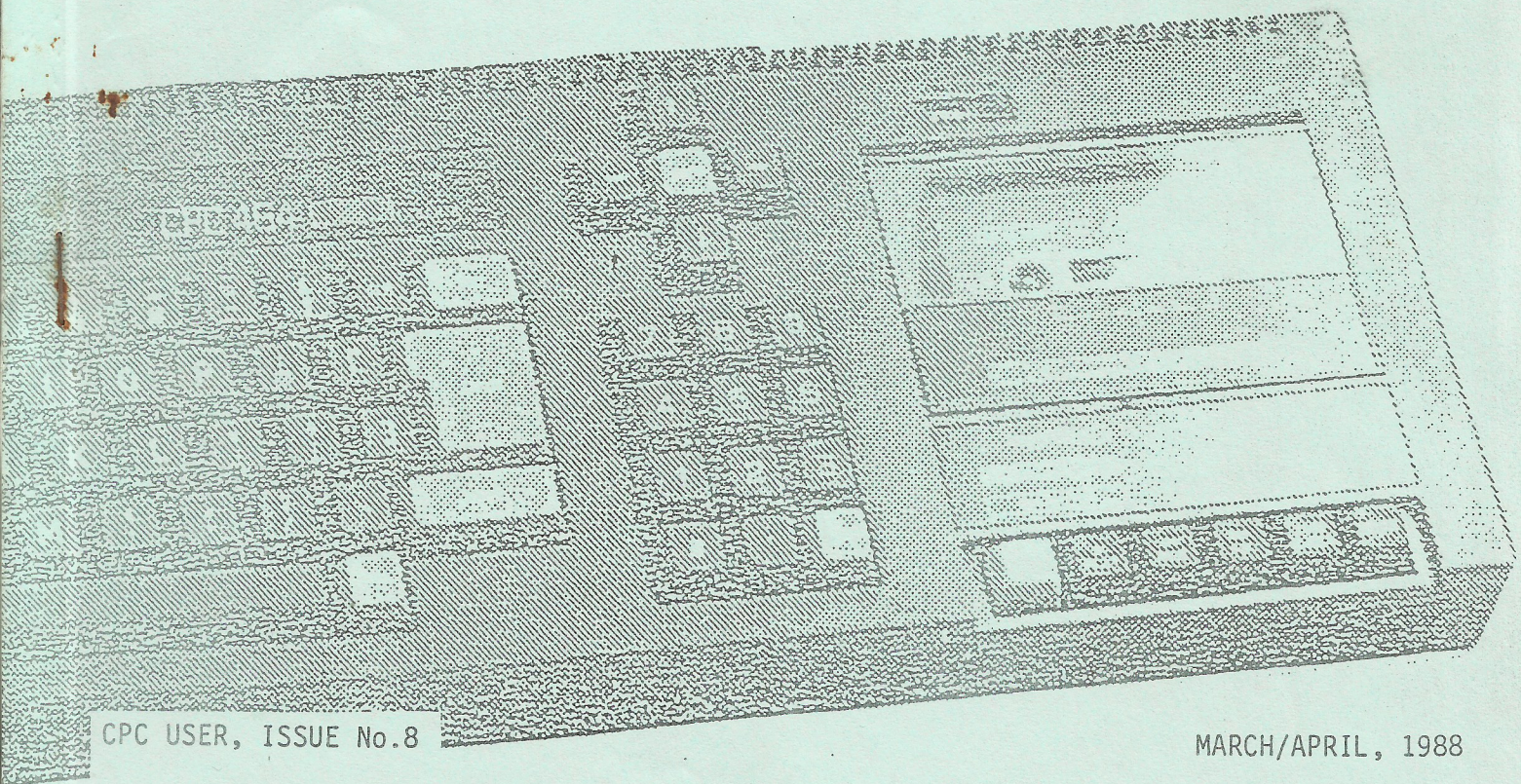


CPC

USER

THE BI-MONTHLY MAGAZINE
OF THE
UNITED AMSTRAD USER GROUP



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CPC USER

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STOP PRESS ...

On page 4 of this Issue of CPC USER, the telephone number of MicroPro is given as 01-879-1122; the number has recently been changed to 01-643-8866.

ERRATUM...

In the previous issue of CPC USER, we erroneously gave John Blessing's address as Chichester Road when it should have been Chichester Close.

E D I T O R I A L

There is much talk amongst fellow CPC users of the demise of the CPC and this leads to thoughts and talk of upgrading. Even those without the ready cash tend to do their own "Which" survey of the computers currently on offer and work out what they would go for next.

However, it never fails to surprise me how views differ on what constitutes upgrading. For some it is the PC with its business/serious overtones and the prospect of using the same machine at work and at home. To others, the newer games or home entertainment machine is top of the list and many Amstrad owners are moving in the ST direction. When asked why, the various answers boil down to better graphics and, more importantly, an expanding software base. This comes at a time when CPC software support is levelling off and probably declining. The reason must lie partly in discontinued Amstrad support but it also reflects on the failure of many CPC users to buy software. The message is that software houses will soon withdraw CPC items from their catalogues if sales continue at such low levels so, if you have no plans to upgrade, go out and buy software while you can.

Whatever happens, one thing is clear. It's at times like these that we realise the value of a User Group to keep in touch with other users and exchange ideas and experiences. Long may the UAUG survive!

Terry Roberts

NEXT PRESS DATE ...

The Press Date for Issue 9 is May 1st.
Issue 9 will be published on June 1st.

CHAIRMAN'S BIT

Dear Members,

Welcome to the 8th issue of the UAUG Journal.

I would like to start by thanking all the members who have decided to stay with the UAUG for another year. Overall I have been quite pleased with the number of renewals I have received. Out of 36 members due to renew, 23 did and only 13 didn't.

We have uncovered a small problem with our renewal procedure and as a result a few members may not have received a copy of issue 7. If this concerns you please don't hesitate to write or telephone and I will send you a copy immediately.

As promised 1988 is going to be a very exciting year for the UAUG, many new schemes, services and ideas are now under consideration. Amongst them are the reintroduction of a 'Special Offers' service (this time orders may be accepted by telephone), local group meetings and a comprehensive help service on most subjects. You will of course be informed if or when these services come into operation.

One new service which has already been introduced is the printing service. If you do not own a printer and would like a hard copy of a BASIC program or ASCII file then we can now print it out for you. Full details are given on the enclosed 'Quick Guide to UAUG services'.

Another item I would like to include here is a plea. For the UAUG magazine, CPC USER, to continue in its present form, we need contributions from you, the membership. We are looking for Letters, Reviews, Articles, Opinions, Type-ins, etc for inclusion in the Journal. Remember, we are NOT expecting 2000 word professional master pieces!

Whilst on the subject of contributions, we are still seeking regular editors and an Advertising Manager (see Club News for further information). These posts really do have to be filled pretty quickly, so if you think you may be able to help out please contact me.

The advertising drive which you may have read about is still continuing. We have designed and printed hundreds of A4 leaflets/posters for the Group. If you can think of anywhere to pin one of these (eg school, college or work notice boards, public libraries, local computer shops, etc) then I will be happy to send you half a dozen. Remember, the more members the better the service for you!

Well that's it for this time, so until next time get those contributions rolling in!

One final point. Paul Owen, our Circulation Manager (address on inside cover) has additionally taken on the job of Membership Secretary, so any membership queries should be sent to him.

Gary Carter
Chairman

EDITORIAL RESIGNATIONS

Dave Edwards has had to resign as Games Editor, as he no longer has the time to produce a regular section for CPC USER, and Tony Bambridge will not be writing for the magazine due to ill health.

We would like to thank both Dave and Tony for giving it a try, and hope they both continue to enjoy membership of the UAUG.

CONSTITUTION

Due to a last minute alteration the Constitution was not included with the January/February issue. A copy of the new version is therefore included with this issue.

MEMBERSHIP RENEWAL

To cut down on the administrative work required, membership renewals will now be handled Quarterly. The new dates are listed below.

Date Joined	New Expiry Date
December 86	January 88
January 87	January 88
February 87	January 88
March 87	April 88
April 87	April 88
May 87	April 88
June 87	July 88
July 87	July 88
August 87	July 88
September 87	October 88
October 87	October 88
November 87	October 88

Don't worry if you are not sure when your membership expires, you will be sent a personal letter reminding you approximately a month before.

EDITORS STILL REQUIRED

We still desperately require Editors for the Magazine, so please if you think you may be able to help out,

please telephone Gary Carter any evening.

All we are looking for are members who are interested in a particular subject and who are willing to spend a few hours every month compiling a section. The contents of the section will be completely up to you, for example members letters, articles, reviews, hints and tips, etc.

Editors must have a word processor but a printer is not required. Sections for which editors are required are:

- Games (not adventure)
- Business Software & Hardware
- Communications
- Programming

ADVERTISING MANAGER

We have not yet appointed an Advertising Manager. The job entails making contact with computer companies and selling advertising space in CPC USER.

A telephone is essential and the appointee should live within driving distance of the Fareham/Southampton area. He/she will of course receive full support from the UAUG Joint Committee. Interested members should contact Gary Carter.

CONTRIBUTIONS REQUIRED

If you do not have the time to edit a section every issue, you can still help! We desperately require your contributions.

UAUG TELEPHONE

Remember, if you have any problems, queries, suggestions, etc, and would like to telephone the UAUG, Gary Carter can be contacted on Fareham (0329) 281324 between 6.30 and 8.30pm weekdays and 4.30 to 9.30pm weekends.

NEW MAGAZINE...

A few weeks ago, the first edition of a new monthly magazine was selling from most of the national newsagents and from some of ye olde village shoppes. The 130-page newcomer is COMPUTER SHOPPER and can be described as an upmarket version of Micro Computer Mart. It costs 78p and is published by Dennis Publishing Ltd

COMPUTER SHOPPER is a multi-format magazine, claiming to be independent, unbiassed and uninfluenced by manufacturers or advertisers. Issue 2 was due on the bookstalls on March 16.

MINI-OFFICE PROFESSIONAL...

Despite assurances from various suppliers that Mini-Office Professional is available in CPC format, we have established that at the present time the program is available only in PCW format. In view of this, Mini-Office Professional will not be reviewed by CPC USER.

SO MUCH FOR COPYRIGHT ! ...

The April edition of Computing with the Amstrad includes Part 1 of a two-part article about building a 2nd disk drive for the Amstrad CPC computers. We were intrigued to note that certain word strings are identical to those contained in a similar article published in CPC USER, Issue 7. The author of the CPC USER article unsuccessfully submitted his work to Computing with the Amstrad last Autumn, and one wonders how many 'rejected' manuscripts are filed away for future reference !

DISCOUNT BARGAINS...

The Nevada Fortran and Cobol programming languages, normally sold on disk at £39.95 each, are on offer to UAUG members at the substantially reduced price of £19.95 each including full documentation. Stocks are limited so it's first come first served.

Orders should be sent direct to Timatic Systems Ltd, The Market, Fareham, Hants PO16.0LB.

CPC HARD DISK...

The hard disk for the CPC6128, mentioned in CPC USER Issue 7, is unlikely to be available for a few months, according to a spokesman at KDS Electronics. Apparently, KDS has run into costing problems with their hardware supplier and the project is at a standstill until the problems are resolved.

NEW CP/M VERSION OF WORDSTAR...

Micropro has recently announced the release of Wordstar Professional v4 for use under CP/M. Version 4 is provided with more than 120 new features, including an improved spell check/dictionary and thesaurus, total customisation facilities and the ability to drive any printer (including laser). The new program's operating speed is claimed to be substantially faster than previous versions, even when running on a 64k 8-bit machine. Version 4 is available in a number of machine-specific versions for CP/M-80, CP/M-86 and MS-/PC-DOS. The price is £169 + VAT; an upgrade is available for registered users of Version 3 for £89 + VAT.

Enquiries to Micropro on 01-879-1122 or to their associates Xitan on 0703-871211.

2nd DISK DRIVE POSTSCRIPT...

In view of the enquiries received regarding the article on 2nd disk drives (CPC USER, Issue 7, page 12), the address of Matmos Ltd is 1 Church Street, Cuckfield, West Sussex RH17.5JZ (telephone: 0444-414484 or 454377); the drive units are also available from Computer Appreciation, 111 Northgate, Canterbury, Kent CT1.1BH (tele: 0227-470512)

DLAN FROM AMSOFT...A USER'S VIEW

by Malcolm Pike

No doubt most people have seen the large dot-matrix illuminated boards in shop windows and shopping centres used to give out information.

I have been interested in these for some time but when I found out the cost of even a small display module I rapidly lost interest.

I was intrigued, therefore, to come across the Amsoft program DLAN in a local computer shop. This utility is designed to display any message on screen you care to give, in a variety of typefaces and colours, of a length limited only by computer memory, and which will auto-repeat until switched off.

The first thing you notice if you buy this program is that there is no instruction book. This is because all instructions are included on the disc and so the first thing to do is to load your printer with a mass of paper (the user-instructions amount to 61 pages) and go and make a cup of something while the printer gets on with the job of producing the manual.

