your crash:

1. A knock or hard tap from something.
2. A faulty connection between the board and the computer.
3. A mains surge at the wrong time, (while accessing the ROM, perhaps - but unlikely)
4. Strong sunlight or other source of UV light penetrating the window on the ROM chip.

A thought occurs to me, looking at number 3 and thinking about what you said regarding your poor overloaded monitor. If there is an intermittent fault on your monitor which causes periodic fluctuations in voltage it could be that a short has occurred in the power supply to the board. As ROMDOS was first in line it would have borne the brunt of the short and could have 'blown'.

There is also a possibility that the ROM chip used for ROMDOS is a cheapo import and therefore liable to go down fairly easily. It's funny how these little accidents spark off a line of reasoning isn't it, (Okay, it's not), but I've also recently had a spate of non-working monitors and sudden and inexplicable crashes, (usually in PROTEXT). I've been putting this down to a number of un-related excuses, (Using Probase+ without reading the manual, a faulty switch on my large format disc drive, bad connections between my various hang-outs, (two Microgenic ROMboards, Dk't Speech Synth and 256K Memory, KDS 8-bit port), which all drain power, (more or less), and all put a strain on the edge connectors, (feeble creatures.) I have also had a problem in the past due to the monitor DIN connection. The green pin had come adrift inside the computer socket and this caused no end of problems.

ROMDOS and CP/M. You are mistook here, Al. ROMDOS does not exist as far as either CP/M 3.1 (plus) or CP/M 2.2 are concerned. They work with the disc version of the program called RAMDOS. If, like me, you've patched your CP/M+ work disc, following the instructions in the manual, then your CP/M work disc patches the Disc Parameter Block

to work with your large drive. The ROM isn't accessed. Some of my problems are caused by faulty connections. My monitor sometimes flickers quite alarmingly and produces funny flashes. I have had 'lock-ups' freezing of the screen, odd colour changes and just blank. While these are very worrying, none of them have lasted permanently and are usually solved by re-checking the connectors. Keep trying this. Has anyone else had a problem of this magnitude? I have sent your FORTH121 disc to Clive to sort out - He's the Guru. Please let us know. -Mike>>

<<Hi Al, Clive here, as far as I am aware, the only ways you can damage ROMs are with static, electricity, UV light and breaking the legs off.

ROMs are after all, Read Only Memory and you should only be able to read the ROM contents and not be able to write to a ROM (without special ROM blowing equipment.)

Loading a document file into Protect cannot damage a ROM, alter the screen colours or cause screen flicker, it cannot happen - what you are seeing is the effect caused by another problem somewhere within the system.

You *must* get your computer checked ASAP (if not sooner) it sounds as if you have a faulty connection, that being the case, it'll only get worse.

Programs saved by Forth will happily operate under CP/M 3.1 (plus), however you must adapt the screen handling control codes. Basic and CP/M 2.2 use CHR\$(12) to clear the screen, whilst CP/M 3.1 uses ESC E ESC H.

The MENU program is 14k long because it sits on top of the Forth program and both Forth and the new program are saved to disc as the new file. This is a standard practice. The alternative practice is to load the language, then load and run a program.

When saving files to your Forth work disc you should not exceed a total of 40k worth of files. If you do you will corrupt screen 50 onwards or one of the files you save to disc. More about this in next months Forth article. Have a good day. -Clive.>>



#### A MAN OF MANY TALENTS

Age - Experience - General Dog's Body  
- Model Collector - Computer Addict -  
Over-worked - Under-paid.

Choose any four from these and you've got a fairly good idea of what your resident Typer-upper is like. I have spent many years dealing in die-cast toys, (Old Dinky, Corgi and Yester-years for the uninitiated), and have had contacts in every continent.

However one of the blessings and the bugbears of life has, of necessity, been the telephone. How would you like to have to answer the telephone at all hours of the day and night? When you are woken up at 2, 3, 4 and 5 am it's no joke. (*Tis' if you're ringing.*)

Now comes the CRUNCH. Everyone, after a hard days work, likes to sit down for an hour or so and unwind and enjoy a meal. Yes? <<Yes>> So all you lot out there just think of those who are offering their services on the Help-line, editing the magazine or doing anything to bring you the best magazine there is. Remember the straw that broke the camel's back? Some of us are too conscientious for our own good. <<They are>>

Could I make a strong suggestion that when you want to telephone anyone that you wait until say 8pm when folks have been able to enjoy a meal and a re-charging of their batteries before telephoning. Please don't throw too many brickbats, <<Now would we?>>

- 1) I'm too old to shrug them off.
- 2) It's not on, and
- 3) I've a very good reason for asking.

Now for some good news. I have taken over as Discounts manager and I am in the process of writing to suppliers of hardware and software to get you all some discounts off your purchases.

Wish me luck and remember try NOT to ring before 8pm unless, of course, it is very urgent!

Stamper Metcalfe  
Sheffield

<<Hello Stamper, old friend. A hod is as good as a sink to a blind Norse and all that. I, too, occasionally get woken up at some unconscionable hour of the morning, (*night?*), by some thoughtless person who forgets that, while it may, indeed, be 8.00pm in the evening where he is it is actually

2.00am in England's dark and chilly land, (if you think it's green and pleasant at that time of the night, morning?), then try getting out of a warm cosy bed to answer the 'phone to someone you don't know from Adam, asking how wonderful it is, (*is it?*), to be a Help-line member and do you know, (off-hand), if there's a shop selling Amigas in Tonga?).

Some of us, (but not actually me), have wives and/or children who also get woken up by late night and early morning 'phone calls. Please think carefully about what time you call, remembering that you depend on the Help-liners' good will to answer your queries and it's not usually a good idea to ring about trivial things at some ungodly hour. Poor Uncle Clive, I know, is one of our major sources of help, but there are other help-liners out there as well. Let us share the burden, and please don't drop it all on one man - not even Uncle C. -Mike>>

#### DEAR DAD

Dear Clive, I know it is a bit in advance but, every fathers day I have the dilemma of what to get my dad, so if it's possible could print a small, big or even a medium :

Dear Dad,

HAPPY FATHERS DAY!!

from Angela!

I know you'll try your best and if it's possible it would be lovely surprise and a wonderful present!

Thanks Clive , from Angela

<<How could I resist such a charming request, easily, *just ask my wife.* I suppose it's too late to say no. Yes, it is. Provided requests are clean (No valentines for Saffron) I don't see it as a problem.

So Arthur Cook, Tape Librarian and long-standing club member, stand up and take a bow, this is for you. When your friends ask you what you got, you can truthfully say, my daughter got me a lovely gift box containing a very nice surprise. -Clive.>>

IS THIS GUY NUTS?

Dear WACCI world,

"Aye, Aye captain- turning 30 degrees to port."

"Hold this course!"

"We can't sir she's breaking up- hold on!"

"AAGGGHHH!"

A huge blue light- followed by howls of agony, spells the end of Captain Blue Bottom and his merry band of scottish dancers... That's better, its the sun you know...

I've managed to read, (well it is small print), a few letters about adding more than two drives and in fact it's possible without using multi-way switches, (although you can buy the data switches from Maplin.)

The idea is to connect up all the relevant data lines to a 3 state multiplexer and connect that up to the printer or expansion port. Then, with a small program, you can control which disc drive is connected to the CPC.

If anybody can write and tell me what data lines need to be connected to get the drive to work then I'll send in a program and the relevant hardware 'add-on' for WACCI readers.

Talking of ports 'n stuff, does anybody know what port controls what part of the expansion port? ie -

Port	output	input
&F8XX	Expansion bus	Expansion bus
&F9XX	Expansion bus	Expansion bus
&FAXX	Expansion bus	Expansion bus
&FBXX	Expansion bus	Expansion bus

What port goes to the Control bus, data bus, high byte address bus and low byte address bus? I presume that's how Amstrad did it- but who knows? I'm almost 100 percent sure that &F8XX is A0..A7 so &F9XX would be A8..A15. Maybe I should just use machine code!!

Still it's fun isn't it? Thanks must go to the grreat king of WACCI people, (Clive Bellaby), for sending me a replacement disc within 3 days, cheers! Hic.

Oh, and if the great king is reading this would you like a series on the innards of the CPC? It would make a change since magazines always cover the software side of computers rather than the hardware..... Err, talking of jam doughnuts - when are they going to make them square? I mean it's all

right for these people with heads who can eat them with no problem, but when us people lacking one of these 'add-ons' try to eat round ones it's - well impossible. It's an outrage and a campaign should be started right now.

P.S. Can you ask the great Ed print my name and address so anybody in the know, (ho ho, I've heard that before - Jim), can write? Thank-you.

Colin Taylor  
1 Bodiam Close, Enfield  
Middlesex EN1 3HZ

<<My God, we've got a right nutter here. Hello Colin. Are you alright? Shall I send for the little men in white coats now or will tomorrow be soon enough. There's no info that I can find in my firmware manual to say which port addresses address which lines on the expansion bus all I can figure out is that certain ports should be avoided whilst others, (the ones you mention), are for expansion. Any technical bods out there want to help? Please write in.

A series would be most welcome, Colin. You write it, we'll print it.

How will making doughnuts square help headless beings to ingest them? Surely your other sphincter would be able to cope with anything. -Mike.>>

IMPRESSED, THANKFUL AND HOPEFUL

Dear Mike, Thank you for the help you and Tony Walker gave over the phone on 3rd and 4th April regarding 3rd drives for my CPC 6128.

I want to tell you of some excellent service that I have received from Arnor. About a month ago I was having trouble with my Protex ROM which I have had for six years. I contacted Arnor on a Wednesday and they asked me to return it to them for checking. Three days later I received a replacement ROM free of charge and it was the latest issue of Protex.

Does anybody know of any reliable places where I can buy ROMdos, a 3rd drive switch and MAXIdos please? When I bought the May issue of Amstrad Computer User there were no firms advertising them. I could get Amstrad Action but that has a cover tape and a high price, (which is no use when I have a CPC 6128.)

I am impressed with the quality of the WACCI CP/M PD software. The DC-CPC

Spreadsheet is just about the noisiest spreadsheet I have come across. Just about every other key I press except the cursor keys gives a beep. However upon reading the instructions for it I had to make a work disc which I was glad of because it gave me an idea of how to auto start my DR Logo disc.

Does the Mikedit Word-processor have any means of loading in a text file, I can find the save file option on the menus but no load options. I have even tried entering a text file name in the command tail at the A> prompt when loading Mikedit but that makes no difference except for loading the word-processor.

Please could anyone tell me if the "D.W. Software" PD Library is still in existence? I understand there is a good graphical windows front end available. It was mentioned in Amstrad Action about this time last year.

Is it possible to import Masterfile 3 data files into Mastercalc 128? Both programs save their data files as a .BIN file. My telephone number for contact is Lancaster (0524) 823977

David Evans  
Lancaster

<<Hello there, David. It's always a pleasure to be of service where possible. That's what we're here for.

Such a lot of questions. Are you sitting comfortably? Then I'll begin. As far as I know DW software is still in existence. He got a mention in AA in March this year. Why not write to:

David Wild.  
62, Lascelles Avenue,  
Withernsea,  
North Humberside. HU19 2EB

I'm sure he will sell you a copy of his fantastic Desk top utility, and probably - if you ask nicely - a catalogue of his available software.

I'm also impressed with the quality of our software, but I don't know enough about the CP/M stuff to be able to spout. Any offers Clive?

<<Hi there David, press Ctrl & K (to action the block menu), press R (read in file), enter the filename, press return, job done. -Clive.>>

Arnor has always struck me as both an honest and reliable company. Their PROTEXT suite of software has never let me down. I have tried many other



alternatives apart from Brunword. I am perfectly happy with it. I am not at all surprised that they have given you such rapid service and I join you in congratulating and thanking them for their support. This is what dealing with customers is all about.

Finally, David. I don't know of a reliable supplier of the 3rd drive switch. Again I appeal to our members. If anyone there can help out please do so - at once. "Ve haff vayz off making you help". -Mike.>>

#### WHAT'S IN A NAME?

Dear Mike, What a nice name that is. <<I think so>> I agree with you, Mick is not the nicest form of it. I tend to use Mike, unless I'm being official or using my surname, in which case I use the proper Michael.

The magazine is looking great. You are doing a good job with Fair Comment, <<Aw, I'm blushing>>, and I'd like to thank everybody involved in getting things going again.

This brings me on to the subject of a club secretary, (I think.) I've noticed that the post is one of the few still left unfilled, and so the task is presumably being performed by the marvellous Clive. <<Yup>> Now, I'd like to help with some aspect of WACCI, and as this is one of the few vacancies left, I am considering it.

However, like Reg Tabb, I'm not sure if I'm up to it. Could you perhaps furnish me with details of what exactly is involved. "The day to day problems of running WACCI" is, after

all, rather vague. Next, there's been a small problem with subscriptions. I recently renewed my subscription and sure enough, after a few days, issue 53 came through the door, bearing an address label which read "your last WACCI: 64". All fine and dandy until two days after when another issue 53 arrived bearing the remark "Your last WACCI will be ISSUE 52".

