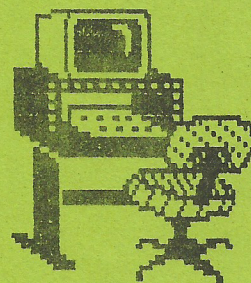
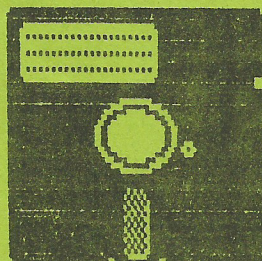
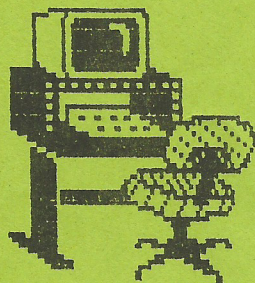


# CPC USER

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## MONTHLY MAGAZINE

464-664-6128-6128+



Regular Spots		This Version		Member's Perks
Arcade Action Articles Chairman's Bit Contact Discount's Page Editorial Mailbox News		Issue No--34 Date--August	◀ CREDITS ▶ <hr/> <hr/> <hr/>	Book Library Disc Library Tape Library Hints 'N' Tips Homebrew PD Help from UAUG Reviews Technical Info



The UNITED AMSTRAD USER GROUP was founded in 1986 by a handful of dedicated CPC enthusiasts. Membership now extends throughout Britain and overseas. The bi-monthly magazine CPC USER is written BY CPC users FOR CPC users and contains authoritative reviews and articles, and other regular features specific to CPC computers including MAILBOX (for general correspondence), CONTACT for member-to-member contact and MONITOR (members soap box). The magazine also carries trade and members' advertisements. The BOOK LIBRARY is operated by post and is open to ALL members. The books may be hired by the month for a nominal fee. The PD SOFTWARE LIBRARY (Discs AND Tapes) contains many programs covering such topics as Games, Business, Educational, Language and Utility programs. Again, it is open to ALL members and is free of charge.

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# EDITORIAL RAMBLINGS

Howdy people! Yup, it's time for another exciting Editorial. I trust that you have stayed reasonably safe and happy since the last issue, and that you've taken advantage of the sunshine to laze around. It's been quite eventful for the UAUG in the last few weeks. "Why?", I hear no one mumble. Well, are you sitting comfortably? Then I'll begin.....

Firstly we have a couple of new UAUG officers. **Richard Duggan** takes over from Gordon Woolliscroft as the Tape PD Librarian, and **Dave Paul** has taken over the vacant position of Programming Languages Editor. Welcome boys! Send off to Richard for the PD tapes, and to Dave if you have any questions on BASIC, machine code, etc.

Now for some more serious news. The adventure column in CPC User is dead. Well, nearly. Debbie Howard (the UAUG's Adventure Game Editor) phoned me the other day, to say that there wouldn't be a column for this issue. It seems that she has been getting next to no feedback from readers, and so has no material to include. So I'll make a plea now....if you want Adventure Chronicle to stay in CPC User, PLEASE write and tell Debbie. Send her anything adventure related (reviews - PD and otherwise, 'help' letters, etc), even if it's only a letter of support.

My ale quaffing arm has gone from strength to strength recently (for the uninitiated, "to quaff" means "to drink lustily"). On the 1st of July, John Packham and Wal Savin came down to my neck of the woods. CPC's in general were discussed, and a few useful Protex tricks surfaced. I was a bit worried about Johns' quaffing abilities (from previous visits, I knew that Wal was a Master at the art), but once in the ale house he acquitted himself admirably. One topic of discussion was the forthcoming UAUG convention.....

John is organising a UAUG convention down Southampton way. It'll be held on the 18th of October, and the admission fee will be £3.50. Elsewhere in the magazine is a page giving details about the location, etc. At the moment, events at the convention aren't fixed, so John would welcome suggestions on what could be done. It should be quite enjoyable, and (money permitting) I'll be popping down to exercise my arm again. If you're interested (or have any ideas about what to do) why not give John a call between 5pm and 9pm.

It has also been rumoured that SD Microsystems are going to hold a convention/show. It won't just be for CPC's, as SD provide software/hardware for a variety of computers. It will be biased towards the CPC though. I think. Drop an SSAE to SD Microsystems for more details (address is on the Discount page).

Many thanks to all who have sent articles and letters (etc) for this issue. A few have been kept back for next issue. We still need more however, so here are a few guidelines: articles can be about anything computer related (as long as it is vaguely CPC related - eg, the history of computer games); type-in's can be any size; reviews of any sort are welcome (although please try to send adventure reviews to the Adventure Ed', strategy

game reviews to the Strategy Ed', etc). Serialised articles (over two issues or more) are also very welcome, but please send me a rough view of what the article will be about. Material should preferably be sent on tape or 3" disc (except letters of course), in either Protex or ASCII format if possible. Hand written articles should be written out as neatly as possible. Please don't send me 3.5" discs, as I don't have a 3.5" drive! Remember to include a return label, and the correct amount of return postage.

There were a few other UAUG bits to mention, but as usual I've forgotten what they were. I suppose that it doesn't really matter, as no one ever reads this far do they. Do they?

I don't know whether you saw Film '92 a couple of weeks back, but it had a most interesting piece on the use of computer graphics in the film industry. Up until fairly recently, the computers that were available weren't advanced enough to be of much use to the special effects 'wizards', but it seems as though that is rapidly changing. In the film clips that were shown, you saw an 'average' rubber monster having a major computer face lift (the computer enhanced all of the details, giving an overall effect that was much better than just a straight monster suit). This, however, was nothing compared to the Terminator II effects which were a mixture of live action, blended with pure computer animation. One of the main characters in the film is a 'robot' made of liquid metal - VERY liquid in most cases! If you want to see what computers (costing millions!) can do, you could do a lot worse than rent Terminator II out.

At the moment there is a film on general release at the cinema (called The Lawnmower Man), that has been really 'slated' by most of the critics. Nearly all of them recommend seeing the film though, as it investigates the world of computer Virtual Reality, and the effects are simply stunning. (Virtual Reality is an artificially created computer world. A helmet is worn that gives the wearer a computer generated vision of the 'outside world'. The computer tracks the position of the helmet, and updates the view accordingly.)

My thanks go to everyone who has made this issue what it is: to everyone who sent material in; to Earnest Freestone for the front cover (again); to Guns 'N' Roses (who provided the background music to this issue); to Mother Nature for giving us so much glorious weather; and lastly (but definitely not least) to Tony Baker (our Chairman), Alan Stead (Distribution Officer), and the Printers, who have all worked very hard to get CPC User printed and sent to you. Thanks People!

'Til the next time!





# The Chairmans' Bit

First of all, I wish to place on record my thanks to Mr Theodore Lomnicky for his generosity in donating a further 56 books to our library. Theo is our one and only Life Member, and over the years he has sent us many parcels of books. His generosity has enabled us to build up a comprehensive collection of books, which have been of great interest to many of our members. I was unable to record my thanks in the last issue of the magazine, as I had already sent Steve my contribution well before the latest parcels arrived. In his letter to me, Theo also offered to lend some of his software to any members who would be willing to try them out, and then write articles for the magazine. He feels that in many cases the official manuals are inadequate, and articles by actual users might be very useful to members who have experienced similar problems. When he returns from holiday, he will send me a list of software available for evaluation.

Our thanks are also due to Don Snoad, who has served as Executive Editor, and lately as Business Software Editor. Don no longer owns a CPC computer, so he wishes to hand over the post to another member. Over the years Don has contributed many articles on Business Software for the magazine, and has helped many members with their software problems. We are indeed grateful to him for the help and support he has willingly provided.

If any member would like to take on the job of Business Software Editor, please let me know. The volunteer would be expected to be able to provide regular articles for the magazine, and be in a position to give advice on the use of a wide range of that kind of software.

Finally, a reminder that at this time of the year your Officers are likely to be on holiday, so please be patient if you find that letters or phone calls appear to be unanswered. Regards Tony Baker. ●

---

## SUPER TIPS

### SUPER TIPS COMPILED BY WAL SAVIN FOR THE 'TREE OF KNOWLEDGE'

If you have any tips of a similar nature then please forward them to me: W.Savin, 201 Ulverley Green Road, Solihull, West Mids, B92 8AB, and I will include them in the Supertips library.

**Biro Blues:** remove ballpoint ink stains from washable fabrics by spraying the mark liberally with hairspray, then blotting it up with tissues.

**Cheers!:** if one drinking glass is stuck inside another, fill the top one with cold water and immerse the bottom one in hot (NOT boiling) water and pull apart.

**Computer tip:** if your disc won't load, try giving it a tap on a fairly hard surface.

**Crystal clear:** your glassware will sparkle if you add a tablespoon of vinegar to the rinse water.

**Cut glass:** you can sharpen blunt scissors by running the blades along the neck of a glass bottle as if you are trying to cut the top off.

**Milky white:** add a dash of milk during boiling to keep cauliflower white.

**Soft stock:** if you keep your stock cubes in the fridge, they'll crumble more easily.

**Pest control:** discourage flies from swarming around your rubbish bins. Wash and dry the bins thoroughly, then sprinkle dry soap into them.

**Cool:** cling film wont stick to itself if you keep it in the fridge.

**Steamy windows:** condensation? Put a cup of salt on the window ledge - it'll absorb the moisture from the air.

**Going green:** if you have weeds in your lawn and you don't like using chemicals, put a teaspoon of salt in the centre. It subdues them for a couple of months.

**Rubber trouble:** find rubber gloves hard to remove? Run them under the cold tap and they'll slip off.

**Paint tip:** lessen the smell of paint by putting a piece of cooking onion in a saucer with a drop of water.

**On yer bike:** ever been for a bike ride, had a puncture and found you've forgotten your repair outfit? Take out inner tube and pack tyre as hard as you can with grass. ●





# NEWS



## NEW UAUG OFFICERS!

Yup, we have some new UAUG Officers. First off we have DAVE PAUL who has taken on the mantle of Programming Languages Editor. You can write to Dave if you have any questions on, erm, different computer languages (such as machine code, or BASIC).

DAVE PAUL,  
Programming Languages Editor,  
28 Chaucers Way,  
Spalding,  
Lincs,  
PE11 1LH.

Next up is RICHARD DUGGAN who has taken over from Gordon Woolliscroft as the Tape PD Librarian (as from the 1st of August 1992). Members that have access to a disc drive will find it easier to go straight to the disc PD library, rather than borrow the PD tapes.

RICHARD DUGGAN,  
PD Tape Librarian,  
Flat 15,  
Hughenden Court,  
Mount Pleasant Road,  
Hastings,  
East Sussex,  
TN34 3ST.

## UAUG CONVENTION

Yes! A UAUG convention! The convention is being organised by our Software Editor - John Packham, and will be held on the 18th of October in Southampton. The price will be £3.50. It kicks off at 1pm, and carries on until 7pm. Further details can be found elsewhere in the magazine, on the 'convention page'. If you're interested in attending (or if you have any ideas about what activities could take place) give John a ring on (0703) 402155 between 5pm and 9pm.

## NEW FIRMWARE MANUAL

As many of you will know, the official Amstrad firmware guide (Soft 968) is no longer in production, and getting a copy of it is difficult at the best of times. People interested in the internal workings of their CPC were pretty well stuck, until now....

The Print-Out magazine editors have come to the rescue with their very own firmware guide. It costs just £4.50 on its own, or £6.75(tape)/£8.75(disc) with a software package 'extra'. The software package contains such things as a machine code assembler, editor, etc.

I managed to get a look at a copy of the guide yesterday, and it seems worth the asking price. It's obviously not as comprehensive as Soft 968 (Soft 968 is

over an inch thick!), but it's full of useful information. If you fancy a copy, just send a cheque or postal order (payable to Print-Out) to:

Print-Out,  
8 Maze Green Rd,  
Bishop's Stortford,  
Herts,  
CM23 2PJ.

