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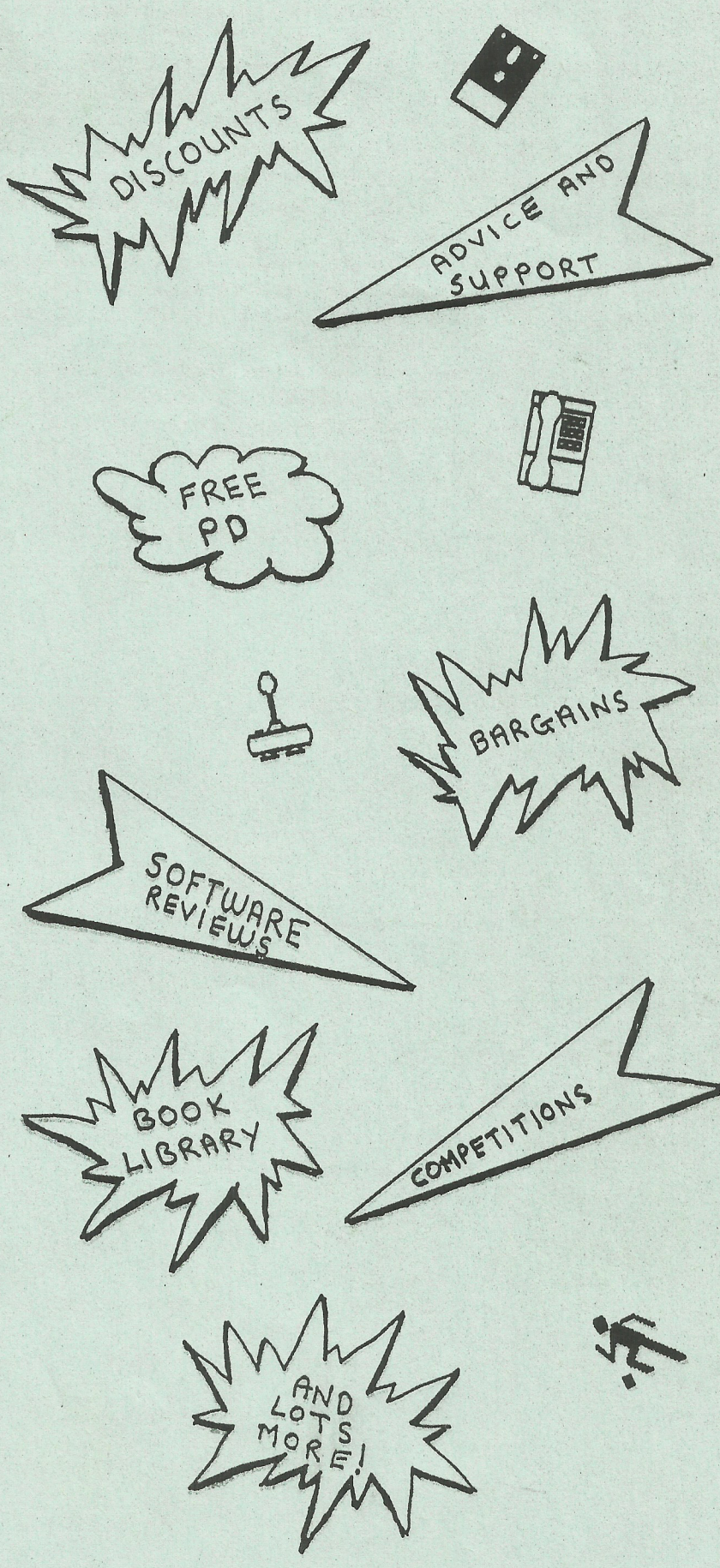
THE BI-MONTHLY MAGAZINE OF THE UNITED AMSTRAD USER GROUP



ISSUE 27: JUNE 1991

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

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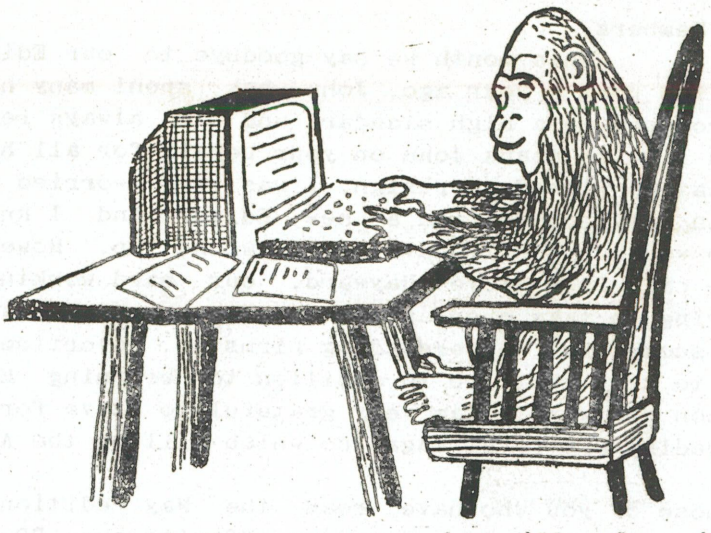
ISSUE 27: JUNE 1991

EDITORIAL



Hello again and welcome to the final issue with me as Editor. As you may or may not know, I am having to stand down from this TERRIFIC post due to total lack of time. I have enjoyed being Editor immensely, and I wish I could continue, but alas.

Our Advertising Officer STEVE HAYWARD has kindly (if not foolishly?) offered to take over from me, so, if you have any articles for publishing in CPC USER, then please forward them to the new Editor. If he shows half as much enthusiasm as he has shown towards his advertising role, then I am sure that the magazine will only get better. I urge you all now to support him by sending in articles for print. No matter how small or trivial you may feel they are, please send them, as they are always wanted. I'm fortunate enough to be able to send Steve some articles which have been held over from this issue. This is because of the members who take the time to write in. If it wasn't for them, then Steve would have to sit there with nothing to do until the week before the press date (which is when most articles seem to arrive!).

I shall remain as Software Editor, and I shall also be providing ather articles such as the Firmware Guide, occasional type-ins, and who knows, maybe if people let me or Steve know that they still want the Beginners Basic series, then perhaps I can provide that, BUT, it's no promise so don't hold me to it. Like I said, I don't have a lot of time lately.

May I take this opportunity to welcome all you new members and to say that I hope you remain with us for some time to come. If you all send in something to publish, then Steve will be able to relax a little, although of course you don't have to, but every little helps you know. Don't forget, we have a LARGE book lending library with something in it for everyones needs, plus of course the Tape and Disc PD libraries, so don't be shy, order now.

Back issues of CPC USER are still available but hurry, they won't last forever. The issues available are.....8, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26. They are obtainable from PAUL OWEN and the prices are inside the back cover.

Special thanks this month go to BRIAN BRISTOW, DAVE HAVARD, DAVE CHURCH, ANDY KEECH and BRIAN WATSON. Extra special thanks must go to our PD librarians RICHARD SERGEANT and GORDON WOOLLISCROFT, who, due to an error in Amstrad Action, must have been inundated with demands for PD. We know you work hard chaps, but please don't quit on us now, just hang in there.

I will now hand you over to STEVE HAYWARD who would like to introduce himself to you all. BYE!

Well, it's time for a new Editor. I'll be taking over as of issue 28 with (I HOPE) a lot of help and advice from John. I'd like to thank ALL of the previous Editors for giving me a very enjoyable magazine which I looked forward to reading. Better than the vast majority of the 'glossies'. Keep me informed on how I do as Editor, good points AND bad. CPC USER is YOUR magazine, and if you don't write in, it won't reflect what you want to read. I want plenty of articles/tips etc from you, or the next issue will be very thin indeed. BYE FOR NOW! STEVE.

OUR NEXT PRESS DATE IS 28-6-91

CHAIRMAN'S BIT

Dear Members,

This month we say goodbye to our Editor, John Packham. Since taking over the post a year ago, John has spent many hours ensuring that each edition is produced to a high standard and is always ready for distribution on time. I would like to thank John on your behalf for all he has done for us. When he told me that he wished to resign, I was very worried about the future of UAUG. It is not an easy job to find a new Editor and I knew that without a magazine, the Group would probably have to be wound up. However within a few days I had a phone call from Steve Hayward, our hard working Advertising/Discount Officer, offering to take over as Editor. You have probably noticed that Steve has been very successful in persuading firms to advertise in the magazine and as he is keen to keep that job in addition to becoming Editor, you can see that he is a glutton for work! I am very grateful to Steve for taking over and I look forward to reading his first magazine which will be the August issue.

Those of you who have read the May edition of Amstrad Action might have wondered why we are reported as offering our PD software to all and sundry. The truth is that we are not. The writer of the #Free for all' section failed to mention that we only supply software to UAUG members. I only hope that Richard and Gordon have not been inundated with requests from Amstrad Action readers. It would appear that the writer got the information from one of our PD catalogue discs. However all cheques and/or discs will be returned to the senders with a note asking them to contact me for further information. I am sorry that our Librarians will have this extra job to do because I know how hard they work attending to requests from our own membership. Best wishes, Tony Baker.

CONTACT CONTACT

OFFERS OF HELP

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

Help with Brunword, printers (9 pin and 24 pin), the various models and their virtues and vices. Contact M.CATTON, 11 Battery Close, Gosport, Hants. PO12 4PA. Tel: 0705-585764

Help for anyone with problems in BASIC. Contact DERRICK SHERWOOD, 56 Lawford Lane, Old Bilton, Rugby, Warks. CV22 7JS.

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

Help with CPM+ Protext/Promerge/Prospell (or try me with other versions). BRIAN WATSON, 39 HIGH ST, SUTTON, ELY, CAMBS. CB6 2RA. Tel: 0353 777006

OFFERS OF HELP WILL BE INCLUDED IN EACH ISSUE UNTIL THE MEMBER WISHES THAT HIS/HER OFFER SHOULD BE WITHDRAWN.
ANY HELP WANTED WILL BE IN ONE ISSUE ONLY SO MEMBERS ARE ADVISED TO RENEW THEIR REQUESTS. PLEASE KEEP ALL AS SHORT AS POSSIBLE AND MARK THEM CONTACT!!

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Pandora is a very first version of the BASIC programming language, designed to help you write fast action arcade type games in a fraction of the time it takes using machine code. Using simple basic commands, it requires no knowledge of assemblers. It includes a super-fast multi featured sprite editor and comes with 48 sprites as standard. Compiled to stand alone program with extensive graphics and sound facilities.

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CPC01

THE PROTEXT PAGE

by Brian Watson

This time, after a couple of months of "idleness", I am going to show you how to set up a Star LC-10 colour printer to work with Protext. The method described may be adapted to set up other printers and other programs which include a printer driver. I am indebted to Tony Walker, UAUG's Comms man, who many years ago put me on the right road with Protext and my LC-10.