What's happening? More to the point, what am I to do with the surplus 53? Do you want it back, or should I give it to a non-WACCI member and call it advertising? <<Uncle Clive says yes>>

And now for something totally different. My printer is a STAR LC-10, (black and white version, not the fancy colour model.) I have two questions about it.

Firstly, the manual states that the codes 27 10 should produce a reverse line feed if the printer is not in friction feed mode. I've defined control character "r" on my Protext printer driver to be 27 10, but it doesn't seem to do anything, whether in single sheet or fan fold paper mode. Does anybody out there know what's going wrong? <<I do.>>

Secondly, is there anyone out there who would be willing to write me a letter explaining how the graphics commands work on this thing, 'cause I can't make head nor tail of the manual. If someone wants to write a slow, easy to follow BASIC, (yeuck), program to do a screen dump, or even just a partial screen dump, (enough so's I can see what it's doing), and send it to me so I can try and

understand it, I'd be most grateful. And next, (gosh, I'm going on a bit, aren't I?), <<Yup>>, on the subject of letters, which I think we were, WACCI is a club. This is good, very good, etc, but I don't know anybody.

If you'd like to print my full address and ask people to write to me, I'll do my very best to write back and get to know a few other WACCI-ites.

I can converse freely on computers, bicycles, music, (especially guitars), Christianity and I'm willing to learn about most other things.

This next question is probably a job for ABC or those who poke around in the library, but is there a language, either in home grown or in PD, which lets you use graphics and then compile the program into machine code for you?

And finally, (are you not pleased to hear/read those words?), <<I certainly am>>, three silly questions that have been bugging me:

- 1) What does "WACCI" mean.
- 2) What does/did OMG stand for?
- 3) What does FSW stand for?

Right, this is the end. I'm afraid, <<I'm not>>, I've gone on rather a lot, so please feel free to edit this and condense it. <<Now would I?>>

Michael Scurfield  
Hawick

<<Well, Hello. And it's a braw bricht moonlicht nicht the nicht. I prefer Mike because Mick is a dog's name and Michael was the name my parents used when I was in trouble. Mike is also a

HAPPY BIRTHDAY RAY  
BEST WISHES  
FROM  
MARTIN

much friendly version of the moniker and friendliness is what we're about here folks. *Real friendly, like.*

To business, as they say. I don't know what the club secretary duties are, apart from write begging letters, mail things, have a pink tongue etc. so I'll pass the buck to our pink and wrinkly editor, Uncle Clive.

And after that now for something completely different. Printers and codes. I have a Star LC24-200 COLOUR printer which is similar in many respects to the other members of the Star stable, (and it prints in pink - well, red, really.)

If you think about it, (or even if you don't), when your printer finishes a line it then prints a CHR\$(13), (carriage return) to go to the start of the line and a CHR\$(10), (line feed), to move onto the next line. It was this which used to cause the old line feed problems with some printers.

If you tell the printer to print a single reverse line feed it will do so, but then it will follow through with a normal line feed which cancels it out. Try these three examples to see what I mean:

Example 1

```
10 ?#8, "This is line 1"
20 FOR i = 0 to 15:
   ?#8,CHR$(27);CHR$(10);i
30 NEXT i
```

Example 2

```
10 ?#8, "This is line 1"
20 FOR i = 0 to 15:
   ?#8,CHR$(27);CHR$(10):?#8,i;
30 NEXT i
```

Example 3

```
10 ?#8, "This is line 1"
20 FOR i = 0 to 15:
   ?#8,CHR$(27);CHR$(10):?#8,i
30 NEXT i
```

What you will see in the first example is the sentence in line 10 with two messy blocks where 'hi' should be.

The second example produces the two blocks *under* the 'h' and 'i'. The third example produces a list of 16 numbers down the left of the page.

Without the reverse <LF> you would expect the first example to be a list

of numbers under each other. The second should be a list of numbers on the same line and the third should be what it appears to be.

Look at where the semicolons are. In example 1 the paper is not moved up to the next line so the numbers are printed on top of each other.

In Example 2 the paper is moved down one line after the sentence then a reverse <LF> is performed but because there is no semicolon the reverse <LF> is followed by a forward <LF> which puts the numbers on a fresh line. From then on, because there is a semicolon after the '?#8,i' the <LF> and reverse <LF> cancel each other out.

In Example 3 the reverse <LF>s and forward <LF>s do not cancel out because <LF>s are inserted after *every* print statement - think about it.

I suggest, in my humble way, that one of our boffins out there could write an article, (*in a spare moment*), to show all of us how the graphics commands work.

Usually graphics commands require mountains of data, (the graphic image), in byte form, supplied in a form the printer can understand. The simplest graphics command I am aware of is:

```
<ESC> "K" n1 n2 m1 m2 m3...
```

27 75 is the usual code for normal density 8-bit graphics mode. This is followed by 2 bytes of data which tells the printer how many bytes of data are going to follow to make one line of the graphics image, (it's worth mentioning that each 'line' of the printed image is made up of eight lines of dots - that's why it's called 8-bit graphics).

These two bytes are put in in reverse order like addresses in machine code i.e. low byte is n1 the high byte is n2. So, if your picture is 640 dots wide, (a screen width), then n1 is 128 and n2 is 2. It helps to work it out using hex.

```
640 is &280
low byte => &80 => 128
High byte => &2 => 2
```

Then comes the actual graphics data. Each byte of the data represents eight *vertical* dots. You have to send the <ESC> "K" for every line of the

picture. There would also need to be a scaling factor as well otherwise the picture would be very small in comparison to the actual size of the screen image. As you can see it gets very complicated. Do I need to go on?

Your silly questions are not really silly. I used to wonder as well, (*but then I wondered back again.*)

- 1) WACCI is Worldwide Amstrad Computer Club Inc. (*That's my guess.*)
- 2) OMG was Old Misery Guts.
- 3) FSW is Free Software Library, (*refers to the PD software.*)

I've had enough now. Anybody want to write/phone/ communicate? Do it now. Have I missed anything? -Mike.>>

FOR SALE

Dear Clive, Would you please include the following for sale in the next edition of WACCI. Many thanks,

Dave Mallion  
Wirral

FOR SALE

AMSTRAD 6128 COMPUTER

Peripherals Hardware Software

FD 1 Disc Drive MP2 Modulator  
Rombo Vidi Digitiser + Pic/Disc's  
Datel 256K Memory Expansion  
Mirage Imager Disc Copier  
Disc case's and Disc box's  
60+ Discs of Utilities/Games/Blank  
Utilities/Games on tape  
Manuals Firmware guide  
Books Leads

FOR DETAILS RING 051 678 2709

IRELAND CALLING

Dear Mike, (*I got your name right*), I write once more to this great mag of yours, (*well, The Managements.*)

I have just these few things to say. Last month I forgot to ask you to print my name and address, I said that I wanted PD from anywhere, especially from abroad:- France, Germany and even Spain. I would also like pen-pals from those countries as well. If any other members are interested why not write to me. All letters will be answered.

One last thing as you didn't print my address last month I suppose I will have to ask if any members out there have addresses of any PD libraries in Europe. Now for my suggestions for making the magazine *better*:

- 1) More hardware stuff
- 2) More Z80 Machine code
- 3) A kind of Written (sic) help-line
- 4) A pen-pal section

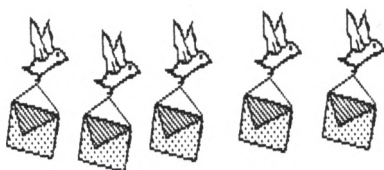
Well that's about it so goodbye for now, (I'll be back next month), and keep up the good work and "don't forget to print my full address".

Derek Hyland  
Lissanly, Cloyne  
Middleton, County Cork, Ireland

<<Hi Derek. How could I refuse to print your full address after that warning? All those of you out there who were just bursting at the seams to write to Derek can now do so. Your suggestions have been duly noted.

I particularly like the help-line by mail idea. It might put a stop to some of the very late and rather ambiguous telephone calls I've found on my answering machine lately.

If Peter Alan is reading this:- Thanks for the call, but I haven't the faintest idea why you rang and my machine managed to 'fudge' your 'phone number so if you do still want to talk to me could you try again? That goes for anyone else as well. -Mike.>>



#### A MASTER OF THE PRINTED WORD

Dear Mike, I have read, with interest, Reg Tabb's letter about PRINTMASTER. I agree the documentation is not ideal and I've sent him extra instructions.

The following may be useful to TASWORD users: The documentation supplied with TASWORD states that it is not possible to print two column text. I have, however, discovered a way to do this.

Choose the margins for your first column, (e.g. 1 and 38), and make sure that right justification is ON. When column 1 is finished reset the margins to, say, 43 and 80 and continue typing in the document. When you have

finished re-form the margins to cover both columns, (i.e. 1 and 80) turn the justification OFF and then save in the normal way. All that is now needed is to print the document out. I hope this will be of some use to the members.

Basil Dennis  
Northampton

<<Hello Basil, thanks for the tips for both of these word processors. Your letters look very effectively printed out in PRINTMASTER. I have sent your instructions to Reg and I'm sure they will prove helpful.

I tried the above some time ago, (when I used to use TASWORD), but I never got it to work properly. I always found text outside the margins was moved down a line. Perhaps this was due to being in insert mode rather than overwrite. It's too late for me to find out now as I no longer have TASWORD. Does anyone out there know? Tell us all about it. -Mike.>>

#### GOING UPWARDS

Dear Clive, I have sold my 6128 and upgraded to a PC. Can you advertise my last few remaining CPC bits please.

Roy Henshall  
Taunton

#### FOR SALE - FOR SALE - FOR SALE

Pace 232 serial interface - £ 20  
Zapp, Z80 programming package,  
Hewson, tape - £ 3  
GT65 Green screen monitor,  
Note: delivery extra - £ 20  
Amstrad advanced user guide - £ 4  
CPC 464 whole memory guide - £ 3  
Digital research CP/M manual - £ 6  
The Amstrad CP/M  
Powys-Libbe & Andrew Clarke - £ 5  
The working Amstrad - £ 3  
Amstrad - Advanced programming  
techniques - £ 3  
Understanding and expanding  
Your Amstrad 464/664/6158 - £ 4  
Using your Amstrad CPC  
disc drives - £ 1

Roy Henshall  
St Ann's, Staplehay  
Taunton, Somerset, TA3 7HB

<<No sooner said than done. -Clive.>>

#### WANTED - WANTED - WANTED

Plastic Disc Cases

Reasonable price paid

Contact: Stamper Metcalfe  
Sheffield: 0742 461743

#### JOB SPOT - JOB SPOT - JOB SPOT

Chris Smith, he who runs the PD library, needs somebody local to help him cope with the extra work loads - now that we have 30 discs in the library.

Phone Chris on 0252 24721

The Homegrown Library needs a willing volunteer to run it. No pay but good working conditions (provided you're happy where you live.) Contact the editor (that's me) on 0602 725108.

For more details, Contact:  
Clive Bellaby on 0602 725108

#### QUESTIONS, QUESTIONS

Dear Clive, I hope you are well. I have a few questions to ask you. Are the following available for the 464: Promerge, Prospell and MicroDesign.

Does WACCI still have jobs that need filling? If it does I will be willing to help in any way I can.

I have enclosed an advert, can you put it in WACCI, thank you.

Mark Johnson  
Stanford-le-Hope

<<Hi Mark, Your advert was the first letter in Fair Comment, so it only seems fair, that your letter marks the end of the Fair Comment section.

Promerge, Prospell and MicroDesign will only run from disc. So you'll need to buy a disc drive and to get full value, you really need 128k of memory. It'll probably be cheaper to buy a second hand 6128 than to upgrade your old 464.

We still have jobs that need doing, I'll send you more details as things are sorted out. Best Wishes. -Clive.>>



# VERY basic BASIC

Written by  
Alan Tilling

Letters to:-

Very Basic Basic  
65 Lawrence Rd  
Altrincham  
Cheshire  
WA14 4EL

*A simile is sort of, like the other thing but not quite the same, you know, it describes it a bit better.. sort of, anyway*

Hello everyone, 'Tis I. Here we go this month with a program for writing similes. The program asks you to complete a sentence and if you get it right you are presented with the next one, but if you get it wrong you get the same question back and so on until you get it right .....or you put your foot through the screen. You know the sort of thing; "As black as" and you have to answer "night".

The heart of the program is what I call the 'games section'. This looks for the last word of the sentence and then displays the other words keeping the last word hidden.

#### TIP TOE THROUGH THE LISTING

The program is shown as the listing of fig. 1. The initialisation routine at line No 1000 is similar to ones I have written in the past. The forty column mode and a light blue screen with black writing are selected.

If you want other colours or if you use a green screen and need to change the contrast, then change the colours here. Remember, the INK in pen 0 is colour number 14 (light blue). Pen 0 is the pen used to give the paper its colour. If you want a different colour here look up the colour in the book and enter that number instead.

Remember, if you make the ink and paper colours the same then you will not be able to see any thing.