## CPC CONVENTION

There are rumours flying about that SD Microsystems are to organise an Amstrad(ish) show. The show will be 'multi-format' but will concentrate on the CPC. To find out more, why not drop them an SSAE. You can ask them to send you a product catalogue at the same time! SD Microsystems address is in the 'Discount' section of CPC User.

## CPC BITS

Whilst walking round a local Sunday market, I chanced upon a computer stall that was literally stuffed full with CPC bits. They had a lot of disc software (surprising for a market stall), but even more surprising was the 'serious' stuff on offer. There were a few packages of Arnors' print enhancement program (which I seem to have forgotten the name of), Maxam on disc, AMX mice, Stop Press, and other things. There was also a fair bit of hardware, such as add-on drives, Rombox's, etc.

I got chatting to the woman on the stall, and found out that the CPC sales were the highest of the lot! They don't usually send goods by mail, but after a bit of persuasion they agreed to do it for UAUG members only. If there is anything you need, but have trouble finding, these people have offered to hunt it out for you (such as modulators, TV tuners, etc).

Contact Helen at Computer Corner, (0203) 621362.

## LETTERS DISC

Yet again the 'Letters Disc' has been updated. No one has put forward any ideas about what else can go on the it though.

Amongst other things, the Letters Disc contains the full 'uncut' letter files, discount lists, mini PD lists, etc.

If you want a copy, just send me (the Ed) a blank 3" disc (or tape), along with enough stamps to cover the return postage, PLUS an additional 24p stamp. Yes, it's gone down! The 24p stamp is the 'copying charge', and it goes towards cutting the UAUG's expences. ●



# Mailbox - Readers Letters

## THE 'LETTERS DISC'

From LARRY COULSON of Darlington.

● (...about the 'Letters Disc')....The PD Disc Library list leaves me a little confused as to what to order. It seems to be biased toward the person already initiated into programming, etc.

□ The FULL library list (available from Richard Sergeant) contains detailed information on what is on EACH PD disc Larry. The problem is that if it were shoved on to the 'Letters Disc' it would take up the whole of one side - it's big! That is the reason that the 'full' list will never be printed in CPC User, as it would fill the magazine many times over. The 'mini' PD list is there to give you a brief overview of what is in the library.

## CPM & VDE

From ANDY GIBBONS of Peterborough.

● Forgive me for rambling on in my last letter, about not being able to use CPM with large format 3.5" drives. I was wrong! Since writing that letter I have tried both RAMDOS and MS800 with my 6128 Plus. RAMDOS caused the computer to crash, whilst MS800 works perfectly with CPM, and I have had no problems with any of my programs.

I have now also had the opportunity to try the CPM only 'Mega' formatter - EXTDISC/FORMAT (available from Robot PD). I was initially impressed, but unfortunately it only appears to allow use of one 'side' of the disc, although both 'sides' are formatted. Perhaps this is just a peculiarity of my drive though, so I won't condemn it out of hand.

Finally a plea! Can anyone give me some guidance on setting up VDE to send printer control codes? I have tried and tried, and only succeeded in preventing my printer from printing anything at all. Any advice would be gratefully received. Perhaps someone could write a piece on the subject for this very organ! (Ed's note: Andy's address is: 38 Branston Rise, Peterborough, PE1 4UE)

□ Well, you've stumped me for something to say Andy!

## TRANSFER PROBLEMS....

From BILL SIMISTER of Haverfordwest.

● I have a CPC 464 with DMP 2160, DDI and 5.25" second disc drive. I have RAMDOS to work the second drive, but am having trouble with its software.

Being a writer, I need to produce 5.25" discs with

text on them which can be read by an IBM machine. I am told that this is possible, but although I have used 'Format I' and saved in ASCII style, it does not work so far.

Included with the 5.25" drive when I bought it was a 3" disc of Ramdos, and a 5.25" disc of Tandy make with 'MSDOS DISC' written on it. I cannot get a bleep out of the Tandy disc, for it does not respond to CPM or Ramdos with anything except 'Failed Read'. If I knew how to address it, there might be some result. I have tried CAT and DIR without result. The problem is confounded by the fact that the man who sold me the drive had been using it on a 6128, and the main drive lead had to be altered. All the software appears to be for the 6128. Fortunately Ramdos allows a choice of machine at the beginning.

Also included was a 3" disc of '2-in-1', for the 6128 of course. All I am capable of doing at present is to just sit here feebly pawing the air, and shouting for help. I feel sure that if I only knew how to handle it, there should be something among this software to produce the result I want. (Ed's note: Bill's address is printed in the 'Contact' section)

□ I can't help with the majority of your problems Bill. I do know, however, that the MSDOS disc will not work with the CPC as it is almost only used on PC's.

## LETTERS & FAIRS

From BILL TRICE of Peacehaven, East Sussex.

● Would it be possible for people who write a letter to the magazine, to give permission for you to print their full address if they call for answers from other members? It would be more convenient than forwarding letters to you.

There was another computer fair last Sunday, and as usual I went along to find out what was going. Everybody seems to have gone Amiga mad, but there were plenty of reasonably priced 3.5" and 5.25" disc drives about £20 to £30. Also what was interesting, reasonably priced 'hard drives' of various capacities. Any chance of twisting somebody's arm to write an article on the possibility of adding a 'hard drive' to the 6128, or (I am doubtful about this one) increasing the memory of the 6128.

□ I'm always wary about publishing anyones address Bill, unless they specifically give permission. So, to everyone - if you write in for help, but DON'T want your address included, please say so.

It's pretty 'hit and miss' at fairs. Sometimes there is next to nothing there for the CPC, and other times there is a hell of a lot. My own advice to people is to go to every fair/sale that they can - there are some good bargains to be picked up.

There's a company in Germany that supplies hard discs



that work on the CPC, but they are a couple of hundred pounds. Does anyone know if it's possible to DIY a hard drive?

The Z80 CPU (the CPC's 'heart') can only access 64K of memory directly. Any 'add-on' memory has to be accessed by the software you're using, but there aren't many (if any) that use more than 64K (the extra 64K that makes the 6128 a 128K computer). So unless you want to write some software yourself Bill, I'd say that it would be a waste of time (and money) to add any more memory. If you want extra memory though, just buy a second hand DKTronics rampack.

## PUBLICITY

From PAUL DWERRYHOUSE of Deeside, Clwyd.

● I feel that the UAUG has been letting itself down of late. I can hear you scream "how?" (HOW!? - Ed). Well pin back your ears, and I'll tell you.

It must have come to your notice that Amstrad Action have been running features of late on the PD scene, libraries, user groups and magazines. AA call magazines 'fanzines', but we know better.

It must also not have escaped you that a strong membership leads to a strong club. The more financially stable you are, the more readers contributing in whatever way, and new members with fresh ideas all go to make life that much easier for the management of the club. The better the reading within the magazine, the more facilities offered, the more new members you can attract.

You, of course, have to advertise your goods in order that potential CPC User readers can find out about you. The best form of advertising is the free stuff, and that's what AA have been giving out of late.

I have been a member of WACCI for some four years, and a member of UAUG for 18 months. I am now the treasurer and subscription manager of WACCI (for my sins), but that position does give me probably the best view of the power of free advertising.

WACCI sends AA a free copy of its magazine every month, and because of that WACCI has featured strongly in all of the AA features regarding the PD scene. This has brought WACCI many new members, and helped the club to a strong position once more.

Why don't you let AA, before it's too late, have a sight of CPC User so that they might give UAUG some publicity.

The future of the CPC, I believe, rests with a strong PD/user group scene, and UAUG is very much a part of that scene, and I wish it to remain that way.

□ Amstrad Action (and also ACU) have been on the CPC User mailing list for at least as long as I've been the 'Publicity Officer' Paul (over two years). It's not enough simply to let the 'glossies' know you're there, and the phrase "you get nothing for nothing" fits the commercial magazine scene very well. The companies try to print stuff that they think is of interest to their readers, and so (it seems) a group that cannot offer any

new 'news' doesn't get a mention. WACCI offers something new to AA each issue (even if it's just third party news gathering), and so features prominently in the News section (etc). Speaking personally, I have neither the time (nor the inclination) to gather information to pass on to AA. I don't think that the UAUG will ever develop a high profile in AA, unless all of the members start walking around in pink bin liners (now that WOULD be news).

WACCI's 'rescue' helped them a lot. You've got to admit that "WACCI Magazine Saved From Extinction By Dedicated CPC Enthusiasts" is a more 'news worthy' headline than "UAUG Sends AA Copy Of CPC User". It's a jaded view I know, but that's how things work. Keep your eye on the News sections of both AA and CPC Attack though.....

## ROMBOX PROBLEMS

From Mr G.CAHILL of Grampian.

● (....about a newly bought Maplin rombox...) I duly received the Rombox, complete with a Protex Rom. I was not interested in the Rom, but when I got everything into working order I gave the it a trial. I was very pleased with the ease that Protex was brought up into use, and I liked it. Then I obtained a Maplin Rom. It is used as a test Rom for the testing of the circuit board when it is completed, and contains a number of utility programs. Anyway, I installed it and everything was working hunky-dory, until I again used Protex. I was writing a letter, and had it about half written (approx twenty lines) when suddenly - POOF! It was all gone, just as if I had pressed Control, Shift, and Escape. There was only the Amstrad logo, and the Roms installed information. So once more I entered Protex. I loaded the letter heading, and away I went. This time I got about ten or twelve lines, and again - POOF! It was gone again.

I read the article on page nineteen (CPC User, issue 32) titled "Where To Stick Your ROMS". Would you really like me to tell you (erm, I think not! - Ed)? So I went back, and read it all again. Okay, I am ignorant, but nobody told me that Roms have to go into the Rombox in a certain order. Now I understand why the man said that Protex on Rom was not worth the hassle.

I have the Protex Rom in as Rom four, and the Maplin Rom in position one. Now how do I know which one should be in the lowest position? Ian Highton refers to the Amstrad CPM ROM being at address &07, and that the Romdos Rom is at the same address, so it has to go into a lower number than the CPM ROM. But what are the addresses of the other Roms he refers to, and how do I find out the address of the Maplin Rom? Or are the addresses really imperative, because by Ian's article, irregardless of being in the correct order, it appears that any one Rom can mask the instructions to any other Rom in one way or another. So, please Ian, is the positioning of the Maplin Rom responsible for the crashing of Protex?

An answer to Mr Tom Walton of Manchester. When Stop



Press requests that you insert the System Disc, it automatically loads from the 'A' drive, and returns you to the 'B' drive when it has loaded what it requires. I never remove the System disc from the 'A' drive, and use the 'B' drive for everything else whilst using STOP PRESS. Just click the 'B' drive icon after you first load, and then steam on.

*I have solved your problem! Probably. It could be many things, but I'll narrow it down to two. On my own Maplin box, there is a 'reset switch' on the side - and very handy it is too. If I'm not careful though, the leads from the monitor press it in, causing a reset. If your own box has the same sort of switch, make sure the leads don't touch it. Your problems may also be caused by a slightly dodgy connection. I sometimes experience this too, and the slightest knock of the table can wipe out a whole night's work (so SAVE regularly!).*

*The positioning of the Protext and Maplin Roms shouldn't have any effect at all, as the functions (and therefore the commands) would be very different. I think.*

*The Roms (if I recall correctly) are initialised from the highest, to the lowest. That is why the Basic Rom is booted last (it's Rom number is 0). I'm also pretty sure that they are 'interrogated' in the same fashion. So the discRom(number07) can mask commands of Rom number 06 (or lower), but anything below Rom 07 CANNOT mask it's commands. The 'masking' effect only happens when two or more Roms have commands with the same name.*

*Well, that's all the letters for this issue. If you got anything at all to say, just drop me (the Ed) a line! ●*

# FONT LOADER

A TYPE-IN BY DAVE PAUL

There are several character or font designers around, nearly every PD library will have at least one on their list. However, once you have created your new character set, you may not know how to actually load it into memory to use it.