At first it seems that you will have to learn a totally new programming language as the following example will show:

```
10 wa5,34,5,20\c1\wb6,35,4,19\c0\fa\t
   e\ = your text\d100
```

This is not as daunting as it seems and frequent reference to your newly printed manual will soon reveal that you are setting two window sizes (26 are available), clearing those windows and setting paper colours,

drawing frame 'a' and selecting typeface 'e'. The final 'd100' means that the display will be held for 100/6 seconds before going on to something else.

Fourteen typefaces are provided and a further twelve may be user-designed. Text on the screen may be made to scroll in any of four directions or even, if that is how you like to see things, waltz around the screen. Logos may be produced if required. One is shown on the DLANDEMO program supplied on the disc.

By using an MP2 modulator and a 22-inch TV set I have set-up this system at work to entertain the waiting customers. It runs a sort of Trivial Pursuits program for them but the choice of text is of course up to the programmer.

Another use I have found for DLAN is in my second hobby, producing video programmes. By tuning the output of the MP2 to a spare video channel, animated titles may be produced and recorded. It is necessary to be careful with the choice of colours as the video circuitry is incapable of handling sharp contrast cleanly. It is inadvisable, therefore, to use colour 0 next to colour 26, although a combination of 0 and 13 go together quite happily.

Altogether I find this to be a fascinating utility. As with most programming, one needs to keep at it until perfection is achieved but the result seems to be worth it. It will certainly keep you occupied for many hours.

THE ADVENTURE PAGES

by Terry Roberts

As promised, I am starting a series of reviews of adventure software this time, but first some news and views. To start with I would like to ask if any UAUG members have experience of adventure writing utilities such as GAC. If so, I would like to include reviews or tales of experience (good and bad) in a future column, so please contact me. In fact, anyone who has played a CPC adventure is welcome to write a review for publication in CPC USER - just let me know of your intentions in case 10 people review the same game!

There is still gloomy news from Activision about Infocom programs for the Amstrad. Not only are they not converting any new games but they are also deleting the existing catalogue (as listed in the previous issue of CPC USER) from stock. So my advice is to buy any Infocoms that take your fancy as soon as possible. Check with K & M Computers (0695 29046) for availability. There are a number of suppliers but you will almost certainly have to use mail order. More on this later. On the clubs and mags scene I now have information on THE ADVENTURER'S CLUB LTD. This produces 6 "members dossiers" a year for an annual fee of £11.95. These contain a range of info including full and part solutions, hints, reviews and articles as well as latest news on the adventuring scene. The club offers help with problems on adventures either by mail or by phone and some of the most well-known names in computer adventuring are associated with the club. The possibility of buying software at a discount through the ADVENTURERS CLUB sets it apart from most of the "fanzine/magazine" scene. The only feature not to my liking in the dossiers was the protracted serialised solutions some of which spanned 10 or more issues. To my mind, spreading a solution over a 3 month period in 3 parts is about right but any longer is unnecessary. A good feature of the adventure help given, however, is the use of code numbers to refer to. This makes it virtually impossible to read too much of a solution at a time which can spoil the fun. On the discounted software front, the dossier I saw contained no less than 9 pages of software on offer (for all machine formats, of course) and this is a useful compilation of just what is available for the CPC. The ADVENTURERS CLUB was formed in 1985 and has some 2500 members.

I have finally managed to get hold of another fanzine that I've seen mentioned quite often in adventure circles - namely "ORCSBANE". Now this is more zany than anything else around and can best be described as "adult". According to creator and editor Nick Walkland, ORCSBANE was the first computer/adventure fanzine and started in 1984 with the title of "Dragonfire". This was not a great success and in 1985 it became ORCSBANE. This is produced on a very irregular basis and as far as I understand, will itself transform into yet another format! There should be one more issue of ORCSBANE this summer before it re-appears as something else. The mag I saw was big and full of this and that rather like a rag mag. I would say it's for those deep in the adventuring scene and may not mean much to dabblers. If you are tempted,

contact Nick at 84, Kendal Road, Sheffield S6 4QH.

BUYING ADVENTURE SOFTWARE

Sales of adventure software tend to be slower than with arcade games but they do spread over a much longer period. Probably for this reason many chain stores do not stock much in the adventure line and even computer stores have only the major releases. So it is common to use mail order. For information, the following suppliers are worth checking for availability of a particular game:

COMPUTER ADVENTURE WORLD, Bank Buildings, 1A Charing Cross, Birkenhead, L41 6EJ (051 666 1132)

K & M COMPUTERS, 40 Fairstead, Birch Green, Skelmersdale, Lancs. WN8 6RD (0695 29046)

AIRD SERVICES, 139 Bromford Road, Birmingham, B36 8HR (021 770 0468)

All of these sell a wide range of software in addition to adventures and they can tell you the latest on recent releases.

RECENT RELEASES

Talking of recent releases, things seem to be going a bit haywire on the CPC adventure front. Level 9 have brought out GNOME RANGER and KNIGHT ORC (the latter through Rainbird) but Rainbird have not (at the time of writing) released JINXTER for the 6128. The Amstrad mags all say that JINXTER will be out any time now but when I checked with Rainbird directly the game was not listed for the CPC but only for the PCW. If JINXTER does not come out in CPC format, that will be yet another example of a sudden change of heart and commitment by software houses towards the CPC. Maybe by the time you read this the jinx will be lifted and the game released - I hope so.

Against this trend TOPOLOGIKA have recently issued conversions of four adventures for the CPC, namely COUNTDOWN TO DOOM, PHILOSOPHER'S QUEST, ACHETON and KINGDOM OF HAMIL. I will be covering TOPOLOGIKA in some detail in a future article but reviews of some of the games appeared in Amstrad Action if you are interested. You can phone TOPOLOGIKA on 0733 244682. At present all four games cost £9.95 each (disc only) and there are big discounts if you buy several.

REMINDER

You can still buy the adventure compilation on disc offered to UAUG members by NEMESIS. This comprises all three Arnold games plus BRAUN FREE and ANGELIQUE for £10. Send a cheque or PO to NemesiS, 10 Carlow Road, Ringstead, Kettering, Northants NN14 4DW.

Finally, if you need help in a particular adventure send me an SAE and I will point you in the direction of help if I can't help you myself.

Title : MOONMIST
Publisher: INFOCOM
Price : £24.95 (disc)

MOONMIST is an "Introductory" level adventure from the Infocom mystery range of "Interactive fiction", as they call it. You play the part of a famous detective from the USA who is called in by your old friend Tamara Lynd to help out with a mystery at Tresyllian Castle in Cornwall. Tamara is engaged to Lord Jack Tresyllian and seems to be very uptight about a ghost (which she has actually seen) and fears for her life. So, you need to sort out the mystery of the ghost as well as solve a series of riddles or clues in order to find a hidden treasure. There are a number of characters in the castle and you must interact with these to work your way through the game. However, there are in fact four versions of the adventure on the one disc, each with its own clues, treasure and ghost mystery. At the outset you are asked to type in your favourite colour and this decides whether you play the red, yellow, blue or green version. As you also need to enter a name and title the programme knows your sex and treats you accordingly. You can, of course, play more than one version with different names but I would advise sticking with one to avoid confusion. If you do run more than one at a time it helps to have a printer and to use the SCRIPT command which then prints out every move as it appears on the screen.

Being an introductory level game there is plenty of help available. The package comes with a map of the castle and letters from Tamara. If you type WAIT in the early stages the action moves along and by typing SCORE some idea of how you are progressing is given. For example, in the red game if you go down to dinner in your tweeds rather than your dinner jacket this will be commented on - just like real life isn't it!

For the newcomer to adventures, MOONMIST really is a great program and there is plenty to tackle if you have played a few. My advice is to go out and buy a copy while it is still available.

Title : WITNESS
Publisher: INFOCOM
Price : £24.95 (disc)

The action in WITNESS all takes place in and around a house so mapping is easy. You play the part of a detective and the game is set in Los Angeles in 1938. Mr. Linder, a wealthy but frightened man asks you to his house for protection as his life has apparently been threatened. In this type of Infocom adventure you can start off making enquiries and exploring locations and if you don't seem to be making much progress things happen anyway. In WITNESS, for example, no matter what you do in the early stages, a murder will happen at a certain time. Your task then is to solve the murder and find out precisely how it was done and, of course, who the murderer was. That's not all - the motive has to be sorted out as well. There are only a few suspects and you can accuse a person at any stage but if you have insufficient evidence you lose. For this reason alone it pays to save the game at regular intervals and especially before doing anything dramatic.

A Sergeant Duffy appears from time to time and he can take an accused into custody. He can also get things analysed (such as guns for evidence of firing or objects for fingerprints) to sort out which clues are useful and which are red herrings. Collecting the evidence is the major challenge of the game, especially as time plays an important part. For example, if you examine the grandfather clock before and after the murder you get quite different results!

It's Infocom so the packaging is good and several clues are in with the instructions. WITNESS is more of a challenging whodunnit than a long drawn out "classic" adventure and it took me some time to crack. All in all you get your money's worth.

One source of adventure software is The Computer Shop - see the ad in this issue

KEYBOARD

"I recently acquired a number of ROMs already installed in a ROMbox but cannot get any of the programs to work. I've checked and re-checked the connection to my silicon disc and memory expansion, but there's no obvious problem there. Can you please suggest a reason for this apparent malfunction?"

From the somewhat sparse information in your letter, there are three possible reasons for your problem. First, check that the ROMs have been correctly fitted in the sockets with no legs bent or broken and with the cut-out at the end of each ROM the right way round; also check that the occupied sockets have been correctly initialised in the ROMbox itself. Second, your other peripherals and firmware will occupy certain ROM select numbers in bank 1 (i.e. a lightpen occupies ROM select number 1, a silicon disk will occupy number 4, a serial interface will occupy number 6 and the disk operating firmware already occupies number 7), leaving very few bank 1 sockets available for additional ROMs. To overcome this, re-address the ROMbox sockets as bank 2 (i.e. sockets 8 to 15) and observe any precedence of installation imposed by the ROMs themselves; re-addressing the bank is achieved either by moving a link pin or by a switch, dependent upon the particular ROMbox. Thirdly, there is a remote possibility that the ROMbox itself is faulty.

However, the foregoing information is specific to the CPC664 and 6128 computers; a different set of rules apply to ROM recognition on the CPC464. If you are using a 464, write to us again or contact the ROMbox manufacturer for guidance.

"Having moved on from using a Sinclair QL to an Amstrad CPC6128, I would like to know if there's any way I can still use the Quill word processor?"

The Quill word processor has been adapted and upgraded by Psion for use on any IBM-compatible including the Amstrad PC range of computers. It was offered as a stand-alone program for £175 + VAT, but is now available as part of a suite of business software for £69 + VAT. Quill is not available for the CPC6128, nor for any other non-IBM compatible. Sorry!

"I have a couple of programs, a word processor and a database, both of which are labelled as being suitable for either a PCW or a CPC computer. I was under the impression that the programs would run on either computer, but experience has shown this not to be so. Why is this?"

It is mainly a question of format compatibility. Many programs, particularly those that are CP/M-based, are marketed for a variety of computers but that does not mean that they are interchangeable. Each program, even if it is CP/M-based, must comply with the format employed by the computer on which it is to be used. Accordingly, a particular program

may be available for a range of computers, but will be marketed in an equal number of different formats. So far as the PCW/CPC computers are concerned, there are differences in the disc operating systems and in the terminals. Any program would need to take these differences into account, otherwise the screen display will go haywire. For this and other reasons, programs for the PCW/CPC computers, whilst sometimes marketed on the same disc, will need to be in two different formats - usually PCW format on one side of the disc and CPC format on the other side. In some instances, the CPC format will run on the PCW (this is known as upwards compatibility, but is never entirely successful), but will rarely if ever work the other way round.

Exceptionally, a few CP/M-based programs are written specifically for the PCW/CPC computers and are not available for, nor will they run on, any other CP/M computer; such a program is the CP/M version of Protex, which is supplied on a single composite disc but needs to be formatted and configured to suit either a PCW or a CPC before it can be used.

"I have a program which I would like to copy to obtain a working disc, but neither the Diskit utility nor Oddjob will do the job. I don't know of any other way of copying the program - can you help?"

You don't name the program you want to copy and, in any event, whilst we sympathise with a genuine need to obtain a working copy from a master disk, the UAUG must not be seen as being party to what some people would regard as an act of encouragement for software piracy. Some programs, particularly games, are protected by a lenslock system; for business programs, one of a number of protection methods may be used. The lenslock systems are difficult to decode, especially those which use a random and different code each time the program is loaded, and you are unlikely to break the code unless you are a skilled 'hacker'. A few of the business programs are protected by a 'hidden' load-and-call file which is inaccessible to the average user. Such a file is sometimes stored on additional tracks. For example, the normal disc format provides 40 tracks, numbered 0 to 39, but a method of compression can provide additional tracks from 40 onward. Programs employing this particular method of protection may leave track 40 blank and may have the loading/calling file on track 41. Because most of the conventional copying utilities can only read tracks 0 to 39, any copies made of a program will miss the all-important file on track 41 and the resultant copy will not load or run. To copy such programs it is necessary to employ a method that will include tracks 40 onward. The only commercially-marketed utility that provides this facility for the Amstrad CPC computers is DISCOLOGY, available from Siren Software, 2-4 Oxford Road, Manchester M1.5QA (telephone: 061-228-1831). If you buy from them direct, you can get 25% discount provided you quote your UAUG membership number.