#### A TOC-H LAMP

The DIM statement at 1030 is a crafty way of using the same variable name over and over again. What it does is to make the DIMension of the variable

(in this case) sim\$ twelve pigeon holes long. The way each pigeon hole is addressed is with its post code, ie sim\$(x) where x, in this program anyway, is a number from 1 to 12.

If you need the information from the 6th one along would be referred to as sim\$(6). Please don't forget that the computer counts from zero so 0 to 11 would be more correct but its not too important.

#### GOING BACK

The RETURN at 1040 takes Basic back from whence it came. Somewhere in the computer, there is a counter that notes which line number Basic is on and when a GOSUB is encountered it stashes away its present location and when the following RETURN is met Basic looks up this position and goes to the line following.

#### DO YOU REMEMBER....

Have a look at lines 50 to 500. Do they look familiar? They do? That's because I used the phone directory program from the 6128 manual as an outline source program.

Lines 60 to 100 print the menu on the screen which had been cleared by line 50. 110 prints an invitation to enter your selection and INPUTS your response as a variable called ms (menu selection).

#### ON..GOSUB?

In line 120 is met a very useful command ON {variable name} GOSUB This allows the variable (ms in our case) to be differentiated by simply a number and if the number of routines

Fig 1 : THE SIMILE GAME

By Alan Tilling

```
10 REM SIMILE game
20 REM by ALAN TILLING
30 REM for WACCI issue No. 54
40 GOSUB 1000
50 CLS
60 PRINT "1) Enter Similes"
70 PRINT "2) List Similes"
80 PRINT "3) Save input"
90 PRINT "4) Load Similes from disc"
100 PRINT "5) Play game"
110 INPUT "Enter menu selection ",ms
120 ON ms GOSUB 140,230,300,410,510
130 GOTO 60
140 REM *** Enter Similes Routine ***
150 FOR x=1 TO 12
160 CLS
170 PRINT "press [RTN] to end input"
180 INPUT"enter simile ",sim$(x)
190 IF sim$(x)="" THEN x=12
200 NEXT x
210 PRINT "No more input"
220 RETURN
230 REM ***** List similes *****
240 FOR x=1 TO 12
250 IF sim$(x)="" THEN x=12
260 PRINT sim$(x)
270 NEXT x
280 PRINT:PRINT"Similes finished"
290 RETURN
300 REM **** Save input routine ****
310 CLS
320 PRINT"Please enter name of ";
322 PRINT"file to be saved ";
324 INPUT filename$
```

*Continued on the next page.*

is counted it will be found that it is the same as the quantity of menu options (*surprise, surprise*).

It will also be found that the line numbers after the ON ... GOSUB are the start lines of each routine.

So, if the second menu option is required then line 120 sends Basic off to the second line number. If a number greater than the quantity of options is inputted then line 130 causes the menu to be restarted.

#### CHOOSE YOUR MENU

The first menu option allows similes to be entered from the keyboard. Line 150 is the first "active" line of the sub-routine. Don't forget line 140 is only for the use of we humans, Basic totally ignores REMarks (*and every thing following on that line*).

For x=1 to 12, this 12 is the same 12 as is used in the DIM statement earlier. Line numbers 160, 170 and 180 are straight forward but have a look at 190 which says, in effect, if sim\$(whatever) is empty then x=12 and line 200 says NEXT x and so sends control back to line 150.

Now line 150 realises that x is at the target of 12 (for x=1 to 12) and so sends Basic and so sends Basic off to the line after its associated NEXT ie. line 210. Study the action of 190. This is the correct way to exit a FOR TO NEXT loop.

The method shown in the 6128 manual is not good practice. If too many loops are exited too many times like that, Basic will turn up its toes in confusion and the program will end with a curt error message.

#### JUST ROUTINE

The 'list similes' sub-routine does just that, it lists similes, in a similar manner to the above.

The "save input routine" does what it says and saves all the similes you

have painstakingly typed in, to disc (or tape). It does this by asking you for a filename. This is necessary to appease Amsdos, all files must have a name made up of not more than eight characters, remember?

#### SAVING DATA TO DISC

The data to be outputted (saved) is moved, quite automatically by the computer, into an output file. So the first thing is to OPEN up the OUTPUT file giving it the name that was entered earlier.

We know there are 12 items to be saved so lines 350, 360 and 370 cause sim\$(1) to be written to the output stream #9 (the disc channel).

After this is carried out, the NEXT sends Basic back to the FOR ... TO line and x is incremented to 2 and then sim\$(2) is output and so it goes until all twelve items have been actioned and it becomes necessary to CLOSE the OUTPUT file.

To round the routine off, 390 informs you that the file has indeed been saved, and the return at 400 lands you back at the menu.

The load from disc routine is exactly the same only all the OUTs are now INs for obvious reasons.

One thing that needs to be stated is the stream director, that's the thing like a noughts and crosses board sometimes gets printed like a pound (£) sign. This is because the £ sign is not in the ASCII sequence and some printers get them confused so if you see a £ and you think there ought to be a hash sign then it probably should (*or is it ought?*)

#### OUTRO

And that my friends is where we'll have to leave it for this month. Next month I'll finish this explanation and then suggest some improvements, so till next time, by for now. Alan.

## THE SIMILE GAME

By Alan Tilling

*Continued from the previous page.*

```
330 PRINT:PRINT"Saving "filename$
340 OPENOUT filename$
350 FOR x=1 TO 12
360 WRITE#9,sim$(x)
370 NEXT x
380 CLOSEOUT
390 PRINT:PRINT filename$" saved"
400 RETURN
410 REM ** load from disc routine ***
420 CLS
430 PRINT"Please enter name of ";
432 PRINT"file to be loaded ";
434 INPUT filename$
440 OPENIN filename$
450 FOR x=1 TO 12
460 INPUT #9,sim$(x)
470 NEXT x
480 CLOSEIN
490 PRINT filename$"loaded"
500 RETURN
510 REM ***** Game section *****
520 CLS
530 FOR x=1 TO 12
540 length=LEN(sim$(x)):l=length:c=0
550 temp$=MID$(sim$(x),1,1)
552 IF temp$=CHR$(32) THEN 580
560 l=l-1:c=c+1
570 GOTO 550
580 target$=UPPER$(RIGHT$(sim$(x),c))
590 quest$=LEFT$(sim$(x),length-c)
600 PRINT quest$;
610 INPUT " ",t$
620 t$=UPPER$(t$)
630 IF t$<>target$ THEN 600
640 NEXT x
650 RETURN
1000 REM ***** Initialisation *****
1010 MODE 1
1020 INK 0,14:INK 1,0:BORDER 14
1030 DIM sim$(12)
1040 RETURN
```

## \* Adverts \* \* Adverts \* \* Adverts \* \* Adverts \* \* Adverts \*

MOON BLASTER, Loricel. Old fashioned shoot em up, on disc, £3 inc p&p.

BOBSLEIGH, on disc, £3 inc p&p.

QUADREL, Loricel, Strategy and logic game, on disc, £3 inc p&p.

CHARLIE CHAPLIN, US Gold, create your animated film, on disc, £3 inc p&p.

SMASH HITS, Exolon, Rana-Rans, Zynaps and Uridium plus, disc, £3 inc p&p.

FREDDY HARDEST, disc, £3 inc p&p.

SUPER SKWEEK, Loricel, disc, £3 inc p&p

CATCH 23, Shoot em up, disc, £3 inc p&p

CALIFORNIA GAMES, disc, £3 inc p&p

Send your order to WACCI.



# Inspiration

George Ho-Yow converts Basic commands into machine code routines.

*It was a bitter winter's evening when a scream of "Eureka!" reverberated around my small bathroom. The soap had slipped from my grasp and fallen on to a tender part of my anatomy. In a flash the idea of writing an article to show the relationship between BASIC commands and Firmware Calls (for the CPC) manifested in my mind.*

## WHAT'S IT ALL ABOUT

So dear readers, if you are one of those unlucky persons without a SOFT 968 Firmware manual, read on. I have partially attempted to resolve this problem for you by showing how a few firmware calls are used.

## SO I SAY

To those of you with BASIC programming experience but who haven't attempted writing programs in Machine Code - I hope to whet your appetite by showing you how easy it is to convert some of the BASIC commands into machine-code routines that achieve the same result.

You are no doubt aware that the main advantage of machine-coded programs over BASIC ones is speed of operation.

When BASIC runs, it interprets each line and executes the statements contained therein. Just think of the untapped power of your Amstrad waiting to be released through the use of coded programs written by you.

## CLEAR THE SCREEN

Let's begin with a routine that clears the screen. This is very easy to do in both Basic and machine code. The machine code routine (Fig 1) is just two lines of code.

It's just a simple matter of loading the 'A' register with the correct value and then calling &BB5A which prints the value to the screen. The

## BASIC to Machine Code routines

### Fig 1: CLEAR SCREEN

In BASIC, the command is: 10 CLS 'clears the screen.

In machine code the instructions are:

```
LD A,&C      ;load accumulator with the character to be printed to screen
CALL &BB5A   ;Firmware call to print the character or obey the control code
              ;(range &00 to &1F). Note that all registers are preserved.
```

There is an alternative firmware call also for printing to screen:

```
LD A,(value) ;value = 0 to &FF.
CALL &BB5D   ;which prints any char to screen, but does not obey control.
              ;codes between &00 to &1F. Note that registers AF, 8C, DE and
              ;HL are corrupted on exit from this call.
```

### Fig 2: READ KEYBOARD

Let us now take in a character from the keyboard. In BASIC the commands are:

```
20 a$=INKEY$ 'to interrogate the keyboard
30 IF a$ = "" THEN 30
```

In machine code the equivalent instructions are:

```
CALL &BB1B   ;wait for a key to be pressed.
LD (astring),A ;store the char in the accumulator in 'astring'.
```

This is wasteful, the computer is idle whilst waiting for you to press a key. Call &BB1B gives you the choice of carrying out other processing between key presses. You could use, for example:

```
back:   call &BB1B
        JP,NC test      ;where test is a label for some other routine.
        LD (astring),A ;char available.
```

When you finish with the test routine, you return to the label 'back' to check for a key press. Unfortunately machine code calls do not cater for BASIC commands of the form, INPUT "hello",a\$,n% so easily.

You will have to make up your own routine using 'CALL &BB1B' and other

first 32 ascii codes (numbers 0 to 31 inclusive) are control codes and ascii code 12 (C in hex) clears the screen.

#### READ THE KEYBOARD

Machine code routines that get input from the keyboard are quite easy to do. The simplest variation is only one line of machine code, CALL &BB18 which waits for a key to be pressed and then stores the ascii code of the key pressed in the accumulator.

From here, you will need to build up routines to complete other tasks, such as mimicking the INPUT command. This involves setting up a loop to test the value entered and either storing the entry if it's not Return or exiting from the loop when the Return key (Ascii code 13) has been pressed.

There are many other variations that'll need coding, some of which may prove to be difficult to achieve, such as copying Basics,

```
10 INPUT "Hello",a$,b$,c
```

Command. The best advice here, is to split the command up into small easily codable portions (see Fig 2.)

#### CHANGE OF MODE

Setting the screen mode is a simple task to achieve using machine code. It is only a question of loading the 'A' register with the required mode and then calling &BCOE.

#### ALL TOGETHER NOW

Finally, a short routine that combines all of the commands covered in this month 'Inspiration'.

It does not do a lot, it clears the screen, display "Press A Key" and then changes the screen to mode 2. However you should find it instructive, if not useful 'ish.

#### BYE FOR NOW.....

Well that's about all for now. Please forgive my blatant tongue in cheek introduction. The truth is that I did have a bath in Winter, (*several as a matter of fact*) but not the rest. Well you know what I mean. If you need any help at all don't hesitate in getting in touch preferably by writing to me enclosing an SSAE, or if you have comms you can leave me a message on WACCI, Preston Red Rose, The Dock or Infotel Ros BBSs. Bye and have fun.

## BASIC to Machine Code routines

instructions to assemble a string or compose a number. The latter, floating point number calculation is down right hard. This is where using a mixture of BASIC and machine helps, as hinted in my previous article on the CALL command. Use BASIC to do the hard work in taking in integers and use a common interger variable @int% for example, to be accessed from either BASIC or machine code, as necessary.

### Fig 3: SET MODE

The Basic command MODE is often used, and this is easy one to implement.

In BASIC: 40 MODE 2 'set screen to mode 2

In machine code the instructions are:

```
LD A,2          ;the A register is set to the required mode (2 in this case.)
CALL &BCOE      ;set screen to mode 2. Note: The AF, BC, DE and HL registers
                ;are corrupted.
```

### Fig 4: The complete (if short) program

```
10 REM A BASIC Program      :REM   A Machine-code Source equivalent.
15 '-----
20 CLS                      :'    LD A,&C 'clear screen char.
30 '                        :'    CALL &BB5A 'write char to screen.
40 'INPUT "Press a key",A$  :'    LD,TEXT 'point to start of text.
50 '                        :'    LD A,(HL) 'get the char pointed at.
60 '                        :'LOOP; CALL &BB5A 'write char to screen.
70 '                        :'    INC HL 'point to next char.
80 '                        :'    LD A,(HL) 'fetch it.
90 '                        :'    CP &FF 'test for string terminator.
100 '                       :'    JP NZ,LOOP 'if more string to write up.
110 '                       :'    CALL &BB18 'wait for a key press.
120 '                       :'    LD (A$),A 'store key ASCII value in A$.
130 'MODE 2                 :'    LD A,2 ' put mode value in A-Reg.
140 '                       :'    CALL &BCOE 'call set mode = 2.
150 '                       :'    RET 'to BASIC.
```

Notes: 1. The code can be loaded anywhere in memory.