FLOAD is a short BASIC program that will allow you to load any fonts into your CPC to be used. When you switch your CPC, on the user definable characters (which are the ones altered by the font designer programs) are positioned immediately above HIMEM (HIMEM is the Highest byte of MEMory used by BASIC). Therefore it is simply a matter of getting the HIMEM address, increasing it, and then loading your font at that address to replace the characters that are there.

## 'FLOAD'

```
10 *****
11 **** FONTLOADER for CPC USER ****
12 ***** By Dave Paul *****
13 *****
14 .
15 .
20 MODE 1
30 INPUT "FONT FILENAME"; fon$
40 SYMBOL AFTER 32
50 add=HIMEM+1
60 LOAD fon$,add
70 CLS
80 FOR a=1 TO 26
90 LOCATE a,12:PRINT CHR$(64+a);
100 LOCATE a,14:PRINT CHR$(96+a);
110 NEXT
```



# UAUG BOOK LIBRARY LIST

Cat No. Book Title.

- |        |   |        |   |
|--------|---|--------|---|
| B1001P | The Colour Coded Guide to Micro-Computers                             | B1045P | The Amstrad CPC 464-Advanced Users Guide                                    |
| B1002P | Computer Programing In Basic  | B1046P | Amstrad Computing with the CPC 464  |
| B1005P | Writing Adventure Games On The Amstrad                                | B1047P | Graphic Programming Techniques on the CPC 464                               |
| B1006P | 60 Programs For The Amstrad 464                                       | B1048P | The Amstrads Programmer's Guide   |
| B1008P | Machine Code For Beginners  | B1049P | The Amstrad Games Book  |
| B1009P | Using Your Amstrad 464-Made Easy                                      | B1050P | Easy Add-On Projects for the Amstrad 464, 664, & 6128                       |
| B1010P | Computer Challenges For The Amstrad                                   | B1051P | A Z80 Workshop Manual   |
| B1011P | Advanced Amstrad Basic  | B1052P | Computer Engineers Pocket Book  |
| B1012P | Introducing Amstrad CP/M Assembly Language (3 copies)                 | B1053P | Your First Amstrad Program \$\$   |
| B1013P | Subroutines For The Amstrad 464 & 664                                 | B1054P | Mastering Machine Code on your Amstrad 464,664, & 6128                      |
| B1014P | Sensational Games For The 464   | B1055P | The Ins & Outs of the Amstrad   |
| B1015P | Applications For The 464 & 664  | B1056P | The Anatomy of the CPC's \$\$   |
| B1016P | The Working Amstrad (2 copies)  | B1057P | Advanced Programming Techniques on the 464                                  |
| B1017P | Filing Systems & Databases For The Amstrad CPC 464                    | B1058P | Programming in "C" on the Amstrad \$\$                                      |
| B1018P | Amstrad Advanced Users Guide  | B1059P | Computer Programming in Pascal  |
| B1019P | Using Dr.Logo On The Amstrad  | B1060P | "C" For Beginners   |
| B1020P | The Amstrad Pentacle Adventure Creator                                | B1061P | Introducing Pascal \$\$   |
| B1021P | Write Your Own Adventure Games For Your Micro-Computer                | B1062P | Using A Modem With Your Computer  |
| B1022P | Understanding Computer Graphics                                       | B1063P | Beginners Guide To Basic Programming  |
| B1023P | Amstrad CPC 664 Computing   | B1064P | Introduction to "C"   |
| B1024P | Introducing Logo  | B1065P | Fortran For Micros  |
| B1025P | Mysterious Adventures for your Amstrad                                | B1066P | An Introduction To Z80 Machine Code   |
| B1026P | The Amazing Amstrad Omnibus \$\$                                      | B1067P | Mastering Pascal Programing \$\$  |
| B1027P | The CP/M Bus \$\$   | B1068P | Computer Programming in Fortran   |
| B1028P | Master Machine Code on your Amstrad 464, & 664                        | B1069P | A Crash Course In Pascal \$\$   |
| B1030P | 100 Programs for the Amstrad 464, 664 & 6128                          | B1070P | Introducing "C" \$\$  |
| B1031P | The Amstrad Disc Companion for the Amstrad 464, 664 & 6128 (2 copies) | B1071P | The Hitch-Hikers Guide To Artificial Intelligence (Amstrad Basic Version)   |
| B1032P | Amstrad Machine Language for the Absolute Beginner (2 copies)         | B1072P | Databases For Fun and Profit  |
| B1033P | Amstrad CPC Whole Memory Guide  | B1073P | Introduction To Microcomputer Programming                                   |
| B1034P | Illustrating Basic (basic tutor)                                      | B1074P | Further Computer Programming in Basic \$\$ (designed for "A" level studies) |
| B1035P | Simple Applications of the Amstrad CPC's for the Writer               | B1075P | Get More From Your Epson Printer  |
| B1036P | An Intro to Programming for the Amstrad 464                           | B1076P | Hacker's Handbook 111 (comms + hacking)                                     |
| B1037P | How to write Word Games on the Amstrad 464, 664, & 6128               | B1077P | Powerful Programming for Amstrads 464,664,6128                              |
| B1038P | Using your Amstrad CPC Disc Drives                                    | B1078P | Forth - The Next Step (Advanced)  |
| B1039P | The Amstrad 464, 664 & 6128   | B1079P | A Guide To Playing the Hobbit.  |
| B1040P | Amstrad CPC 464 User Instructions                                     |        |   |
| B1041P | Amstrad Graphics-Advanced User Guide                                  |        |   |
| B1042P | The Amstrad CPC 464 Disc System including CP/M & Printers             |        |   |
| B1043P | Basic Programming on Amstrad 464,664, & 6128                          |        |   |
| B1044P | The Punters Revenge (Gambling & Computers)                            |        |   |

## NEW BOOKS

- |        |                                       |
|--------|---------------------------------------|
| B1080P | The Amstrad Programmers Guide \$\$    |
| B1081P | Z-80 Reference Guide \$\$             |
| B1082P | Microcomputer Puzzles                 |
| B1083P | Structured Basic (BBC Computers) \$\$ |

Many thanks to the members who sent in these books. Books marked \$\$ cost £1.50 because of their size. Will members please return all books PROMPTLY.

## BOOK HIRE SECTION

\*\*\*\*\* CURRENT FEE:- £1.25. per book per month \*\*\*\*\*

If you wish to hire a book please send a letter containing the book Catalogue No. and Book title together with a Cheque or Postal order to The Library Book Manager.

If by any chance the book you require is already out on loan then it will be reserved for you. Once the book is returned ( usually no longer than a month) it will be sent straight to you. Please return the books promptly, as this will avoid disappointment for other members. CHEQUES AND POSTAL ORDERS ONLY PLEASE. Payable to the United Amstrad User Group.



# BEGINNERS BASIC

WITH JOHN PACKHAM

This month, I'd like to introduce you to some STRING handling commands and functions. Once you've mastered these, you'll find that they can come in very handy at times. So, without further ado, let's go....

## INKEY\$

This function scans the keyboard, and returns the string which corresponds to the key which has been pressed. If no key has been pressed then an empty string is returned. For example....

```
10 MODE 1
20 PRINT "Press Y or N"
30 a$=INKEY$
40 IF a$="" THEN 30
50 IF a$="y" OR a$="Y" THEN 80
60 IF a$="n" OR a$="N" THEN 90
70 GOTO 30
80 PRINT "You pressed Y":STOP
90 PRINT "You pressed N":STOP
```

There are neater ways to write this, but this serves to demonstrate the use of the function. First of all, you are prompted in LINE 20 to press one of two keys (either Y or N). In LINE 30, INKEY\$ is checking the keyboard to see if a key has been pressed...then whatever character was pressed is stored in the variable 'a\$'. If 'a\$' is blank (LINE 40)..ie no key was pressed, then the program is sent back to line 30 to check again.

In LINES 50 & 60, both small y and capital Y, and small n and capital N are checked for, as INKEY\$ does NOT differentiate between the two. If the key pressed is different than either of these, then line 70 sends the program back to line 30 to check again.

## UPPER\$

This function returns a copy of the specified string, but it is converted into uppercase (CAPITAL) letters. For instance....

```
10 MODE 1
20 a$="john packham"
30 PRINT a$
40 a$=UPPER$(a$)
50 PRINT a$
```

Notice that the specified string must be enclosed in brackets following the keyword UPPER\$.

With the first (INKEY\$) example above, try changing the following lines....

```
30 a$=UPPER$(INKEY$)
50 IF a$="Y" THEN 80
60 IF a$="N" THEN 90
```

You can see that it still does the same job, but is much neater.

## LOWER\$

This function is the opposite of the previous function, and converts a string to small letters (lowercase). For example....

```
10 MODE 1
20 a$="JOHN PACKHAM"
30 PRINT a$
40 a$=LOWER$(a$)
50 PRINT a$
```

## LEFT\$

This function removes a specified number of characters (0-255) from the specified string, starting from the LEFT end of the string. For example....

```
10 MODE 1
20 a$="JOHN PACKHAM"
30 b$=LEFT$(a$,4)
40 PRINT b$
```

Notice that the specified string, and number of characters to remove, must be enclosed in brackets following the keyword LEFT\$.

Also note, if the number in brackets is greater than the number of characters in the string (including spaces), then the whole string is returned.

## RIGHT\$

This function is identical to the previous one, except that it works from the RIGHT end of the string, so change line 30 to....

```
30 b$=RIGHT$(a$,4)
```

and RUN the program again to see the difference.

## MID\$

This keyword is unusual, because it can be used both as a function and a command. When used as a command, it can actually insert one string into another. When used as a function, it can strip out part of a string, either in similar ways to LEFT\$ & RIGHT\$ or it can strip a number of characters from anywhere inside a string. The following will demonstrate....

As a COMMAND:

```
10 MODE 1
20 a$="JOHN BROWN"
```



```

30 PRINT a$
40 MID$(a$,6,5)="SMITH"
50 PRINT a$

```

In this example, 'a\$' is changed from JOHN BROWN to JOHN SMITH. Again, all the specified values must be enclosed in brackets following the command. The first variable is the 'string' which will be inserted INTO. The first number is the 'start position' in a\$ of where to place the new insertion. The second number is the length of the insertion (SMITH). These are then followed by the new insertion string -"SMITH".

As a FUNCTION:

```

10 MODE 1:middlename$=""
20 name$="JOHN RICHARD PACKHAM"
30 PRINT name$
40 middlename$=MID$(name$,6,7)
50 PRINT middlename$

```

In this example, 'middlename\$' is first an empty string (line 10). In line 40, MID\$ is used to extract a portion of 'name\$' starting at the 6th character and being 7 characters long. So, the first number tells us where to start digging out from, and the second number tells us how many consecutive characters to dig out. If the second number is left out, then the whole of the remainder of the string is dug out. If the first number is greater than the length of the original string, then an empty string is obtained.

LEN

This function can tell us how long a string is (including spaces).

```

10 MODE 1
20 a$="ABC DEFG HI JKLM NO PQR"
30 PRINT LEN(a$)

```

You should have the result 23.

SPACE\$

This function creates a string of spaces in the range 0-255.

```

10 MODE 1
20 a$="HELLO. ";b$="GOODBYE"
30 PRINT a$;
40 PRINT b$
50 PRINT a$;
60 PRINT SPACE$(10);
70 PRINT b$

```

To be honest, I haven't yet found a need to use this function, but maybe you will.

STRING\$

This function will return a string containing a specified character repeated a number of times. For example....

```

10 MODE 1
20 PRINT STRING$(39,"A")

```

This is far neater than writing....

```
PRINT"AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA"
```

Also, instead of using the actual character "A" in the above example, you could replace it with the equivalent ASCII code (check manual). In the above demo it would be....

```
20 PRINT STRING$(39,65)
```

That about covers it for this month, but to get you thinking, here's a couple of posers for you:-

Question 1). We've seen how the screen mode is changed by using the MODE command. How do you change modes WITHOUT using the MODE command?