M.Catton of Gosport writes:

Your review of Brunword prompts me to add some comments on my own experience with it. The first impression it made on me when I bought it a year or so ago, and a lasting one, was its ease of use. Having done a couple of letters, I launched on a major report of some twelve pages that was written in separate bits which were then subsequently interwoven, chopped about, and generally manipulated. Within a few days I was using it with confidence and ease. From my limited experience of Tasword and your review of Mini Office II I doubt whether I would have acquired the same facility with either of those. Its ease comes partly from labels that are self-defining, such as CTRL C for Centre and ESC R for Remove, and partly from the fact that all editing functions are accessible directly from the entry mode without requiring access to menus. The handbook, I agree, is poor, but I have not found this a bother. Only very rarely do I find need to refer to it, or indeed to any of the menus.

I bought the updated version a few months ago and, with some reservations, consider it to be even better. The main improvement is the very much faster screen refresh, which previously was very slow. Moving a piece of text left or right with Clear or Space was terribly tedious but now is near instantaneous. A major enhancement is the ability to redefine 21 characters so as to produce any wanted symbol on the display and send any sequence of 10 characters to the printer. With this I can for instance print a caption in double height, double width, emphasised italic with a suitable marker on the screen using only 2 key strokes. Using the IBM graphics characters I can construct on the screen forms with horizontal and vertical rulings, which will print as such together with any text I have inserted. I find it an extremely valuable extension.

The ESC O command is in fact functional. Together with the update I bought the option DISC, which provides for editing of the directory, formatting and disc-to-disc or disc-to-tape copying while still under the control of Brunword. My only significant reservation is that, as you point out, the dictionary is integral with the program so that it is no longer possible to keep separate dictionaries. This does have the advantage that the spelling look-up, which I find invaluable, is available instantly without having to wait half a minute for the dictionary to load. The inability to keep specialist dictionaries does not bother me but I can see that it could well others. One solution is to buy a back-up disc for £7.50 which would enable two further dictionaries to be stored. I am also told that Brunword can be copied with DISCOLOGY, though ODDJOB balks at it.

My reference to IBM graphics reminds me of a little-known item of information of value to CPC users. My printer is a Citizen 120D which, in common with other Citizen printers, can

print high-order characters from 7-bit inputs. The code ESC > instructs the printer to treat all subsequent codes as high-order and ESC # to revert to low-order. So far as I know this facility is unique to Citizen. I am in the middle of changing from a 120D to the faster MSP10 and when I have got used to the latter intend to write a review of them.

W.A.Sambrook of Stoke-on-Trent writes:

I have to admit to being an ex-Spectrum (yes, ZX81 too) owner; in fact, my son still has the Speccy.

What I need to know is, is there any way of getting Spectrum programs out of the Spectrum and into my CPC6128? I have a particular Home Accounts program which suited my needs to a T and it seems a shame to have a perfectly good program lying about doing, as they say in these Northern parts, 'Nownt'.

I did read in an Amstrad magazine some time ago that a firm did a program which enabled programs to be converted but I have never seen one. If anyone can help or provide me with some 'gen' I would be most grateful.

P.J.Morley of Peterborough writes:

I am appalled at the waste of good time, stamp money and my efforts to try to use undocumented information on a disk. I am sure such creative energy and sore fingers went into something which has no use as the ship has been spoiled for a ha'porth of tar.

The computer industry is of course well known for poor manuals, no manuals and incorrect manuals so we are now following their lead.

May I suggest if the user can't be told how to use it don't send it 'til he can be.

If you think I'm wrong drive around a new route home without a map, then if you ever get home bake yourself a cake without a recipe, you will then have discovered indigestion something akin to how I feel at the moment.

We were careful to point out (CPC USER Issue 6, page 20) that not all PD software is documented and it is clearly necessary to remind you that the authors of PD software are mainly unknown and are not necessarily UAUG members. The UAUG PD library is offered on an "as is" basis and is free of charge (most other clubs charge for supplying PD software) but, even so, John Blessing did his best to help you with 'phone calls and letters. We're sorry to hear of your dissatisfaction, but in all fairness what do you expect for £5 a year? -Ed

MAILBOX

R.Priestley of Birmingham writes:

I am very grateful for your reply concerning the compatibility problem I was experiencing with Mini Office II and the Quendata printer.

By one of those extraordinary coincidences, at about the same time that I received your letter I also received from the UAUG Sec a copy of Colin Baker's "Mag Indexes". A reference to M. Burke's note to Amstrad Action with a short program was found to be effective in producing a single line-spaced print-out from the word processor. Thank you again for your help.

K.Heward of Stockton-on-Tees writes:

May I congratulate you on the new format of the Newsletter. It is a big improvement on the other version.

My problem is the MP-1 Modulator. Could you please publish my complaint as I think it is important. I purchased the MP-1 with my CPC464 about a year ago and soon found the modulator lacking as it produced a wavy and unstable picture. I contacted my local dealer, who told me that the modulator was working OK.

I find it disgusting that Amstrad can sell an item which is not up to standard. My local computer shop reckons that Amstrad have problems with this item, but why do they sell it if it isn't up to standard? Could other members give their views on this product?

Also, I have just bought two adventure games called "Forest at Worlds End" and "Rigils Revenge" but I can't get very far with either. Could you please help me with some form of plan to overcome the first steps in adventuring. Is there some routine that you follow?

Our Adventure Software Editor will be writing to you as soon as he can.

With regard to your Modulator, we cannot answer for Amstrad's marketing policy, but if you would like to direct your complaint to them we would be pleased to publish their reply. - Ed.

P.Cox of Fareham writes:

Thank you for your prompt reply concerning redefining characters using PROTEXT with a DMP2000 printer. I have followed your advice and am now happily redefining characters. I had not realised that I needed the >RC command, which I assume is necessary because the DMP2000 only allows characters from 0 to 31 to be redefined. Would I be right in thinking that if I installed a printer RAM extension (available from Goldmark) that I would be able to redefine the entire character set?

The remaining problem I have is that I cannot get the redefined character to line up with the

rest of the letters - or rather, they line up with the descender, and I have a feeling that this is connected with the attribute in the escape code. I am probably being dense, but the printer manual is unclear on how I should use the attribute. It says that it defines the horizontal position of the character in the 11 column grid, but I cannot make it do so. I have gone to the ridiculous length of trying just about every combination of attribute but without success. Because the computer has a 7-bit output. I don't see how else I can address the top line of the print head. Do you have any suggestions?

At the risk of asking too many questions, I would appreciate help on another subject. This one concerns PROTEXT as well. I have an address book on MASTERFILE III, and have used the 'export data' facility to allow me to manipulate the data with PROTEXT before returning it to MASTERFILE with the user Basic supplied. So far, so good, but I ended up in PROTEXT with a file containing lines of names. I have defined a key to convert surnames into capital letters at the touch of a single button. The problem is that with a list of 200 names, it gets a bit boring pressing the key 200 times. I am sure that I should be able to do it automatically, either using Basic or the Replace function, but I can't work out how. Any suggestions? I enclose listings of the appropriate programs, for what it's worth. I hope these questions aren't too trivial for you and look forward to your reply again.

Whew! We've only got two months between Issues, Pieter, so you'll have to bear with us for a while. It may be quicker to ask Arnor or Campbell Systems, or both - Ed.

A.Lee, Chief Clerk to the Allied Naval Communications Agency of NATO, writes:

I don't know how other members see your Newsletter, but I was impressed with the new format and articles; you appear to be picking up the mantle on practical computing where Computing with the Amstrad left off before getting too involved in Games' Reviews which now make up so much of its content. No doubt you will get feedback from your members in due course.

I and my colleagues would be interested to know how you see the UAUG developing in the future; it has grown up to a more professionally run organisation, but don't you think that you might require to use office facilities in due course, should it expand to a more sizeable membership?

Cottage industries apart, I hope that your Group continues to flourish and you get sufficient response from your membership to make your time and efforts worthwhile.

G. Collett of Bromley writes:

"I have recently joined the UAUG and have been most impressed by the first two issues of CPC USER which I have received.

I found your review of the Mini Office II Word processor in Issue 6 very interesting; it is certainly easier to follow than the manual! I tend to agree with your conclusions. I also have Tasword 6128 which has more facilities. I would also be interested in seeing your comments on the other MO II programs, if you ever have the time to review them. Of course, if MO Professional ever appears in a CPC version, then it would probably be better to review that package instead.

I enjoyed the letters page in Issue 7. I had already read about the availability of monitors from Comet, although the Comet price list doesn't show separate prices for them. I am not surprised that there is such a demand, as there must be many 6128 (and I assume 464) owners like myself who bought a green screen and now want to change to colour. What I'm not sure about is the quality of the colour obtained using a normal TV and modulator (I don't possess the latter).

The Disk Labeller type-in looks useful. However, I prefer to have my files listed in alphabetical order (as in Tasword's on-screen display). To obtain a printed file list in this form using CP/M, I type DIR B:[FULL,SIZE] - this is explained in "Using Your Amstrad CPC Disc Drives" by J.W.Penfold. Perhaps I could use your type-in, but substitute DIR B:[FULL,SIZE] for DIR when running the program?

Finally, a request for help - either through the magazine or directly. I have a copy of Stop Press but am unable to understand how to use it! In particular, I can't grasp the method of "Pulling an Area" (para. 4.8 of the manual) - how can a rectangle have only two corners (?) - or of getting the Text Mode (Chapter 7) to work at all. I think I must be missing something here!

That's all for now. Please keep up the Serious Software parts of the magazine, as it's a subject area which isn't always so well covered in such an unbiased way in the commercial Amstrad journals."

Welcome to the UAUG, Graham. We have no plans to review other modules of MO II, although we would welcome contributions from members with experience of the full package.

The TV and MP2 modulator combination is satisfactory for entertainment software but is not ideal for business software especially word processing. The use of an MP1 modulator is not recommended. It is not so much a question of colour quality, but more a matter of resolution in terms of readability.

As to your suggested amendment to the disk label type-in, why not try it and let us know the result? Alternatively, using SD.COM (available from the UAUG PD library), in preference to DIR, would give the same result more efficiently (DIR.COM is about 15k, whereas SD.COM is less than 5k).

We cannot answer your question about Stop Press (there seems to be almost as many bugs in it as its predecessor, Pagemaker), but if any member can help please write to CPC USER

POSTSCRIPT RE ARTICLE ON 2nd DISK DRIVES

When you have added a 2nd disk drive to your system, always have it switched ON even if it is not being used. If the 2nd drive isn't needed and you choose to switch off the disk drive power supply, always disconnect the ribbon cable from your computer. If the power to the 2nd drive is switched off but the ribbon cable is still connected, there is a high risk of losing all data in memory.

Theoretically, this phenomenon should not occur but it does; it is manifested by the screen clearing and the program aborting to the DOS prompt (i.e. Ready or A>). YOU HAVE BEEN WARNED!

COMET AMSTRAD PRICES

Further to the item in Mailbox (CPC USER, Issue 7, page 10) regarding the availability of Amstrad CPC hardware from Comet, the following details are confirmed:

ITEM	COMET STOCK No	COMET PRICE (incl. VAT)
CPC464 (ex monitor)	880-0020	£139.95
CPC6128 (ex monitor)	880-0129	£239.95
CTM644 Colour Monitor	880-2391	£160.00
GT65 Mono Monitor	880-2309	£ 60.00
MP1 TV Modulator	880-0420	£ 13.95
MP2 TV Modulator	880-1890	£ 24.90

Some branch managers will not be aware of the fact that these items are available separately, and it may be necessary to ask them to check with their Head Office.

Don Snoad reviews one of the lesser known word processing packages for the Amstrad CPC range of computers

Pyword, like all programs, has its advantages and disadvantages. One advantage is that, unlike many of its competitors, the Pyword disc includes a file management system enabling a range of housekeeping commands to be executed; this provides for disc drive selection, file erasing or renaming and file/disc copying, etc. Pyword is also a middle-of-the-road program insofar as it has all the essentials of a good word processor without being complicated by the more advanced facilities normally required only by the more specialist user; as a result, Pyword is easy to learn and simple to use. Another advantage is that, once the justification command has been obeyed, the text is formatted with the padding spaces being inserted outward from the line centre equally towards both left and right margins; this gives a nicely balanced appearance to the text. (The majority of low-budget word processing programs insert the padding spaces starting at the right-hand margins working towards the left, giving the text an unbalanced and untidy appearance.). A very useful feature of Pyword is that it not only includes a comprehensive printer configuration program and the bonus of programmed function keys, but it also allows those facilities to be customised by the user.