2. You can load the code into memory with a simple Basic loader.

### Fig 5. The same program, for those without a compiler

```
10 MEMORY &3FFF : ad=&4000 : MODE 1 : PRINT"Loading, Please wait." : READ a$
20 WHILE a$<>"end" : x=VAL("&"+(a$)) : POKE ad,x : READ a$ : ad=ad+1 : WEND
30 CALL &4000 : PRINT"End of Noddy Prog. Mode 1 to mode 2." : END
40 DATA 3e,0c,CD,5A,BB      :'M/C Code - LD A,&0C      CALL &BB5A
50 DATA 21,1F,40,7E        :'          LD HL,TEXT    LD A,(HL)
60 DATA CD,5A,BB,23        :'          CALL &BB5A    INC HL
70 DATA 7E, FE,FF          :'          LD A,HL      CP &FF
80 DATA C2,09,40,CD,18,BB  :'          JP NZ,&4009    CALL &BB18
90 DATA 32,2B,40,3E,02     :'          LD (&402B),A  LD A,02
100 DATA CD,0E,BC,C9       :'          CALL &BCOE    RETURN TO BASIC
110 DATA 50,72,65,73,73,20,61,20,68,65,79,FF,end
120 'ASCII FOR "Press a key"+ &0FF
```



# FORTH

Not so much a program,  
more a way of life...

How to survive the nineties by Alan Tilling and Clive Bellaby.

Clive and Alan take a forthright journey into Forth

*There was a tree in a large forest and it fell down. There was nobody around to hear the tree as it fell. Did the tree make a noise? Did it fall due to acid rain pollution? These and many other questions will not be answered by Britain's answer to the Yeti.*

HERE WE GO .....

Last month we designed a routine that changed the contents of a Forth screen and then saved the screen to disc. We are going to build on this work and add some neat finishing touches to the routine. Last month's program (program four) displayed the first line of screen 70 on the VDU. It looked like:

## Program Four

```
: TEST3
  70 SCR !
  0 LINE C/L TYPE CR ;
```

We'll remind ourselves of what the second line (70 SCR !) does. It stores the value 70 in the variable SCR.

WHERE NEXT?

We'd like to change this program to display the first line of any selected screen on the VDU. To do this we need a more detailed understanding of what this line (70 SCR !) does.

The 70 stores the value 70 on the data stack. SCR stores the address of the variable SCR on the data stack and the '!' stores the value 70 in the specified address.

If we removed the 70 from this line one of two things could happen. If the data stack was empty, processing would halt with an error message (or garbage would be stored in SCR.) Alternatively if the stack contained a value, then this value would be stored in SCR. Now that we know what's happening we can

use this to our advantage. As always we'll use a number of examples to demonstrate the points raised.

PROGRAM SIX

The program displays the first line of a specified screen buffer on the VDU. The main difference (when compared with program four) is that the screen buffer number must be on the data stack before the word is used. Using Forth's standard screen notation this is written as:

```
n TEST5 ( display the first line )
          ( of screen buffer number )
          ( 'n' on the VDU )
```

So without much further ado, enter and compile program six, this adds a new word, TEST5 to Forth.

## Program Six

FORTH DEFINITIONS DECIMAL

```
: TEST5
  SCR !
  CR 0 LINE C/L TYPE CR ;
```

When the word has compiled, try out the following variations:

```
70 TEST5 [cr]
71 TEST5 [cr]
```

and the first lines of screen buffer numbers 70 and 71 are displayed on the VDU. You can try entering:

```
TEST5 [cr]
```

This will (*probably*) generate an error message and it may (*or may not*) cause Forth to crash. It depends upon what was on the data stack at the time the word was run. Forth provides a variety

of words to test both the contents of the data stack and to compare values that are on the data stack. We'll use some of these to error trap (*and idiot proof*) our program.

## MORE NEW WORDS

Let's move on and describe some of the new words we will be using.

DEPTH (DEPTH n)  
Counts the number of values on the stack and leaves the total on the top of the data stack.

= (n1 n2 = flag)  
Remove the top two values from the data stack. If they are equal a true flag (ascii code 1) is placed on the stack, otherwise a false flag (ascii code 0) is placed on the stack.

> (n1 n2 > flag)  
Remove the top two values from the data stack. If n1 is more than n2, a true flag is left on the stack, if not, a false flag is left on the data stack.

RANGE? (n1 n2 n3 RANGE? flag)  
Remove the three top values from the data stack. If n2 is more than n1 and n2 is less than n3 a true flag is placed on the stack, if not then a false flag is placed on the stack.

IF .. ELSE .. ENDIF  
Conditional command. If there is a true flag on the data stack the commands between IF and ELSE are actioned. If there is a false flag on the data stack, then the commands between ELSE and ENDIF are actioned.

## CHECK ONE

We start our new word by checking if there's a value on the data stack, and if there is we'll store it in SCR. If the stack is empty we set the value of SCR to 0 and display an error message. It's typing time again, please enter:

```

      CHECK-ONE
: CHECK-ONE
  DEPTH 0 =
  IF
    0 SCR !
    CR ." Stack Empty " CR
  ELSE
    SCR !
  ENDIF
;
```

Compile and test the word. To test the word, enter CHECK-ONE and press [CR]. If the stack is empty, the value of SCR will be set 0 and an error message displayed. If the stack is not empty, the top value on the data stack will be removed and stored in SCR.

This word can be used whenever you need to check if the stack is empty or not as the case may be.

The DEPTH 0 = command is popular, it checks if the stack is empty. Usually it's followed by the IF . ELSE . ENDIF command. If the data stack is empty the commands between IF and ELSE are actioned. If the stack is not empty the commands between ELSE and ENDIF are actioned.

This is only the first check. If a value was stored in SCR, we must ensure that the value is acceptable to Forth. We don't want to access screen numbers below 40 because this is where the Forth program is stored. We don't want to access screen numbers above 169 (or 339 if you have a second drive attached) because these will be above the maximum allowable screen number.

## CHECK TWO

This routine confirms that the value held in SCR is a valid screen number. We start by recalling the value in SCR and checking that it's more than 0. (If the value SCR is 0, we know the stack's empty so no action is needed).

We then use the RANGE? command to confirm the value is above 39 and below 170. If it is, we do nothing, if

it's not, we display an error message and set the value of SCR to 0. We indent IF .. ENDIF commands because it make them easier to follow.

It's get typing time again, so start typing and enter the second check word which (*surprise, surprise*) is called:

```

      CHECK-TWO
: CHECK-TWO
  SCR @ 0 >
  IF
    39 SCR @ 170 RANGE?
  IF
  ELSE
    CR ." Invalid SCR number " CR
    0 SCR !
  ENDIF
  ENDIF
;
```

We thought it would be a good idea to explain some of the commands used in this word, so we did.

SCR @ 0 >

The SCR @ recalls the proposed screen buffer value held in SCR and places it on the data stack. Then 0 is placed on the stack. The > command checks if the screen buffer value is more than 0.

We do this because a SCR value of 0 indicates an error occurred. If the value in SCR is higher than 0 a true flag is left on the stack, if it's not a false flag is left on the stack.

39 SCR @ 170 RANGE?

39 is stored on the stack, followed by the value of SCR and finally 170 is placed on the stack.

The RANGE? command checks if the SCR value is higher than 39 and lower than 170. If it is, a true flag is stored on the stack, and if not, a false flag is stored on the stack. We set SCR to 0 if an error is found.

The flags are used by the IF .. ELSE .. ENDIF command to determine which set of commands should be actioned. We have now completed our test words so we can move on to...

TEST6

This is the updated, error checked, version of TEST3 (from last month.) It has an additional feature, the screen buffer number must be on the data

stack before the word is used. We will use our two new words, CHECK-ONE and CHECK-TWO as part of the definition.

```

      TEST SIX
: TEST6
  CHECK-ONE ( Stack Empty ? )
  CHECK-TWO ( Valid number ? )
  SCR @ 0 >
  IF
    CR 0 LINE C/L TYPE CR
  ENDIF
;
```

The word is run by entering, 'n' TEST6 [cr], Where 'n' is replaced with a valid screen buffer number, ie:

54 TEST6 [cr]

This displays the first line (line 0) of screen 54 on the VDU. The commands have all been used before and should need no additional explanation.

## LIST THAT SCREEN

We can adapt the word to emulate the LIST command. The new word will have one main advantage over the original word, it'll be fully error trapped.

All we do is add a DO .. LOOP to the word so that it displays all 16 lines of the screen buffer, rather than just displaying the first line. Once again it's typing time. DO..LOOPS were fully covered in issue 49 of WACCI.

```

      NEW LIST DEFINITION
: NEW-LIST
  CHECK-ONE ( Stack Empty ? )
  CHECK-TWO ( Valid number ? )
  SCR @ 0 >
  IF
    15 0 DO
      CR I LINE C/L TYPE
    LOOP
  CR
  ENDIF
;
```

BYE

Next month we'll add a screen number to NEW-LIST command and complete the sequence with a new CLEAR command. So it's good from him and bye from me.

# TREADING THE BAUDS



By **GEOFF HOLMES**

## Who's a pretty boy then?

The next best thing to falling in love is starting a new hobby. I can still remember the thrill of it all, waiting expectantly for the parcels to arrive. You really didn't expect me to tell you about my love life now, did you?

Ah! The distinctive smell of new electronic gear (Chanel 5 to nutters like me.) The warm sensuous touch of the polystyrene packing pieces as I wantonly brushed them aside to get at the modem and interface was more than I could bear.

### A LONG TIME AGO

Forgetting the good advice I learned as an apprentice radio technician, I hurriedly connected up the two pieces to my Strady and powered on. Cor blimey! Not a sausage. Not even a light. I've blown up my computer, arggh! Quickly like a striking cobra, my hand darted for the switch.

### WORRIED, NOT ME!

Beads of worried perspiration streamed to the carpet as I removed the RS232 interface unit. Gingerly I switched on and was relieved to find my Strady still played tunes. Oh what a relief. My fear was unfounded. Thank heavens.

BTW the good advice my boss gave to me was, "*Always read the manual first. Don't connect up gear and find how it works by trial and error.*" RTFM. I won't tell you what RTFM means if you don't know, it's rather rude. Well one word is.

### WELL JUST A BIT!

Back to the thrilling saga. It must be the interface that's pulling the supply down, I thought. I turned the 50-way expansion edge connector socket over and tried again. It still didn't

work so I returned the unit back to the supplier. The replacement arrived with the same problem. What to do? Was my Strady not up to driving the unit? Blow the guarantee, I can't wait for a third unit to arrive.

### OVER THE TOP

I opened up the box and 'sussed out that the ribbon cable was assembled incorrectly. After putting it right I was pleased to find that everything now worked well. I also scored the word "TOP" on the plug, as it is so easy to put the 50-way plug on to the extension socket up-side down.

Oh this is getting ridiculous, let's get back down to Earth. With a bump I arrived at chez INFOTEL somewhere in sunny Redhill, Surrey. After a warm greeting by Bob Garbutt (the sysop) and his dog, I was led upstairs to his den to see his system.

### GOING GREEN

I turned green with envy at the sight of his mini tower system comprised of a PC 386-SX with hard disc drive unit. You know, the works. He showed me the multi-processing ability of the beast as he ran demo programs while the BB was chugging away in the background. A beep alerted him that a caller was logging on and with one click of the mouse button he was on the BB screen. We watched as a Trougher headed to the files area to down-load programs.

### CHANGED PARAMETERS

As the Trougher logged off without leaving so much a 'thank you' message, Bob logged on and adjusted the XRS configuration parameters with which I was having problems.

He then downloaded the mail-package directly on to the floppy-disc in his machine, thus saving me a phone call.

He used MFU to convert the mail package to Amsdos format. By this time I had changed to an iridescent but mainly green amazon parakeet.

### MAIL MAN

XRS is a BB utility which collects messages from those areas on the BB you have chosen and then compresses them into one file, ready for you to download. You should save this as BAT1MAIL.ZIP if you want to use CRR to process the file offline.

It isn't difficult to figure out using an off-line reader saves time in not having to read messages on-line. Saves you hard cash as a consequence too. There was an excellent write-up on CRR in WACCI 48. But if you only want to read the messages, you can UNZIP BAT1MAIL.ZIP and read the BAT1MAIL.XRS file on its own without recourse to CRR.

Back to INFOTEL, Bob started the BB on an CPC6128 (then graduated to the PC clone.) He once had a second drive unit attached to the Strady as well (I've got it now.) What a difference, over 700k storage on a 3 1/2 inch disc which costs about 60p. Well worth it.