Question 2). We've also seen how we can select pen & paper colours by using the PEN & PAPER commands. How do we exchange the pen & paper inks WITHOUT using the PEN & PAPER commands?

All will be revealed soon, so stay tuned. In the meantime, here's a clue....It's all done using the PRINT command. ●

### FOR SALE

TAPE software

Dizzy Collection - £7

Dizzy's Excellent Adventures - £7

Osprey - £5

Supreme Challenge - £10

Gremlins II - £10

Chips Challenge - £10

Puzznic - £6

North & South - £10

Six Appeal - £10

Music System - £10

Mind Stretchers - £10

TV Showtime - £10

Wheels of Fire - £8

Sim City - £10

Tengen Trilogy - £8

Hostages (Untested) - £5

Scrabble - £8

Loopz - £8

Azimuth head alignment kit - £8

Times of Lore - £8

Led Storm & Tiger Road - £7

Teenage Mutant Hero Turtles (Limited edition) - £11

OCP Art Studio - £8

Amsword - £8

Screen Designer - £8

Hisoft Pascal - £8

Contact: Mrs Lynne Insch. Tel (0463) 791943 between 7 & 8.30 pm.



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# THE MEMBERSHIP SECRETARY SPEAKS!

First of all I must thank Richard Duggan, who since the last issue has volunteered to take over the PD Tape Library - with effect from the date of this issue of the CPC User (1st August 1992) leaving me to deal with the items relevant to the Membership Secretary. Many thanks Richard.

Now to contacting me. As some of you may know from my potted history recently published in CPC User, I do still work for at least 2 days per week on an erratic shift system that includes some evenings, so if you wish to contact me by telephone please try BETWEEN 6pm and 7pm for best results. If there is no urgency, then a letter will give me a little more flexibility in dealing with your problem.

On next to Membership numbers, and the renewal date of your subscription. Alan and I do seem to be having some success with our reminders on the labels, and the enclosure of reminder slips. Do try to make a note of these - why not on a little label in the lid of your disc box! Then you can quote your number when communicating with me, any Officers of the Group, or for discount offers from the CPC User. It helps us to locate your "file" quickly, and more easily than going through over 250 members each time.

Next on to the question of renewal. We have tried to rationalise the renewal dates, and have made them all the last day of the month in which the CPC User is issued. As a result, many of you will find that your renewal date is one month further on than it was originally. This then allows you ample time to renew your subscription before the next issue, and causes us less problems with those who pay at the last minute.

We do not want to lose you, nor do we wish to upset you by failing to send out your copy of the CPC User on time, or not allowing you access to facilities such as the PD Library or Book Library (our Librarians do get a copy of the Membership files). However, if renewals are not paid when addresses go to Alan, Richard, and Brian, just before publication of the CPC User, then this may happen to you.

Alan did send out renewal notices with the last issue of the CPC User with some little success, although we are now adopting a better scheme (we hope) by adding your renewal date, as well as your membership number, on the label used to send out the magazine (bottom right hand corner). So when the next one arrives, have a look and make a note of BOTH membership number and renewal date. Apologies to the recently joined member who received a renewal slip in with his CPC User - NOT a computer error but a human one!

Please note that the renewal date will read as the following example, because this is the way our database stores it:- 92/04/30.

Finally, many thanks to those members who have paid on time, and thanked us for the reminders. Should you have any queries, please do not hesitate to contact me. ●

Gordon Woolliscroft

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## PD DISC UPDATE

PD 39/1.	CPM	The Forth Programming Disc (WACCI ONE A)
PD 39/2.	CPM	The Forth Programming Disc (WACCI ONE B)
PD 39/3.	CPM	The MBASIC Tutorial Disc (WACCI THREE A)
PD 39/4.	CPM	The MBASIC Tutorial Disc (WACCI THREE B)
PD 40/1.	CPM	The Cobol Programming Disc (WACCI TWELVE A)
PD 40/2.	CPM	The Cobol Programming Disc (WACCI TWELVE B)
PD 40/3.	AMSDOS	The Second AMIGA Graphics Disc from the WACCI Library as WACCI 31 (A)
PD 40/4.	AMSDOS	The Second AMIGA Graphics Disc from the WACCI Library as WACCI 31 (B)
PD 41/1.	CPM	German PD - Doc's in German. Any volunteers to tackle the translation?



# THE PRINT-OUT FIRMWARE GUIDE

Do you want to know what's inside your computer's memory ?  
Do you want to be able to push your CPC or Plus to its limit ?  
Are you interested in programming software, rather than using it ?  
If so, then you need this essential guide to your CPC.....

Written by the authors of Print-Out, this professionally produced guide contains over 80 pages of information about the 'insides' of your computer. It includes:

- a memory map containing detailed descriptions of every memory location's purpose
- a complete list and description of all of the firmware calls and indirections
- the 'undocumented' maths firmware routines
- a list of the entire Z80 instruction set, including the illegal commands
- a chart for easy conversion of decimal-binary-hexadecimal numbers
- the disc and tape systems explained, and their firmware calls
- a selection of routines to make your programming quick and simple
- 6128 to 464 memory address conversion chart

To get the most from this guide, we can also provide a tape or disc with several routines for simple programming in Machine Code. This includes a memory editor, full-featured assembler, ROM enabler and disabler, and software to allow you to use the firmware from BASIC.

These products are available only from Print-Out at the following prices:

<b>The Firmware Guide</b>	.....	<b>£4.50</b>
<b>The Firmware Guide + tape</b>	.....	<b>£6.75</b>
<b>The Firmware Guide + disc</b>	.....	<b>£8.75</b>

It has been several years since Amstrad discontinued production of the 'official' firmware manual. Not until now has there been a publication with similar information; the Print-Out Firmware Guide has been built up over years of computer programming and the authors' knowledge and expertise has been brought together in *the* guide for all serious users.

If you would like to order a copy, please send your cheque or postal order made payable to Print-Out to the address shown below. The Firmware Guide will be released on the 14th April, but if you wish you may reserve your copy in advance — please send full payment with your order.

**PRINT-OUT, 8 Maze Green Road,  
Bishop's Stortford, Herts CM23 2PJ**



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# Contact

## **OFFERS OF HELP**

Help with problems on a varied subject list except hardware and assembly language (full details on request). Contact: COLIN EVANS, Windsor Crescent, Monk Bretton, S. Yorkshire. S71 2LU.

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Help with Maths and Pascal programming. Contact: NEIL BUKHARAYEV, Abonent Box 120, Tatarstan str. 13-272, Kazan, 420021, U.S.S.R.

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Help with Brunword, printers. Also utilities for use with Brunword: initialization, letter-templates, draw tables & family trees on screen using IBM box characters, control Qualitas. Send a stamped-addressed-padded-envelope with blank disc to get these. Contact: M. CATTON, 11 Battery Close, Gosport, Hants. PO12 4PA. Tel: 0705 585764

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Help for anyone with problems in BASIC. Contact: DERRICK SHERWOOD, 13 Rodney Close, Bilton, Rugby, Warks. CV22 7HJ

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Have you any damaged, creased, distorted or snapped tape software? Or do they simply give read errors when loading? Send your tapes together with loading instructions & £1.00 plus 2 first class stamps to....STEVE MAKIN, 19 Westbury Rd, Dover, Kent. CT17 9QH. Programs will be retrieved and returned on a new tape (originals only please!!).

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Help with CPM+ Protext/Promerge/Prospell (or try me with other versions). I can also produce customised printer drivers for all versions of Protext. Contact: BRIAN WATSON, 39 High St, Sutton, Ely, Cambs. CB6 2RA. Tel: 0353 777006

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Help with CP/M, BASIC, FORTH, assembly language (machine code), RSX's, etc. Contact: DAVE CHURCH, 1 Merston Close, Brighton, Sussex. BN2 6WJ.

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Help with all sorts of Amstrad problems. Software, hardware, games, tape to disc. No problem too small! Please send a stamped addressed envelope. Contact: CHRIS WILLIAMS, 6 Frank St, Great Horton, Bradford, BD7 3BT.

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Help offered to anyone using the ROM versions of Protext, Maxam, and Utopia. Contact: PETE DUNLOP, 6 Lychgate Park, Locking, Avon, BS24 8DE.

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## **PENPALS - LOCAL CONTACTS - DRINKING PARTNERS - ETC**

Help and advice given about general computer stuff. Ale quaffed, etc, etc. Interested in Lovecraft (the author, not the technique), or the Call of Cthulu game? Contact: STEVE HAYWARD (address inside front cover). Tel (0203) 312571

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CPC or PLUS local contacts wanted (ale quaffed? - ED). Contact: WAL SAVIN, 201 Ulverley Green Rd, Olton, Solihull, West Mids. Tel 021 706 0992

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CPC & CPC Plus contacts wanted to swap PD, games, and other software. Contact: ANDERS NORDLI, Mo, 2072 Dal, NORWAY.

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Fellow CPC users wanted as penpals/contacts. Contact: R. PRIEST, 8 Motueka Street, Nelson, New Zealand.

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Local CPC contacts wanted in the Reigate/Dorking area. Contact: R. TYE, Rosemary Cottage, Gadbrook Lane, Betchworth, Surrey, RH3 7AH.

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Local CPC contacts wanted. I may also be able to help anyone having problems with Basic programming. Enclose a stamp if you want help. Contact: M. STUBBS, 8 Overdale Close, Barton, Headington, Oxford, OX3 9LE.

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## **HELP WANTED**

Help wanted in producing text files that can be read by an IBM PC, using a KDS 5.25" drive on a CPC 464. See the Mailbox for more details. Contact: BILL SIMISTER, 36 Lower Quay Rd, Hook, Haverfordwest, SA62 4 LR.

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OFFERS OF HELP WILL BE INCLUDED IN EACH ISSUE UNTIL THE MEMBER WISHES THAT HIS/HER OFFER SHOULD BE WITHDRAWN.

ANY HELP WANTED WILL BE IN ONE ISSUE ONLY SO MEMBERS ARE ADVISED TO RENEW THEIR REQUESTS.

PLEASE KEEP ALL AS SHORT AS POSSIBLE AND MARK THEM "CONTACT"!!



# JOHN PACKHAMS' FIRMWARE GUIDE

This is the section of the magazine for all machine code addicts. As the Firmware Guide is no longer available, I have decided to provide you with all the necessary firmware jumpblock addresses, along with their relative entry and exit conditions. Most of the addresses can only be accessed via machine code, but some can also be CALLED via BASIC. In these cases, the address will be marked alongside with a (B). Some of these may not have obvious effects. Also, those routines which have NO entry conditions and are not marked, you could also try calling from BASIC, but the effects are unknown to me so try with care. If you have any questions about the routines, then please contact me. If a personal reply is wanted, then please include a stamped, self-addressed envelope. I must tell you though, that I am no expert. I am merely taking the info straight from the guide.

This month, we shall make a start on the GRAPHICS routines...

## 62 &bbba - GRA INITIALISE

### ACTION:-

The Graphics VDU is fully initialised as at switch-on. All indirections are set to their default values.

### ENTRY CONDITIONS:-

None.

### EXIT CONDITIONS:-

AF,BC,DE & HL registers are corrupt.

All others are preserved.

### NOTES:-

Graphics VDU indirections are set to default values.

Graphic Paper is set to Ink 0.

Graphic Pen is set to Ink 1.

User Origin is set to bottom-left corner of screen.

Current position is moved to user origin.

Graphic Window covers whole screen.

Graphics background write mode is set to Opaque.

The line mask is set to &ff and the first pixel of lines is plotted.

The graphics window is not cleared.