You will be able to use seven different colours (including black) for your text without changing your ribbon each time. As usual, practice making the following changes on A COPY of your Protext first, follow the stages one at a time, and all should be well. Please give me a call or drop me a line if not. My Protext is the CP/M type and I run it on a CPC6218. If you find the setting-up instructions below seem different for your version, a later CPM version, AMSDOS or even ROM, please let me know and I'll do a set of amendments in the next issue. I will only use one drive throughout. Now, this is what you do:

With Protext loaded, take out the Protext disc if the required files are not on it and insert a disc with "CONFIG" or "CONFIG.COM" on it. It may be on the second side of the Protext disc you have just removed! You will also need a file called "EPSON.PTR" later which will be on your Protext disc somewhere too.

Type "CONFIG" and press (RETURN)

After much whirring while the program loads you will get a menu on the screen from which you should select "LOAD PRINTER DRIVER" by pressing the number next to it. This is "6" in my version.

With the disc side containing "EPSON.PTR" in the drive, select "EPSON.PTR" and press (RETURN). This will load into the CPC's memory a better printer driving file for the Star printer than the simple one provided as standard.

Now press (ESC) to return to the main menu and select "SET CONTROL CODES" by pressing the number next to it; "3" in my version. In future references to procedures selected by a numbered key I will put my version's number in brackets; yours MAY be different.

You should now be looking at a menu with columns of letters and some explanations on what they will do if put in the text in the right way. E.g. Enlarged Text, Condensed Print etc. It will help if we choose easily remembered codes for our colour print instructions. Black is the default setting so needs no special code to set it, but you will see later how we always come back to black at the end of printing text in another colour. The letters I chose to use for the colours are "o" for orange, "r" for red, "v" for violet and "y" for yellow. Logical so far, but we can't easily use "b" for blue or "g" for green as they are already used for other things, so I use "a" for blue and "z" for green; you get used to it after a while but a note on a piece of paper, conveniently sited, will help at first.

The appendix of my Star manual gives the decimal printer codes to set (and un-set) the various colours. If you don't understand a word of this paragraph so far, don't panic - just do the following and see if it works when you've finished!

Move the cursor with your (DOWN ARROW) until it is on the "a" on the menu near the top of the screen. Press (RETURN) and the cursor will move to "a ON:" in the lower half of the screen.

Type "27", press the (RIGHT ARROW) key once, type "114", press the (RIGHT ARROW) key once again, and type "2". This means when you later type (CONTROL) and "x" (together) followed by "a" in a document this will not print out on your paper as "a" but will be interpreted as an instruction to set the colour ribbon to print the following text in blue until it finds another instruction to stop doing so.

Now press (RETURN) and the cursor will move to "a OFF:".

Type "27", press the (RIGHT ARROW) key once,

type "114", press the (RIGHT ARROW) key once again, and type "0". This means the second time you type (CONTROL) and "x" (together) followed by "a" in a document this will not print out on your paper as "a" but will be interpreted as an instruction to set the colour ribbon back to black for the text following.

Now press (RETURN) and the cursor will move back to the "a" in the top menu. O.K., that's the first one done!

Move the cursor down to "o" and repeat the process but enter 27 114 5 for "on" this time and 27 114 0 (as before) for "off".

The rest of the "on" codes, which you can now enter the same way, are as follows:

"r"ed 27 114 1
"v"iolet 27 114 3
"y"ellow 27 114 4

I suggest you select "z" for Green and enter 27 114 6
ALL the "off" codes are 27 114 0. Perhaps you had guessed?

When you've done that, press (ESC) to get back to the main menu and press the appropriate number to "SAVE PRINTER DRIVER"(7). When prompted for a name, use •CLR□ to remove the "EPSON.PTR" on the screen and type in "STAR.PTR" instead, followed by (RETURN). The screen will go back to the main menu. Press the key to "QUIT SETPRINT"(0). If you now do a (CAT) of the disc you should have a file called "STAR.PTR" on it with the fruits of your labours so far.

Now we will instruct Protext to look for this new printer driver each time it loads. For this you will need a disc with the files "PROTEXT.CFG" and "CONFIG." or "CONFIG.COM" on them. These should be copied from your usual working copy of Protext.

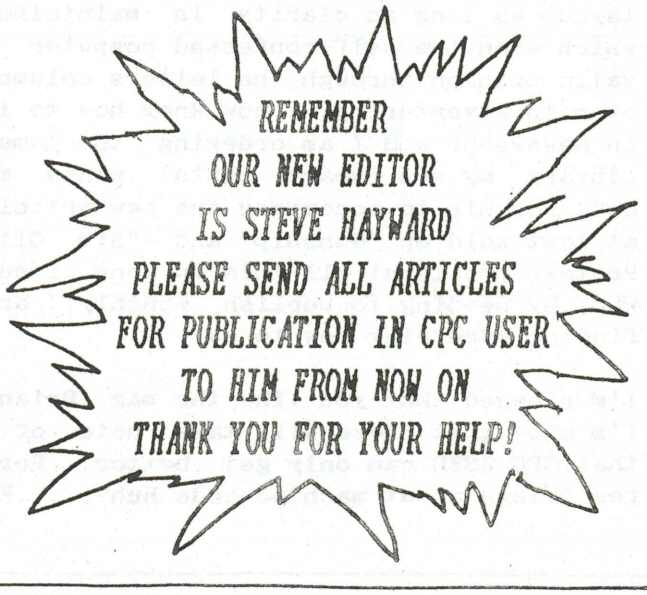
Type "CONFIG" and, when the new menu comes up, choose "SET PRINTER DRIVER OPTIONS"(7). In the section which says "DEFAULT PRINTER (FOR THE CPC6128)" replace whatever it says by typing in "STAR.PTR" and press (RETURN). Follow this with (ESC) to get back to the main menu and "QUIT CONFIG"(0). You should now have a new version of "PROTEXT.CFG" which will tell Protext to use your "STAR.PTR" file, with the colour printing instructions you added, whenever it loads.

The moment of truth! Load Protext from a disc containing the new "STAR.PTR" and "PROTEXT.CFG" files and then load a fairly short letter or document, say about half a page. Make sure you have a colour ribbon in the printer (well, I've forgotten it before now!), a sheet of paper in position, and switch on the printer.

Somewhere a few lines down from the start of the document press (CONTROL) and "x" (together) followed by "a". Go down a few lines and do it again. Don't worry if your text gets pushed along to make room for the letters which, to show they are something special, will show on the screen in reversed colours. They will not be printed out on the paper. Further on type (CONTROL) and "x" (together) followed by "z", and a couple of lines further on do THAT again.

Now enter command mode by pressing (ESC), and type "p" or "pq" followed by (RETURN). If all is well your precious prose will mainly be printed in black but parts of it (and you chose them so don't blame me) will be in blue and green. If they are not, my number is 0353 777006 and I'm in after 6 p.m. and at weekends!

I have some files on disc showing the stages gone through and if you send me a disc in a padded envelope with a return label and a stamp I will send them to you. My address is "Harrowden", 39, High Street, Sutton, ELY, Cambs.CB6 2RA. Next time: I'll talk about EXEC files, unless I get a better suggestion in the mean time.....



WALTER FEARNLEY writes:-

Terry Green asks for information ontracing ancestors. An article I read onthe subject was for PCW machines butsome details may be of help. It was in8000 Plus (issue 43, April 1990) andgave a review of three programs by David Computer Software (061 439 4841). They were INDEXER (£20), GENNY (£35)and GENBASE (£25). Reports by two users accompanied the reviews. It mentioned the Society of Genealogists (14 Charterhouse Buildings, Goswell Road, London EC1M 7BA. Tel: 01 251 8799) (check new area code of 071 or 081 in place of 01....Ed) who produce a quarterly magazine (£8 annual subscription to members, £9.50 non-members). Membership is £32.50 (within 25 miles of Trafalgar Square) and £23.50 otherwise. The society have details of local family history societies among other benefits. This may interest other readers as the programs may be available for CPC machines.

Many thanks for the info Walter. It's nice to know that members can help each other like this....Ed

DAVID LAULICHT of Beds writes:-

I'm sure other readers will have answered Kjell Robertson's query in issue No. 26, but just in case.. They are sometimes called data switch boxes or T-switches. When I bought mine a few years ago, I had to pay £40 plus the cost of a cable, but now they are advertised from about £10 and up. Plenty of adverts in computer mags and suppliers' catalogues for them at wildly varying prices, but don't pay more than £15 or so.

A look through back issue of Computer Shopper shows them advertised by a number of suppliers. I won't name any because I have never ordered anything from the firms, don't know anything about them and wouldn't want to seem to be recommending them.

Oh go on David, please name them. We won't mind.....Ed

BRIAN WATSON of Ely writes:-

I see on page 29 of the latest issue that you find you have to stand down as Executive Editor. A very great shame, because the latest issue of CPC USER is, in my opinion, the best yet and my Protext bit was not in it! That was due to MY work pressures so I can understandthe demanding task of putting all the various parts together. Goodbyes, too, to Gary Carter (our illustrious founder) and Neil Bukharayev, one of our most consistent correspondents. Both of them showed "persistence in adversity" of one sort of another. I'll miss them both very much.

On the plus side, we had a very well balanced and informative issue this time and the presentation is getting even better too. The Editor (whoever) should be adventurous with the layout as long as clarity is maintained, it is one area on which even the self-confessed computer illiterate can have a valid opinion through the letters column. Debby is winning me over to adventuring, I now know how to log-on to all user areas at once in Newsweep, and I am ordering the amended phone codes disc from the library. My son (smarty pants) wants me to borrow a book on machine code for him to accompany the new articles on firmware calls , and I am at last sold on "Gunship" and "Sim City". The readers even answer the Protext problems! All this in one issue? That beats the professionals who, by needing to publish monthly, are inevitably stretched to keep finding something new to say.

I'm pleased that you like the mag Brian. One does ones best you know. I'm sure that Steve will take note of your suggestions as I am sure that CPC USER can only get better. Perhaps your son could teach me a few things about machine code huh?.....Ed

ANDREW WHITE of Bucks writes:-

First to Dave Havard on the Simulation & Strategy. Great start! I have Gunship myself although I didn't enjoy it as much as you seemed to. If you have not already got it on your list for review, check out Blade Software's 'LASER SQUAD'. This is a great

program which I keep coming back to. Second, for all you owners of the old style 3.5" disc drives without the switch to write to the B side of the drive when not controlled by Rodos, Ramdos etc, I am presently working on the DIY version for my own drive, and once I have it completed and tested I will send in all the necessary info if John thinks it will be of interest to the masses.

I certainly think you should send us the info Andrew. I for one have a particular interest in this area, and I am sure other users would find it useful.....Ed

DAVID MITCHELL of Essex is pleased now:-
My thanks to you for your help with decimal tabs, although it didn't help at the time since I suffered from the same complaint as you 'low version Protext'. Mine was only V1.05. Since then, I have bought version 1.22 and it does decimal tabs with no problems at all plus a lot of other things that V1.05 didn't. The silly thing is that I have V1.21 on disc but never thought of trying the tabs thing on it as the V1.05 is on rom and I prefered using that. Thanks also to Mark Eccles and George Dyke for writing about my problem. I think this is a truly marvellous word processor, although I haven't tried any others except Mini Office and of course, that's not really a fair comparison.