### NEW LANGUAGE

There's lots of Comms-speak for you to take in, don't worry you will get to know them all if you take up this fun hobby seriously. Words like 'disc compression' won't be mistaken to be a problem with your back-bone joints.

Unzip, crunch, uncrunch, unarc and arc will become second nature to you. Until then, don't go to any Ugly Bug Balls. Have a happy Easter, bye...

### OUTRO

BTW, if you're after a reasonably priced RS232 interface, ring Brian at BG Services (081-397-0763.)

## More nostalgia as Richard Burton wanders down memory lane and takes a look at issue six.

*Another month, another WACCI. It's March 1987 and WACCI's growing. Membership was up a third and it's the biggest issue to date (44 pages.)*

### PROPERGANDER

In Propergander, the news pages, there was the result from the last WACCI competition, which Scoop had run the previous month. To recap, there was a photograph of four WACCI writers and you had to guess which was which. The only entry was from me and I named everybody easily.. well, Jeff Walker did tell me who was who. The prize involved such curios as a used National Express ticket, bits of household rubbish and a bag of salt and vinegar peanuts. Nothing but the best from our Scoop.

### CURRY DISAGREES WITH SINCLAIR

Blast From The Past, Scoop's lookback column, covered March 1985 and 1986 and particularly the fight of the century.

Ladies and gentleman, in the red corner is Sir Clive "masher" Sinclair and in the blue corner Chris Curry of Acorn. Seconds out, round one. The scuffle was all to do with a slight disagreement over computer reliability, or in the case of the Spectrum, lack of it.

The Daily Mail headlined the story with "Tycoons Punch It Out" (subtitled "You Only Get An Oooh With Tycoon?"). After the battle the winner was...Alan Sugar. After hearing about the incident Amsoft quickly produced a game called Business Is War. The game was never released and so the sight of two top micro men battling it out was banished to the great pixel rest home in the sky.

### DISC SHORTAGE

As far as March 1986 went, it was a month when things went missing. There was, for instance, the charity compilations that never got any further than the imagination of the man whose brain-child they were, Rod Cousins.

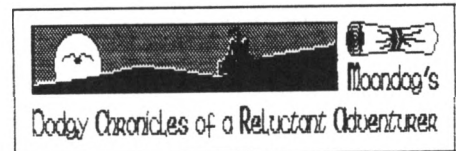
More importantly to the Amstrad public was the desperate shortage of 3 inch discs which really took off this month. Boots were, at one point, charging £5.95 for a single disc. That's just under two quid an inch!

Just imagine this nightmare scenario. You stroll into Boots smiling and walk up to the assistant asking her calmly for a pack of three for your three inch drive. 10 seconds later you and the Old Bill are off down to the station with the whole high street pointing and shouting, "That's him, that's the one". I was so embarrassed... hehem... that's enough of that and back to WACCI 6 and Fair Comment.

### THANKS

Fair Comment was a lot more tranquil than that of recent months. Steve "WACCI basher" Glover was featured only because Glenn Carey wanted to give him a second chance. ACU's editor (at that time), Simon Rockman, also had a letter published. He was very kind enough to give WACCI a huge pile of software to give away in competitions. Pity hardly anyone entered them!

George Fontanini appeared again with news that he was giving up being the games review editor in favour of concentrating more of his time on the translating of WACCI for the Spanish version. Jeff picked up the reins from where George had left off.



### MOONDOG

New to issue 6 was The Dodgy Chronicles of a Reluctant Adventurer or in other words Moondog was in town. As nobody in WACCI land had raised their hand and come forward to write a column on adventures, Jeff gave the job the his pet, Moondog. Delights of the first Moondog column were the reviews of Kentilla and a couple of GAC'd games, Apache Gold and Winter Wonderland (from Incentive software.)



Foul Play time again. The highlight of this months look at games was...the new title box. Jeff's incredible drawing of a whistle must go down in history as one of the lowest quality titles ever. Mind you, the column itself wasn't much better.

### DON'T MENTION THE WAR

John Cleese look-a-like and simulations expert Ken Walker was delving into his Simspot with the spotlight this month shining on strategy. What followed was a comparison between chess and war games and the basic principles of strategy they involved.

## AJ likes Bisto and Play-by-mail, whilst Steve Grainger publishes the WACCI probe results.

All rise for His Right Royal Silliness, Auntie John and his diary. AJ's super new title page featured a digitised picture of (if memory serves) the mother of the Bisto Kids. Er....no real connection I grant you but it is AJ after all, hey, but what delicious gravy!



### BARKING MAD

The contents of AJ's diary featured play-by-mail, a 6128 reset hint for head cases, the further adventures of AJ and CP/M, the cottage cheese industry in Greater Manchester and a spittoon joke passed onto AJ by a mad mathematics tutor who was committed after teaching the world about hypnotising chickens..... and those were just the serious bits.

John had this idea about setting up a play-by-mail game for WACCI and asked whether anybody would be interested. Nothing was ever heard of play-by-mail again.

### STILL MAD

Here's that reset hint for complete sponge cakes I mentioned. It goes like this..... Hold down ESC, SHIFT and CONTROL on a 6128. Yes, I know it resets - I read the manual - but keep them held down so that the computer resets continually (did I tell you to save your program? - Sorry). Ok, now blink at the bit where (C)1985 appears.

Don't worry, no-one is looking. See that? The word COPYRIGHT flashes there for an instant and then disappears. Weird, huh?

This useful piece of information was passed onto AJ by one Colin Turner. I'd really love to know what Colin was doing blinking rapidly at his resetting 6128. Colin is now heavily sedated and working as a draft excluder at the Guildford branch of Mother Care.

### HE'S MAD TOO

People by the thousand were writing / asking / demanding AJ tell why his mate Green is called Green. The answer was simple, he was green. Okay, let's get this straight, Green is Green

because he's green. Get me a nurse..... Back to a solid, real world now and the by-gone era of games reviews. There were just four this month with Cauldron 2 coming up smelling of roses, well, eye of newt anyway.

There was also a review by Jeff of the Arnor toolkit program Utopia. Jeff's verdict was,

*"I was unanimous when I say that there is no better on the market. Utopia has opened my eyes to a whole new can of worms".*

This comment helped Arnor to sell thousands of the afore mentioned item. Why they were selling cans of worms, I do not know.

### HERMAPHRODITE

Speaking of worms, it's over to the Bookshelf to meet Billy Bookworm for more informative bookchewing. He had two books this month, one good: Computer Challenges For The Amstrad, and one complete turkey: The Amstrad Programmers Guide, which Duckworth, the publishers, had kindly sent to review. Funnily enough, they never sent anything else after that.

What Price The Future? asks inquisitive soul Steve Grainger. Steve was investigating rumours that Amstrad sales were dropping drastically because of the new Spectrum +2 and decided to find out what the software houses thought. He sent questionnaires to various software houses and with the results he compiled a two part survey feature.

PLEASE MENTION  
WACCI WHEN  
REPLYING TO  
ADVERTISEMENTS

### WACCI PROBE RESULTS

After probing Pete Stone, Greg Follis and others with his questions Steve came up with this summary...

*"My guess is that the software houses will keep on producing software for the Amstrad for as long as it's profitable. At the present time, is it in 12 months? Only time will tell the future of the Amstrad. At the moment it's still alive and kicking - so make the most of it while you can".*

Now over 50 months later (since that article was written) the Amstrad's future looks as healthy as it ever was. What of the Spectrum computers though? Well, they make smashing pencil cases.

THE WACCI archives

## WACCI article published by ACU, Green off his trolley and S D Glover kidnapped by Aliens.

This probe was the first WACCI feature to get published in the world of glossies. ACU took it and turned it into a four and half page spread in their August 1987 issue. They also spelt his name wrong. *Poor old Steve Grianger.*



### OFF HIS TROLLEY

Now here's a great feature which really should be updated one day, The Pros and Cons of Trolley Taking written by Green. Various trolley types ranging from Tesco to Presto were rated on difficulty to nick and given an overall trolley rating mark. Bejam's trolley was a stumbling block for Green...

*"I have never been able to road-test one of these properly due to my inability to nick one. You try it - they have armed guards escorting them and homing transmitters fitted as standard".*

### SOFT SOAP

The man with the Soapbox, Bryan John Parry, was back again with the results of the "Best of 1986" survey. BJP was, to say the least, a little bit peeved with the lack of voting and so published the results as they stood. As he said himself, *"I'm not going to wait any longer or it will be the Best of 86 in 1988"*. I bet he didn't expect it to appear in 1992.

Ken Walker did make BJP a little happier though. He sent him a letter about biased reviewing in the glossy magazines, namely Amtix! (RIP) and their review of the Amtix! Accolades compilation. Ken noticed that the reviewers had given a glowing review to four extremely average games and quite unsurprisingly they gained the magazines top honour, the Amtix! Accolade award.

This did not go down too well with Glenn Carey, he of The Last Laugh and participant in the Amtix! Games Challenge (*he lost*), as he was one of the reviewers. What will Glenn have to say? See next month.

### WRONG!

BJP also doubled as financial consultant this month, taking interest in Amstrad's share price of late. *"Will the shares be going up to there former £6 price? - probably"*, was BJP's stunning prediction. If you took Bryan's vision seriously and invested in mammoth quantities of shares, you are no doubt reading this from the local loony bin. At last glance, the shares were at a massive 35p each. Give it a day or two though and they'll be right up there...*gibber, gibber, slaver, foam.*

### DR LOCO AND ALEX AIRD ON SONG

The resident programming merchants Dr Loco in his Basic Surgery and Alex Aird were both on form. Dr Loco had some flipping good programs on...er...flipping and Alex showed you how to deprotect Basic programs (this was rerun in WACCI 51). Steve Anderson also weighed in when he added his nuggets of knowledge on the subject of beginners machine code.



### GC'S I/O OK?

Glenn Carey's The Last Laugh picked up on a story that Scoop had revealed a few months previous. The Trail Of The ET-RS232 Interface Lead was the story of aliens trying to obtain the ET-RS232 lead to plug into the I/O port of the Amstrad and so take over the world, the universe and best part of the Shetlands.

The aliens failed in their bid but as a last resort they kidnapped Mr Steve D. Glover of Staffordshire (founder member of the I Love WACCI Club). The ransom note read, *"We are holding Steve Glover hostage. We will let him free unless you buy us an ET-RS232"*. Mr Glover has not been seen or heard since.

*I thank yew. I thank yew.  
Richard Burton, May 1992*

*The pictures used in this article are the original Art Studio drawings. They were converted to MicroDesign format by Micro-Design plus and then printed at half size by MicroDesign. -Clive (Ed) Bellaby.*

# SPELL CHECKERS

John Fairlie Investigates Prospell

*Spell Checkers are not the cure for all ills, however they do provide a worthwhile tool that I, for one, could not be without.*

## WHAT ARE THEY ?

Spell Checking programs consist of two parts, a program and a dictionary. The dictionary consists of a list of words of known good spelling.

The function of the program is to compare the words in your text file with the words in the dictionary. Any words that are not found in the dictionary are then presented to you as either mis-spellings, or as typing errors. This can be most useful because when you have spent many hours writing, you sometimes see on the screen what you think is there as opposed to what actually is there.

## WHAT THEY ARE NOT ....

What Spell Checkers will not do is highlight wrong words or bad grammar. If you write "going hear and their" or "nice whether today" then the Spell Checker will find no fault. The words are correctly spelt english words. These are grammatical errors.



Award



Bunny

## WHAT NEXT

There are a variety of spell checkers available for the CPC and I'll explain the advantages and disadvantages of each and outline how they are used.

There are two PD Spell Checkers in the library. CP/M Spell which works in CP/M and ISPELL which works in AMSDOS. The only commercial Spell Checker I have is Prospell, but I know of Taspell (for Tasword) and Brunspell (For Brunword.) <<Hi there, I've asked the respective software companies for review copies. -Ed.>>

## PROSPELL REVIEW

If like me, your spelling is about as good as your typing, then you are in need of a spell checker! Prospell is designed for use with Protex, but is perfectly happy to check ASCII text files produced by any other systems, and you don't have to have Protex to be able to use Prospell.



Cut



Desk

## THE PACKAGES

Prospell is produced as either a Disc version, or a ROM version. If you buy the disc version, you get the program on one side and the dictionary on the other. The ROM version consists of a ROM and a disc with the dictionary on.

If you use Protex, you can have the ROM version of Prospell with the disc Protex, or vice versa. If you have both on disc, then you install Protex first, quit from that and then install Prospell. The trouble with this is that apart from being a pain having to load both programs, it only leaves some 10k free for text.

I started off with this setup, but you cannot load Prospell after loading text. Because of this, I soon upgraded to the ROM versions, and I have never regretted it.

## LOADING PROSPELL

You can enter !SM from basic, or SM from Protex's command mode. This will give the Prospell Menu. Alternatively, if you have Protex, entering SPELL or SPELLB will spell check the document currently in memory. The latter checks a marked block only.