## 63 &bbbd - GRA RESET

### ACTION:-

Re-initialise the graphics VDU indirections to default values.

### ENTRY CONDITIONS:-

None.

### EXIT CONDITIONS:-

AF,BC,DE & HL registers are corrupt.

All others are preserved.

## 64 &bbc0 - GRA MOVE ABSOLUTE

### ACTION:-

Move the current position to an absolute position.

### ENTRY CONDITIONS:-

DE contains the user X coordinate.

HL contains the user Y coordinate.

### EXIT CONDITIONS:-

AF,BC,DE & HL registers are corrupt.

All others are preserved.

### NOTES:-

The new position can be outside the graphics window.

## 65 &bbc3 - GRA MOVE RELATIVE

### ACTION:-

Move the current position to a point relative to its current position.

### ENTRY CONDITIONS:-

DE contains a signed X offset.

HL contains a signed Y offset.

### EXIT CONDITIONS:-

AF,BC,DE & HL registers are corrupt.

All others are preserved.

## 66 &bbc6 - GRA ASK CURSOR

### ACTION:-

Ask where the current graphics cursor position is.

### ENTRY CONDITIONS:-

None.

### EXIT CONDITIONS:-

DE contains the user X coordinate.

HL contains the user Y coordinate.

AF corrupt.

All other registers preserved.

## 67 &bbc9 - GRA SET ORIGIN

### ACTION:-

Sets the location of the user origin and moves the current position there.

### ENTRY CONDITIONS:-

DE contains the X coordinate of the origin.

HL contains the Y coordinate of the origin.

### EXIT CONDITIONS:-

AF,BC,DE & HL registers are corrupt.

All others are preserved.

### NOTES:-

The origin is given in standard coordinates in which (0,0) is the bottom left corner of the screen. ●

## WANTED

Amstrad LP1 or Electric Light Studio 6128 light pen, interface, software and instructions. Preferably in working order, but not essential. If not in working order, must be undamaged and complete.

Contact: PETER on (0257) 421840



# ALL FORMAT FAIRS

A REPORT BY GORDON WOOLLISCROFT

On March 22nd of this year, I set off early to have a look at the Fair to see what goodies I could purchase, and to get some idea of its value to the CPC user in the Leeds area. The Fair was held in the sports hall of Leeds University, which was a roomy and well lit area, as well as being well controlled regarding entry. The free car parking was sufficient for those who came early, and there was enough additional parking in the nearby streets for the late-comers.

The entry fee was quoted as being £4, but almost all the entrants seemed to have obtained some form of discount ticket, and there were plenty of "£1 off" tickets around inside for future use at other fairs. Also, all UAUG members received one of these in recent issues of the CPC User, so in fact the "real" entry fee was £3 to most people.

Before going to this event I gave some thought to possible contact with other members of our Group, and as a result I wore a badge with 'UAUG' on it in the hope that any other members present would recognise its significance. Only two persons did, as you will hear later on.

So in we all went with the necessary plastic carrier bag, and I was pleasantly surprised to note that the entrants were of all ages, both sexes, and included mums and dads with their knowledgeable children. Also, whilst a proportion of the stall holders were male, it was interesting to find that at least 30% were female and were well informed about their items for sale.

I found that the best way for me to tackle the stalls was to go round methodically, even if I found that they were not always of direct interest to me, and return to anything that I was particularly interested in. However, this has its dangers for the "early bird catches the worm", and I missed a bargain of two 100 size disc cases for £5! In order to give a clear idea of what was on offer, and what I saw, I will try to describe specific areas rather than general ones.

Firstly the Fair was an all format one, therefore many stalls dealt only with the 'Big Boys', and I did not find many that dealt specifically with the CPC. However, there was various items of hardware for sale of interest to CPC Users, including 464 keyboards for around £20, MP1 power supply/TV adaptors for around £10, and a wide choice of disc drives in the 3.5" & 5.25" category from £10 upwards, but no 3" drives on offer. The disc drives were in varied stages, ie cased and uncased, and all needing power supply and connecting cables. There were also many other items of hardware, including disassembled units for those who could use the components, and large numbers of discs for the formats already mentioned.

For the 3" disc drives, there appeared to be a small number of Amstrad 3" discs at £1 each containing programs such as Scrabble and Trivial Pursuits, which

had obviously come from packs supplied originally with new machines which were good value even if you did not want the program. However, there was on offer quite a large number of the unbranded discs which had the circular patterns on the disc case which in some cases were marked as CF2 discs. They were less than the branded discs in some cases, but are to be avoided due to their poor quality.

On to software. There were amongst the wide range on offer, some discs and tape programs for the CPC machines - however you did need to search around in large boxes of tapes or discs to find those you wanted. As already mentioned, there were some discs with programs from £1 and tapes from 50p upwards. For those who like games one stall offered a pack of 5 tapes for £2, including Scrabble, Trivial Pursuits, and Monopoly, all complete with instructions. For those with printers, many stalls were selling a wide range of ribbons, paper, labels, and all the other items for wordprocessing. It was necessary to look around and decide whether you really needed it, and whether you could afford it. I did obtain 2 branded ribbons for my Citizen 120D+, at a cost of £5 for the two.

There was at least one bookstall offering a wide choice of books, but very few were available for the CPC machines, and Micromart were offering free copies of the current issue of their weekly publication.

A number of organisations were present including the British Association of Computer Clubs, who were offering group membership, as well as individual membership, which includes machine and Public Liability insurance in its membership fee. It was at this point that my badge was noticed - on the WACCI stall, where I was warmly greeted by Clive Bellaby (the Executive Editor), and Stamper Metcalfe (the latter calling himself the Resident typist, etc). I spent some time here talking computers and groups (especially WACCI!), to be reassured that it was now back on its feet and in full production. They were doing a good trade in PD software, making a charge for the copying and disc, as well as advertising the Group.

Now to sum up. Well it was as stated all formats, and appeared to have catered for most computer lovers. There was something for everyone, and bargains to be had if you came early and knew what you wanted. This means thinking beforehand what you are looking for, and deciding your spending limits - allowing a little something for the odd bargain that always crops up. Also, one has to bear in mind that your local Fair may differ to some extent from the one I visited as a lot of stall holders tend to come from within 100 miles distance. ●



# DATABASE TYPE-IN

A SERIALISED TYPE-IN BY JOHN PACKHAM

Starting this month, we have the beginnings of a database. We shall add a little more to it in each issue (I hope!), and gradually explain what we are actually typing in, so that we can perhaps learn a few things along the way. I don't pretend to be an expert programmer, and I've no doubt that parts of the program could be improved, so if you have any suggestions or comments then please send them to me (John Packham), and if I think they do improve the program, then I shall put them in for all to see and use.

For those of you who do not know what a Database is, let me try to explain. In simple terms, it is a computerised card index system. Perhaps you have a record collection you wish to keep track of, or a list of Names & Addresses, or Recipes. In fact, anything that you have a whole list of could be put into a database for easier storing and retrieval. Take our record collection for instance... With an old fashioned card index system, each card would have written on it things like Artist, Record Title, Record Label, Year of Release, etc. Each of these individual headings are what is known as FIELDS. The whole completed card would be called a RECORD (this is nothing to do with the fact that we are dealing with a record collection. We could be dealing with recipes, and a whole card would still be called a RECORD).

Now, suppose you had 1000 of these cards. To pick out all the ones with the VIRGIN record label could take some time, but a computer could do it in a matter of seconds. Also, you may want to sort them into ascending order on the Year of Release. Again this would take time manually, but only seconds with a computer.

You can begin to see the advantage of using a computer to keep track of your lists can't you. Now, ideally, a computer would allow you to have an unlimited number of FIELDS & RECORDS, but due to the memory limitations of the humble CPC, we have to keep the maximum number down.

Anyway, on with the start. All this does is to display a title page, and a few main options.... the trickier stuff comes later!

```
10 REM *****
20 REM *   DATABASE   *
30 REM * by J.PACKHAM *
40 REM *   1992     *
50 REM *****
70 '
80 '
90 '
100 INK 0,13:INK 1,0:INK 2,6:INK 3,24:BORDER 0
110 '
120 '
200 GOSUB 1000
210 GOTO 210
220 '
999 REM **** SET UP FRONT END DISPLAY ****
1000 MODE 1
1010 ORIGIN 0,0,32,302,368,228:CLG 1:ORIGIN 0,0,32,302,184,34:CLG 1
1020 ORIGIN 0,0,334,600,368,34:CLG 1:ORIGIN 0,0,40,310,376,236:CLG 3
1030 ORIGIN 0,0,40,310,192,42:CLG 3:ORIGIN 0,0,342,608,376,42:CLG 2
1040 PRINT CHR$(22);CHR$(1)
1050 PEN 2:LOCATE 8,4:PRINT"DATABASE":LOCATE 5,6:PRINT"compliments of"
1060 LOCATE 7,8:PRINT"CPC USER &":LOCATE 5,9:PRINT"UNITED AMSTRAD"
1070 LOCATE 7,10:PRINT"USER GROUP":PEN 1:LOCATE 7,15:PRINT"Written by"
1080 LOCATE 6,17:PRINT"John Packham":LOCATE 10,19:PRINT"1992"
1090 PEN 3:LOCATE 26,4:PRINT"MAIN--MENU"
1100 LOCATE 25,10:PRINT"1..LOAD FILE":LOCATE 25,12:PRINT"2..SAVE FILE"
1110 LOCATE 25,14:PRINT"3..EDIT FILE":LOCATE 25,16:PRINT"4..WIPE FILE"
```



---

```
1120 PEN 1:LOCATE 26,20:PRINT"Select 1-4"  
1130 RETURN  
1140
```

First of all, all lines which begin with either REM or ' are completely ignored by BASIC. They are simply there as either reminders, or as separators of different segments of the program. I tend to stick to REM for reminders, and ' for separators.

LINE 100...This sets the colours used by the program. Ink 0 is set to White (13), Ink 1 is set to Black (0), Ink 2 to Bright Red (6) and Ink 3 to Bright Yellow (24). The Border colour is also set to Black (0). By all means change the second figure in each pair if you wish, but you may end up with some strange combinations.

LINE 200...This sends the program off to SUBroutine 1000, and once that routine has been dealt with the program will continue from the next command, which in this case happens to be on the next line.

LINE 210...This is a simple 'wait', and does nothing but stay at this line. It will be changed later.

LINES 1010-1030...These lines define the size, position and colour of a Graphics Window 6 times. You may have thought that they define 6 Graphics windows, but they don't. That's because you can only have one Graphics window defined at any one time (unlike Text Windows where you can have 7). So when these lines have finished, the current Graphics window will be the last one defined. The first two figures following each ORIGIN command tell the computer to keep the Graphics origin at 0,0 which is at the bottom left corner of the whole screen. The next four figures define the Left/Right/Top/Bottom of the window in Graphics co-ordinates. If you want to move the Graphics origin to the bottom left corner of a window, then the first 0 should be equal to the 'Left' value, and the second 0 should be equal to the 'Bottom' value, although for our needs this is not necessary.

The first three ORIGIN lists are followed by a CLG 1 command. This means 'Clear the Graphics window to ink 1' which, as we saw in line 100, is set to BLACK. This will provide the shadow effect behind our windows. The next two are followed by a CLG 3. This gives us our two BRIGHT YELLOW windows. The last one is CLG 2 which is BRIGHT RED.

LINES 1050-1120...These lines select which Pen to use, and where to place text on the screen. With TEXT windows, you can tell the computer which window to print in, but you can't do this with Graphics windows, so it's a matter of trial and error when it comes to positioning text within these. Each LOCATE command is followed by two figures. The first one is the number of columns ACROSS the whole screen (from the left) where we want printing to start from, and the second one is the number of rows from the top where we want to start printing.

LINE 1040...This line sets the printing into TRANSPARENT mode. To see what I mean, try running the program WITHOUT this line to see what happens. To switch printing back to normal (OPAQUE) mode, you could either use...  
PRINT CHR\$(22);CHR\$(0) or simply any MODE command.