Glad we could all help David.....Ed

JIM McCUBBIN of Redditch writes to say:-
I would like to say how sorry I am that Andy Keech has decided to stop his BASIC teach-ins. I was one of the 4 (???) who sent in progs for his advice. I liked his style and presentation, but oh how disappointed he must have been. What a dismal response to a series of articles. Come on chaps, lets have a bit more enthusiasm. For £7.50 a year, I think Andy's progs were worth that on their own. On to something else.....I have some clip art that will be on its way to Richard very soon, and it has made me wonder. How DO you produce such art? How on earth can it be compressed into small 1K pieces?

Well, I'm sure there must be more than 4 members interested in the BASIC articles, so I say to all of you now.....let me know what you would like in future instalments. If no one else comes forward to write any, then PERHAPS I could find the time to write some. As for the clip art question? I don't know. Does anyone else have the answer.....Ed

Remember!
Send all letters to the new Editor.... Steve Hayward and mark them.... 'Mailbox'.

DISC LIBRARY

Firstly the good news, as is usual in my article, I really do like to thank the members who contribute programs which help to expand the disc library.

1) This month we have the opportunity to try out some excellent Adventure games all written and donated by their author Simon Avery (Member 0600).

2) Stephen Sharrad (Member 0549) has sent me over 100 Stop Press Clip Art files, these seem to have originated from the PCW, however only the *.PAG file does not work on the CPC, the *.CUT files are fine.

3) I have also received via our sadly missed Ex PD librarian Dave Cutts, an update to the files on PD 13/3 and PD 14/1. These have all been supplied by there author Roderick Stewart, who isn't even a UAUG member.

4) Member Steve Lee (0090), has sent me a huge amount of music files for Rainbird's 'Advanced Music System' program. All these files have been written by Rob Baxter. I kid you not, if you have AMS this music is essential for your software collection.

5) William Penn (Member 0198) has sent the library, a Database, a Graph drawing file plus a selection of graphic and music demos, all of these are to be found on PD 22/2/4/5.

6) More Stop Press (Page Maker) clip art has been donated by Jim McCubbin (Member 0461), these *.CUT files are all on PD 23/2/3.

7) Finally, this months list of contributors ends with a brand new Spreadsheet program written and donated by its author member Paul Dwerryhouse (0565), unfortunately this excellent piece of PD software is definitely 6128 only.

And now for the bad news, my first complaint is about the members who send me inferior unbranded discs to copy. From now on, only branded discs such as MAXELL, AMSOFT, TANDY or PANASONIC will be accepted. I have received some of these cheap discs recently, that were so bad that I feared for the safety of my disc drive.

I am afraid that running the library is becoming too much like hard work, because of the incorrect article published in Issue 68 of Amstrad Action, my work load has increased to the point where I can not cope. I am spending five hours every evening and most of the weekend just keeping this library ticking over.

Thus, it has become necessary to introduce some changes to the service I'm prepared to offer.

1) Only One Free disc copying service will be allowed, per member per month. ie You may only send me ONE disc at a time, not like several members, who will remain nameless, who send in between 6 and 20 discs at a time.

2) All other format copying services are cancelled. ie. 3.5 inch RAMDOS, PCW etc. There has been very little call for it anyway. I was hoping to start a CPC/PCW/MSDOS transfer option, but even that will have to wait.

3) The £3.50 per disc service will remain unchanged, and will be available to all members, on an unrestricted basis.

4) I will review these changes again in two months time, providing I can get my work load down, I may ease the restrictions.

Well, that's all for this month folks, sorry about the changes but I think I've become a victim of my own success. The library is now so large it is becoming nearly a full time job to administer and organise it. I'm unable to live on fresh air, so have to have a normal 9-6 career, as well. What I really need is a couple of assistants, who live locally.

Perhaps over the next few months, this issue can be discussed through the pages of CPC USER (not with me personally), and hopefully a practical solution can be found to the problems of running the UAUG PD Disc Library.

To the many of you, who have written and or wish to donate material to the library, your efforts will always be appreciated.

The following list is just a selection from over 50 discs of PD currently in our library. For the full list, please

send for the 'LIBINDEX' which occupies 2 disc sides. The rest of the PD has been left out of the list because of lack of space only and for no other reason.

PD 1/1. --- CP/M ----- CPM utilities etc...Including DU..FIND..NSWP..SQUEEZE UNSQUEEZE etc.
PD 1/5. --- CP/M ----- SECRETARY Word processor etc.
PD 2/2. --- CP/M ----- Modem utilities
PD 2/4. --- CP/M ----- Games:- Chess..Golf..Othello..Stones Life etc.
PD 2/5. *** AMSDOS *** Games etc. Snooker..Blackjack..Horoscope etc.
PD 3/1. *** AMSDOS *** Games utilities etc.
PD 3/4. *** AMSDOS *** 2 part Adventure game. BLUE RAIDER
PD 3/5. *** AMSDOS *** Font designer utilities disc menu etc.
PD 4/1. --- CP/M ----- FORTH compiler. Editor. File Manager etc.
PD 5/1. --- CP/M ----- SCRIVNER - Mail and Data processor plus many examples. Worth exploring. With lots (113K) of documentation.
PD 5/2. --- CP/M ----- Database originally for food trade but flexible. Text editor + spell checker for editable dictionary.
PD 5/3. --- CP/M ----- Standard MBASIC and Compiler.
PD 5/4. --- CP/M ----- Pascal compiler with loads of documentation etc.
PD 7/1. *** AMSDOS *** Random Database (2 DRIVES!) & Election forecasting.
PD 7/2. *** AMSDOS *** Miscellany of BASIC files and utilities etc.
PD 7/3. *** AMSDOS *** PASCAL programs and demos.
PD 7/4. --- CP/M ----- Update of Library utility. Lots of documentation.
PD 9/4. *** AMSDOS *** A Mandelblot Generator
PD 10/1. --- CP/M ----- FORTH 83
PD 10/2. +++ ASCII ++++ Documentation for FORTH 83
PD 12/2. --- CP/M ----- Disc editor and library etc.
PD 12/4. *** AMSDOS *** A teaching aid (NEEDS PRINTER)
PD 13/2. *** AMSDOS *** Most files are for ADV.ART STUDIO but some may be executed from Basic.
PD 14/2. *** AMSDOS *** Useful Basic Utilities..Screen Dump..Passwords..
PD 15/3. *** AMSDOS *** Miscellany of graphics childrens' games etc.
PD 16/3. *** AMSDOS *** Amstrad Action Collection 'Public Domain Type-ins 1'
PD 16/4. *** AMSDOS *** Amstrad Action Collection 'Public Domain Type-ins 2'
PD 16/5. *** AMSDOS *** Games:- Fruit machine Card and the Yahtzee type-in.
PD 17/2. *** AMSDOS *** Citizen 120-D Printer Utilities - Updated 9/2/91
PD 17/3. *** AMSDOS *** Basic Language Programming Tutorial.
PD 18/5. *** AMSDOS *** Stop Press Clip Art & some new Fonts - Vol. 1
PD 19/1. *** AMSDOS *** Compilation of Quilled Adventures - 1
PD 19/3. *** AMSDOS *** Beginners Basic Tutorial Program & Examples
PD 19/4. *** AMSDOS *** Stop Press Clip Art - Vol. 2
PD 19/5. *** AMSDOS *** Stop Press Clip Art - Vol. 3
PD 20/1. *** AMSDOS *** Compilation of Adventures
PD 20/2. *** AMSDOS *** Music Files for Advanced Music System Disc 1/A

To order contact RICHARD SERGEANT and either enclose a disc + return postage or send £3.50 to cover the cost of disc and return postage.

COMPETITION WINNER!!

Congratulations go to MR RONNIE BAIRD, for being the first correct entry drawn from the hat in response to the competition held in issue 26, in which a list of computer related words had to be rearranged.
The correct answers are....AMSDOS, CHARACTERS, BACKUP, BINARY, CASSETTE, COMPUTER, CURSOR, DEFAULT, EXPANSION, GRAPHICS, HIMEM, HEXADECIMAL, JOYSTICK, PROGRAM, MEMORY, PERIPHERALS, PRINTER, RANDOMIZE, SCREEN and SYMBOL. Mr Baird wins himself a copy of Tearaway from CPC Network.

BOOK LIBRARY

CAT NO.	BOOK TITLE.
B1001P	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 Assembley Language (3 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 **
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 (2 Copies)
B1032P	Amstrad Machine Language for the Absolute Beginner (2 Copies)
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
B1041P	Amstrad Graphics-Advanced User Guide
B1042P	The Amstrad CPC 464 Disc System including CP/M & Printers
B1043P	Basic Programming on Amstrad 464,664, & 6128
B1044P	The Punters Revenge(Gambling & Computers)
B1045P	The Amstrad CPC 464-Advanced Users Guide
B1046P	Amstrad Computing with the CPC 464
B1047P	Graphic Programming Techniques on the Amstrad 464
B1048P	The Amstrads Programmer's Guide
B1049P	The Amstrad Games Book
B1050P	Easy Add-ON PROJECTS FOR THE AMSTRAD 464, 664, 6128
B1051P	A Z80 Workshop Manual
B1052P	Computer Engineers Pocket Book
B1053P	Your First Amstrad Program **
B1054P	Mastering Machine Code on your Amstrad 464/664/6128
B1055P	The Ins & Outs of the Amstrad
B1056P	The Anatomy of the CPC's **
B1057P	Advanced Programming Techniques on the 464
B1058P	Programming in "C" on the Amstrad **
B1059P	Computer Programming in Pascal
B1060P	"C" For Beginners
B1061P	Introducing Pascal **
B1062P	Using A Modem With Your Computer
B1063P	Beginners Guide To Basic Progamming
B1064P	Introduction to "C"
B1065P	Fortran For Micros
B1066P	An Introduction To Z80 Machine Code
B1067P	Mastering Pascal Progamming **
B1068P	Computer Programming in Fortran
B1069P	A Crash Course In Pascal **
B1070P	Introducing "C" **
B1071P	The Hitch-Hikers Guide To Artificial Intelligence (Amstrad Basic Version)
B1072P	Databases For Fun and Profit
B1073P	Introduction To Microomputer Programming
B1074P	Further Computer Programming in Basic ** (designed for "A" level studies)

NEW BOOKS

B1075P	Get More From Your Epson Printer
B1076P	Hacker's Handbook III (comms + hacking)
B1077P	Powerful Progamming for Amstrads. 464, 664, 6128
B1078P	Forth - The Next Step (Advanced)
B1079P	A Guide To Playing the Hobbit.

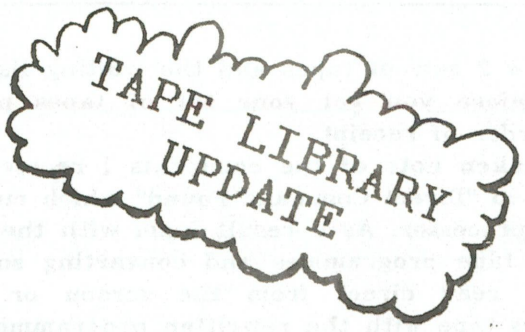
The above Books have been donated by various members, many thanks to them.

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

Books marked ** are £1.50 because of their size and weight.

If you wish to hire a book please send a letter containing the book Catalogue No. and Book title together with a Cheque or Postal order to The Library Book Manager (PAYABLE TO U.A.U.G.).