Another point in favour of Pyword is the enormous amount of tuition and help provided in the form of a well-written 31-page booklet, supplemented by 17 separate lessons occupying 79K of disk files (which, if printed-out, produces 30 pages of explanations and examples). In addition, there is an on-screen help display which can also be customised by the user. My only criticism of the documentation is that the booklet format is far too small; it is about 6 x 4 inches and should be at least A5 size and use a much larger font.

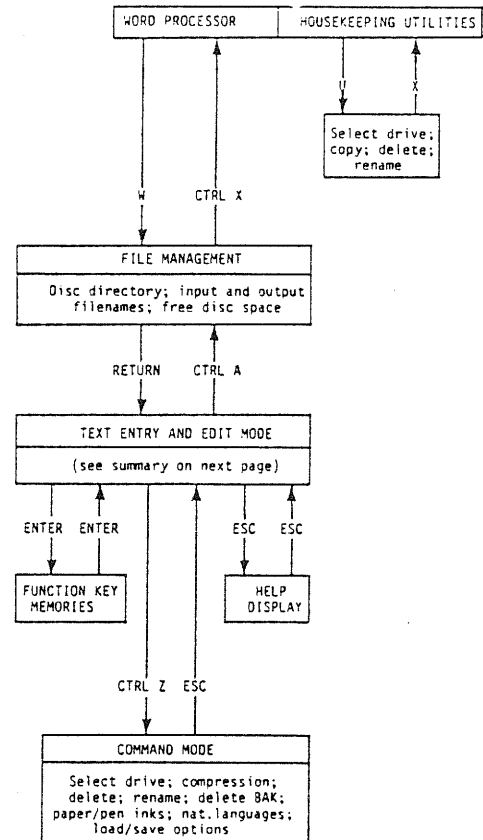
Apart from the program itself (which is only 16K), there are three optional files (one each for printer configuration, help display and saved options) totalling a mere 5K. Thus, the essentials of Pyword amount to no more than 21K which, with all the other files deleted from the working copy of the master disc, leaves plenty of space for storing data files; alternatively, since the program is entirely memory resident, separate data discs may be used. The maximum file capacity is 30K which is sufficient for about 10 pages of text. The program has a file chaining facility which allows an unlimited number of files to be consecutively printed.

Surprisingly, Pyword is bug free and at its current price of less than £18 it seems too good to be true. Of course there are disadvantages, but those I have come across are minor irritations and do not in my view detract from the program's simplicity, efficiency or value for money.

The disadvantages are few. The screen status line is not all that it could be and some of the terminology is a little unconventional (such as the use of 'record' instead of 'line'). In addition, block markers are not confirmed on screen and there is no continuous display of tab positions. The paragraph justification command requires a sequence of five keystrokes but, whilst this could be tedious, it can easily be overcome by programming a function key to do the job for you. One restriction is the fact that the program does not permit page formats wider than 80 columns, but this is a fairly minor constraint (in fact there is a method of overcoming this by inhibiting the carriage return). Another restriction is the absence of cursor controls to the start or end of the current line, but this too can be overcome by using TAB commands to send the cursor to the margins. The cursor speed control needs to be used with caution because in the 'fast' mode the cursor tends to disappear from the screen and has some very odd effects on word wrapping. The program generally is very fast - the text scrolling speed is the fastest I've seen on any program - and I have no

complaints about response times to key commands. Printer configuration is controlled via a special file which is generated from within Pyword, saved via the command mode and automatically read into memory when Pyword is loaded; any number of alternative files can be generated by the user for manual loading when required. One Epson-compatible configuration file is included on the program disc, ready for use. The program allows a good range of print controls including condensed, double-strike, emphasised and enlarged print as well as underlining and subscript and superscript. Page formatting and printing are controlled via text-embedded commands, thereby avoiding the necessity to exit from the text entry and edit mode. Printing will always commence from the current cursor position, so one has to be careful to remember to return the cursor to the start of the document before starting the print routine. The software suppliers claim that this feature allows the user to print selective pages or paragraphs, simply by positioning the cursor as necessary and pressing ESC to stop printing; however, this bit of 'trickery' would be possible only if there were no printer buffer (most printers have a print buffer of at least 2K). Apart from the housekeeping utility, Pyword is a stand-alone program and does not include mail-merge or spell-check facilities; however, files generated and saved to disc using Pyword can be spell checked using Arnor's Prospell. Although Pyword is unaffected by an external ROMboard, it is advisable to switch off any ROMs as they may corrupt the function key memories.

On balance, a very impressive program and the cost is low (under £18 on disc). There are few programs around at that price which are as friendly, as versatile and as easy to use as Pyword.



PYRWORD PROGRAM STRUCTURE DIAGRAM

CURSOR MOVEMENT

→ : Cursor right one column
 ← : Cursor left one column
 ↑ : Cursor up one line
 ↓ : Cursor down one line
 TAB : Cursor to next tab stop
 CTRL TAB : Cursor to previous tab stop
 CTRL V : Cursor to start (B)
 or end (E) of text
 CTRL Y : Cursor speed switch

TEXT SCROLLING

SHIFT → : Text right one column
 SHIFT ← : Text left one column
 SHIFT ↑ : Text down one line
 SHIFT ↓ : Text up one line
 CTRL ↑ : Text down 24 lines
 CTRL ↓ : Text up 24 lines

TABS AND MARGINS

CTRL T : Set/reset tabs or margins
 CTRL T +
 CTRL TAB : Clears all tabs/margins

INSERT OR DELETE

CTRL I : Insert mode on/off switch
 CTRL → : Insert line
 CTRL ← : Delete line
 (also cancels line insert mode)
 CLR : Delete character left of cursor
 DEL : Delete character behind cursor

BLOCK COMMANDS

CTRL B : Mark start of block
 CTRL E : Mark end of block
 CTRL D : Delete marked block
 CTRL COPY : Move marked block
 COPY : Copy marked block
 (also restores deleted block)

TEXT ENTRY AND EDIT

CTRL A : Abort from edit mode
 CTRL C : Centralise current line
 CTRL F : Find marked line
 CTRL G : Character case switch (entire para)
 CTRL J : Right justify text
 CTRL K : Word count
 (from doc.start to line above cursor)
 CTRL L : Set line marker
 CTRL N : Append new file
 CTRL O : Open up/split text line
 CTRL P : Print code entry
 CTRL R : Reformat text (CTRL W must be on)
 CTRL S : Search mode (see panel below)
 CTRL U : Undo last line change
 CTRL W : Word wrap on/off switch
 CTRL X : Exit and save text
 F0 : Display function key memory banks
 F1 :
 F2 :
 F3 :
 F4 : } User programmable for text entry,
 F5 : } text edit or print control functions
 F6 : } (max. of 32 keystrokes per function key).
 F7 :
 F8 :
 F9 :

SEARCH AND STOP	SEARCH AND REPLACE	
RETURN: Continue search G : Go to line where match was found ↑ ↓ : Scroll text where match was found	Automatic Auto search and replace from current line to end of document	Conditional R : replace C : continue
ESC : Cancel search; return to text		

TEXT-EMBEDDED PRINTER CONTROLS

\PP : Set page format/print parameters
 \HD : Set header
 \FT : Set footer
 \PN : Set page numbering
 \NP : Set new page
 \SS : Set single line spacing
 \DS : Set double line spacing
 \EP : Set end of print
 \EP (filename) : Set extended print
 (multiple file chain)

BOOK LIBRARY

UAUG BOOK LIBRARY UPDATE

by Brian McKiddie

CURRENT FEE: £1 per book per month

If you require any of the books below, please fill in a Book Request Form and send that together with a cheque/postal order for £1 to the UAUG Book Librarian. The £1 fee is to cover the running costs of the library and postage.

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.

- B1032P Amstrad Machine Language for the Absolute Beginner
- B1033P Amstrad CPC Whole Memory Guide
- B1034P Illustrating Basic (basic tutor)
- B1035P Simple Applications of the Amstrad CPCs for the Writer
- B1036P An Introduction to Programming for the Amstrad 464
- B1037P How to write Word Games on the Amstrad 464, 664, & 6128
- B1038P Using your Amstrad CPC Disc Drives
- B1039P The Amstrad 464, 664 & 6128
- B1040P Amstrad CPC 464 User Instructions

Cat No. Book Title.

- B1001H The Colour Coded Guide To Micro-Computers
- B1002P Computer Programing In Basic
- B1005P Writing Adventure Games On The Amstrad
- B1006P 60 Programs For The Amstrad 464
- B1008P Machine Code For Beginners
- B1009P Using Your Amstrad 464-Made Easy
- B1010P Computer Challenges For The Amstrad
- B1011P Advanced Amstrad Basic
- B1012P Introducing Amstrad CP/M Assembly Language (2 copies)
- B1013P Subroutines For The Amstrad 464 & 664
- B1014P Sensational Games For The 464
- B1015P Applications For The 464 & 664
- B1016P The Working Amstrad (2 copies)
- B1017P Filing Systems & Databases For The Amstrad CPC 464
- B1018P Amstrad Advanced Users Guide
- B1019P Using Dr.Logo On The Amstrad
- B1020P The Amstrad Pentacle Adventure Creator
- B1021P Write Your Own Adventure Games For Your Micro-Computer
- B1022P Understanding Computer Graphics
- B1023P Amstrad CPC 664 Computing
- B1024P Introducing Logo *
- B1025P Mysterious Adventures for your Amstrad
- B1026P The Amazing Amstrad Omnibus *
- B1027P The CP/M Bus *

***** NEW BOOKS *****

- B1028P Master Machine Code on your Amstrad 464, & 664
- B1029P Assembly Language Programming for the Amstrad 464, 664 & 6128
- B1030P 100 Programs for the Amstrad 464, 664 & 6128
- B1031P The Amstrad Disc Companion for the Amstrad 464, 664 & 6128

THIS MONTH'S REVIEW

Book Title:- Writing Adventure Games on the Amstrad.
Cat. No: B1005P

There is a saying that goes 'Everyone has at least one novel in them'. You have a computer , so why not turn that novel you have lurking in your mind into an adventure game. Who knows you might even sell it.

So, grab your copy of Writing Adventure Games and go. This book describes what adventure games are, how to play them, and more importantly how you can write them. Its all here in this book, ready to type in. The book also contains a simple adventure that you can type in and play.

This book sets out to outline some of the techniques which you can employ to write your own adventures, some of them fairly advanced techniques which will actually teach you something new about computing. It also sets out to provide a complete adventure generating system which can be used to design any number of adventure games, without direct coding, or any programming, being necessary. The AKS, as it is called, is easier to modify and more flexible to use than most commercial adventure designers, as it enables you to see the structure of your adventure game in a way which menu systems cannot.

MEMBERS PLEASE NOTE THAT THE BOOK BORROWING FEE HAS BEEN REDUCED FROM £1.50 TO £1

DISK OPERATING SYSTEM COMPATIBILITY

by Don Snoad

Once upon a time there was but a single format. It was created by IBM and later adopted for the Control Program for Microprocessors (CP/M) operating system; the media was single-sided single-density 8-inch disks. Since that time, alternative disk sizes have been introduced as well as double-sided and double-density capacities with hard or soft sectoring, all of which has aggravated the compatibility problems that bedevil both the software industry and the end user.

With such a prolific permutation of formats, it is hardly surprising that so many regular computer users have opted for the IBM standard as the only means of achieving a viable degree of compatibility across a range of modern hardware and commercial software. For much the same reasons, standards have also been established (partially, at least) for non-IBM compatibles, the most common being MS-DOS and CP/M. However, in the non-IBM league, certain incompatibilities still exist and this is particularly true of CP/M which suffers from as many different 'flavours' as there are dialects of Basic. Almost all these differences are the result of machine-specific DOS systems, one example of which is the Amstrad CPC and PCW computers.

The subject is often seen raised in the correspondence columns of the computer magazines by questions such as "why won't my CPC load PCW disks...?", which are usually answered somewhat glibly by references to 'upward compatibility' but rarely with any explanation as to the reasons why.

Both the CPC and the PCW computers will run in the CP/M 2.2 or CP/M+ environments, but differences exist which prevent the unrestricted interchange of software between the two computers. Basically, the differences are due to the need for machine-specific software to accommodate different screen displays (i.e. the PCW employs a 90-col by 32-line display, whereas the CPC uses the more conventional 80-col by 24-lines) and to the dissimilar DOS parameters. Little can be done about the screen displays without modifying the software, but the DOS can be re-configured temporarily to render an alien format compatible with the host computer.

Apart from the 90-col display problem (which is unique to the PCW), DOS re-configuration will enable software written for almost any other computer to be accessed by the host computer, subject to certain constraints such as RAM and TPA sizes. In this respect, minimum restriction is imposed by adopting CP/M since the common RAM and TPA capacities will accommodate all CP/M 2.2 and most CP/M+ software. Software written for non-CP/M DOS can also be accessed by the CPC/PCW computers subject to certain limitations.

Fundamentally, DOS re-configuration requires an understanding of disk and drive control in terms of determining a range of parameters which, collectively, constitute a Drive Control Tabulation (DCT).