LINE 1130...This sends the program back to the command following the last GOSUB, which in this case is in line 210.

Well that's it for now. If you have any questions at all, please feel free to ask me by dropping me a line. If you want a personal reply, then please include a Stamped Self-Addressed Envelope. OR, you could ring me on 0703 402155, at any REASONABLE time... Ta! Ta! for now. ●

---

#### **FOR SALE**

Amstrad graphics light pen. Includes art software on ROM, only £10.

Contact: Martin Collins, 77 St Ives Park, Ashley Heath, Ringwood, Hants, BH24 2JX.

#### **FOR SALE**

Brand new 3.5" second drive. 6129 Plus compatible, with software and external power source. Only £50.

Contact: BOB on (0797) 223756



# USING FIRMWARE FROM BASIC

BY DAVE PAUL

As stated in John Packham's Firmware Guide article, several of the firmware jumpblocks can be called from BASIC. However, unless they are used for the correct purpose, their effect can sometimes be missed. For example, just calling &BD19 on its own seems to do nothing, yet when correctly placed in a program it is quite a handy routine as can be seen later.

To try to help make these routines easier to understand, I have written an explanation and, in some cases, a short Basic program which should make the effects of these calls more obvious.

You may be wondering why you should bother to use firmware calls from BASIC. There are two main answers to this. Firstly, some of the firmware calls allow the programmer to do things that cannot be done using the BASIC language alone. Secondly, some of the firmware calls can save time and memory by using one call, instead of two or three lines of BASIC. Examples of both these points will be shown later.

Hopefully you will be able to understand some of the firmware calls better and will be able to incorporate some of them into your own programs.

## SECTION 1 - Keyboard routines.

### 1. &BB00 - KM INITIALISE

This routine completely resets the keyboard manager. One of its most useful functions, as far as the BASIC programmer is concerned, is that it can be used to clear the keyboard buffer.

This call could be used just before a routine using INKEY\$: for example....

```
10 CALL &bb00
20 a$=INKEY$
30 IF a$="" THEN 20
40 GOTO next part of program
```

This routine could be used as a "Press Any Key" routine. The firmware call flushes the key buffer first so that the program waits for the next key pressed.

One disadvantage of using this call however, is that it can disable the ESC key, ie when running you will not be able to 'break' into the program.

### 2. &BB06 - KM WAIT CHAR

This is a useful routine for BASIC programs. When called the computer waits for a key to be pressed before returning to BASIC.

```
10 CALL &BB06
20 GOTO next part of program
```

This routine could be used as a "Press Any Key" routine and, as can be seen from the program above, is a lot easier to use than the BASIC equivalent.

### 3. &BB18 - KM WAIT KEY

This firmware call can be used in exactly the same way as &BB06 - KM WAIT CHAR.

### 4. &BB48 - KM DISARM BREAK

This firmware call can be used to stop the ESC key from being used to 'break' into a BASIC program.

WARNING: You will need to reset the computer to enable

then ESC key again!

## SECTION 2 - Text Routines

### 1. &BB4E - TXT INITIALISE

This routine resets the text VDU. It will set the Paper to 0 and then Ink to 1. It cancels any window command, and resets the text window to the whole screen. Finally the cursor is moved to the top left of the screen.

### 2. &BB5C

This routine is not documented in the firmware manual, and is really only of limited use. When called it prints a copyright sign at the current cursor position.

```
10 LOCATE 10,10
20 CALL &BB5C
```

### 3. &BB60 - TXT RD CHAR

This routine, when called, returns the ascii code of the character at the current cursor position.

Although this routine can be called from BASIC, the result needs to be fetched from machine code. As this can be a handy routine to use, eg as a collision detector in BASIC games, I have included a short machine code program that allows its use.

```
10 FOR a=&8FF9 to &8FFF
20 READ m$:POKE a,VAL("&"+m$)
30 NEXT
40 DATA CD,60,BB,32,00,90,C9
```

When run, this program will set up the machine code routine to return the ascii code to BASIC. The following program shows how to use the routine.

```
10 MODE 1
20 LOCATE 10,10:PRINT
  "1234ABCD";
30 LOCATE x,10
40 CALL &8FF9
```



```
50 a=PEEK(&9000) 60 LOCATE 1,1:
PRINT CHR$(a);
```

Alter 'x' to the text position of one of the characters printed on the screen. The ascii code for that character is returned to BASIC in the variable 'a', and printed at the top left of the screen.

#### 4. &BB6C - TXT CLEAR WINDOW

This routine is equivalent to the BASIC command CLS. It works on the current selected stream, and so can be used instead of CLS £1, etc.

#### 5. &BB84 - TXT CUR OFF

#### 6. &BB81 - TXT CUR ON

Not really of much use these routines. However, when used together they can give the effect of a flashing cursor!

```
10 CALL &BB84
20 FOR a=1 TO 50:NEXT
30 CALL &BB81
40 FOR a=1 TO 50:NEXT
50 GOTO 10
```

#### 7. &BB9C - TXT INVERSE

When called this routine swaps the current PAPER and PEN inks over, so giving inverse text.

### SECTION 3 - Screen routines

#### 1. &BBFF - SCR INITIALISE

When called all inks are set to their default settings, the screen is set to mode 1 and cleared to ink 0, and all other screen pack indirections are initialised to their default setting.

A possible use for this routine would be if a BASIC program has changed Pen, Paper, Ink and Mode settings, and you require to go back to the default settings for a different part of the program.

#### 2. &BC14 - SCR CLEAR

This routine is equivalent to the BASIC command CLS, except that it will clear the screen to ink 0 only.

#### 3. &BC4D - SCR HW ROLL

Strictly speaking this routine should have a parameter sent to it in the B register. However, when called from BASIC (depending on the value that the B register holds when you call the routine) the screen will scroll up or scroll down.

This effect could be used between a game screen and going back to the option screen of a BASIC game for example. One word of advice, it would be wise to call &BBFF (see entry 1) after using this routine as the screen base is altered when the scroll is done, and you may experience problems later in a program.

A BASIC program to clear the whole screen would look like this.

```
10 FOR a=1 TO 25
20 CALL &BC4D
30 NEXT
40 CALL &BBFF
```

That's all for now! ●

### **FOR SALE**

#### DISC SOFTWARE

Sprites Alive compiler - £20  
Prince of Persia - £15  
Skull & Crossbones - £12  
Defenders of the Earth - £8  
3D Construction Kit - £18  
Starwars Trilogy - £6  
Dragon Ninja - £6  
Graphic Adventure Creator - £12  
Extreme - £6  
Colossus 4 Chess - £6  
Famous Five (five on a treasure island) - £10  
Edd the Duck - £6  
Puzznic - £10  
OCP Art Studio - £10  
Night Shift - £10

Contact: Mrs Lynne Insch. Tel (0463) 791943 between 7 & 8.30 pm.

### **FOR SALE**

Amstrad Advanced User Guide Book 1 - £4  
Z80 Assembly Language Programming - £10  
Programming the Z80 - £10  
Anatomy of the CPC's - £8  
Mastering Machine Code on the 464/6128 - £5.50  
The CPM+ Handbook - £10  
Z80 Assembly Language for Students - £5  
Using Your CPC Disc Drives - £2  
Easy Add-on Projects for CPC's - £2  
Operation Thunderbolt (cartridge) - £10  
Hisoft Assembler (disc & manual) - £5

All items are practically new, and price includes postage and packing. Please send a bank draft for payment for these items.

All letters will be answered! Contact: Mr Andrew Doyle, 129 Cherrymount, Clonmel, Co Tipperary, Eire. Eire readers tel. (052) 22767



# SO YOU'VE STARTED!

A BEGINNERS SERIES BY GORDON WOOLLISCROFT

Alright so it may not be completely paid for, but you have this nice and hopefully shiny computer in boxes. What happens next, and where do you go from here?

Well, from the questionnaire that Steve Hayward our Editor sent out, it appears that quite a number of you would like some ideas on how to use the computer, and what you can use it for. So I have agreed to write one or two articles which will help you to get going, and perhaps use the computer rather than just store it.

So you're new to computing, baffled by the jargon, puzzled by the manual, too old to learn about computing, cannot understand about electronics! Well that's how we all started at some time or another. Do remember that computers easily and cheaply available have only come on the market over the last 10 years, so very few of us have been learning for long.

Do have patience, for it takes time to learn new concepts. Remember, if children can do it with their limited knowledge of the world, then so can adults. One must be flexible and try things out in different ways, keeping notes of what you do at first so you can repeat your successes. Remember, a computer can only do what adults do - the advantages are in speed, memory retention and reproduction.

Let's look at what a computer can do. It follows instructions literally and logically, being good at small or large tasks for it does not tire easily especially if repeating tasks. It is error free, provided its information is error free, and it is fast. There is also the facility to remember on tape or disc, and to recall material from the tape or disc, as well as the ability to display information on a screen, or print it out on paper. Finally, and provided care is taken, it can run for long periods without any effect on its performance. In fact, there is a large bank in London that leaves its computers on for 364 days and nights, without any effect on their performance.

So we all start off "computer illiterate", and become more able as we acquire skills and knowledge. Obviously, it is harder to learn alone, and much better if help can be obtained. Whilst in the past there were evening classes to help people to become familiar with their computers, now things have changed as computers have changed. The classes now tend to concentrate on specific groups of computers, eg PC's. Or for specific tasks, such as Word Processing or Spreadsheets.

Which leaves the person like yourself, who has obtained an Amstrad CPC machine, with less help. Therefore, one of the tasks of a user group such as ourselves is to help those people to acquire the skills and knowledge, so that they can enjoy and use their computer more fully. On then to the start.

People purchase computers from a variety of sources such as large stores, computer shops, mail order, and from private advertisements such as in Micromart. They also have a wide variety of reasons for buying them, including persuasion by the salesman that it is just

what you need for that particular task. It is at this point that one discovers that salesmen do not always have much knowledge of the machine sold, nor does the person you bought it from privately.

On we go then. You paid hard earned money for this inert collection of boxes containing hardware sitting on the table. But did you get a receipt for the money paid, as well as written details of the guarantee, from the person or shop from which you bought it? These are important should you have problems with the machine not related to incorrect use, and need to return the machine for repair or replacement. It is also useful to obtain a receipt for any item you return for repair or replacement - most good firms are pleased to do this without request. Do ask for one if not.

I will not go into the intricacies of the Sale of Goods Act and other related Acts here, but if you do have problems with replacement under the guarantee period I would suggest you contact your local Citizen's Advice Bureau.

By now you are itching to get the boxes open and "hands on" experience, and wish I would get to the nitty gritty - or you have already done so and become frustrated. Therefore I had better get on with it. First, on unpacking check with the manual and the invoice that you have all the items you paid for, and that they are the correct ones, eg connectors and cables.

The manual usually gives a good description of what you need to set the machine up, so set up the machine and switch on after a re-check of the connections. You should get the 'logo' as described in the manual, on a single colour background. Should this not appear after a few seconds then switch off, and re-check that all connections have been made firmly and correctly, and that the power is switched on! If it does not appear the second time, switch off and get the machine checked by a competent friend, or by the shop from which you bought it.

Now to two areas that are very important at all times when using your computer, the first one of which is routine. Always establish a routine when you use your computer - work methodically and tidily. This applies especially to the times when you start and switch on the computer, and when you have finished with the computer and switch off.

Switch on the computer in the correct order - in my case it is power on to the multi point outlet, followed



by external disc, monitor, computer, and then printer if it is being used. Failure to do this could mean that the computer will not recognise some of the external units (this is so if you have a 464 with interface & disc drive - failure to power the disc means that the computer is not aware of the presence of the disc).

Turn off the computer in the correct order, AFTER ensuring that you have saved any programs that you will require again, and that all discs/tapes have been removed.