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.



TAPE 1

25-SQUARE	Rubik Cube game	BIOCHART	Biorhythm Generator
BLCKJACK	BLackjack Card Game	F4SQUARE	Puzzle Game
FLAG-1	Draws Australian Flag	HOROSCOP	Horoscope Generator
JACKPOT	Simple Fruit Machine	KEYS	Redefine Keyboard to give keywords
LIFE -	10 Life Game		
MERCHANT	Space Trading Game	AMSDIR	Tape Catalogue
ICON2	Ascii/Prestel converter	INPUT 1	General Input Sub -Routines
LABELS	Label Printer		
MORTGAGE	Calc.Mortgage Payments	PAPERMAN	Management Simulation Exercise
PENNYTEN	Ping Pong Game		
PJBOMBER	Bomber Game	POLAR	Plots Polar Equatns
QUEST	Text Adventure	??RAFFLES	Maze Game
SPELLING	Spelling Game	SPORTMAN	Sport Manag. Game
SURFACES	Graphic Demo.	TODAY	Calcs Day/Dates & Easter Dates
TYPTUTOR	Typing Tutor		
USEOFMIN	Graphic Demo.	WUMPUS	Text Adventure
BLUERAIDER	2 Part text adventure	ROLL	Binary & Basic Scroll RSX
ROLL.DEM	Demo for Roll RSX		
FCAT	Bin.& Basic Versions of Dir to Ascii file RSX	RSX-DOC	Ascii File Instruc for RSX program.
ROMREAD	Saves ROM as Binary File	BBLI	List of Bulletin Bds
BBDOC	List of Bulletin Boards	FONTY	Font Designer
AMSFAX	Teletext Simulator	CAT-U82A	sends CAT to printer
PORTFOL	Record shareholdings	DIARY	Diary program
ENCODE	Encrypt messages	DECODE	
POINTERS	Prints useful characters	ELECTBIL	Calcs electric bills
CHIMES	simulates chiming clock	GRA-MEM	Graphically displays memory usage
SIDEWAYS	prints Ascii file sideways	LASBALL	Breakout with a difference.
CHRDESG	Character designer		
HELPWNDO	Window Designer	CAT8	Redirects CAT to Printer.
ODEPRINT	Rhyme Generator		
BANKER	Bank Account program	CALLENPT	Calendar Printer

CARNUM Find out the town your car was registereed in.
DIGICLOC Digital Clock with Alarm displayed on screen.
HOMEACTT Easy to use home accounts program.
TVSAT Gives TV satellite positions.
YAHTZEE Popular game written by John Packham - was a type-in in CPC User

TAPE 2
STD } DIALLING CODES - VERY COMPREHENSIVE CODES IN NUMERICAL ORDER

TAPE 3
COMPREHENSIVE INDEX OF AMSTRAD MAGAZINES IN ASCII FORMAT

To order, please send FOUR 1st class stamps. The tapes will then be loaned to you. You can then copy the programs you require. Please return the tapes within two weeks as another member could be waiting for them. Please contact Gordon Wooliscroft for tape PD.

TAPE LIBRARY

There are now 2 sets of tapes and the waiting list has been reduced. However if there is a little time before you get your set of tapes please be patient - I will deal with the requests in order of receipt.
I have also taken note of the comments I receive when the tapes are returned especially those related to "Direct Command Found" which means that the programme can only be read with a word processor. As a result I am with the help of Steve Hayward, in the process of checking the tape programmes and converting some of the instructions into Basic so that they can be read direct from the screen or printed out. I hope then to redo the Games/Utilities tape with the rewritten programmes.

With regard to the Tape Programmes themselves I feel that I should again point out that ALL of these programmes are present on our PD Discs and therefore even if you have only one disc drive with your 464 it is to your advantage to use the PD Disc Library with its ease and speed of loading and saving.
Another point that I would like to make is that whilst the Tape Library is Public Domain material, the Tapes will only be **LOANED** to members of the U.A.U.G. as part of our service to members - would you therefore please quote your **MEMBERSHIP NUMBER AND FULL NAME** in your correspondence so that membership can be verified.

Finally with many forms of Public Domain software, quite a few programmes are supplied either with very limited instructions (in the form of a Wordprocessor file or sometimes as a basic file for screen or printer) and some in fact have no instructions at all and the user has to work out what to do. This is the case with some of the programmes supplied for the Public Domain to the U.A.U.G. by some authors.

FOR TAPE OWNERS WISHING TO BORROW THE TAPES

Those programs from the library which should run on a 464 have been collected together onto three C60 tapes. Disc to tape copying is a time consuming task and so we have decided to adopt a different system for the tape owners wishing to obtain tape compatible PD software. **WITH EFFECT FROM THIS EDITION OF THE MAGAZINE** I shall only send out the **GAMES/UTILITIES** tape unless asked specifically for the full set.
Please send **TWO X 17p** stamps for this tape.

If you ask specifically for the set of three tapes please send **FOUR X 22p** stamps to me and I will send you all 3 library tapes. You may then copy those programs you require and return the library tapes. **PLEASE RETURN THE TAPES WITHIN 2 WEEKS,** as another member may be waiting for them.(Use original Packing)
PLEASE CONTACT ME DIRECTLY.....Gordon Woolliscroft.

SPECIAL ATTENTION!!!
REMEMBER, we now have a new Executive Editor. All material for publication in CPC USER should be sent directly to STEVE HAYWARD. Failure to comply will result in a whipping! (Oh YES PLEASE I hear some of you cry!). Well for those kinky ones amongst you, we'll try the hot coals treatment. If you still like that, then might I suggest a visit for you to your local shrink, as you need your head seen to.....Ed.

Adventure Chronicle

by Debby Howard

Two years ago, getting hold of an new Amstrad adventure was almost impossible, since then a couple of distributors have been formed the first, is one that I have mentioned before, called WoW Software, and it is run by Joan Pancott. She has quite a few adventures new and re-released on her list. The Second is called Recreation Re-Creation run by Mark Eltringham, I have not seen his up-to-date list but I am informed that he has several of Charles Sharpe's adventures. Both distributors are very cheap, in fact gone are the days where you had to pay £10 or more for one adventure.
You can write to WoW at 78 Radipole Lane, Weymouth, Dorset, DT4 9RS. And Recreation Re-Creation can be located at 39 Gargoyle Hill, Thorpe St. Andrew, Norwich, Norfolk, NR7 0XX.

I have received a letter from Barry Tayler who wants to know if it is possible to complete the second part of Rigel's Revenge ? Well, to my knowledge that particular adventure was bugged in the beginning of the second part and therefore was impossible to even play, but I have never found out if the bug was eradicated in latter issue of the adventure, is there anyone who can throw a little light on this subject ?
Another letter through my letterbox was from Stephen Townsend requesting help with Lords Of Time, he wanted to know if he had to go every time zone in numerical order, the answer to that is no, but some of the puzzles require you to back-track on yourself, although as a general rule each time zone should be tackled starting from time zone 1 through to 9.

One feature of some adventures is the dreaded maze, which can have people going around in circles for hours, a simple way around this is to save before entering it, then get as many objects as possible dropping them in every new location. It is best to go in one direction for example north, and keep dropping items until you come across something you've dropped before. If you do this for each direction you will soon be able to see how tha maze works, and better still, how to escape. Once this is done then you can load in your save and carry on from there. Not all mazes can be tackled this way, but it is a good guideline to follow. I would be interested in knowing how other people meet the challenge of mazes. It is important to map every location out, giving exits and objects found, as well as a brief description of the location itself, as it is very easy to forget where you have been and what you have found. If you come across a maze then it would be advisable to start a new sheet of paper, then once the maze has been mapped out you can then transfer the more important routes to your original map.

Here are some more SYNONYMS to add to your list....
QUIT, RAISE, READ, REFLECT, RELEASE, REMOVE, REPAIR, REPLY, RESCUE, REST, RETRIEVE, RETURN, RING, ROLL, RUB, SAVE, SAW, SAY, SCAN, SCARE, SCORE, SEARCH, SECURE, SEND, SET, SHAKE, SHARPEN, SHOOT, SHOW, SHUT, SIP, SIT, SLEEP, SLIDE, SMASH, SMOKE, SPEAK, SPRAY, SPRINKLE, STAFF, STATUS, STEAL, STROKE, STRIKE, SWIM.

Adventure Chronicle

by Debby Howard

THE TREWHELLA ADVENTURES - REVIEW. (By Dave Havard).

These three adventures, on one disc from WOW Software, are all written with the G.A.C system. The first two are very similar in style, while the third, Simply Magic, is in a rather different style. They all support the use of "them" and "it", while "examine" and "search" give differing responses. All three are written in a serious manner, but have one or two humorous responses to some inputs.

CRISPIN CRUNCHY.

In this adventure of a secret agent, you play the title role. Crispin has been sent to locate and find the firing mechanism of a missile about to be launched upon the unsuspecting world by Professor Hinson. Unfortunately you are captured and thrown into a cell to await interrogation. You therefore start in a bare cell, without so much as a bed or bucket to examine and search. A clue is given immediately as how to progress, and calling for some form of remedy soon finds you on the way. I found most of the problems very logical to solve, particularly as you can visit most of the locations before having to do any serious working out. On many occasions a message is given as to why you cannot carry out an action, which I found most helpful, and far better than the standard "You Can't". I would rate this as an excellent adventure for a beginner, especially for children, as it is easily mapped, and the problems aren't too difficult, though some solutions are logical and original. The safe was probably the hardest problem, but anyone living in the Romford area shouldn't have any trouble! A good introduction, not too difficult, logical and well presented.

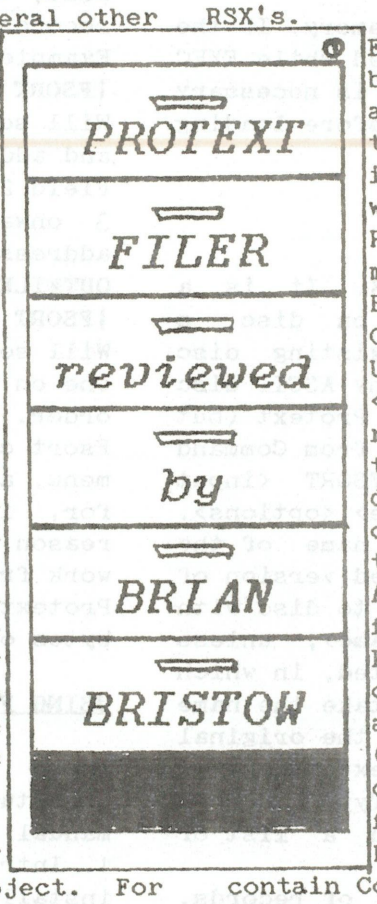
TIME.