A DCT comprises data in three groups; these are: the Format Specification (FS), the Disk Parameter Block (DPB) and the Extended Disk Parameter Block (XDPB). In addition, it may be necessary to obtain data from other sources regarding ancillary software drivers, methods of accessing disk directory records, allocation tables for free/assigned disk space and hash index tables.

The FS is straight-forward as it is merely data concerning the number of disk sides and the manner in which double-sided disks are accessed by double-sided drive heads, together with details of tracks per side, sectors per track, sector size, first sector number and the physical head parameters.

The DPB and XDPB are more complex and require certain parameters to be specified including the records per track, block shift and mask, extent and directory allocation masks, number of blocks and directory entries, size of checksum vector, number of reserved and system tracks, the read/write and format gap lengths and the skew factor. The skew factor is the difference between the physical and logical sectors and is sometimes referred to as interlacing.

By way of example, a few sample DCTs for a selection of computers is given in the tables accompanying this article.

So far as the CPC and PCW computers are concerned, most of this information is published in various reference books, including:

- The DIGITAL RESEARCH CP/M PLUS MANUAL (Soft 971), Appendix I;
- The AMSTRAD CPC FIRMWARE GUIDE (Soft 968), Section 9;
- The AMSTRAD CP/M PLUS by Powys-Lybbe and Clarke, Appendix C;

and there is a useful introductory summary in Chapter 12 of Sigma's CP/M THE SOFTWARE BUS by Powys-Lybbe, Clarke and Eaton.

Some reference books tend to be a little confusing in that they refer to the Amstrad PCW drive as being Type 0 format, but fail to mention other relevant Type numbers. In practice, Amstrad has allocated identification numbers to all its disk formats; for example: Type 0 refers to the PCW8256/8512 drive 'A' format, Type 1 refers to the CPC system format and Type 2 identifies the CPC data format. The Spectrum + 3 also uses the Amstrad Type 0



Parameters	CPC data format	CPC system format	CPC IBM format	PCW 8000 Drive A	PCW 9512	Osborne Executive	RML 480 Z	Tatung Einstein	Wren Executive
Media - disk diam.	3	3	3	3	3	5	5	3½ or 5	5
tracks per inch	48	48	48	48	48	48	48	48	48
Sidedness	SS	SS	SS	SS	SS	SS	SS	SS	SS
Density	DD	DD	DD	DD	DD	DD	DD	DD	DD
Tracks per side	40	40	40	40	40	40	40	40	40
Sectors per track	9	9	8	9	9	5	9	10	10
Sector size	512	512	512	512	512	512	512	512	512
1st. Sector number	193	65	1	1	2	3	0	2	2
Physical head 0, H=	0	0	0	0	0	0	0	0	0
Physical head 1, H=	1	1	1	1	1	1	1	1	1
Records per track	36	36	32	36	36	40	36	40	40
SPT	3	3	3	3	4	3	3	4	4
BSH	7	7	7	7	15	7	7	15	15
BLM	0	0	0	0	0	0	0	0	0
EXM	179	170	155	174	356	184	165	94	94
DSM	63	63	63	63	255	63	63	63	63
DRM	192	192	192	192	240	192	192	128	128
Direct'y alloc mask	AL1	0	0	0	0	0	0	0	0
Checksum vector	16	16	16	16	64	16	16	16	16
CKS	0	2	1	1	1	3	3	2	2
Reserved/system tks	N	N	N	N	N	N	Y	N	Y
OFF	42	42	42	0	0	N	Y	N	Y
Skew	82	82	80	0	0	0	0	0	0
Gap length - read/write									
- format									

TABLE 1: DRIVE CONTROL TABULATIONS FOR A SELECTION OF COMPUTER DOS
(Caution: Alternative versions may exist of computer models listed)



FEATURE

format and is compatible with Amstrad CP/M file structure; in fact, I can think of no reason why a Spectrum + 3 disk cannot be read either by a PCW8256/8512 drive 'A' or a CPC6128 drive 'B' that has been re-configured as a Type 0 drive.

However, although the Amstrad data will provide some insight as to the parameters required to be specified, the prospective user will be more interested in obtaining similar data pertinent to an alien DOS. This is where difficulties may arise because many computer manufacturers have not published the essential data and, when asked, seem reluctant to part with it. However, all is not lost as there are a number of useful utilities available from PD software libraries some of which will provide an on-screen read-out of much of the essential data relative to a disk operating system. Examples of such utilities which run under CP/M are:

```
DISKSTAT
DISK UTILITY (v8.6 or later)
INFORMER (v1.30 or later)
NSWEEP (v2.07 or later)
POWER (v3.07 or later)
FREEFORM (v1.10 or later)
DBLCROSS (v1.70 or later)
FILEFIX (v1.20 or later)
```

Over the years, a number of attempts have been made to bridge the compatibility gap by producing programs that enable alien formats to be read by the host computer. Such programs were not entirely successful, although some were better than others.

One of the most successful programs was CROSSOVER, written about 5 years ago by M.J.Gingell; the program was acquired by Hypersoft Software of Raleigh, NC, USA, and marketed as HYPERCROSS. Another successful program was CONFIGURE, available for some of the early CP/M machines. An inherent problem with HYPERCROSS was gaining access to its machine-code data file, which was difficult for a user without programming experience. CONFIGURE, on the other hand, was relatively easy to get into and its data file could be amended/enlarged using a text editor or a word processor such as Wordstar.

More recent derivatives of those early programs are UNIFORM, MATCHMAKER and MATCHPOINT (all for the IBM machines) and CAMELION which is a CP/M orientated program available in a range of machine-specific versions to which has recently been added a new version for the CPC/PCW computers.

CAMELION provides all the essential options for adopting drive and disk format parameters to enable alien formats to be accessed by the CPC/PCW computers. Alien drive parameters, once correctly determined and entered, can be saved to disk and re-called from within CAMELION whenever required. Although CAMELION limits the number of saved formats to 32 per file, the only limit to the number of parameter files is the free space on the CAMELION disk. The program disk can also be copied, so there's no real limit to the disk space available. To help you on your way, CAMELION is supplied with at least one parameter file of 30 or so different disk formats ready for use (including, of course, all the CPC/PCW formats).

The only extra hardware required by CAMELION is a 2nd disk drive which ideally should be a 5 1/4-inch 40/80 switchable track self-powered unit. If you are limiting your operations to the CPC, a standard 5 1/4-inch drive or a 3-inch drive unit will suffice. For the ambitious 464/664 user, a 64K memory expansion will additionally be necessary together with the CP/M+ operating system. CAMELION will run only in the CP/M+ environment.

To enable CAMELION to log-on to drive B, it is necessary to insert the alien disk in drive B before loading CAMELION in drive A. If this pre-requisite is not observed, CAMELION cannot execute a drive B configuration.

CAMELION is intended primarily for the PCW computers but it can be put to good use, as it stands, for converting generic CP/M80 programs to CPC format; it's almost worth buying CAMELION for this purpose alone since it provides a wider choice of commercial software for the CPC as well as ensuring usability of any PD software acquired in an alien format. Similarly, it is also useful for converting certain PCW programs (which use or can be made to use a 80 x 24 screen display) into CPC format. The PCW-CPC conversion procedure is very simple, as one would expect from two similar machines from the same stable. For example, to convert a PCW version of Wordstar, Newword2, Supercalc2, Brainstorm, etc, to CPC format, proceed as follows.

Insert the PCW program disk into CPC drive B and via CP/M+ load CAMELION via CPC drive A. From CAMELION's menu, select option F and load 'PCW drive A format'; select option D and change the target drive to drive B (and to non-switchable 40/80 track mode, if you are using a 3-inch or a standard 5 1/4-inch drive as your 2nd disk drive) then select option E and at the >A prompt enter B:(Return), then DIR (Return) then A: (Return). Replace the CAMELION disk with your CP/M+ system disk and enter PIP (Return), then replace the CP/M+ system disk with a blank disk already formatted as a CPC system disk. At the * prompt, enter A:=B:.* (Return) and, with luck and providing there are no missing block parameters, all the files from the PCW disk in drive B will be transferred to the new CPC system disk in drive A. On completion, remove both disks, re-boot CP/M+ and load your new PCW program (now in CPC format) via drive A; enter DIR (Return), to confirm that the program files are present, then commence whatever installation procedures the program requires. In particular, it will be necessary to configure the program for an 80 x 24 screen display (Zenith Z19/Z29 protocol) and the parameters appropriate to your printer; if the program installation procedure does not include these two options, you've wasted your time.

At this stage, it is appropriate to introduce a cautionary note concerning the use of CAMELION's option A (a feature for automatic determination of an alien format); when in this mode do not allow the drive to 'hammer' excessively as this may cause the unit to go out of alignment.

Like most utilities, each one has its advantages and disadvantages. The original HYPERCROSS could not be extended to cater for additional formats without skilled help, but



FEATURE

did allow the user to format a disk and to copy files from one disk to another across different formats. CONFIGURE was even better since it provided all the facilities of HYPERCROSS and also allowed almost unrestricted formatting and copying even with unknown formats. CAMELION allows the user to add new formats to its repertoire, but has no provision for formatting a disk or for transferring files. However, to overcome this, the PIP utility can be copied from your CP/M+ system disk to the CAMELION disk. As a bonus, the CAMELION disk already has two of the utilities mentioned earlier; namely: DISKSTAT and DISK UTILITY.

A separate feature of CAMELION is its ability to transfer MS-DOS files. Selecting this option allows the user to view a directory of MS-DOS files on the disk in drive B and to execute individual file copying or erasing. Unfortunately, this file copying/erasing facility applies only to MS-DOS.

CONFIGURE also permitted the user, via other CP/M utilities (e.g. NSWEEP), to display the data files on screen so that any saved set of format parameters could be viewed and compared whenever required; this, in turn, allowed the user to alter any parameter by using a conventional text editor or suitable word processor. CAMELION, on the other hand, makes direct provision for entering new parameters but does not display a complete parameter set on screen; this means that the user has no visual confirmation of all the data previously entered, and will therefore need to keep a pen-and-paper record of those data files which he/she feels may subsequently require alteration. In fact, until such time as a set of parameters has been proven, it would be imprudent not to maintain a detailed record of new data entered in CAMELION. CAMELION also has a few minor disadvantages in that certain data once entered is not correctable and this is a little irritating since it is necessary to go back to square one and start again; also, some of the prompts are more general than specific with the result that difficulties may arise in trying to change, for example, the 'freeze format' option to suit a non-Amstrad format and there is no provision for determining skew factors.

Fortunately, the Amstrad 3-inch drives do not use a skew factor, but many other CP/M machines do. The skew factor dictates the skip between sectors and therefore the sequence in which sectors are accessed; it is important to know not only whether skewing is employed but also the skew factor and the sector number first accessed. CAMELION requires the sectoring to

be entered, sector by sector, in numerical sequence according to the skew factor (see Table 2).

One aspect of DOS re-configuration that must not be overlooked is the risk of re-configuring the default drive (presumably drive A). With CAMELION, and its predecessors, it is possible to alter the drive/format characteristics of drive A which, if executed, may result in loss of computer control; in this event, the only option is to remove all disks from all drives and re-set the computer.

From the outset, the concept of DOS re-configuration should be seen in its proper perspective. Whilst it undoubtedly can be used to effect file transfers across different formats, there can be no guarantee that commercial software will run correctly without additional work being carried out either on the programs themselves or in redefining all or some of the VDU control codes. Programs that run in a similar operating environment, such as CP/M, stand a better chance of success especially when in generic CP/M80 form than those from dissimilar environments, and it is for the user to decide the extent to which he/she intends to exploit the re-configuration potential. For some users, a relatively simple file transfer facility may be all that they require; whereas, other users may have more ambitious plans, perhaps involving the use of supplementary utilities to enable a range of peripherals/devices to be conjunctionally configured to suit a particular task. But that's another story!

An entire book could be written on the subject of DOS configuration and this article should be read only as a very elementary introduction. If it has whetted your appetite or frightened you off, it will have served its purpose. The subject is best learned by studying the theory of DOS, liberally interspersed with plenty of practical experimentation. It can be a very demanding and frustrating experience, but it can also be very rewarding.

The utilities I've mentioned are all available from PD software libraries. The HYPERCROSS program is difficult to obtain in the UK, since the importers (Molimerx Ltd of Bexhill-on-Sea) ceased trading about a year ago. CONFIGURE seems to have disappeared from the market altogether, which is a great pity since it was one of the most versatile programs of them all. The CAMELION, UNIFORM, MATCHMAKER and MATCHPOINT programs are marketed exclusively by Timatic Systems Ltd, The Market, Fareham, Hants. PO16.0LB; telephone: 0329-239953.

RML 480-Z	0, 5, 1, 6, 2, 7, 3, 8, 4
WREN EXECUTIVE	2, 4, 6, 8, 10, 1, 3, 5, 7, 9

TABLE 2: SECTOR SKEW SEQUENCES



PUBLIC DOMAIN SOFTWARE UPDATE

By John Blessing

The dust has begun to settle and at last I've found the packing case with my computer in. All of which is to draw attention to the fact that my address has changed - see below.