## ONE DRIVE OR TWO

The program will happily work with a single disc drive, requesting the dictionary disc as required. If you

have two drives, it is normal to have the text disc in the default drive, and the dictionary in the other.

## THE FIVE COMMANDMENTS

Prospell starts off by sorting all your words into alpha order, but don't worry, the document in memory remains intact. It checks all the A's first, then the B's and so on .... The basic spell checking procedure gives five options for each word not found in the dictionary. Pressing:

- <S> will Store the word, ie, add it to the dictionary.
- <I> will ignore it and move on to the next.
- <C> will allow you to Change the word. It is presented on screen, and you can edit it as you would normal text. Before you do this, the line the word is contained in is displayed on screen, with both the following and preceding lines. This makes the screen a bit messy, but it works Okay.
- <V> will allow you to view the word in context, and again three lines of your document are displayed on the screen. You must then enter one of the other options to move on.
- <L> will prompt Prospell to Lookup the correct spelling. This is one area where the program is weak, the lookup is slow, and even if you have only mistyped a single character, the lookup is not always successful.

At the end of the spell check, you will be informed how many words were checked, how many different words there were, how many were not recognised, how many corrections were made, and how many were added to the dictionary. Speed is quite good, this article of over 800 words was spell checked in 55 seconds. (That's with my errors corrected on an earlier check!)

Prospell comes with over 33,000 words in the dictionary to start with, and you can add many more. The disc is only about 80% full.



#### PROSPELL UTILITIES

On top of the basic spell check procedure, you can check a file on disc in a two part procedure. Here, the program will continue at each word not found, listing it to the screen and moving straight on. This allows you to check these, (and only these) words against a second dictionary if you want to. When you have finished screening against dictionaries, each word left is presented for you to Change, Ignore Lookup etc.

#### DICTIONARY EDITING

You can also list the dictionary, edit the dictionary (in case you add an erroneous word), count the words in the dictionary, create a dictionary disc (discs are in a special format), and build a dictionary by typing words in direct.

#### TWO PASS SPELL CHECKS AND ANAGRAMS

Two final options are very powerful, but I must admit to forgetting they are there. Both must be useful to crossword addicts, of which I am not! One is to find words given a template. You can enter W?I?? for example, and the dictionary is searched for all possible matches. \* wildcards are also allowed, but only a maximum of one in each search template.

The other is anagrams, and again you enter a template of say NAME and it returns with AMEN, MANE, NAME etc.

You can again enter ? and \* wildcards. NAME? would return words of those four plus any other one letter, NAME\* would return all words starting with NAME.

#### CONCLUSION

Good points are that the program is convenient when on ROM and has a large dictionary. In contrast, the lookup is slow, and the screen is a little untidy while the spell check is in progress. All in all its a goody, I recommend it.

Prospell costs £20 on Rom and £17 on disc, and is available from all good software houses. The Rom version is a better buy, it gives instant loading and a lot more free workspace.

#### OUTRO

Next month I'll be taking a close look at ISPELL.BAS and SPELL.COM, both are very good PD spell checkers.

## \* Adverts \* \* Adverts \* \* Adverts \* \* Adverts \* \* Adverts \*

#### BLANK 3 INCH 3 DISCS

Only £14.80 per 10 inc p&p. Amsoft or Maxel. Probably the cheapest price anywhere. This offer is available to WACCI members only. Send your order to WACCI. 7/10 days delivery. The discs are sent out in their original boxes so you'll need to be in when they arrive or be prepared for a trip down to the post office to collect them.

#### LOOSE 3 INCH DISCS

Do you need some new 3 inch discs, but don't want to spend £14.80 buying ten.

Then have no fear, WACCI is here. We have a supply of new 3 inch discs from Magtron <<Who??>>.

Magtron are new to the market place, they sell a good quality 3 inch disc (similar to the old Panasonic discs), the discs are uncased (no plastic or paper sleeves) and cost £1.50 each.

They are supplied with a plain white label. We at WACCI have tried a batch and they work Okay.

There's a minimum order quantity of two discs (to keep postal costs down) and they are dispatched in Jiffy bags, so you will get a free Jiffy bag as well (worth at least 20p).

#### 2 IN 1

Two into one will go with this super PC to CPC file transfer program. You can easily transfer files between CPC and MS-DOS discs. The program has been selling for £25 to £30, however, to club members only, the price is only £20 inc p&p.

These are brand new copies of the program, purchased by WACCI directly from the suppliers to keep the price down. A complete review of the program will/should be in WACCI 55 (June 92).

PCW 9512 Printer Ribbons, Ref 2476MS, £2.00 each including p&p. We have 12 in stock. Send your orders to WACCI.

Why not make a friend happy, give them a years subscription for WACCI as that extra-special present they have always wanted. Hours of happy reading for all the family. Only £18 for 12 issues.

#### MASTERFILE III

The CPC database by Campbell Systems, originally sold for £29.95. WACCI has an unused copy, donated by a club member for sale at £15 inc p&p. Send your order to WACCI.

#### THE NEW ALTERNATIVE FIRMWARE GUIDE

Here at WACCI we have long mourned the passing of the good old Soft968, known to many as the Firmware Guide. Finally there's a worthwhile alternative that that's almost as good.....

You get 80 full A4 pages, in a slide binder with card covers. The pages are crammed full of Z80 instructions, all the standard firmware jumpblocks, maths routines, the full set of CPC memory maps, output port addresses, 464-6128 conversion addresses, Bios and Amsdos calls and much more.....

You also get a 3 inch that's been crammed with useful machine codes routines (and includes a monitor and machine code assembler.)

This is what you have been waiting for..... Written by Thomas Defoe who used to run Print-Out, this great new CPC product can be yours..... It's not £30, not even £20, It won't cost cost a tenner, no it's yours for only:

£7.95 including p&p (and the disc)

Got a 464, don't panic, there's going a tape version. Send your orders to WACCI. Please state, tape or disc.

Send your Adverts to: WACCI, 12 Trafalgar Terrace, Long Eaton, Nottingham, NG10 1GP (Adverts are free to WACCI members)





## Chris Carter-Bown (our resident expert) Reviews DU.

*I don't want to... No, I won't... I'm no good at it... DU is such a Biiiggg program... anyway Peter Ceresole did one in Wacci 38... What?... Write one that's different from Peters... uhm, there's a good idea... I'll do that.*

### INTRODUCTION

Disc Utility (DU.COM) is, as far as I am concerned is the very best of it's sort anywhere, PD or full price. It is the chameleon amongst software. It can become, in skilled hands, a means of accessing corrupt data and directories on a corrupt disc, restoring a corrupt directory or examining every parameter of any disc you have. In unskilled hands it can reduce a disc to a chaotic jumble of rubbish.

My sole intention in writing this article is not to produce a (or even the) definitive guide to DU but rather to highlight a couple of it's more accessible uses, passing through a number of commands on the way.

It would be excellent if any of you out there who had come up with other uses of DU or had some comment about DU would pop it on disc and send it in so that we all can share it. (A letter will suffice I suppose!!) I hope what follows goes some way to helping you, Ron Hobday, get to grips with the program, but alas not with the jargon.

### WHERE'S DU

DU is on WACCI PD Disc 9, it consists of 5 files (1 COM file, 4 text files.) The text files hold the documentation in concurrent parts. Use Print or NSWP to get a hardcopy or view the files.

DU operates under both CP/M 2.2 & CP/M 3.1 (plus). To run it, first load in CP/M, at the A> prompt enter,

DU <cr>. The disc drive will whirl away and quicker than you can name the seven dwarfs DU loads. You are greeted

## Using DU to recover deleted files

At the A> prompt of CP/M enter: DU and press return, on the screen, appears:

Disk Utility v8.9

Universal Version under CP/M 3.1 (or CP/M 2.2)

Type ? for help

Type X for exit

```
      : Please Note: Change the disc in drive A. Put the naff disc in!
:la <cr> : Logs in new disc
:m <cr>  : Displays a directory of erased and active files. Ctrl-S halts
          : the display and Ctrl-S will re-start it. The display looks like:
02-02 00 TAU4 .BIN 00 : 03-08 00 TAU41 .BIN 00
0C-17 (E5 SDUMP1 .BIN 00): 18-B3 ++FREE++
          : Deleted files are in brackets and have an E5 (the user area)
          : preceding the filename. FREE indicates that there are no more
          : directory enteries. SDUMP1.BIN is the file I want, to locate
          : it, I must display the directory track, this is always track 0.
```

:g0;d <cr> : go to group 0 and dump.

G=00:00, T=0, S=1, PS=0

```
00 00544155 45634202 7204249E 00000004 *.TAU4 BIN...*
10 02000002 52200002 00002220 54236756 *.....*
20 00145678 51230987 212FE452 00000023 *.TAU41 BIN...*
30 00002344 51230230 00002320 00011233 *.....*
40 *E5534345 54D53467 02042230 00000003 *eSDUMP1 BIN...*
50 31000000 00000000 00000000 00000000 *.....*
60 E5E5E5E5 E5E5E5E5 E5E5E5E5 E5E5E5E5 *eeeeeeeeeeee*
70 E5E5E5E5 E5E5E5E5 E5E5E5E5 E5E5E5E5 *eeeeeeeeeeee*
```

:ch40,0<cr>: Change entry at line 40 to 0.

E5 : Here it is.

:d<cr> : Dump it to check.

G=00:00, T=0, S=1, PS=0

```
00 00544155 45634202 7204249E 00000004 *.TAU4 BIN...*
10 02000002 52200002 00002220 54236756 *.....*
20 00145678 51230987 212FE452 00000023 *.TAU41 BIN...*
30 00002344 51230230 00002320 00011233 *.....*
40 *00534345 54D53467 02042230 00000003 *.SDUMP1 BIN...*
50 31000000 00000000 00000000 00000000 *.....*
60 E5E5E5E5 E5E5E5E5 E5E5E5E5 E5E5E5E5 *eeeeeeeeeeee*
70 E5E5E5E5 E5E5E5E5 E5E5E5E5 E5E5E5E5 *eeeeeeeeeeee*
```

:w<cr> : Yep, it's there and E5 has gone.

:x<cr> : Write this directory entry to disc.

:x : we've done, so exit to CP/M

with a welcome message and details of two very important commands,

? displays a list of commands and  
X quits to CP/M.

DU has 35 commands, each affecting the display or allowing data to be stored in buffers. I will only be looking at a few of the important commands.

#### THE CCB ABC GUIDE TO DU:

It will be a hugely helpful for you to pop in a disc and run DU, as I will be taking you through a typical disc repair session. What you'll need is:

1. DU on WACCI PD Disc Nine
2. An old disc, one that has no important information on it.
3. This article.

#### EXAMPLES

I've included three complete examples of how to use DU. The first recovers an erased file, the second completes a non-destructive disc test, the third completes a destructive disc test.

#### RECOVERY OF ERASED FILES.

When files are erased, the method used is to change the directory entry user number to &E5. The file remains intact on disc until another file is saved to the disc. When a new file is saved to disc it occupies the tracks that have been freed by deleting the file.

#### HOW TO UNERASE A FILE

Get your old unimportant disc, erase a file and then follow the instructions on page 25 to unerase the file.

#### TESTING DISCS

Two methods can be used to test discs, destructive and non-destructive. They are similar but different. Destructive testing writes data to a disc and then checks that it has been correctly written to disc. Non-destructive tests only read the tracks to check they can be correctly read. The disc's contents are unaffected by the test.

#### OVER AND OUT

That's about it for this month's ABC of PD, I hope it's been of use. What next, there's the 64 dollar question, and it's upto you to supply an answer, so get writing, and let me know. Best wishes, Tatty Byeeeeeeee.

### NON-DESTRUCTIVE AND DESTRUCTIVE DISC TESTING

A non-destructive disc test is able to detect disc errors without destroying existing data. It reads data in from the disc, you are able to detect corrupt sectors and may be able to transfer unaffected files onto a new disc.

In a destructive disc test, you write a sequence of data to the disc, read it back, then step to the next sector. This is useful if you think you have a disc drive problem. *Don't use this test on a disc containing valuable data.*

## NON-DESTRUCTIVE DISC TESTING

At the A> prompt, enter DU, press return and once again Du loads.

```
:la           : Log in disc for test.
:T0           : Starting disc test from track 0. (Why not?)

:++;+;+;-;-;/ : Go forward 4 sectors, backward 3 sectors, repeated forever
               : unless you stop it by pressing Ctrl-C
```

```
G=00:04, T=0, S=5, PS=1
G=00:05, T=0, S=6, PS=1
G=00:06, T=0, S=7, PS=1
G=00:07, T=0, S=8, PS=1
G=00:06, T=0, S=7, PS=1
G=00:05, T=0, S=6, PS=1
G=00:04, T=0, S=5, PS=1
```

Note: Use Ctrl-C to halt the test. If there is an error it will be trapped by BDOS and the test will stop. This test only reads from the disc.