Once again, Crispin Crunchy sets out to save the world. Once again his arch rival Professor Hinson is running amok. This time he has travelled back to wartime France to give a formula for Nerve Gas to the Nazis to help them win the war. The British have developed their own time machine, and can send you back to find and destroy the plans, but you only have 7 hours to complete the task. Having entered the Machine, you soon find yourself in wartime France, in a cave on a hillside. Having pushed on boldly past the first obstacle, careful reading of location descriptions are necessary to proceed further with any success. This was one of the things that I didn't like about it. Though I didn't complete the game, without Searching in a particular location progress is impossible. Searching anywhere else brings up "Don't Bother", but the place which gives a successful search is one of the more innocuous ones. Searching every location soon becomes a chore, so perhaps some indication would help. Once again though, further problems are logical, and usually (though not always), progress is aided by messages. In places the vocabulary is picky, requiring the exact input, where a more friendly game would accept one of several. Overall, I found it well presented, with some neat quickly drawn graphics. Problems were logical, though more difficult than the predecessor, Crispin Crunchy, while a more friendly vocabulary would be an improvement,

SIMPLY MAGIC.

This adventure is a completely different from the other two on the disc. Way back in the mists of time, Merzel The Magnificent was beginning to age and was looking for his successor. He devised a test, set in the many weird rooms below his castle. You have embarked on this test, and with the help of a rhyme you have to assemble a collection of items to enable you to cast a spell.There is a roaming spectre in the underground rooms who drains your energy,but further energy pills appear for you to replenish it. Both these actions appear to be random. Virtually every room can be visited before any problems have to be solved, so it is largely a matter of mapping the place, listing the objects, and trying to match them to the problems. The problems I came across were logical, and the difficulty varied. Many of the locations had quickly drawn graphics, and the responses were generally in context with the setting.

PROTEXT FILER is a fairly simple database, wholly compatible with Protext (and unusable without it - see advertisements for host program requirements). (Protext Office includes everything that comes with Protext Filer, plus an invoice generating program).
This is a review of the Amsdos CPC version. To use this version you must have Protext and Promerge, preferably on ROM. If you don't have ROM programs you will have to use Fsort (the sorting program) standing alone, rather than via the Filer menu. Versions are made for CPM Protext, and for several other computers. I believe that the programs are almost identical in each case, as they share the same manual.



BACKGROUND INFORMATION

A datafile is a file stored on disc containing a series of records, each record having one or more fields. In this instance the datafile is a file used by Filer and containing the data to be worked on. It is just an ordinary Protext file which can be created, viewed, and worked on via Protext or via the Filer menu. The datafile can store records in any order, in fact it is often beneficial timewise to store the most referred to records at the front of the file.
A field is one item of data, a record is a collection of fields relating to one subject. For example a personal record might contain fields titled name, phone, and several fields for the address.
Filer recognises fixed and variable length records, that is to say there does not have to be the same number of fields in each record in a file. Fields can be separated by a carriage return, a comma, or a TAB. A carriage return is the best to use. If records are variable, the end of each record is best signified by the insertion of a blank line.
Resident System Extensions (RSX's) are machine code programs that can live in memory, above Himem, at the same time as other machine code or Basic programs, and can be called into operation from those other programs, or directly from Basic, easily, by using certain keywords prefixed by a bar, '|'. (Protext on disc or tape is an RSX).

THE DISC

The program disc contains approximately 45 files, total 86K. The disc and files are not protected. The programs are written in Promerge stored commands, and can be freely inspected, and altered at will. The exceptions are two RSX's.

Exec is an RSX that is used by Filer and Office. It can also be used independently of those two, with Protext (It is included as standard within all other versions of Protext). It is placed in memory by **RUN"EXEC** from Basic, or RUN EXEC.REL from Command Mode if you have Utopia. The syntax is |EXEC <filename> (EXEC can be replaced by X). Protext will then read from that file on disc, and act on it's contents as if they had been typed in from the keyboard. Amsdos only allows one disc file open at any time, so Exec has to load the contents of the Exec file into memory allocated for the purpose (maximum 256 bytes) before operating on it. The Exec file can be created as a Protext document. It can contain Command Mode commands, text, Edit Mode commands, and even Printer Control codes. Edit mode commands cannot be typed in directly, but they can be entered by using the codes in the key translation table in the Protext manual, wrapped by a '|' at each side. For example:-

```
L LETTER|13||252||29||252|M CONTN|13
        |FT|13||252||27|
```

Will cause Protext to load a document "LETTER", enter Edit Mode, jump to the end of the document, enter Command Mode, merge a document "CONTN" to the

end of the text, format the document, enter Edit Mode, then jump to the start of the document.
Alternatively, Exec can act in the same way on a string that follows the command |XS, for example:-

|XS L LETTER|13|252|

Exec also recognises PAUSE which waits for a key press, and ; which prints the rest of the line to the screen, for example:-
;Insert data disc, then press any key
PAUSE
Exec uses 805 bytes of memory. If the SYMBOL command is to be used while EXEC (or FSORT) is in use, it is necessary to do a SYMBOL AFTER 256 before loading EXEC (or FSORT).

FSORT

Fsort is the second RSX. It is a program that produces, on disc, a sorted version of an existing disc file. It can be used on any ASCII disc file, and does not need Protext (but can, of course, be used from Command Mode). The syntax is |FSORT <input filename> <output filename> <options>. <input filename> is the name of the file to be sorted. A sorted version of this file will be saved to disc with the name <output filename>, unless <output filename> is omitted, in which case the sorted file will take the name of the original file and the original file will be given a .BAK extension.
Options are considerable. Type FSORT -H or FSORT ? for help, and a list of options will appear.
You can specify the type of records, with <-Fn> for fixed length (replace n with the number of fields per record), or <-V> for variable number of fields per record (this is the default).
Use <-S,a,b,c...> to specify the fields on which to sort (replace a,b,c... with the field numbers. The sort will then be on field number a. If any match, those will then be sorted on field number b, and so on. The default is to sort on fields 1, then 2, then 3 etc.
To specify the method of sorting, use <-A> for alphabetical, <-Z> for reverse alphabetical, <-P> for personal (sorts by the last word of that field first, eg. takes B. Bristow as being Bristow B.), <-W> and <-L> to sort on the first and last words of the field respectively, and <-N> and <-D> for numeric sort and decreasing numeric sort respectively.
Use <-T> where TAB's have been used to separate fields in a record.
Use <-On> to take account of accented characters in one of seven different languages (replace n with the appropriate language number).
Use <-Qn> to cause Fsort to query any two records that have field/s n the same, to check for duplication of records.
Examples:
|FSORT INFILE OUTFILE -V -3,4,5
Will sort a file named **INFILE**, of names and addresses having field 1 for names, field 2 for 'phone numbers, and fields 3 onwards for address lines, into address order, into a file named **OUTFILE.**
|FSORT LIST
Will sort a file named **LIST**, of words, one on each line, into alphabetical order.
Fsort can be called up from the Filer menu, and parameters will be prompted for, if omitted. For some strange reason I can't get the help option to work from Basic, but it works fine from Protext command mode. Fsort uses 6097 bytes of memory.

USING FILER

There is NO INDEX in the manual, unfortunately. The contents of the manual are split up as:
1. Introduction. System requirements, installation, etc.
2. Tutorial. Rather like the one in the Promerge manual.
3. Using Filer.
4. Using Fsort.
5. Using Office.
6. Appendix. Exec, for CPC users only. All other versions have Exec included within Protext.
Unfortunately, Arnor say they have no intentions of putting Fsort and Exec on ROM, which would have speeded up loading, and used up less memory.
RUN"DISC loads FSORT and EXEC, and calls up the Filer menu, in 28 seconds.
It is important to understand that

Filer deals with three sorts of files:
1. Main file. The datafile that you have created.
2. Update file. Contains records added to an existing file via the menu, that have not yet been merged with the main file.
3. Selection file. Contains records selected from the main file via the S (Select records) menu option.
Most of the menu options can work on any of these three files.
Filer maintains an information file on disc for each datafile, and separate from the datafile, with the extension .PFI, containing:
1. File title.
2. Filename of the file.
3. Type of records (fixed or variable).
4. Number of fields and title of each field.
5. Defaults for various options from the menu.

The menu options are as follows:
F - Find single record.
To find a single record, given a string, which can be searched for in a specified field, or in all fields. A successful find will place the record in a marked block in the second file in memory (remember Promerge allows two files in memory), ready for, for example, printing an address label.
S - Select records.
Copies selected records into a selection file. A choice of seven types of conditions for the selections are given, eg. you could select all those records where 'Hastings' appeared in field 7, AND 'Bristow' did not appear in field 3, AND a phone number was in field 2.
P - Print/display records.
To screen , printer or file. All or selected fields. Adds a blank line after each record optionally.
M - Mail merge.
Print to screen, printer or file. Four templates are provided, you can easily adapt them, or construct your own, with extension .PMM. One copy of the template will be printed for each record, containing the details in that record. If you've ever found Promerge too complicated, but wanted to do some mail merging, Filer will make it much simpler for you.
Z - Sort records.
Uses Fsort as described earlier. Sorts a named file.
C - Count records.
In a named file.
A - Add new records to update file.
Creates an Update file. Uses field names from the .PFI of the main file as prompts. This option is a pain in the bum to use. Because the program checks for commas and wraps with quotes where found, and gives continual prompts, it runs slower than you can type. It even runs slower than I can type! So you must watch the screen constantly, and WAIT FOR THE PROMPTS, or you will lose the first few characters of many entries. Alternatively, read on!
U - Merge update file into main file.
Obvious.
L - List current file information.
From the .PFI file.
E - Edit current file information.
Allows alteration of the .PFI file.
D - Change current datafile.
To another, existing, datafile.
I - Initialise new datafile.
Set up a .PFI file for a new datafile. To avoid serious confusion, a .PFI file can only be created for a datafile if that datafile has first been created via Protext, and not via Filer. The datafile must be saved to disc and contain at least one record. This option will firstly prompt for the filename of that datafile, then prompt for the rest of the .PFI details required.
O - Protext Office menu.
If you haven't got Office also, you will be returned to the Filer menu.
Q - Quit.
To Protext command mode, the same effect as ESC. To revive Filer menu, from command mode type X FM (this takes 13 seconds).

Where possible the menu prompts have default options (printed in upper case, where the other option/s are printed in lower case). There are full specimen files on the supplied disc, to be read in conjunction with section 2 (Tutorial) of the manual.

CONCLUSIONS

Seeing the two timings printed above

(also, it takes 10 seconds to return from an option to the menu), and the speed problem mentioned in the Add option from the menu, you are probably thinking that this program is hopelessly slow. Well it is....but.
A new file would be much more easily created via Protext, the Filer manual even suggests that this is the preferred option. Just type it in! Adding new records can be done likewise. Searches, alterations, find and replace, and extraction are all very simple in Protext. Just use Filer where it is necessary, for mail merge for example. If just one or two records are to be added, the speed of the Add option is not very relevant. It is incredibly convenient to be able to get to the datafile so easily (and QUICKLY) to edit it. Speed is not a problem. Convenience and adaptability are well supported.
The whole of Filer is totally transparent. All the programs can be listed, examined, and altered to suit. All of the commands are familiar to Promerge users (except Fsort and Exec). Basic is always just a key press or two away. An excellent program for using, but not for impressing friends or playing with.
For those who are wondering what Office is like, see the next issue of CPC User.