Last month I said that I would look in detail at some of public domain software in the library and the first program under the microscope is NSWP on PD1/1. It is accompanied by ten pages worth of excellent documentation. The following description will show you just what you're missing if you haven't got it in your collection.

NSWP is a directory and file manipulation program which allows you to work on single or multiple files with equal simplicity. Once invoked by typing "NSWP" at the ">" prompt in CPM (2.2 or 3), NSWP will respond with the following typical message:

```
Drive A0: 50k in 12 files. 120k free.
1.A0:NSWP .COM 8k:
```

Pressing <SPACE> or <CR> will cause the remaining 11 files (in this case) to be listed in alphabetical order.

At any time you may perform a number of functions; you can choose to rename, copy, delete, set status, send a text file to screen or printer, unsqueeze or squeeze text files. The latter is a text compression which can reduce file size by 30% typically. This obviously saves valuable disc space and speeds up file copying. You may also tag (and untag) any number of files, this marks a file for mass operation of the above functions.

NSWP performs faultlessly and in fact is my favourite of the PD library - it's certainly the one I use most. It's proved invaluable in managing the library and makes copying the library sections for members a painless operation. It only occupies 8k of disc space so certainly deserves a place on your CPM discs!

(Note: NSWP is the same utility as NSWEEP mentioned in the article on DOS Compatibility in this issue - Ed)

In the same section of the PD library are a variety of improved directory programs, one of the best of these is simply called SD (Sorted Directory?). SD can be used simply by typing "SD" at the CPM (3 or 2.2) prompt, and it provides a sorted directory. No documentation I'm afraid but if you type "SD //" you will then be given a list of the options you can add to this command. One thing that does puzzle me is why the author chose "/" to produce a help screen rather than the more conventional "?". However, it is a very good program so perhaps I won't hold this against him. The additional options are

invoked in a similar way as the CPM dir command, eg "SD [a,d]". Some of these are:

```
a - all users
d - all disks
f - make file (useful for keeping track
  of your collection?)
p - to printer
```

As SD only occupies 4k (compared to 15k for DIR) it is probably another worthwhile addition to your CPM discs.

NEW SOFTWARE

I am very glad to say that we have a new addition to the library from Matthew Roberts (yes Terry is his father!) I'll let Terry describe it in his own words:

"BLUE RAIDER is a two part adventure, you play the part of Kiloan - The Blue Raider - and you are under the command of Queen Kimbra. She has had most of her land taken over by the Kraags, an evil race of hideous creatures seeking total domination. As part of the Queen's elite you have been assigned a small island, about 80 mile off the mainland that you must reclaim by killing Arriel. He is not a well known soap powder but is in fact the Kraag currently ruling the island in the castle to the north. In order to do this you must seek Quillan, a wizard who backs the rebellion, and he can help you. The Kraags are a powerful lot so you will need magical weapons to defeat Arriel."

You can find Blue Raider on PD3/4, thanks very much Matthew!

I have also included on PD3/5 the RSX programs which are described in a separate article.

I hope that you will be encouraged to send in your favourite program, (your own work or PD please). I'm sure that there must be a lot of 'home-grown' software lurking in your collections which you would love to have a wider user base. It doesn't matter if it's a one or thousand-liner, all will be gratefully received and your cherished coding will be appreciated by the members. If you can include some documentation in the form of an ASCII file, all the better.

The number of requests for PD software have been rolling in at a good rate - keep them coming (while your sending a disc anyway why not include some software for the library?). Remember that the UAUG is the ONLY place where PD is COMPLETELY FREE, tell your friends and you won't need to break their legs to make them become members!



PUBLIC DOMAIN LIBRARY

PUBLIC DOMAIN LIBRARY

PD1/1 (CPM)

CAT3 Single entry per line directory
 CLEANUP File eraser
 COMPARE Compares two files
 CRCK44 Produces checksum
 D Sorted directory with file lengths
 DISK76 Multiple file utility (like NSWP)
 DISPLAY Like TYPE
 DU Disc editor
 MCAT41 Catalogues disc collection
 FIND Search files for specified string
 HELP Prints help files
 IDUMP Hex dump of files
 INDEX Sorted directory with file lengths
 LDIR ? (any ideas on this one ?)
 LISTT Sends file to printer
 LRUN Run a no. of commands from a library, as if separate .COM files were being run
 NSWP Multiple file utility
 NI Sorted directory with file lengths
 SD Directory utility ('SD //' for help)
 PASSWORD Used with SCRAMBLE
 RENAME Rename with wild-cards
 RPIP PIP with quick repeat
 SCRAMBLE File encryption
 SORTV Alphabetical sort of file
 SQUEEZE Compress file
 SUPERSUB Interactive version of SUBMIT
 TYPEL Like TYPE
 UNERA190 File unerase
 UNSQUEEZE Expand compressed file
 VLIST TYPE with variable scroll speed
 WHATSNEW Lists newest files (needs date-stamping I think)

PD1/2 (CPM)

COBOL COMPILER With 32k documentation

PD1/3 (CPM)

Z8OASMUK Assembler
 ZMAC Assembler
 ZLINK Linkage editor for ZMAC

PD1/4 (CPM)

Z8EAM Z80 monitor and assembler

PD1/5 (CPM)

SECRETARY Word processor (needs assembling and installing)

PD2/1 (CPM)

SMODEM Smart modem utility

PD2/2 (CPM)

AMSMOD7 Modem utility
 MEX Modem utility (type 'MEX' then 'HELP' for help)
 SMARTMEX Smart modem version of MEX
 UKM1275 Modem utility

PD2/3 (CPM)

BANNER Notice printer
 GOTHIC Sideways banner printer
 COLLOSAL ?
 CAVE ADVENT The original adventure game
 BIO Biorhythm generator
 BISHOW ? (any ideas?)
 CAL Calendar generator

PD2/4 (CPM)

CHESS Text version
 OTHELLO Text board game
 CUBE Simulation of 5x5 Rubik type cube
 GOLF Text simulation of golf game
 LIFE Classic game of life
 MASTMIND Guess the computer's word
 MAZE Generates mazes
 NEWPUZ Wordsearch puzzle generator
 PINGPONG Graphic pingpong game (CPM+ only)
 PRESSUP Board game
 STONE African stone game
 TICTACTO Noughts and crosses

PD2/5 (AMSDOS)

25-SQUARE Rubik cube game
 BIOCHART Biorhythm generator
 BLCKJACK Blackjack card game
 BREAK Snooker quiz game (6128 only)
 F4SQUARE Puzzle game
 FAMILY Family history - no instructions, any ideas?)
 FLAG-1 Draws Australian flag
 FLAG-2 as Flag-1 using FILL command
 HIGHLOW Guess the hidden number
 HOROSCOPI Horoscope generator
 JACKPOT Simple fruit machine
 KEYS Redefine keyboard to give keyword command entry
 LIFE-10 Life game
 MEMGRAPH Screen designer (6128 only - needs BANKMAN)
 MERCHANT Space trading game

PD3/1 (AMSDOS)

AMSDIR Tape cataloguer
 CAT Sends CAT to printer
 HOME Home budget
 ICON2 Ascii/Prestel converter
 INPUT1 General input sub-routines
 LABEL Label printer
 PAPERMAN Management simulation exercise
 PENNYTEN Pingpong game
 PJBOMBER Bomber game
 POLAR Plots polar equations
 QUEST Text adventure
 RAFFLES Maze game



P D L I B R A R Y

SCOSAVER Game - not working - anyone like to fix it?
 SPELLING Spelling game
 SPORTMAN Sport management game
 SURFACES Graphic demo
 TODAY Calculates day names from dates and Easter dates
 TYPTUTOR Typing tutor
 USEOFMIN Graphic demo
 WUMPUS Text adventure

HOW TO ORDER:

1. Each of the sections above will fit on one side of a disc so send enough discs! eg if you want all the PD library then send 7 discs.
2. Please make sure the discs are blank and in VENDOR format.
3. Use a padded envelope and enclose correct stamps for return postage otherwise I cannot return your discs !
4. Enclose your address and tel no (in case you've forgotten point 3!)
5. State which software you require, eg PD1/1 and PD3/2. I cannot supply individual files.
6. If you haven't got a disc drive then you can still order software (but not CPM please!) by sending a long enough tape.

PD3/2 (AMSDOS)

A comprehensive subject index in MASTERFILE format:

AMSMAG85
 AMSMAG86
 AMSMAG87
 ODDMAGS

PD3/3 (AMSDOS)

AS PD3/2 BUT IN ASCII FORMAT

PD3/4 (AMSDOS)

BLUE RAIDER Two part text adventure

PD3/5 (AMSDOS)

ROLL Assembler and BASIC versions of scroll RSX
 SCRSWAP Assembler and BASIC versions of screen swapping RSX
 RSX-ART Ascii file with instructions for above programs
 ROLL.DEM Demo for ROLL RSX
 SCRSWAP.DEM Demo for SCRSWAP RSX

Most of the documentation files have been compressed to save disc space. This is indicated by a "Q" as the second letter of the filetype, eg READ-ME.DQC would be a SQUEEZED version of READ-ME.DOC.

These can easily be converted into normal ASCII with either UNSQUEEZE or NSWP on PD1/1 so you should order this section of the library first.

SEND ORDERS TO:

John Blessing
 26 Chichester Close
 West Wellow
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PROGRAMMING

BASIC DATA PROTECTION

by Alf Murley

Data entry is the process of getting information into a computer so that it can be manipulated or stored. Because this normally involves the use of the keyboard, it is possible for the user to make entry errors in response to computer prompts. Inaccurate or invalid data entry can cause a program to interrupt, halt or abort in an error condition in the middle of its run. This article discusses some possible error checking routines that a good programmer would include in a program to avoid such an occurrence. These routines include the following:

- (a) Checking data entry for acceptable length,
- (b) Checking for null strings (empty strings),
- (c) Checking for illegal characters
- (d) Use of the VAL instruction, and
- (e) Padding data entry to correct lengths.

CHECKING FOR ACCEPTABLE LENGTH

One technique to check data entry for acceptable length uses the LEN instruction within the IF ... THEN instruction. When data input in response to a computer prompt has a defined number of characters, a check for mistakes in the data entry would be to see that it has the required length. For example, a postcode could consist of two groups of three characters separated by a space. Such a code contains seven characters (six alphanumeric characters plus one space), so a check could be put into a program segment as follows:

```
200 CLS
210 LINE INPUT "ENTER POSTCODE", P$
220 IF LEN(P$)=7 THEN 290
230 PRINT "YOU TYPED"; P$
240 PRINT
250 PRINT "RE-ENTER 7 CHARACTER CODE"
260 FOR X=1 TO 2000 STEP 1
270 NEXT X
280 GOTO 200
290 PRINT "YOU TYPED"; P$
300 PRINT
310 PRINT "THIS IS ACCEPTABLE"
320 PRINT "IS THIS CORRECT?"
330 PRINT "ANSWER Y FOR YES OR N FOR NO"
```

CHECKING FOR NULL STRINGS

A null string is assigned to a string variable when the computer is waiting for a response and the user presses only the RETURN key. If subsequent instructions in the program pads the entry with spaces, the string variable will be filled in error with spaces. Checking for null entries (an empty string) must be included in the program. Either of the following two techniques may be employed:

- (a) IF A\$="" THEN ...
- (b) IF LEN(A\$)=0 THEN ...

For the occurrence of a null string, a helpful error message should be provided as follows:

```
200 CLS
210 LINE INPUT "ENTER POSTCODE", P$
220 IF LEN(P$)<>0 THEN 270
230 PRINT "A POSTCODE IS REQUIRED TO CONTINUE"
240 FOR X=1 TO 2000 STEP 1
250 NEXT X
260 GOTO 200
270 IF LEN(P$)=7 THEN 330
280 PRINT "YOU TYPED"; P$
290 PRINT "RE-ENTER 7 CHARACTER CODE"
300 FOR X=1 TO 2000 STEP 1
310 NEXT X
320 GOTO 200
330 PRINT "YOU TYPED"
340 PRINT "THIS IS ACCEPTABLE"
```

CHECKING FOR ILLEGAL CHARACTERS

Use of the ASC instruction permits detection of illegal or unlikely characters in the response to a computer prompt. This detection is carried out by a combination of the ASC, MID\$, IF ... THEN and FOR instructions. First, the length of the data entry is determined and is used as the upper limit for a FOR loop as follows:

```
200 CLS
210 LINE INPUT "ENTER CHARACTER CODE", C$
220 FOR X=1 TO LEN(C$) STEP 1
```

The MID\$ instruction is then used with the FOR loop variable X to select each character of C\$ in turn. Each character is converted to an ASCII number using the ASC instruction, and is compared with an ASCII number corresponding to the illegal character. In the following, the illegal character is a space which has ASCII number 32:

```
230 LET M$=MID$(C$,X,1)
240 IF ASC(M$)<>32 THEN 290
250 PRINT "YOU TYPED"; C$
260 PRINT "RE-ENTER CODE WITHOUT SPACES"
270 LET X=LEN(C$)
280 GOTO 200
290 NEXT X
```

USE OF THE VAL INSTRUCTION

The VAL instruction can be used to convert numbers put into a string variable to pure numbers; it can be used in an error checking routine as follows:

P R O G R A M M I N G

```
200 CLS
210 LINE INPUT "HOUSE NUMBER", HS
220 FOR X=1 TO LEN(HS) STEP 1
230 LET N$=MID$(HS,X,1)
240 IF VAL(N$)<>0 THEN 280
250 PRINT "ENTER NUMERIC VALUE ONLY"
260 LET X=LEN(HS)
270 GOTO 200
280 NEXT X
```

Note: Check the effect of the VAL instruction (see Amstrad User Instructions, page 3.87)

PADDING TO CORRECT LENGTH

It is sometimes necessary to increase the character length of a data entry which has less characters than is allowed. The entry can be increased by adding trailing spaces to fit the allowed number of characters. This can be achieved using the following program segment:

```
200 CLS
210 LINE INPUT "ENTER CITY NAME", CS
220 IF LEN(CS)<=20 THEN 290
230 PRINT "RE-ENTER AS 20 CHARACTERS OR LESS"
240 FOR X=1 TO 200 STEP 1
250 NEXT X
260 GOTO 200
290 WHILE LEN(CS)<>20
300 LET CS=CS+" " :REM " " represents one space
310 WEND
```

Data entry protection based upon the foregoing text should enable the development of programs that do not crash on data entry at the keyboard. Having protected the data, enter all sorts of silly responses to the computer prompts to check the protection.