## DESTRUCTIVE DISC TESTING

REMEMBER: THIS WILL DESTROY PRE-EXISTING DATA.

```
:la           : Log in disc for test.

:g0;ch0-7f,cc;< : Go to 1st group, install test pattern (CC,CC etc) and
               : store in buffer. Any pattern will suffice.

:>;w;r;d;t;/    : Get test pattern from buffer, write to disc, read it,
               : dump it to screen, go on one sector and repeat.
```

```
G=00:00, T=0, S=1, PS=0
00 cccccccc cccccccc cccccccc cccccccc *//////////////////*
10 cccccccc cccccccc cccccccc cccccccc *//////////////////*
20 cccccccc cccccccc cccccccc cccccccc *//////////////////*
30 cccccccc cccccccc cccccccc cccccccc *//////////////////*
40 cccccccc cccccccc cccccccc cccccccc *//////////////////*
50 cccccccc cccccccc cccccccc cccccccc *//////////////////*
60 cccccccc cccccccc cccccccc cccccccc *//////////////////*
70 cccccccc cccccccc cccccccc cccccccc *//////////////////*
```

Again this test will step right through the disc, so stop it with Ctrl-C. Any problem with the drive or disc will be trapped and the test will end. A drive fault will show because of the constant and heavy use being made of the drive.

Well, wasn't that a whole load of fun! Do hope it's helpful. Tatty Byeeee.



# BJ - 10 EX



## Bob Moffat Reveals Some More !

*Those people at Canon are either very modest or they expect their customers to be very knowledgeable. Last month I wrote a review of the new BJ 10ex bubble jet printer and within days of posting the article to Uncle Clive I discovered a whole host of features which are not mentioned in the manual.*

*If before I gave the impression that I liked this printer, well now we really are in love - ask my wife, I've seen more of the printer than her over the past week.*

### THE HIDDEN CODES

The key to the hidden features lies in a boring looking, Escape Sequence Code table, where, if you look carefully, you might notice these entries:

ESC k n ..... Select fonts  
ESC q n ..... Select character style

Nowhere is there any mention of what the fonts or styles are, or what values of 'n' are valid. I'm always willing to explore on behalf of the WACCI reader, provided I don't have to take my slippers off and don boots, or remove my Siren 8 bit port, I tried a selection of ESC codes.

### SURPRISE SURPRISE !

What a nice surprise. Cowering behind the scenes were 'Sans Serif', the font which last month I said I could only select by playing with DIP switches as well as 'Shadow' and 'Outline' print styles. I'm a lazy reader and I always thought that 'Sans Serif' was French for 'Omar hasn't turned up yet'.

In fact it is a font without the small cross-lines at the end of strokes in the letter (serifs). In addition the letters 'a' and 'g' are simpler than the more traditional 'Roman' font. 'Shadow' and 'Outline'

styles are better seen than described and I hope that Uncle Clive will be able to reproduce a sample, not only of these but also combinations of styles and fonts. <<No worries, it'll be in WACCI 55. -Clive.>>

The suggestions which follow assume that you have set DIP switch 11 to 'ON' putting the printer in the LQ mode. Now, if you are not a Protex user, then please skip the next few paragraphs, you can use the fonts and styles described but you will have to use your own word processor (or Basic) to set up the control codes described.

### CHANGE THAT PRINTER DRIVER

I created a modified set of printer control codes for Protex in order to explore some of the variations. The additions and alterations made to the printer codes are as follows,

Code/Mnemonic	On	Off
a - sans serif	27 107 1	27 107 0
h - double high	27 119 1	27 119 0
j - shadow	27 113 2	27 113 0
k - outline/shadow	27 113 3	27 113 0
o - outline	27 113 1	27 113 0
q - economy	27 120 0	27 120 1

The only alteration to the Protex default codes is to 'q', the rest are additions using unallocated control code letters. I decided to change 'q' because in default 'q' calls up NLQ mode and the BJ10ex uses PDNLQ (Pretty Damn Near Letter Quality) mode.

### ECONOMY MODE

The code for 'q' switches the printer into economy mode. The print quality is almost as good as PDNLQ, it's just a little greyer. It also save a lot of expensive ink, which is always a good idea and environmentally sound.

### - THE SUMMARY - (or what I've done so far)

1. The manual doesn't really start to tell you what the printer can do.
2. If you set DIP 11 to 'ON' you will get the 'Roman' script as the default.
3. 'ESC k n' changes fonts. With DIP 11 set to 'ON' n=1 gives Sans Serif and n=0 is Roman.
4. 'ESC q n' changes styles. The styles are Normal, Outline, Shadow, and Shadowed Outline where n equals 0, 1, 2 and 3 respectively.
5. Double high is new to me (my last printer was a DMP 2000). 'ESC w n' switches it on (n=1) and off (n=0).
6. Many (most? or all?) of the above features can be combined.

### WHERE NEXT?

I have not finished exploring yet. Lurking in the depths are Prestige and Gothic fonts - the trouble here is that I probably wouldn't recognise them if they bit me in the &0000. It took me eight days to find that, having connected a sheet feeder and selected DIP 1 for 'Auto Sheet Feed', I could turn it off by 'ESC EM 0' (in decimal that's 27 25 0). That's good news for people who have connected a sheet feeder but who don't want to remove it in order to stuff envelopes, overhead projector film and cardboard through the hole in the &0000.

### OUTRO

In next months final instalment, I'll include some printed examples and news about the 8 bit printer port. Byeeeee.

**\*\* COMPETITION \*\* COMPETITION \*\* COMPETITION \*\* COMPETITION \*\***

**IT STARTED HERE**

Dear Clive, What are your thoughts about publishing a puzzle in WACCI? If a prize was being offered just think of all that incoming mail!

I would be prepared to set one puzzle and would be prepared to offer one prize of, say three WACCI discs of the winner's choice. The winning entry would be the first correct answer out of the hat after a closing date.

The first part of the following puzzle is a variation of a puzzle which was all the rage when I was at school. The clever bit is new. I should say that the puzzle is my own work and has not been published elsewhere. Yours,

Tom Betts  
West Wickham

<<It seems like a good idea to me Tom so we'll try it over the next few months and see how it goes. If all goes well we'll fit it in as a regular WACCI feature and sort out a variety of prizes. -Clive.>>

**THE WACCI COMPETITION**

Albert was not very good at sums and his dad owned a Greengrocers shop.

Why he did it is a long story, but this is what young Albert did. He laid out on the floor a square of tomatoes, and then rearranged them to form a square pyramid. His aim was to build a complete pyramid with no tomatoes left over. A square of three by three had four tomatoes left over. Sixteen tomatoes used nine (three by three) for the base of a larger pyramid, four (two by two) for the next layer, and one on top. Two tomatoes left over.

Albert used bigger and still bigger squares until success was in sight: one tomato needed to top the pyramid, and one tomato left. Alas! As Albert put the last tomato on the top, the pyramid collapsed under its own weight. Albert began again, but with a different purpose. He laid out his square of tomatoes and began building two separate pyramids. Success! Two complete pyramids and no tomatoes left over.

Your problem is to find the biggest square number of tomatoes which will form two complete, non-collapsing, square pyramids, with none left over. The two pyramids do not each have to be the same size. You do not need to be good at sums. But you do have a computer which, with a one-line BASIC program, will provide the answers.

Question A: *How many tomatoes would be in each of the two pyramids which would not collapse?*

Question B: *Write a one-line BASIC program which finds and displays the answer, and also displays the number of tomatoes in the pyramid which collapsed.*

Send yours answers on a postcard, to arrive no later than the 30th May 1992 to:

THE WACCI COMPETITION, Tom Betts, 8 Rose Walk, West Wickham, Kent, BR4 0RW

**FEATURES INCLUDE:**

- FULLY MENU DRIVEN
- EACH CHARACTER CAN BE MANIPULATED FOR INTERESTING SOUNDS
- 6128+ compatible
- Textured fills
- Superb print quality
- 3" or 3.5" second drive access
- 256k hi-res strip format

**CAN IMPORT:**  
ASCII TEXT FILES  
SCREEN FILES  
STOP PRESS FILES

**COMPATIBLE WITH:**  
ROMDOS & MS800



**SPECIAL DISCOUNT PRICES FOR WACCI MEMBERS**

- MicroDesign PLUS - 11.99
- MicroDesign PLUS and original MicroDesign - 27.99

Cheques and P.O.'s to...



**CampurSoft**

16 SLATEFIELD ST, GALLOWGATE,  
GLASGOW G31 1UA

THIS AD PRODUCED USING MICRODESIGN PLUS AND A STAR LC10 9 PIN PRINTER ... AND THERE'S MORE YET TO COME...

\* FSW \* The WACCI Public Domain Software Library \* FSW \*

All the programs in this library have been fully tested on an Amstrad 6128. The programs are supplied on an as-is basis. Please advise WACCI of any problems, we will do our best to rectify the problem and provide any assistance you need.

WACCI PD DISC ONE - CP/M 2.2 ONLY

The FORTH language disc. Includes two versions of Forth and an introduction to the Forth programming language.

WACCI PD DISC TWO - CP/M 2.2 and CP/M 3.1 (plus)

Utilities disc containing: NSWP, BinCalc, Print, Look, BD04, Unload, Compare, Print, Unload, NDDT, SD, ED, Rasmb, Rasmta, Lohd, Lasm, XIZI, Z80asm, Zmac, Zlink, D, WC, Display, MDir, DS, XDir, Eraql6 and LU.

WACCI PD DISC THREE - CP/M 2.2 and CP/M 3.1 (plus)

The complete MBASIC disc. Includes MBasic, MBasic compiler, full instructions and example programs.

WACCI PD DISC FOUR - Amsdos (128k CPC's only)

Amsdos utilities disc, containing: PD PLANNER (Spreadsheet), POWERPAGE (The DTP program), RAMBASE3 (Database) & RAMDISC.

WACCI PD DISC FIVE - CP/M 2.2 and CP/M 3.1 (plus)

The CP/M games and adventure disc. Contains three very good adventures: Base, Island and Colossal Caves. Plus several good games: Golf, Pressup, Cube, Othello and Mastermind.

WACCI PD DISC SIX - Amsdos

Games disc - 37 assorted games for the CPC including, Splat, Gin, Spring, Trench, Patience, Piquet, Hangman and many more

WACCI PD DISC SEVEN - CP/M 3.1 (plus) ONLY

The CP/M plus Utilities disc, containing: Superzap, Mikedit, Form3, Zdebug17, Unzip099, Newccp, Crunch/Uncr, Ark11, UN33, WCount, Andybase, Dc-cpc, Dcalc, Arc24, Unarc, Adrive, Menu, Assign, Extdisc, Format and Qtext21.

WACCI PD DISC EIGHT - Amsdos and CP/M 3.1 (plus)

The Comms disc: contains, ZMP (CP/M, Zmodem file transfers), TERM504B (Amsdos, XModem-1k) and loads of useful help files.

WACCI PD DISC NINE - CP/M 2.2 and CP/M 3.1 (plus)

CP/M Utilities disc containing: Cleanup, Acopy21a, Filechop, Dirchk, Display, Lrun23, LT29, NC, Nulu15, Unzip, MFT, Grep, Du, List, Lookat, Rescue, Rpip, Sort, Vlist and Wsclean.

WACCI PD DISC TEN - CP/M and Amsdos

Word processor and spell checker. VDE266, probably the best CP/M PD word processor and ISPELL the best PD spell checker.

WACCI PD DISC ELEVEN - Amsdos

Adventures. Two full adventures, Journey to Geno and Orkon Mission plus an animated demo of the crazy mill by Escher.

WACCI PD DISC TWELVE - CP/M 2.2 and CP/M 3.1 (plus)

The complete COBOL disc. Includes, NPS MicroCobol compiler, a full Cobol programming series and 23 example programs.

WACCI PD DISC THIRTEEN - Amsdos

The Demo's disc. Containing lots of graphically superb demo programs. Please Note: This is now the cleaned up version, although one of the demos contains bad language.

WACCI PD DISC FOURTEEN - Amsdos

David Carter's super collection of 49 screen pictures. These pictures have been transferred from an Amiga to the CPC.

WACCI PD DISC FIFTEEN - Amsdos

Contains 'Flags of the World', by Andre Coutanche and Stuart Gascoigne (Superb pictures of world flags) and 'The Animator Demo', four interesting graphics demos by David Carter.

WACCI PD DISC SIXTEEN - CP/M 2.2 & 3.1 (plus)

PPC PASCAL, superb compiler, produces standalone .COM files. ZBASIC Basic is a demonstration version of the language.

WACCI PD DISC SEVENTEEN & EIGHTEEN - CP/M 3.1 only

This twin disc set contains JRT Pascal, which used to be a full price (\$450 'ish) program but now released as PD.

WACCI PD DISC 19, 20 and 21 - Amsdos

Three discs full of MicroDesign format pictures and clip art

WACCI PD DISC 22, 23 - Amsdos

Each disc holds 49 pictures, for Art Studio, Basic, P-Shop

WACCI PD DISC 24 - Amsdos ON HOLD, UNTIL FURTHER NOTICE \*\*\*\*

Contains 46 pictures, suitable for Art Studio, Basic, Etc

WACCI PD DISC 25, 26 - Amsdos

\*\*\* N E W \*\*\*

Two more discs full of MicroDesign pictures & clip art

WACCI PD DISC 27 - Amsdos

\*\*\* N E W \*\*\*

Mini Paint Shop: Page header & screen design program, comes with 200 pieces of clip art and two superb large fonts.