Keep a note of the contents of your discs (there are programs to do this), and also make sure that the "write protect" is on to prevent accidental erasure of important material. The same rules apply to tapes - you can always put sellotape over the holes if you wish to save anything later.

Finally, store tapes and discs away from sunlight, any strong electric current, magnets (eg, Hi-Fi speakers), and in a dust proof environment to avoid corruption of the magnetic material.

The second important area is the power supply. Whilst computers and other items of hardware run from the mains, it is the computer that is most susceptible to fluctuations in the mains supply. Some of these fluctuations are noticeable on your TV set when there are storms which affect the mains supply to the house. There are many minor fluctuations which go unnoticed, but which may affect your computer and cause a temporary loss of the Random Access Memory, and therefore a loss of the current material.

This is one reason therefore for the need to frequently save the material you are currently dealing with, to avoid loss of material and many hours of work. There are also a few more things you can do to avoid such losses of material, and in some cases corruption of material.

First of all try to choose a power source (socket) that is on a separate circuit to equipment that is in intermittent use and has automatic switching, such as refrigerators, washers, cookers, immersion heaters, and heaters. When these switch on and off, there is a surge of current which may affect your computer. If you have no choice, then it may pay you to obtain a "spike suppressor" to reduce these surges to your machine, especially if you find you are already affected by such surges.

use 4 or 6 way extensions, with the correct fuse fitted - not one adaptor with all the plugs fitted like a Christmas Tree, or an adaptor connected to a light socket! Choose modern good quality plugs for your equipment, again with the correct fuse fitted and wired correctly. If you are not sure of how to wire the plugs, seek advice from an electrician or from other capable persons. Ensure that all plugs are well fitting in the sockets on the wall, and to the equipment. Check connections and wires from time to time, for loose connections and damage to wires.

Run all cables in a tidy way without too many loops, so that they cannot be tripped over or caught and the plugs pulled out. Do try to keep mains cables away from

printer and disc drive cables, and thus avoid corruption of material being sent to the respective equipment.

Finally, whilst dealing with electricity (even as low as 5 volts) do remember that liquids and electricity DO NOT MIX. So to quote a well known phrase "Do Not Drink And Compute - It May Seriously Affect Your Health And Your Life".

By now you may have become more than frustrated, but it is important that one is aware of the initial procedures and practices that will help you towards better computing.

So the 'logo' has appeared, and the "Ready" sign has been staring you in the face for some time asking for further instructions, so it is best if you run a program you have ready, rather than at this point typing in a program. So choose a game of some kind for which you have the instructions, and type in RUN" followed by the name of the game. Do note at this point, the computer will accept either upper (capital) or lower case letters, and the length of the title is 8 characters or less for discs, and 12 characters or less for tapes. Correct spelling is important, otherwise the program will not load, but it is not necessary to type in the second set of apostrophes ("). After typing in RUN "(title) the computer will still wait for you to say go ahead. Ensure the tape or disc is ready, and press Return/Enter (depending on your computer). Tape owners will then get further instructions before the program will run.

Have fun with your game, until next time when I hope to explain a little more about things you can use your computer for, and some of the problems you may face when using it.

GORDON WOOLLISCROFT ●

### **FOR SALE**

#### **Budget TAPE**

All of the following games are £3 each: Road Blasters, Seymour Goes To Hollywood, Kentucky Racing, Target Renegade, Chuckie Egg, Eliminator, 3D Snooker, Multimix 1, Shark, Quatro Arcade, Quatro Sports, Quatro Adventure, ATF, Real Ghostbusters, Transmuter, Duzzy Panic, Bubble Dizzy, Kwik Snax, Fantasy World Dizzy, Battleships, The Great Escape, Inspector Hecti at the Interchange, Tetris, Super Seymour Saves The Planet, 4 Most Adventures, 3D Pool, Head Over Heels, Hydrofool, Cowboy Kidz, Yogi's Great Escape, Yogi Bear & Greed Monster, R-Type, The Big Sleaze, Necris Dome, Scooby Doo, Scooby Doo & Scrappy Doo, FireJord, Quattro Cartoon, Yes Prime Minister, Short Circuit, Monte Carlo Casino, Pub Trivia, Jocky Wilsons Darts, Jocky Wilsons Compendium of Darts, Pro Golf, Cavemania, Jaws, Barbarian II, Exploding Wall, Macrocosmica, Johnny Reb, Prodigy, The Inheritance, Ghostbusters II, Ping pong.

Contact: Mrs Lynne Insch. Tel (0463) 791943 between 7 & 8.30 pm.



# COMPETITION RESULTS

## COMPETITION NUMBER ONE

The answers to the anagrams set in the last issue are as follows:-

- |                |             |            |
|----------------|-------------|------------|
| 1. HEADER      | 2. LOAD     | 3. PRINTER |
| 4. JUSTIFY     | 5. DATABASE | 6. FIELD   |
| 7. SPREADSHEET | 8. FORMAT   | 9. DELETE  |
| 10. MERGE      | 11. INSERT  | 12. PRINT  |

FIRST PRIZE WINNER: Frank Ellis, who will receive a tape copy of Mini Office II with manual, plus 4 C15 Amsoft tapes.

SECOND PRIZE WINNER: Ian Ward, who will receive tapes of Cluedo, Trivial Pursuits and Scalextric, plus 3 C15 Amsoft tapes.

THIRD PRIZE WINNER: Martin Collins, who will receive tapes of Monopoly and Scrabble with instructions, plus 3 C15 Amsoft tapes.

Congratulations to all the winners, and many thanks to those who took part in the competition  
GORDON WOOLLISCROFT. ●

## COMPETITION NUMBER TWO

The answers to the questions were as follows:

- 1) Postman Pat has a black and white what? - CAT
- 2) Who talked in whistles, and had a soup dragon as a friend? THE CLANGERS
- 3) Name the carpenter in Chamberwick Green - CHIPPY MINTER
- 4) Name the Teenage Mutant Hero Turtles' rat leader - SHREDDER

The winner of the 'Picture Book' educational package (kindly donated by Triple 'R' Education) was: PAUL PEMBROKE of Essex (who doesn't watch childrens' programmes, honest!). ●

## AMENDMENTS TO DAVE PAUL'S FIRMCALL TYPE-IN BY JOHN PACKHAM

First of all, many thanks from me, and I'm sure from many others, to Dave Paul for his type-in program last issue. It's a nice little program, and I hope Dave doesn't mind the following additions....

First of all, a small correction in line 270. In place of the word BIN should be the word HEX. Next, some additions which I feel will make it more error free.

```
141 IF ri(t)>255 OR ri(t)<0 THEN CLS:GOTO 140
161 IF add<&bb00 OR add>&bd34 THEN CLS:GOTO 160
```

As the program stands, line 140 allows you to INPUT a value. However, this value COULD be greater than 255. A single register such as A,B,C,D,E,H or L can ONLY hold a value of 0-255. If one of the routines in the firmware guide mentions a PAIR of registers such as BC,DE or HL as holding a value, then this value can be up to 65536. However, you can only load one register at a time. To help overcome this, the following few lines might help....

```
101 CLS:INPUT "Enter Value :";value
102 IF value<0 OR value>65536 THEN 101
103 highbyte=INT(value/255):lowbyte=value MOD 255
104 PRINT "HIGH BYTE REGISTER (B,D or H) =";highbyte
105 PRINT "LOW BYTE REGISTER (A,C,E or L) =";lowbyte
```

This should now help you to load the individual registers with the correct values. ●



# DISC HACKING - A BEGINNERS GUIDE

BY JOHN W. BROWN

Have you ever wondered how files are stored on disc, how to un-erase files, or why some discs print a message to the screen instead of just the normal catalogue that you have asked for? Noll Well read no further.

If I still have your attention then the following information may be of use to you. You will need a Disc Editor to alter the contents of your disc. Magazines such as AA have printed enough of these in their type-ins, so this should not be a problem.

**\*\* ONLY ATTEMPT THIS ON BACK-UP DISCS NOT ORIGINALS \*\***

## DISC DIRECTORIES

Information relating to a files position on disc, name and other aspects are kept on the directory tracks. The directory tracks for different formats are:

DATA                   Track 00   Sectors 193 (&c1) to 196 (&c4)  
VENDOR (CPM)       Track 02   Sectors 65 (&41) to 68 (&44)

Each Directory entry consists of 32 bytes (&00 to &1f) and are used as follows:

00 (&00) - User Number. Normally in the range of 0 to 15 (&00 to &0e) but it will contain 229 (&e5) if the file has been erased (return it to &00 to restore a file).

01 (&01)  
to  
08 (&08)    > The filename, padded out with spaces (byte &20).

09 (&09)  
10 (&0a)   > The three letter file extension.  
11 (&0b)

12 (&0c) - The Entry Number (0 if the file is less than 16K, 1 if the file is 17k to 32k, 2 if the file is 33k to 48k long).

13 (&0d) - Always &00

14 (&0e) - Always &00

15 (&0f) - Indicates how many records the entry points at. If more than 1 the byte will be 128 (&80).

16 (&10)  
to  
32 (&1f)   > The pointers to the track and sector that hold the program.

## NOTES

1. User Areas are normally restricted to between 0 to 15, but it is possible to use others for protection purposes. The current user area is held in memory at &a701, so you can alter it if you want.

Example .. POKE &A701,&E5:CAT will list erased files.

2. The file extension locations also contain the information as to whether a file is System/Directory or Read Write/Read Only.

To set the file to Read Only add 128 (&80) to the contents of location 9 (&09).

To set the file to System add 128 (&80) to the contents of location 10 (&0a).

3. To calculate the track/sector information held in locations 16 to 32 use the following formulae....

track - 2 \* (pointer value 9)

sector - format type + (2 \* pointer value) MOD 9

Pointer value will be found in the locations 16 to 32.

Format type will be &41 for CPM (vendor) and &c1 for Data format discs.



## PROTECTING CATALOGUES

Using the above information you should be able to use control codes embedded into the directory to prevent a CAT to screen, and print a message instead. You will find details of all the control codes in your User Instructions, Chapter 7 Page 3.

I will attempt to show you how to print "HELLO !!!" (thrilling!) instead of the catalogue. All the codes are entered in Hexadecimal, and represent either Ascii characters or the control codes. The layout of part of a directory sector is shown below, and should be similar to your editor layout. Short explanations of what the control codes achieve are listed below the layout, and the Ascii characters are shown to the right. Format a disc and, using your editor, amend the directory to read the same as the example. Write the amended directory to disc then try a CAT.

Drive A: DATA Format (40 tracks, single sided)  
Side A, Track 0, Sector &C1

```

000 00 06 04 01 1C 01 1A 1A 15 00 00 15 00 00 00 00 .....
010 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
020 00 06 1F 01 01 4B 45 4C 15 00 00 15 00 00 00 00 .....HEL.....
030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
040 00 06 1F 04 01 4C 4F 20 15 00 00 15 00 00 00 00 .....LO .....
050 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
060 00 06 1F 07 01 21 21 21 15 00 00 15 00 00 00 00 .....!!!.....
070 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
080 00 44 49 53 43 20 20 20 20 42 41 53 00 00 00 09 .DISC  BAS....
090 02 03 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
0A0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
0B0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....

```

etc....

Code	Name	Parameter	Meaning
====	====	=====	=====
&04	EOT	0 to 2	Set Screen Mode. Parameter is taken MOD 4 and is equivalent to a MODE command.
&06	ACK		Enable Text Screen. Allows printing to screen.
&1C	FS	0 to 15 0 to 31 0 to 31	Set ink to pair of colours. Equivalent to INK command. The first parameter (MOD 16) specifies ink number. The next two (MOD 32) specify colours.
&15	NAK		Disable Text Screen. The screen will not react to any thing sent to it until ACK (&06) is sent.
&1F	US	1 to 80 1 to 25	Locate Cursor. Equivalent to the LOCATE command. First parameter is the column second is the row to move to.