In general, the required data protection should be determined when a program is being written, the essential issue being to decide how much checking is justified. This should proceed along the following lines:

- (a) Analyse each data entry to be made in response to a computer prompt;
- (b) Determine all possible keying errors that may be made in response to a prompt;
- (c) Include instructions to detect the errors.

Note that errors can be caught by using the ON ERROR GOTO and ERROR instructions. This enables the error detection instructions to be written in one program block.

REED THE MANUEL

by Terry Roberts

When we bought a printer some while ago we decided on a Japanese model as it offered good value for money. Little did we know that the manual would prove to be a great source of amusement as well! My Japanese is not very extensive so it is unfair to criticise the English translation in my printer handbook, but it does make good reading so I shall share some excerpts with you.

When setting up the printer proceed as follows: "Remove shipping screws. Carefully lift front of printer unit and make it stands as the bottom of case be vartically face to you and hold the unit by the one of your hand on the soft surface. Then remove shipping screws and after it is removed, gently back the unit to lay flat on a firm surface, position the printer front to be face to you."

So far so good. Now we need to install the ribbon cartridge: "Move the printer head to the left by finger if it is located not at home position that is the far left. Hold

the cartridge with the plastic knob be at left side, then set it on the two side frames of printer mechanism with tilting the cartridge so the two front hooks on the side frames be engaged with two catches on both left and right sides of bottom of cartridge, then steer down with pressing the ribbon side so the two side tabs of cartridge be slided into slits on side frames."

Fiddling with dip switches is an art as the following excerpt illustrates: "Hold the both side of upper case and gently lift and push back towards back and upper way so the portion of case below the tractor mechanism got by the tractor blocks - to make tit easy, move the right side tractor block to left as far as it can be pushed over."

After this section in the manual the grammar got a lot more better and the plinter now working top class fashion. So, enjoy using same to plint out all my typings. Bye for now.

PROGRAMMING

PROGRAMMING RSXs

by John Blessing

The CPC range of computers are particularly fortunate in having available an easy way to extend the BASIC commands. This is done by means of resident system extensions (RSX). However, it can seem a bit confusing as to how you actually go about creating an RSX. What I hope to do in this article is remove some of the mystery, and in the process create commands which will allow horizontal scrolling and instant swapping between two screens.

There are a wealth of machine code routines ready for you to use inside the CPC - the firmware. Using these can save you many hours of work. After all, why re-invent the wheel? Unfortunately you need to buy the relevant documentation if best use is to be made of them (see below for a quick guide to some of the available material).

By now, some of you may be thinking:

"Ah, he's going to start talking about machine code and assemblers - that's too difficult and anyway I haven't got an assembler".

If so, then bear with me because I have included the RSX programs both as assembler and BASIC listings.

The format for creating an RSX is surprisingly easy. Program 1 is a typical assembler listing, in this case for the scrolling RSX, called |ROLL. I have added line numbers so that I can easily refer to each command.

Line 40 simply sets the position in memory where the code will be placed, the value can be changed if you wish, as the code is relocatable (hexadecimal numbers are prefixed by '#' in my assembler).

Lines 60 to 110 set up some constants to make the program more readable.

Lines 140 to 160 tell the CPC that a new command has been added - remember you must CALL 'start' when the RSX is first loaded.

A firmware routine is used to log on the RSX, (kl_log_ext), and it must be supplied with two addresses:

A four byte workspace.
The place where the address of the RSX name is stored.

The second one might be a bit difficult to grasp, so compare it with a postman trying to deliver a letter. He arrives at the address only to be told that the people have moved house. The new occupants give you the forwarding address. What we have done for kl_log_ext is tell it the address where it can find the forwarding address (I have just moved house myself !).

180 to 190 simply define the workspace.

Lines 200 to 220 do two things. Firstly, the address where the RSX name is stored is supplied ('name_table' - our forwarding address); secondly, it causes a jump to the routine which the RSX will execute (JP main).

Lines 240 to 270 set out the RSX name. It is important to remember that the name MUST be in UPPERCASE ! The last letter of the name should have bit 7 set i.e., add #80 to its ASCII value. The RSX name must be immediately followed by a REROO byte.

You can relax, the rest is easy !

Lines 290 to 380 contain the routine in which we are really interested. The RSX will have one parameter, eg |ROLL,n where n is any integer. Once you type this in and press ENTER the firmware looks through it's list of SXs and finds the one with the same name. The firmware then jumps to the address supplied in rsx_table (ie 'main').

On entry to 'main', register A contains the number of parameters supplied and register pair IX has the address of the parameter value. The first command in 'main' simply checks to see if one parameter was supplied. If not, then it will jump to the routine called 'error', which sounds a beep and returns to BASIC.

Assuming that you have done the sensible thing and typed one parameter then the commands at 320 and 330 are executed. These simply load the value of the parameter into the HL register pair.

Line 340 is a jump to a firmware routine. This sets the offset of the screen in memory from its normal position (&C000). Altering this value will cause the screen to roll horizontally at a surprising speed.

If you do not have an assembler then just type in Program 2; save it before RUNNING it. The value of &8000 in lines 110 and 185 can be altered if you wish. Please don't renumber Program 2 as it may not work afterwards.

After running Program 2, (or loading the code from your assembler and CALLing &8000), you will want to see a demonstration of its effects. Program 3 simply draws a screen of randomly coloured lines (taken from the 6128 manual) and scrolls the screen horizontally until you press a key. I'm sure you will be satisfied at the speed with which the screen whizzes past.

The second RSX is call |SCR and follows exactly the same format. This RSX is called by |SCR,n where n can be either &40 or &C0. It uses a firmware routine (scr_set_base) which alters the high byte of the screen address. If n is &C0 then the screen is located at &C000 - its normal position. If n is &40 then the screen is moved to &4000. Any other values will crash the machine.

I've provided three programs: an assembler listing, a BASIC loader and a demonstration. The demo draws a screen whilst it is located at &C000. It then tells the firmware the screen is now at &4000 (line 80 in Program 6) and draws a random selection of coloured blocks. The rest of this demo program then alternates between the two screens very rapidly until a key is pressed. Line 165 actually slows it down so you can see what's happening. Try removing this delay to see some really fast action !

PROGRAMMING

I hope that some of the mystery of creating an RSX has been removed and that you will have fun with these new commands. I would be very interested to see any of your programs which use them. They could also be put onto the PD library (quick plug from the Public Domain librarian!). I have made a start by placing all the programs below onto disc PD3/5.

In the next article I will cover using the extra 64k of memory to store a screen and hopefully explore how RSXs can be used to pass parameters back to BASIC.

PROG 1

```

10 *****
20          ROLL ASSEMBLER LISTING
30 *****
40          ORG #8000
50
60      kl_log_ext:
70          EQU #BCD1
80      scr_set_offset:
90          EQU #DC05
100     txt_output:
110         EQU #BB5A
120
130     start:
140         LD HL,work_space
150         LD BC,rsx_Table
160         JP kl_log_ext
170
180     work_space:
190         DEFS 4
200     rsx_table:
210         DEFW name_table
220         JP main
230
240     name_table:
250         DEFB "ROL"
260         DEFB "L"+#80
270         DEFB #00
280
290     main:
300         CP 1
310         JR NZ,error
320         LD H,0
330         LD L,(IX+0)
340         JP scr_set_offset
350
360     error:
370         LD A,7
380         JP txt_output

```

PROG 2

```

10 REM *****
20 REM  ROLL BASIC RSX LOADER
30 REM *****
100 ln=190
110 FOR adr=&8000 TO &8029 STEP 13
120 READ byte$:chk=0
130 FOR i=0 TO 12
140 v=VAL("&"+MID$(byte$,i*2+1,2))150
    POKE adr+i,v:chk=chk+v
160 NEXT
170 IF chk<>VAL("&"+RIGHT$(byte$,3))
    THEN PRINT"ERROR in LINE";ln:STOP
180 ln=ln+10:NEXT
185 CALL &8000
190 DATA 210980010D80C3D1BC2CA40D804E5
200 DATA 1280C31780524F4CC00FE01C4568
210 DATA 24802600DD6E00C3058C3E07C34A1
220 DATA 5A880000000000000000000000115

```

PROG 3

```

2 REM *****
4 REM  ROLL DEMO
6 REM *****
10 MODE 0:BORDER 0:PAPER 0:INK 0,0
20 FOR n=1 TO 100
30 x=RND*640:y=RND*400:z=RND*15
40 DRAW x,y,z
50 NEXT
60 WHILE INKEY$=""
70 FOR x=1 TO 640
90 |ROLL,x
100 NEXT
110 WEND
130 MODE 2:PAPER 0

```

PROG 4

```

*****
SCREENSWAP ASSEMBLER LISTING
*****
          ORG #8000
          kl_log_ext:
              EQU #BCD1
          scr_set_base:
              EQU #BC08
          txt_output:
              EQU #BB5A
          start:
              LD HL,work_space
              LD BC,rsx_Table
              JP kl_log_ext
          work_space:
              DEFS 4
          rsx_table:
              DEFW name_table
              JP main
          name_table:
              DEFB "SC"
              DEFB "R"+#80
              DEFB #00
          main:
              CP 1
              JR NZ,error
              LD A,(IX+0)
              JP scr_set_base
          error:
              LD A,7
              JP txt_output

```

PROG 5

```

10 REM *****
20 REM  SCREENSWAP BASIC RSX LOADER
30 REM *****
100 ln=190
110 FOR adr=&8000 TO &8025 STEP 13
120 READ byte$:chk=0
130 FOR i=0 TO 12
140 v=VAL("&"+MID$(byte$,i*2+1,2))
150 POKE adr+i,v:chk=chk+v
160 NEXT
170 IF chk<>VAL("&"+RIGHT$(byte$,3))
    THEN PRINT"ERROR in LINE";ln:STOP
180 ln=ln+10:NEXT
185 CALL &8000
190 DATA 210980010D80C3D1BC2CA40D804E5
200 DATA 1280C316805343D200FE012006478
210 DATA DD7E00C308BC3E07C35ABB00004FF

```

PROGRAMMING

```
                PROG 6
2  REM *****
4  REM      SCREENSWAP DEMO
6  REM *****
10 |SCR,&CO
20 MODE 0: BORDER 0: PAPER 0: INK 0,0
30 FOR n=1 TO 100
40 x=RND*640:y=RND*400:z=RND*15
50 DRAW x,y,z
60 NEXT
80 |SCR,&40
85 MODE 0
90 pap=0
100 FOR n=1 TO 500
110 PAPER pap
120 pap=pap+1:IF pap>15 THEN pap=0
130 PRINT " ";
140 NEXT
150 mem=&CO
160 WHILE INKEY$=""
165 FOR n=1 TO 200:NEXT
170 |SCR,mem
```

```
180 mem=mem+&80:IF mem>&CO THEN mem=&40
190 WEND
195 |SCR,&CO
200 MODE 2:PAPER 0
```

FIRMWARE DOCUMENTATION

The standard work is SOFT 968 (£19.95 from Amsoft) which covers all the firmware with entry and exit conditions for the routines. A cheaper alternative is the 'Amstrad Advanced Users Guide' (Daniel Martin, Publ: Glentop £8.50) which also details system variables and accessing the various chips inside the CPC. One I would not recommend is 'The Anatomy of the CPCs' (First Publishing £14.95), as it doesn't give any information on entry and exit conditions. This means that you have no idea of the values which must be passed to achieve the desired effect.

UAUG SERVICES

AND THEN THERE WERE TWO !