WACCI PD DISC 28, 29 - Amsdos

\*\*\* N E W \*\*\*

Another two discs full of MicroDesign pictures & clip art

WACCI PD DISC 30 - Amsdos

\*\*\* N E W \*\*\*

G-Paint, a good art program and RSX-LIB.

COMING SOON: Loads more PD programs

Send your orders for WACCI Public Domain Software discs to: Chris Smith, 16 Ayling lane, Aldershot, Hants, GU11 3LZ

Prices: £3.00 includes a disc, post & packing or £1.00 to borrow the disc and copy it yourself.

# \*\* THE WACCI HOMEGROWN DISCS \*\*

(These discs are copyright (c)WACCI and their authors. They must not be distributed to non-club members)

**AJ's CONCEPT DISC** (128k required)  
Green's strip pontoon, Dripzone plus, Beetlemania, Saucer attack, 3D Maze, Englebert, Globe and Juggle.

**MAGAZINE DISC ONE**

The first two WACCI'ies produced. Now available in their original format (on disc or tape.) The magazines easily transfer onto paper.

**MAGAZINE DISC TWO**

The third WACCI magazine. Bundled with loads of early WACCI screen pictures plus screen printer program and screen picture squeeze program.

**WACCI DISC ONE**

Masters of Midworld, Minimon, Chardes, Eddy, Chat, Header reader, Fruitworm, Othello, Four in a row, Memdata+, XOX, The World, Jigsaw-1, Pontoon, Progdoc, Helping hand, Bomber, Life, Tunnel Dive, Lock-N-Key, Darts, grid warrior, Jigsaw-2, Star Chase and UFO.

**WACCI DISC TWO**

Amsig, Beetlemania, SDump, Disc, Pixel plotter, Englebert, Globe, Multiprog, Proforma, Functdr, Functsol, Formulae, Regiload, CGen, Excat, Exprint, Story, Neatlist, Romread, Symphony, Dripzone.

**WACCI DISC THREE**

Bouncer, Basic+, Label Printer, Pairs, Missile, S&P, Synth, Squeezer, WacMon, Logopolis, Depro, Disassembler, Nosey, Music Composer, XRef, Breakout, Wordy, Maths magic, Disc Menagerie, Sprites, Sumvaders, Caverns of Skeletor, Zener, Astrosuite, T&P and Hotrods.

\* The DEMO disc is in the PD library \*

**AJ's TWILIGHT ZONE** (128k required)  
Escape from WACCI HQ, Starfire, 3DXOX, Invaders, Chat, Star Chase, PacPlant.

**WACCI DISC FOUR**

Trivia quiz, Calendar, Proto, Othello, Snooker scoreboard, Chess clock, Menu, Deffont, Gomoku, Autoline, Amsig help, Spellbound, Calculator, Crunch, Style, Firmware explorer, UDgrab, AGE, Font, Discmap, Tape RSX's, Viewfax, Pharoah, Tee-off, Primes, Di-symm, Oz, Fractal, Diamond miner, Crazy maze, Go, Shifty, Patience, SoundFX, Snakes, Pathfinder.

**WACCI DISC FIVE**

Graphic Magic, Jigsaw-3, Banner, ADAM, Backgammon, SDM (large screen system), Write-it-right, DYS-SYMM2, Sheepdog, Nomopoly, Envelope, Orrery, Dominoes, Contours, Complex, Printer, Diabolo, Poster, Music, and Globe.

**WACCI DISC SIX**

Quiz, Stats, Colprint, Globe II, Disc, SDump3, Straight, Biomorph, S-Light, Dominoes 2, Spread, Numero and Synth.

**WACCI DISC SEVEN**

WACCIword, Romread, Keyboard, Convert, SDump4, Bank+, EZMusic, SPX, Grafplot, Hardcat, AGE128, Wild, DCheat, PCheat, Strobe, Magic squares, Decomp, 3dXOX, Invoicer, Pacplant, Typing tutor, LNA.

**WACCI DISC EIGHT**

The kirk Editor, Dwerrybase and the Football pools predictor.

**WACCI DISC NINE**

Chess, Mode, Display, Organise, Mfile, Display, Read, Grapho, Inlays, Edbutt, Tidy, NPC, Invaders and WACCIspell.

**WACCI DISC TEN**

Ascii-To-Mini Office II, Xword, Xdraw, MCPgraph, Fruitrun, K1, K2, K3, loot, Keycard, Cassdisc.DR, Example1, Frame, General.DR, PCBdraft and Progdoc-V4.

**WACCI DISC ELEVEN**

Biglabel, Display2, CGP115, POPT 120D, CGP115, 120D, WACCIword (V3) and WAR.

**WACCI DISC TWELVE**

Hex-to-bas, Hex-to-bin, HP, OHM, OSKD, Resid, Draughts, Example2, Forth Demo, Machine code tutorial, Print, Dotman, Mastercomposer and PDP1.

**WACCI DISC THIRTEEN**

Hex-enter, Davart, Morse tutor, Craig, Knockout, PCHandle, Screen squeezer, Dirsort, Xmas card, Adult Quiz, Xsum, WACCIword(V4), Banker, Donald, No-No, Copy256, and SYSTEM to DATA format.

**WACCI DISC FOURTEEN**

Ahem, Clock, Amslabel, Copier, Clock1, BioSpheres, Regiload 2, Extracat, DFI, Snakes-N-Ladders, NiteShow, Ringmenu, Self Destruct, ID, Memprint, Monthly, Memmap, DFI and Escape from WACCI HQ.

The discs should be ordered from:

## W A C C I

12 Trafalgar Terrace,  
Long Eaton, Nottm, NG10 1GP

Discs cost £3.00 each.

*Or you can borrow a disc for a £1 copy the programs you want to keep and then return the disc.*

**SUBSCRIPTION RATES**

**UNITED KINGDOM**

1 Issue	£ 1.50
2 Issues	£ 3.00
4 Issues	£ 6.00
6 Issues	£ 9.00
8 Issues	£ 12.00
10 Issues	£ 15.00
12 Issues	£ 18.00

**SUBSCRIPTION RATES**

**EUROPE**

1 Issue	£ 2.00
2 Issues	£ 4.00
4 Issues	£ 8.00
6 Issues	£ 12.00
8 Issues	£ 16.00
10 Issues	£ 20.00
12 Issues	£ 24.00

**SUBSCRIPTION RATES**

**OVERSEAS**

1 Issue	£ 2.50
2 Issues	£ 5.00
4 Issues	£ 10.00
6 Issues	£ 15.00
8 Issues	£ 20.00
10 Issues	£ 25.00
12 Issues	£ 30.00

Send your subscriptions to:

**WACCI SUBSCRIPTIONS**

Paul Dwerryhouse  
7 Brunwood Green  
Hawarden  
Deeside  
CLWYD  
CH5 3JA



# Who's Who

EDITOR : CLIVE BELLABY

WACCI, 12 Trafalgar Terrace, Long Eaton, Nottingham, NG10 1GP



### SUBSCRIPTIONS & TREASURER

Paul Dwerryhouse 0244 534942  
7 Brunswood Green, Hawarden, Deeside,  
Clwyd CH5 3JA <<A man of money!>>

### FAIR COMMENT

Mike Lyons 0942 59942  
85 Leigh Road, Hindley Green, Nr Wigan  
WN2 4XF <<A man of letters!>>

### POKING IN THE LIBRARY

Gwynn Hopkins  
Albion House, Llandre, Aberystwyth,  
Dyfed, SY24 5BS

### FORTH AND COBOL PROGRAMMING

Alan Tilling & Clive Bellaby  
<<The gruesome twosome>>

### WACCI BB

0252 318557  
Chris Smith, Voice 0252 24721  
v21/v22/v22bis, 24 hrs, 8N1

### THE NEW WACCI PD DISCS

Chris Smith, 16 Ayling Lane, Aldershot  
Hants GU11 3LZ. Only £3 per disc, send  
your order to Chris.

### CLUB SECRETARY

Wanted a club secretary to deal with  
the day to day problems of running  
WACCI. Apply to WACCI if interested.

### THE WACCI ARCHIVES

Richard Burton,  
5 Polverton Parc, St. Keverne, Helston  
Cornwall, TR12 6PB

### FINISHING TOUCHES

Glenn Carey 0326 280586  
The Haven, Coverack, Cornwall TR12 6SY

### BOOK LIBRARY

Steve Lee 0487 814043  
48 Field Road, Ramsey, Huntingdon,  
Cams, PE17 1JP

### RED ROSE BB

0772 652212  
Tony Walker Voice 0772 651698  
v21/v22/v22bis/v23/v24, 24 hrs, 8N1  
<<Used to be called Preston Ros>>

### ORIGINAL CP/M PD DISCS & WACCI DISCS

Clive Bellaby, send in your orders for  
the original discs to Clive at WACCI.  
Now only £3 per disc.

### VERY BASIC BASIC

Alan Tilling no phone  
65 Lawrence Road, Altrincham, Cheshire  
WA14 4EL

### WACCI REVISITED

Clive Bellaby  
12 Trafalgar Terrace, Long Eaton  
Nottingham, NG10 1GP

### TREADING THE BAUDS

Geoff Holmes, C/o WACCI  
Write in and let Geoff know what you  
you want to know.

### TAPE LIBRARY

Arthur Cook  
Brympton Cottage, Brunswick Road,  
Worthing, Sussex BN11 3NQ

### DISCOUNTS

Stamper J Metcalfe 0742 461743  
32 Moorwoods Avenue, Chaple Town,  
Sheffield, S30 4WA

### THE ABC OF PD

Chris Carter-Bown,  
1 Hallot Close, New Oscott  
Birmingham, B23 5YW



## SUBSCRIPTION FORM



UK \_\_\_\_\_ ISSUES @ £ 1.50 each = £ \_\_\_\_\_ TOTAL

EUROPE \_\_\_\_\_ ISSUES @ £ 2.00 each = £ \_\_\_\_\_ TOTAL

OVERSEAS \_\_\_\_\_ ISSUES @ £ 2.50 each = £ \_\_\_\_\_ TOTAL

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ Postcode \_\_\_\_\_

Signed \_\_\_\_\_

● I enclose a cheque / postal order for £ \_\_\_\_\_ inc p&p, ( Please make cheques payable to WACCI ) ●

● If you would like a receipt then please enclose a stamped, self addressed envelope with your subscription. ●

**WACCI, 7 Brunswood Green, Hawarden, Deeside, CLWYD CH5 3JA**



# THE ALL FORMATS COMPUTER FAIRS

THE BEST PLACE TO BUY COMPUTER GAMES. THE CHEAPEST PLACE TO BUY A BUSINESS SYSTEM. THE MOST INFORMED PLACE FOR USER GROUPS, CLUBS MAGAZINES AND BULLETIN BOARDS. THE PLACE FOR SHAREWARE, PUBLIC DOMAIN SOFTWARE.

3, 3.5 & 5.25 DISCS. COMPUTER BOOKS AND MANUALS. PRINTERS, MICE, SCANNERS AND LASERS. PHOTOCOPIERS, CONTINUOUS STATIONARY. CABLES, MOUSE MATS, DISK LABELS, HARD DRIVES, MEMORY EXPANSION CARDS, SIMMS & SIPPS, CABLES, JOYSTICKS. COMPUTERS ARE IBM, APPLE, PC COMPATIBLES, ATARI, AMIGA, AMSTRAD, SAM, SEGA, SPECTRUM, QL, NINTENDO AND MANY OTHER BRANDS

## FAIRS IN MAY, JUNE & JULY 1992

SATURDAY 16th MAY LONDON, SANDOWN RACECOURSE, ESHER. USE M25 - J9/10  
SUNDAY 17th MAY BRUNEL CENTRE, TEMPLE MEADS STATION, BRISTOL. USE M32

SUNDAY 7th JUNE CITY HALL, CANDLERIGGS, GLASGOW, SCOTLAND. USE M8  
SUNDAY 14th JUNE HAYDOCK PARK RACECOURSE, LANCASHIRE. USE J23/M6

SUNDAY 19th JULY NATIONAL MOTORCYCLE MUSEUM, BIRMINGHAM. USE J6/M42



admission £4 for adults £2 for children 5-15 years

ADVANCE TICKETS - NO FUSS - NO Q'S

£3 ADULTS - £2 CHILDREN

VISA # ACCESS ACCEPTED OR SEND CHEQUE

RING 0225 868100

FOR FURTHER INFORMATION ABOUT THESE FAIRS CONTACT

JRMH Media 12 RICKFIELD, BRADFORD ON AVON

WILTSHIRE BA15 1PP

0225 868100 fax 0225 868200

THESE FAIRS ARE OWNED BY BRUCE EVERISS, PO Box 71. CV33 OXS