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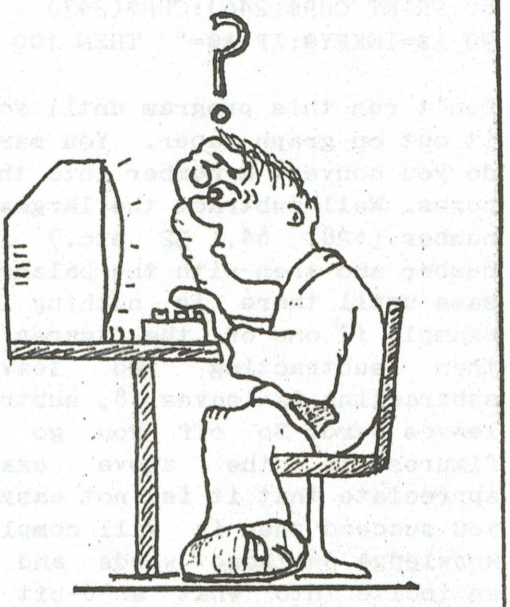
==========

BEGINNERS BASIC

by

ANDY KEECH



In the public domain library (both tape and disc), there is a charcter designer program that will take all the hard graff out of this issue's first collection of words. I suggest you mail your order now, because it is not only a beautiful Basic utility, it helps you to understand the workings of Arnold. Run it and see.

Our friends with colour monitors spotted the only problem with the picture program of the last issue. You must forgive me for my lack of colour as I rarely use the MP1 and my TV.

For those people who do not have the character designer program, I'll run through the two new commands, SYMBOL and SYMBOL AFTER. But before I show you how each one works, I'll ask you to get a piece of graph paper. If you don't have any draw an eight by eight grid on a piece of A4.

Now along the top write the figures (from left to right) 128, 64, 32, 16, 8, 4, 2, 1. Maths genii will see that the sum of these figures add up to 255 an important number for Arnold. In the top row shade out 128 and 2 square, second row shade out 128, 32, 8 and 2, third row shade out 64 and 4, forth row shade 64 and 4, fifth row shade 32,16 and 8, sixth row shade the same, seventh row just shade out 16 and leave the last row blank.

If you add across the shaded squares only, you will end up with a list of numbers as follows. 130, 170, 68, 68, 56, 56, 16, 0

Now type

```
10 mode 0
20 SYMBOL AFTER 162
30 SYMBOL 163,130,170,68,68,56,56,16,0
40 PRINT CHR$(163)
```

The screen will print the grid that you have just drawn. Now press the pound sign. I think you will now realise what you have just done. The pound key is the ASCii code 163 and the little program has redefined it to print a very rough stag's head.

If you are writing a program and need a special character, then design it. To reset your computer to its default condition then it is probably best to do a complete switch off. The sky is almost the limit now as you can redesign several characters at a time. You can also place them side by side.

Now type

```
10 MODE 1
20 SYMBOL AFTER 240
30 SYMBOL 244,0,7,28,56,32,97,88,28
40 SYMBOL 245,0,0,208,104,0,0,192,0
50 SYMBOL 246,39,3,3,3,3,3,30,101
60 SYMBOL 247,96,128,0,0,0,0,192,184
70 PRINT CHR$(244);CHR$(245)
```

```
80 PRINT CHR$(246);CHR$(247)
90 A$=INKEY$:IF A$="" THEN 100
```

Don't run this program until you've set it out on graph paper. You may ask how do you convert a number into the shaded boxes. Well subtract the largest column number (128, 64, 32 etc.) into the number and then with the balance do the same until there is nothing left. For example if one of the figures were 168 then subtracting 128 leaves 40, subtracting 32 leaves 8, subtracting 8 leaves zero. So off you go with the figures in the above example. I appreciate that it is not easy, but if you succeed then it will complete your knowledge on these words and give you an incite into what an 8-bit computer is.

Last issue I said I would do DEG and SIN but I realise that space may force me to delay it. Drawing using Basic involves the use of many commands, which must be adequately explained to give the fullest comprehension. So I will begin this issue and possibly finish next issue.

ORIGIN x,y - sets the point from which all drawing commands begin. ORIGIN 0,0 is the bottom left hand corner of your screen. The x coordinate is across and the y coordinate is up.

DRAW x,y - This will cause a line to be drawn from the point of origin to the x,y coordinates specified. It may be followed by a pen number.

PEN - Got a colour screen?, then this will interest you. The command is followed by two figures separated by a comma. The first one is the pen setting number and the second number refers to the actual colour. So PEN 1,13 will give you a colour green.

PLOT x,y - Don't shy away from this command, as its principals are easy. All it does is print a pin. Use it successively (as in a FOR/NEXT routine) and it prints a straight or curved line.

Now type

```
10 MODE 1
20 PRINT"Command Example Basic V.1"
30 ORIGIN 320,200
40 DRAW 100,100
50 FOR x=-200 TO 200 STEP 20
60 ORIGIN 320,200
70 DRAW x,100
80 next
```

Now type

```
10 n=0
20 MODE 2
30 PRINT"Command Example Basic V.2"
40 GOSUB 1000
50 IF n=200 THEN GOTO 200
60 PLOT n,n
70 DRAW n,400-n
80 DRAW 640-n,400-n
90 DRAW 640-n,n
100 DRAW n,n
110 GOTO 40
200 a$=INKEY$:IF a$="" THEN 200
1000 REM ORIGINATOR
1010 n=n+10
1020 RETURN
```

This program should be called concentric squares, but above all it gives you a real idea of drawing.

Remember plenty of experimentation.

ANDY

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==========

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

8 &bb18 - KM WAIT KEY (B)

ACTION:-

Try to get a key from the key buffer. This routine waits until a key is found.

ENTRY CONDITIONS:-

None.

EXIT CONDITIONS:-

Carry TRUE.
A contains the character or expansion token.
Other flags corrupt, and all other registers are preserved.

---

9 &bb1b - KM READ KEY

ACTION:-

Try to get a key from the key buffer. This routine does NOT wait if no key is available.

ENTRY CONDITIONS:-

None.

EXIT CONDITIONS:-

If a key was available...
Carry TRUE
A contains the character.

If no key was available...
Carry FALSE
A corrupt

Always...
Other flags corrupt and all other registers preserved.

---

10 &bb1e - KM TEST KEY

ACTION:-

Test if a particular key or joystick button is pressed. This is done using the key state map.

ENTRY CONDITIONS:-

A contains a key number.

EXIT CONDITIONS:-

If a key is pressed...
Zero FALSE

If a key is not pressed...
Zero TRUE

Always...
Carry FALSE
C contains the current Shift and Control states.
A, HL and other flags corrupt, and all other registers preserved.

---

11 &bb21 - KM GET STATE

ACTION:-

Ask if the keyboard is currently Shift locked or Caps locked.

ENTRY CONDITIONS:-

None.

EXIT CONDITIONS:-

L contains the Shift lock state
H contains the Caps lock state

AF corrupt
All other registers preserved.

NOTES:-

The lock states are...
#00 means off
#FF means on
The default is off.

---

12 &bb24 - KM GET JOYSTICK

ACTION:-

Ask what the current states of the joysticks are.

ENTRY CONDITIONS:-

None.

EXIT CONDITIONS:-

H contains the state of joystick 0
L contains the state of joystick 1
A contains the state of joystick 0
All flags corrupt
All other registers preserved

NOTES:-

The joystick states are bit significant as follows....

Bit 0 Up
Bit 1 Down
Bit 2 Left
Bit 3 Right
Bit 4 Fire 2
Bit 5 Fire 1
Bit 6 Spare button (usually unconnected)
Bit 7 Always zero

If a bit is set then the button is pressed.

---

13 &bb27 - KM SET TRANSLATE

ACTION:-

Set what character or token a key will be translated to when neither shift nor control is pressed.

ENTRY CONDITIONS:-

A contains a key number
B contains the new translation

EXIT CONDITIONS:-

AF and HL corrupt
All other registers preserved

NOTES:-

If the key number is invalid (greater than 79) then no action is taken.

---

14 &bb2a - KM GET TRANSLATE

ACTION:-

Ask what character or token a key will be translated to when neither Shift nor Control is pressed.

ENTRY CONDITIONS:-

A contains a key number

EXIT CONDITIONS:-

A contains the current translation
HL corrupt
Flags corrupt
All other registers preserved

---

15 &bb2d - KM SET SHIFT

ACTION:-

Set what character or token a key will be translated to when Shift is pressed.

ENTRY CONDITIONS:-

A contains a key number
B contains the new translation

EXIT CONDITIONS:-

AF and HL corrupt
All other registers preserved.

GAMES IN BRIEF

PARA ACADEMY.
Promotion prospects are quickly decided in this series of tests. Failure means ejection from the paratroopers elite. All tests are against the clock and include...Sprinting, Swimming, Tug 'o' War, Weightlifting, Target Shooting and The Ropes. Controls are by keyboard or joystick. The price is £2.99 and is on tape only.

SPAGHETTI WESTERN.
Take on the role of Clint Westband and fill your saddle bags with reward money earned by the elimination of evil desperados. But watch out for the innocent bystanders. Five tough towns to fight your way through with the assistance of your six-shooter, dynamite and a whisky bottle. Joystick controlled. The price is £1.99 and tape only.

ARCADE FRUIT MACHINE.
Yet another fruit machine simulator. This one is a bit better than others graphics wise. Amongst the assorted specials are...CASH 'N' GRAB, CASH POT, NUDGE POT and PICK A WIN. If you haven't already got a fruit machine in your collection, then this one is not too bad. The price is £2.99 and tape only.

LAS VEGAS CASINO.
Try your hand at Roulette and wait for that ball to land on your chosen number. Or how about Craps? Roll those dice and just pray you don't lose. Or perhaps a nice sedate game of cards with Blackjack (21 or Pontoon to us common folk!). Last, but by no means least is Baccarat. If you can figure out the rules then good luck!. Price is £2.99 and is tape only.

BATTLE TANK SIMULATOR.
A 3D wire-frame-graphic battlezone of the future. Select your weapon (either anti-tank missile or armour piercing shell) and fire. When using missiles, even your viewpoint can be changed to a missile-eye view. A good game, but not much in the way of graphics. The whole game control can be user defined to suit you. The price is £1.99 and is tape only.

SABOTAGE.
Blast your way through 6 levels of marauding alien ships in this action-packed shoot-em-up, and find each piece of a blueprint to the mother ship. A traditional game done in traditional style. Controls are via keyboard or joystick. The price is £2.99 and is tape only.

CODENAME MAT.
A complex game in which your mission is Alien Termination. 3D graphics along with plenty of strategy make this a compelling game for thinkers. The price is £1.99 and is tape only.

F1 TORNADO.
You take control of the ultimate in search and destroy aircraft in this horizontally scrolling battle. The graphics are very well designed and the sprites move smoothly. Not much to do except blast everything that moves. Look out for the extra weaponry found along the way, it will certainly come in handy, especially for that end of level beast which certainly takes some beating. Control is via keyboard and/or joystick. The price is £1.99 and is tape only.