Much to the consternation of your Joint Committee, yet another member of the editorial team has had to throw in the towel

We regret to announce that due to ill health Tony Bambridge has been compelled to relinquish his editorial post and is unable to continue with his series on programming languages. Tony's Nevada Fortran series and his articles on Basic have regrettably had to be withdrawn and will not be published in CPC USER in the foreseeable future; in addition, we cannot now publish his two new series on Business Applications and CP/M as Tony cannot continue with them. In fact, Tony has resigned from the UAUG.

Tony's departure is a sad loss to the UAUG and we extend our thanks to him for his support and we offer him our warmest wishes for his complete recovery.

UAUG MANAGEMENT VACANCY

Advertising and Discount Manager needed. Details from Gary Carter.

CPC USER EDITORIAL VACANCIES

The following editorial posts are currently unoccupied. Offers of help in any form would be appreciated. Contact Gary Carter or Don Snoad ASAP.

Editor : Games Software and Hardware
Editor : Business Software and Hardware
Editor : Programming Languages
Editor : Comms Software and Hardware

Editorial
Assistant : Preparation of Camera Copy
(layout, paste-up, etc)

MATERIAL FOR PUBLICATION

With the recent loss of so many editors, material for publication is now at a very low level and members are requested to submit contributions as a matter of some urgency. Contributions will be welcomed on any CPC-related subject. Reviews, features, technical, comment - Don Snoad will be pleased to help or advise any member with the preparation of material.

COMPETITION

COMPETITION TIME

ORGANISED BY GARY CARTER

RESULTS OF COMPETITION No 7

NO CORRECT ENTRIES WERE RECEIVED AND SO THERE WAS NO WINNER OF COMPETITION No 7.

THE COMPETITION WASN'T PARTICULARLY HARD, ALL IT REQUIRED WAS A LITTLE RESEARCH.

ANYWAY, THE CORRECT ANSWERS WERE:-

1. Q: WHAT DOES COBOL STAND FOR ?
A: COMMON BUSINESS ORIENTATED LANGUAGE.

2. Q: HOW MANY TRACKS ON A 3" DISC IN DATA FORMAT ?

A: 40 (THE NUMBER OF TRACKS ALWAYS REMAINS THE SAME).

3. Q: HOW MANY K ARE AVAILABLE TO THE USER IN VENDOR FORMAT ?

A: 169k ON NORMAL 3" CF2 DISCS.

4. Q: NAME THE TYPE OF CONNECTOR USED ON AMSTRAD COMPATIBLE JOYSTICKS ?

A: 9 PIN 'D' TYPE.

5. Q: HOW MANY K OF MEMORY ARE DIRECTLY AVAILABLE ON THE CPC464 ?

A: APPROXIMATELY 44k.

COMPETITION No 8

WIN: TASMAN'S TAS-PRINT (ON DISC)

HOW TO ENTER...

I HAVE DECIDED TO CENTRE THE FIVE QUESTIONS IN THIS COMPETITION AROUND PRINTERS.

THE QUESTIONS ARE PRETTY BASIC AND SHOULDN'T PROVE TOO HARD, ESPECIALLY IF YOU OWN A PRINTER !

ALL YOU HAVE TO DO IS ANSWER THE FIVE QUESTIONS AND WRITE YOUR ANSWERS ON A POSTCARD ALONG WITH YOUR NAME, ADDRESS AND MEMBERSHIP NUMBER. THEN SEND THE POSTCARD TO UAUG COMPETITION NO 8, 1 MAGNOLIA CLOSE, FAREHAM, HANTS, PO14 1PX.

RULES...

- THE COMPETITION IS OPEN TO ALL CURRENT MEMBERS OF THE UAUG EXCEPT MEMBERS OF THE JOINT COMMITTEE.
- ONLY ONE ENTRY PER MEMBER IS PERMITTED.
- ENTRIES SHOULD BE ON A POSTCARD.
- ALL ENTRIES MUST BE RECEIVED BY 1ST MAY 1988.

THE QUESTIONS...

1. NAME THREE TYPES OF IMPACT PRINTER.
2. NAME TWO TYPES OF NON-IMPACT PRINTER.
3. HOW MANY CHARACTERS PER INCH ARE PRINTED IN THE ELITE FONT ?
4. WOULD YOU EXPECT A DOT MATRIX PRINTER TO BE FASTER THAN A LINE PRINTER ?
5. WHAT ARE THE TWO MOST COMMON INTERFACES FOR PRINTERS ?

SALES & WANTED

AMSTRAD CPC464 TAPE-BASED GAMES SOFTWARE FOR SALE

Mission Jupiter, Mission Genocide, Five-side Soccer, Explorer, Dragons Lair, Amtix Acco, Chronos, Brian Jacks Challenge, Winter Sports, Milk Race, Revolution, Confuzion, Terminus, Er*berts Capers, Red Arrows, Dr. Destructo, Spaced Out, Brainache, Apprentice, Sabre Wulf, Galletron, Back to Reality, Nonterquerous.

Price: £15 the lot

K. Heward, 7 Raunds Avenue, Roseworth,
Stockton-on-Tees, Cleveland TS19.9BW

DISK SOFTWARE

Siren Discology £10; Elite £5 (no manual);
Nevada Fortran £20; Protext £15.

Various other disks will be included free
with any of the above. All are originals.

Karl Wyer, 135 Brushfield Street,
Hyson Green, Nottingham NG7.5LL

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Citizen 120D Dot Matrix Printer
Eight bits from seven, IBM Graphics, Reverse
Print, Double Height, etc, etc.
A true measured letter-quality speed of 19
cps in Pica or 21 cps in Elite including
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only on its second ribbon

Contact: M. Catton on Gosport (0705) 585764

SOFTWARE FOR SALE

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F. Ball, 292 Bispham Road, Bispham,
Blackpool FY2.0HQ
Telephone: 0253-593530

HARDWARE FOR SALE

Silicon Systems 3-inch 2nd disk drive
as new £60

Terry Roberts, Woodlands, Church Road,
Harrietsham, Kent ME17.1AP

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Hastings, East Sussex TN34.2NQ
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Price: £55 the lot

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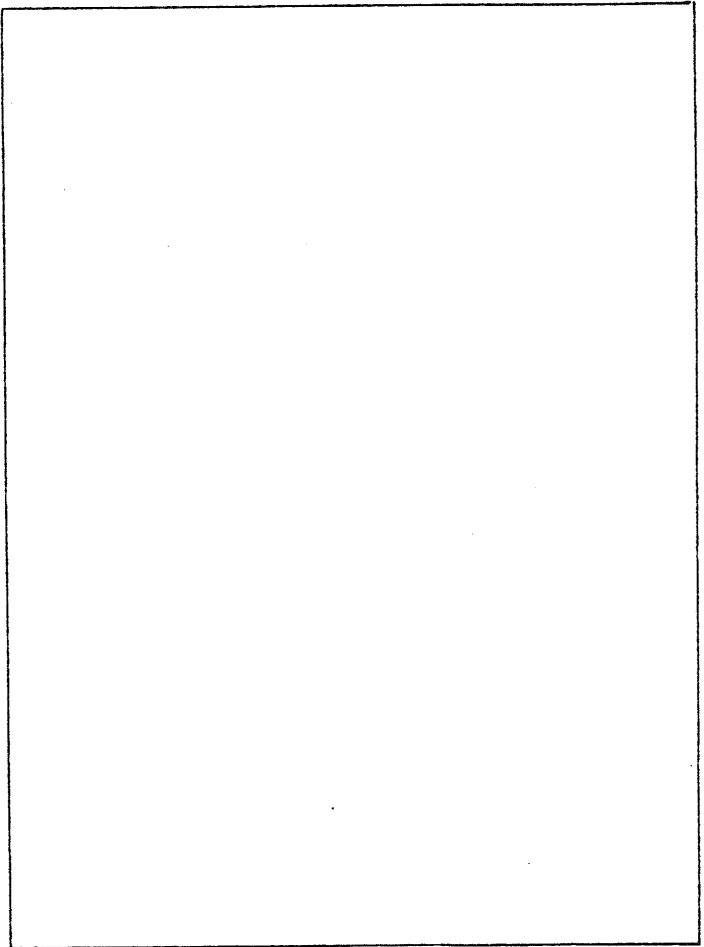
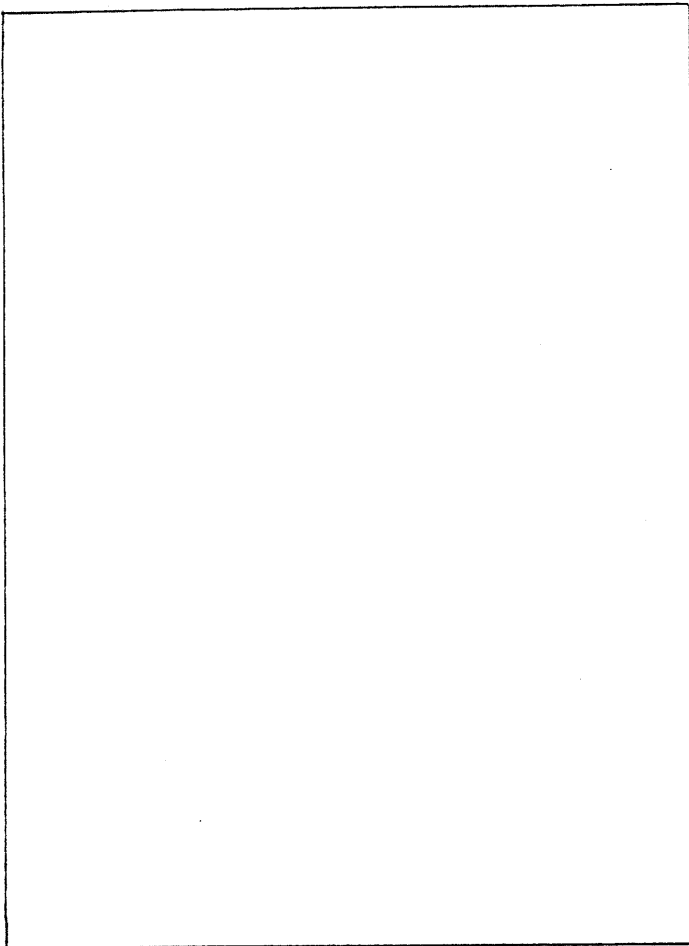
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The United Amstrad User Group was founded in 1986 by a handful of dedicated CPC enthusiasts and now has many members throughout Britain. Membership is also extending overseas and as far afield as Australia. The UAUG is also rapidly becoming the largest independent User Group in the UK. The continuing success of the Group is due to the low membership subscription and five-star service.

- * Bi-monthly magazine
- * Computer Book Library
- * Public Domain Software Library
- * Software/Hardware Discount Agreements
- * Comprehensive Help, Advice and Support.

The bi-monthly magazine is written by CPC users for CPC users and contains authoritative reviews and articles, as well as other regular features specific to the Amstrad CPC computers. The magazine also provides three help lines: Mailbox (for general correspondence, member-to-member contact, etc), Keyboard (for resolving members computing problems) and Monitor (a members' complaints bureau). The magazine carries trade and member advertisements; members ads are published free of charge.

The computer book library is operated by post and is open to all members.

Books may be hired by the month for a nominal fee.

Most of the books have been donated and are specific to CPC computers.

The public domain software library contains many programs covering games, business, educational, utilities and programming languages. The library, which is currently approaching 2 Mbytes, is open to all members and is free of charge.

The discount service to members is extensive. Companies offering discounts to members include Durell Software, Siren Software, HSV Computer Services, Micro Prose, Timatic Systems and Alligata Software; discounts range from 5% to 35% or more, and include games/business software, hardware, discs, disc storage boxes, listing paper and printer ribbons. In addition to arrangements with traders, the UAUG also maintains a small stock of joysticks and games/business software at prices substantially lower than retail.

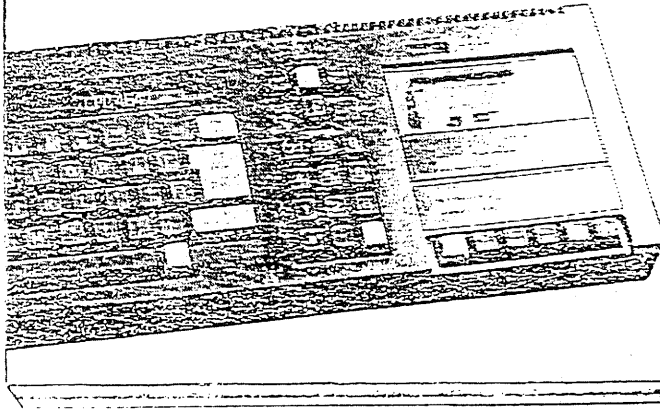
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PUBLICATION DATES

CPC USER is published on the first day of February, April, June, August, October and December.

Contributions and other material for publication should be sent to the Editor by the first day of the month preceding publication.

UAUG ADDRESSES

UAUG general correspondence, enquiries about UAUG services and trade advertising material should be sent to the Secretary at 1, Magnolia Close, Fareham, Hampshire PO14.1PX.

Material for publication, including correspondence for Keyboard, Monitor, etc, should be sent to the Editor at 85, Woolston Road, Butlocks Heath, Netley Abbey, Southampton, Hampshire SO3.5FN.