In the above example the mode is set to MODE 1, Ink 1 is set to colour 26,26 (&1A - bright white), and the cursor is set to location 1,1 prior to printing HEL.

You do not have to put the alterations to the directory at the start. You can, if you want, save all your files first then amend the directory after them. There are differences between the way CAT and |DIR read the directory, so experiment with both commands to ensure you get the desired result.

Now you know the basics of amending the directory you should be able to go on to greater things by experimenting between modes and colours. Why not try switching PENS, for example, to print messages in different colours. Remember that you are limited to the four sectors, and have only 64 entries to play with, including those ones your files require to run.

## CHANGING FILE NAMES

It is simple to change the file names, by altering the eight bytes corresponding to



filename, to whatever you want.

For example, if you wanted to change DISC to MENU simply alter the values in the relevant locations as follows...

```
080 00 44 49 53 43 20 20 20 20 42 41 53 00 00 00 09 .DISC BAS....
090 02 03 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
```

will become...

```
080 00 4D 45 4E 55 20 20 20 20 42 41 53 00 00 00 09 .MENU BAS....
090 02 03 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
```

This method can also be used to edit the extension.

It is slightly more difficult if you want to keep the filename, but run the same file using a different name. In our example above, we effectively renamed the file, but it is also possible to set up another directory entry called MENU to run the DISC file by using the track/sector pointers to our advantage. The DISC file locations can be calculated by using the formula given earlier. This is not necessary as long as we know what the bytes are used for. In our example we can see that locations &8F to &92 hold the bytes 09, 02, 03, so if we repeat these in another directory entry the file contained in these tracks/sectors will be executed.

```
080 00 44 49 53 43 20 20 20 20 42 41 53 00 00 00 09 .DISC BAS....
090 02 03 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
```

```
0A0 00 4D 45 4E 55 20 20 20 20 42 41 53 00 00 00 09 .MENU BAS....
0B0 02 03 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
```

Amending the directory to that above will run the same file if you chose MENU or DISC, and all the space you have used up is one directory entry. It saves having the same program on the disc under different names.

Remember not to mess around with directory locations 12 onwards, as this may destroy vital information required to load and run any programs.

Another point of interest is that when you perform a CAT or |DIR on a disc, the directory sectors are loaded into a buffer in memory thus retaining all details. If you can access these, alter them, then write them back to disc, that's the start of a directory editor? ●

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Contact: Mrs Lynne Insch. Tel (0463) 791943 between 7 & 8.30 pm.

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CPC 6128 and CPC 464 with green monitor, separate tape player, JY2 joystick, Amstrad RS232 interface, Romantic Robot (multi-face? - Ed) with Insider disc, Bonzo discs, Pro-copy, etc. Amdrum, light pen, Mini Office II, over 20 blank discs, ROMs, hundreds and hundreds of software (tape & disc), over 60 ACU mags, over 70 AA mags, CPC 464 Firmware Guide, and assorted manuals. Bargain at £350 for quick sale.

Telephone: (081) 868 5759



# Spotlight

NAME: RICHARD DUGGAN  
POSITION: NEW UAUG PD TAPE LIBRARIAN

This September I will be 32. I come originally from Harlow, Essex.

Until 1980 I was in the army as a Rifleman in the Royal Green Jackets, serving mostly in Northern Ireland. On leaving the army I worked as a scaffolder in the building trade, which is sadly one of the most affected industries hit by this recession. I then spent six months in Israel, living in a Kibutz and reflecting on life.

In 1985 I moved to Hastings, married Elaine, and settled down! In 1987 we had a little win on the football pools, and I decided with my share I'd buy a computer. I went to Comet, and sitting there was an Amstrad CPC 464 - cost £164. I've not looked back since! Gradually I've upgraded it with a 40025 chip (the 6128 ROM - Ed) from Microstyle, and it is a '6128' with the aid of a memory expansion of 256K. However, instead of plugging the 6128 chip into a Rombo Extra board I had it fitted inside the computer, piggy backed on top of the existing chip. A red switch button was added on the back of the computer, so I can alternate between the 6128 and 464. I was lucky enough to find an expert to do this. I have also invested in other hard and software programs, including a Rombo box with five ROMs, which are; Rodos, Protext, Prospell, Utopia, and BCPL. Recently I invested

in a 3.5" disc drive purchased from Steve Denson of SD Microsystems. Steve has been very helpful to me, and offered first class service many times.

I must admit Elaine is a computer widow! Most of my spare time is spent computing. I now work as a Printer/Apple Computer Operator for East Sussex County Council, and enjoy immensely the everyday challenges which crop up during a days work. I have also started to learn the finishing process. As far as the comparison between Apple and Amstrad - Amstrad comes out top any day, because of its price and the amount of software you could get. It's a great shame they've stopped making CPC's. I've been a member of the UAUG for nearly ten months, since I saw an advert in Amstrad Action. I was very disillusioned with the Amstrad User Group, of which I was a member for five years.

It's going to be a hard act to follow in Gordon Woolliscroft's footsteps, but with the assistance he has already given me, and my genuine enthusiasm, I hope to maintain the high standard already set.

I'm really pleased to have been allowed to become the PD Tape Librarian. I will certainly put all my energies into it - I feel it's allowing my hobby to go one step further. ●

## COLOUR CHANGE TYPE-IN

Ed's note: The following program was sent in by MR D.S. ANTHES. It has been primarily written so that you can easily alter the screen colours when using Protext, but it can be 'tacked' on to any program by changing the text in line 5, and removing line 120.

```
5 MODE 2:LOCATE 7,3:PRINT "TO REDEFINE COLOURS FOR PROTEXT PRESS KEYS
  AS BELOW UNTIL  SATISFIED"
10 i=0:j=0:k=0
20 WHILE INKEY(18)=-1
30 LOCATE 28,8:PRINT "P.....change pen colour"
40 LOCATE 28,11:PRINT "O.....change paper colour"
50 LOCATE 28,14:PRINT "B.....change border colour"
60 LOCATE 26,18:PRINT "When satisfied press < ENTER >"
70 IF INKEY(27)>-1 THEN i=(i+1)MOD 27:INK 1,i:LOCATE 18,22:PRINT
  "PEN ";i
80 IF INKEY(34)>-1 THEN j=(j+1)MOD 27:INK 0,j:LOCATE 30,22:PRINT
  "PAPER ";j
90 IF INKEY(54)>-1 THEN k=(k+1)MOD 27:BORDER k:LOCATE 2,22:PRINT
  "BORDER ";k
100 WEND
110 WHILE INKEY$<>"":WEND
120 !P:END
```





# Disc PD Column

The UAUG PD scene these past couple of months has been fairly uneventful. I am happy to report that Clive Bellaby of WACCI fame has kindly donated four discs of useful material to our library.

I expect the good weather we have experienced since early May has meant that most of you would rather be out in your gardens than hunched over a keyboard. Still for the more adventurous why not learn a new programming language, try FORTH (PD 39/1&2) or COBOL (PD 39/3&4). If you should ever master COBOL then it could set you in good stead, should you ever wish to become a professional programmer (local government use it a lot).

On the subject of serious programming, I have a copy of SOFT 968 (The Firmware Manual). If anyone is interested, I am prepared to sell it. Give me a ring to stake your claim, best offer over £12 will secure.

How many UAUG members read 'Amstrad Action', or the newly renamed 'CPC Attack' magazines? I'm seriously considering cancelling my subscription to AA. Three or four years ago it was an interesting read, now it has degenerated to the kiddies comic level. As for the 'new' CPC Attack, to spare any blushes I will refrain from comment.

So what can the rest of us do if we want an intelligent and interesting CPC based computer magazine. Well, obviously we all read CPC User from cover to cover (not me - Ed), but that unfortunately only appears six times a year. The magazine to get hold of is published by WACCI, comes out monthly and is excellent value for money at only £1.50 per copy. I have just read Nos. 52 and 53, and it really is first class, and definitely aimed at the more mature CPC owner. Why not contact Clive Bellaby, WACCI, 12 Trafalgar Terrace, Long Eaton, Notts, NG10 1GP for further details. You won't be disappointed.

I'm quite amazed just how many CPC based PD Libraries have sprung up (and disappeared) over the past 12 months. Still it hasn't done us any harm, as most of our newer stock has come to us via another PD library source.

The other week, I was sent an Introduction Pack by UAUG member Matthew Tuck, who runs his own PD library. So if you can't find anything that interests you in ours, then why not give TUCK PD, 15 Ravencar Road, Eckington, Sheffield, S31 9GJ, a try.

Apart from the discs I received from WACCI, the other donations received over the past two months are:-

Frank Ellis, who sent me a correction to file WAL6PT2.BAS (PD 32/4). It appears that the version that was in the library was bugged. It has now been sorted thanks to Frank.

Karsten Kammler, an international member from West Germany has donated some German PD (PD 41/1). These programs are mainly CPM, unfortunately all the documentation is in German. If there is a linguist who can translate, I would be most grateful. Please send the English text files (any word processor format will be acceptable) for inclusion on to this disc.

A couple of moans this month:-

1) Members are still sending me discs to copy in ordinary envelopes. One member actually sent me a stamped addressed small brown wage packet to return his disc in. Had there been money in it, I might not have minded.

2) It was reported to me that a disc I had posted failed to arrive. Unfortunately the member involved took four months to let me know about the problem.

Can I suggest that if you don't receive your discs back, or the disc you ordered, within a three week period, then get in touch and we might have a chance of some action from the Post Office.

I'm not prepared to waste my time queuing up at the Post Office every day to get a receipt of posting for every package I send out. Still, looking on the bright side, I suppose only one missing package out of the several thousands I've sent out can't be too bad.

In conclusion, I will once again remind all the new and old members alike. Only send me good quality branded discs for copying. As an extra precaution for members using 3.5" discs, please verify your discs after formatting. This will reduce the risk of disc failure. In my experience some cheap unbranded 3.5" discs are quite dodgy, however to be fair the majority are perfectly alright.

You may send me up to three 3" discs (6 selections of PD), OR one Ramdos D20 3.5" disc (4 selections of PD) for copying in any one month. Please understand, if you don't use your allowance in the current month it can not be carried over to the next one.

If you don't have any spare discs, I can supply an unlimited amount of brand new Amsoft/Maxell discs at £3.50 each (cheques made payable to UAUG). This price includes 2 selections from the library, and all postage and packing. One last point, when you write to me please send your discs in a good quality jiffy bag, AND enclose a return self addressed sticky label plus (sufficient) return postage. One last point about sticky labels, I will accept the gummed ones that I have to lick, and the type that are self adhesive, but NOT ones I have to attach by the use of Selotape or PrittStick. My expenses don't run to such luxuries.

Bye, until the next issue! ●



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If you want to know more the send an SAE to:  
GOLDMARK SYSTEMS, 51 Comet Road, Hatfield,  
Hertfordshire, AL10 0SY. Telephone (0707 271529).



# Discount Page

The companies listed below offer discounts to members. Write direct to the company, quoting your membership number, the item/s required, the advertised price, the discount offered and enclose a cheque or postal order for that amount. Please patronise these companies to make it mutually worthwhile.

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## CONTRIBUTIONS

All material sent for publishing in CPC USER should be sent directly to the Executive Editor, and should preferably be sent as a Protext file on 3" disc (or tape). If Tasword is used, then the article must be in ASCII format with NO control codes.

As a secondary option they should be typed. If hand written articles are sent, then the sender should ensure that they are as clear as possible, as some handwriting is difficult to read.

If articles are sent on tape or disc, and the sender requires their media to be returned, then they should be sent in a padded envelope with return postage, and sealed with a plastic clip that's normally given with the envelope on purchase.

CPC USER has a selection of Sub-Editors, and it might be easier if specific questions are sent to them directly.....ie Modems to the Communications Editor.

Any general correspondence can be sent directly to the Executive Editor.

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