EDD THE DUCK.
Yes he's here! That pain in the b** from the BBC has finally been let loose onto your VDU. Edd is filming a special series and he must travel up from the bowels of the BBC through three departments. They are Weather, Special Effects and Childrens' TV. On each level he must collect 20 stars before progressing. But Wilson the Butler and his cronies are out and about and are determined to stop Edd. This is a game that's likely to keep the youngsters amused for a while and I can recommend it for them. Controls are via keyboard or joystick and the price is £9.99 for tape.

ALL ABOVE GAMES ARE FROM ZEPPELIN GAMES AND CAN BE OBTAINED DIRECT FROM ZEPPELIN IF NECESSARY AT.....
9D ASH WAY, HOUGHTON-LE-SPRING, DURHAM, DH4 6JW. All prices include post and packing.

```
1 REM************************
2 REM**** DISC MANAGEMENT PROGRAM ****
3 REM******* by John Packham *******
4 REM*********** 1990 ***********
5 REM**** for UTOPIA + DISC users only ****
6 REM************************
7 REM
8 REM
10 MODE 2
20 GOSUB 10000
25 switch=-1
30 menu$="AaBbCcDdEeFfGgHhIi"
40 get$=INKEY$:IF get$="" THEN 40
50 choice=INSTR(menu$,get$)
60 IF choice=0 THEN 40
70 ON choice GOSUB 1000,1000,2000,2000,3000,3000,4000,4000,5000,5000,6000,6000,
   7000,7000,8000,8000,9000,9000
80 GOTO 30
1000 REM****CHANGE FILE ACCESS****
1010 |CAT
1020 |ACCESS
1030 |CAT:CALL &BB18:CLS:RETURN
1040 REM
2000 REM****CATALOGUE FILES****
2010 CLS
2020 LOCATE 10,5:PRINT" Which Drive A or B?"
2030 drive=0
2040 a$=INKEY$:IF a$="" THEN 2040
2050 IF a$<>"A" AND a$<>"a" AND a$<>"B" AND a$<>"b" THEN CLS:GOTO 2020
2060 IF INKEY(69)=0 THEN drive=0
2070 IF INKEY(54)=0 THEN drive=1
2080 |CAT,drive
2090 CALL &BB18:CLS:RETURN
2100 REM
3000 REM****COPY FILE/S****
3010 CLS
3020 |CAT
3030 |COPY
3040 CALL &BB18:CLS
3050 RETURN
3060 REM
4000 REM****DELETE FILE/S****
4010 |CAT
4020 |DELETE
4030 |CAT:CALL &BB18:CLS:RETURN
4040 REM
5000 REM****FORMAT DISC****
5010 |FORMAT
5020 |CAT:CALL &BB18:CLS:RETURN
5030 REM
6000 REM****FILE INFO****
6010 CAT
6020 |INFO
6030 CALL &BB18:CLS:RETURN
6040 REM
7000 REM****PRINTER ECHO****
7010 IF switch=-1 THEN switch=1:GOTO 7030
7020 IF switch=1 THEN switch=-1:GOTO 7040
```

```
7030 BORDER 6:|PRINTON:GOTO 7050
7040 BORDER 2:|PRINTOFF
7050 RETURN
7060 REM
8000 REM****RENAME FILE****
8010 |CAT
8020 |REN
8030 |CAT:CALL &BB18:CLS:RETURN
8040 REM
9000 REM****DISPLAY ASCII FILE****
9010 |CAT
9020 |TYPE
9030 CALL &BB18:CLS:RETURN
9040 REM
10000 REM****DRAW BORDERS****
10010 WINDOW£0,39,78,5,22
10020 WINDOW£1,3,37,5,22
10030 WINDOW£2,3,78,1,3
10040 WINDOW£3,3,78,24,25
10050 CLS£0:CLS£1:CLS£2:CLS£3
10060 LOCATE£2,18,2:PRINT£2,CHR$(24);" D I S C--M A N A G E M E N T--P A C K ";
      CHR$(24)
10070 LOCATE£3,24,2:PRINT£3,CHR$(24);" copyright....J.PACKHAM 1990 ";CHR$(24)
10080 LOCATE£1,8,2:PRINT£1,CHR$(24);" FUNCTIONS AVAILABLE ";CHR$(24)
10090 PRINT£1:PRINT£1,"      A......Change File Access"
10100 PRINT£1,"      B.........Catalogue Files"
10110 PRINT£1,"      C.............Copy File/s"
10120 PRINT£1,"      D...........Delete File/s"
10130 PRINT£1,"      E.............Format Disc"
10140 PRINT£1,"      F..............File Info"
10150 PRINT£1,"      G............Printer Echo"
10160 PRINT£1,"      H.............Rename File"
10170 PRINT£1,"      I......Display ASCII File"
10180 MOVE 4,0:DRAW 4,394,1:DRAW 632,394:DRAW 632,0:DRAW 4,0
10190 MOVE 4,362:DRAW 632,362
10200 MOVE 280,10:DRAW 280,362
10210 RETURN
10220 REM
```

The above program is as stated at the heading, for DISC users only with UTOPIA fitted as well. For information on the different functions, you should look in the Utopia manual. Option 'C' above is the second COPY function as mentioned in the manual. For the 'Printer Echo' function, it might be better for you to alter the appropriate subroutine so as to put your printer into condensed printing mode. That way, you could possibly use it for obtaining a condensed printout of a disc catalogue. To enable you to know that the Echo function is ON, the border turns RED. Switch it off again and the border reverts back to blue.
None of the default colours have been changed, as this seemed to upset the automatic prompts given by Utopia, so it is up to you to decide whether or not to include lines to change them.

PLEASE NOTE!! All references to '£' in subroutine 10000 should be changed to a HASH symbol (SHIFT 3). I have difficulty in printing out both when using Qualitas.

RANDOM SELECTION: DAVE CHURCH

Many programs require that a random selection of some quantity be made and that the same selection is then prevented from being made again.
Such a requirement occurs, for example, in asking questions in a quiz program, or dealing out playing cards, etc. It is obviously preferable to have each question asked in a quiz as being different, and it would be ridiculous if more than one person in a game of bridge were dealt the same card.
There are many ways of achieving random selections without repetition and a simple one that I have often found useful is as follows.
The method makes use of a string variable of characters each of which represents one of the possible selections that can be made. As a simple example let us assume that we wish to make a random selection out of nine numbers, repeat this six times and ensure that any number is never selected more than once. We could start by setting up a string variable as:-

```
A$ = "123456789"
```

An integer random number is now obtained of any size we think suitable, say between 1 and 20, as follows:-

```
n = INT(RND*20)+1
```

It is sometimes more beneficial to make this a subroutine which can then be called from other places in the program. This random number n is then used to 'rotate' the individual characters in A$ above using the following routine:-

```
FOR x = 1 to n
A$ = MID$(A$,2) + LEFT$(A$,1)
NEXT x
```

If n had been returned as 3, for example, the string would now look like:-

```
A$ = "456789123"
```

The required selection is now made by using the first character in A$ above.

```
Character = LEFT$(A$,1)
```

or if an actual value is required, then `Number = VAL(LEFT$(A$,1))` i.e. 4 in the above example

To prevent this selection being made again, the first character (in this case 4), is now removed from A$ by:-

```
A$ = MID$(A$,2)
```

and, therefore, A$ now is "56789123"

Further selections can now be made by repeatedly calling the random number subroutine, rotating A$ again, and then selecting and removing the new first character in a similar way. The centre table illustrates the operations.

It can be seen that, although the random number returned by the subroutine may be the same (2 in the above example), the actual selection made is always unique.
For more complicated selections, say when dealing cards from a pack, four strings (one for each suit), could be set up as an ARRAY as follows.

```
DIM A$(4)
A$(1) = "A23456789TJQK"  REM: Represents Hearts
A$(2) = "A23456789TJQK"  REM:     ..     Clubs
A$(3) = "A23456789TJQK"  REM:     ..     Diamonds
A$(4) = "A23456789TJQK"  REM:     ..     Spades
```

n	A$ (after rotation)	Selection	A$ (first char.removed)
-	"123456789"	-	-
3	"456789123"	4	"56789123"
2	"709123456"	7	"8912356"
10	"2356891"	2	"356891"
2	"689135"	6	"89135"

and so on

To make random selections from these strings it is necessary to randomly select the string as well as the character in the string. This is best done by using another string to represent the A$ selection e.g. (SUIT$ = "1234"), which is then randomly selected by rotating in a similar way as before but only removing the character when the relevant A$ has been reduced to zero length, that is, when all cards in the suit represented by that character have been dealt.

```
FOR x = 1 TO n
SUIT$ = MID$(SUIT$,2) + LEFT$(SUIT$,1)
NEXT x
y = VAL(LEFT$(SUIT$,1))
FOR x = 1 TO nn
A$(y) = MID$(A$(y),2) + LEFT$(A$(y),1)
NEXT x
CARD$ = LEFT$(A$(y),1)
A$(y) = MID$(A$(y),2)
IF LEN(A$(y)) = 0 THEN SUIT$ = MID$(SUIT$,2)
```

The method can be extended further as required to cater for larger selections. Where higher numbers are

required to be randomly chosen without repetition, use can be made of the ASCII value of each of the selected first characters as follows:-

```
Number = (ASC(A$(y)) - 46) + ((y-1)*50)
```

where each
A$(y) = "/01234567891;)<=>?@ABCDEFG etc. up to 50 characters"

The expression (ASC(A$(y)) - 46) returns the ASCII value of the first character in the rotated string. For instance, if the character had been an "F" this would be decimal 70. Subtracting 46 from it gives the 'base number' counting from 1, in this case decimal 24. The factor ((y-1)*50) added to the above 'base number' gives the required 'true number' by adding multiples of 50 dependent on the number y of the string being used. In the above example, if A$(8) had been selected then 350 is added giving the final 'true number' as 374.

Sometimes it is required that certain selections are to be allowed more than once e.g. in a quiz program where some types of question are to be asked more frequently than others. To achieve this it is simply a matter of including the appropriate character in the strings the required number of times.

```
A$ = "12234555667889"
```

In this example numbers 2,6 and 8 are twice as likely to be chosen as numbers 1,3,4,7 and 9 whereas 5 is three times more likely.

Apart from the two applications that I have already mentioned, I hope that others will find many more and be able to adapt the described method to suit their own needs. Meanwhile, to give a practical demonstration of the method in action, I will conclude with a short listing of a simple card dealing routine.

```
5 REM *** Demonstration Card Dealing Routine ***
10 DIM A$(4)
20 ZONE 7
30 S$(1)="Hearts"
40 S$(2)="Clubs"
50 S$(3)="Diamonds"
60 S$(4)="Spades"
70 A$(1)="A23456789TJQK"
80 A$(2)="A23456789TJQK"
90 A$(3)="A23456789TJQK"
100 A$(3)="A23456789TJQK"
110 suit$="1234"
120 z=0
130 WHILE LEN(suit$)<>0
140 n=INT(RND*20)+1
150 FOR x=1 TO n
160 suit$=MID$(suit$,2)+LEFT$(suit$,1)
170 NEXT x
180 y=VAL(LEFT$(suit$,1))
190 nn=INT(RND*20)+1
200 FOR x=1 TO nn
210 A$(y)=MID$(A$(y),2)+LEFT$(A$(y),1)
220 NEXT x
230 card$=LEFT$(A$(y),1)
240 A$(y)=MID$(A$(y),2)
250 z=z+1
260 PRINT "Card";z;": ";card$;" ";S$(y),":
    Cards Left:-";LEN(A$(y))
270 IF LEN(A$(y))=0 THEN suit$=MID$(suit$,2)
280 WEND
290 PRINT:PRINT "All cards dealt"
300 END
```

****

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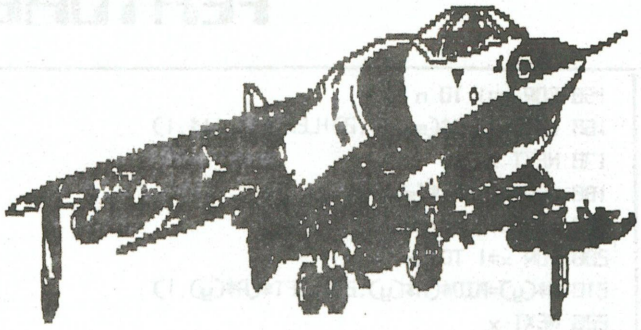


Simulation and Strategy

LORDS OF CHAOS
Reviewed by Dave Havard

In the December issue I reviewed Laser Squad from Target Games. In the points section I gave them 9 overall, asking if they could go one better. Here is their follow up, Lords Of Chaos.....does it get ten?

Where Laser Squad was set in the future, with a squad of space commandos and various types of enemy droids, Lords of Chaos is set in the mythical past. The days of wizardry and witchcraft, spells and spectres.

This latest offering from Julian Gollop and his team begins the breakaway from Laser Squad, of which I am told there will be no more expansions. It follows the control method in only one way, action points are still required to enable you and your (conjured) team to perform any actions. Once again, though all of your action points are reset at the beginning of each turn, this does depend on how hard you push each character. They all have differing amounts of stamina, and it is this which controls how many action points are returned to you.

There are three scenarios on the tape or disc, with two more on the first expansion kit, which is already available. They are set in such varied conditions as : Your own Homeland, The Slayer's Underground Dungeon, & Ragaril's Puzzling Mansion. The expansion has a scenario set among a nest of islands and a Tomb Of The Undead.

The game starts with your wizard, alone and unaided. That is apart from his spell list. On the first turn no movement is allowed, but spells can be cast and you begin to assemble your team. A menu is constantly available, with sub menus from some selections. One of the first things to do is to look through your spell list and see what is available. The spells are randomly selected each time you play, but always well balanced.

The list allows you to create creatures to assist you. A Dwarf, Goblin, Troll, Lion, Bear, Giant Spider; mounts such as Unicorn, Pegasus or Gryphon; undead in the variety of Spectre, Vampire, Ghost or Demon. There are others like this, but wait.....there's more! Various components for potion spells are scattered about, and when these are collected and dropped into a cauldron you can make potions of Invisibility, Speed, Healing, Flying, etc.

Then there are spells for Fire, Water, Gooey Blob, and so on. Your array of talents are topped of by the ability to enchant weapons, curse, and cast magic bolts and the like.

Mention was made earlier of mounts. These can be ridden, and even flown. Only some of the creatures can use their hands, so care must be taken on who (or what) you send off to collect something for the pot. You can always do it yourself, but it's a hard world out there, and the computer opponent is much more deadly than in Laser Squad (and that was bad enough).

Hidden movement is employed again to great success, in this case you can see all around you except when your view is blocked. Directional control is achieved by positioning the cursor adjacent to the selected character and pressing fire, then they both move together. The display of action points, stamina etc. are done with bar graphs, so estimation comes in rather than the precision of Laser Squad.

The manual supplied details all of your abilities, including spells, with an excellent tutorial section for the beginner. The aim of each scenario is to be the first to reach the Portal, which appears after a set number of moves, and lasts until the end. Points are scored according to how many of the opposing wizard's creatures are disposed of, with a bonus if your wizard is directly responsible, and for any treasures collected. These points are multiplied, and can be used to help develop a better character in a later scenario, bringing this even more into the Role-Playing category.

I found Lords of Chaos totally absorbing, both in the challenges it presents and the very open method of play. The computer opponent's "intelligence" has been increased dramatically, but so has the number of options and variations open to you.

Once again there is a facility to take on a human opponent, only this time up to four can play.

TACTICAL AWARENESS SECTION.
Tips from Dave Havard
LASER SQUAD.

1. In the first scenario, although rocket launchers are more fun to use, you invariably get left in the open. Having used all your action points for the turn, the remaining robots trundle out of the wreckage and leave you very short handed.

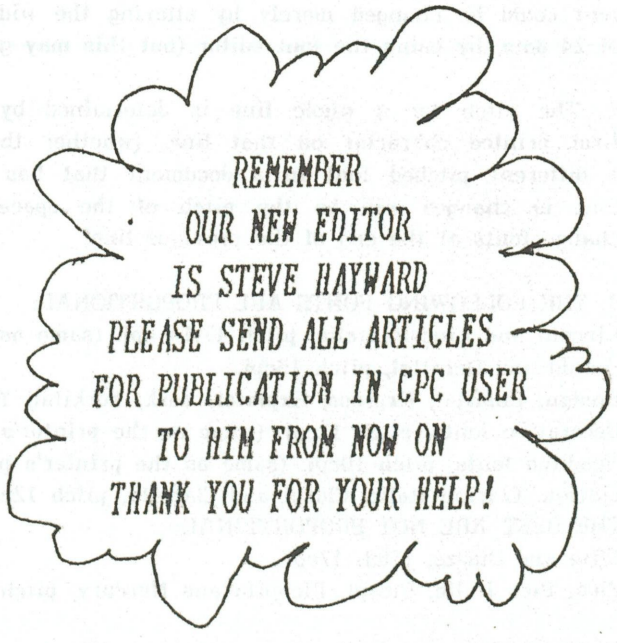
2. It is far better to approach from both ends, 3 men from one side and 2 from the other. Use one man to open the right hand door, while the other tosses in a primed grenade. Then shut the door, and scarper to avoid the blast.

3. Always try and work in pairs, at least. The point man should be best armoured, to draw fire and have any chance of surviving. If he gets hit, the other man cleans up his assailant.

4. Grenades are extremely useful in situations where you are short of action points. If you discover an enemy but don't have enough action points to be sure of finishing him off, get someone else to prime a grenade and throw it to you. (Make sure that you have dropped your weapon, are facing the thrower, and most importantly, have enough action points left to throw the newly caught primed grenade. This can actually be passed from man to man in certain situations, and gives a very satisfying feeling.

5. In the two player mode, Sterner Regnix can hide primed grenades in the plant pots by the doors. Prime a grenade for anywhere between 5 and 10 turns after the start, stand on a plant pot, and drop it. You will be asked if you want to hide it. Answer YES. The look on the face of your adversary when he stumbles into this one makes the whole session worthwhile. Remember that when priming, 0 is the end of the current turn, 1 is the end of your opponents next turn, 2 is the end of your next turn, etc.

6. Whatever side you play in two player mode, leave doors as you find them. Your opponent will know where you are if you don't. Mind you, by opening a door and running off somewhere else, he can be diverted.



BITS AND BYTES

Brian Bristow has written in with some useful bits and pieces of information which I am sure our readers will find very useful, so I will now hand you over to him.....Ed

I claim to have discovered 3 Arnor bugs!

1. With Protext (v 1.22) and Promerge (v 1.07) on ROM (and Prospell and Utopia on ROM - I have not checked without them) make a document containing CS, with no message on the CS line. Then PS or P, and when the screen is cleared, the first line will be filled with a row of the graphics character 0 (a box). If the document is long, the first line will sometimes be filled with an excerpt of the document. At other times it will just be blank. To cure the problem, just insert any message in the CS line, even " will do. Arnor know about this one, they have even taken avoiding action in 'Filer'. Sometimes this does not happen, but it will straight after a reset.

2. Promerge allows comments on stored command lines, by preceding them with a semi-colon. Don't do this on a CC line, because the semi-colon on this line tells Promerge that the off codes are to follow.

3. With Utopia (v 1.25), I often have a problem with COPY, the 2nd (disc only) version. Using the wildcard '*', and two drives, Utopia often goes in an endless loop of copying files. When I eventually break in, only a few of the files appear on the directory of the destination disc. I have even seen Utopia telling me that it is copying a file that was never on the source disc, only on the destination disc. This one is a real pain, can anybody offer a solution, and does anybody else suffer the same problem?

****

QUALITAS PLUS FONTS - HINTS

1. The pitch (characters per inch) of any font is derived from the width of the space character of that font. Non-proportional fonts have all characters the same pitch while proportional fonts have characters of differing widths. The width of the space character in a proportional font is set at an approximate average of the width of the other characters, by setting the number of dots width of it's character, where each dot gives 1/240in. width, eg. 24 dots gives a pitch of 10cpi. So the pitch of a font could be changed merely by altering the width of the space character in that font, to a maximum of 24 dots, by using the font editor (but this may give undesirable results).

2. The pitch for a whole line is determined by the pitch of the space character of the font of the first printed character on that line, (whether that character is a space or not). So if you change to a different pitched font in a document that has a left margin, the pitch for the first line where the font is changed will be the pitch of the space characters used to form the margin. To avoid this, change fonts at the end of the previous line!

3. THE FOLLOWING FONTS ARE PROPORTIONAL:-
Lincoln and Lincoln italic, pitch 17.14 cpi. (same as condensed).
Herald and Heraital, pitch 15cpi.
Ensign, Ensiital, Express, Exprital, York, Yorkital, Yorkbold, and Yorkboit, pitch 13.33cpi.
Decorative fonts, pitch 12cpi. (same as the printer's elite).
Headline fonts, pitch 10cpi. (same as the printer's pica).
Clarion, Clarion italic, Clarpi and Clarpita, pitch 12cpi.
THE REST ARE NOT PROPORTIONAL:-
Elite and Piazza, pitch 12cpi.
Pica, Pica italic, Picapi, Picapita and Mercury, pitch 10cpi.

4. An example to calculate the width of justified text:-
Printable width 8in., font 12cpi., A4 paper.
Left and right margins 8 characters each (8/12-0.667in. each).

(8*12)-(8+8)-78 characters of text.
The text will be printed to a total width of 78/12-6.5in.
The Qualitas Plus 'x' character will be 78+8-86.
For Protext users, the side margin will be 8, and the ruler length will be 78.
There will also be unprintable margins each side. 8in. is the maximum width that can be printed (unless your printer is wider than mine!), A4 paper is 8 1/4in. wide, so the actual margin width, if the paper is centralized in the printer, will be 0.667+0.25/2-0.792in.

****

LINEFEEDS

For DMP printers, the default is 1/6in.(36/216in.). Linefeed can be varied by sending codes to the printer. With Protext, the stored command OC 27 51 n is used, where n is n/216in. linefeed required. These codes are also effective under Qualitas Plus control.
The linefeed will not change until the linefeed after the codes are sent, so the top margin at least will be printed with the default linefeed. It is best to keep the linefeed an integer of the page length. A table of suitable linefeeds follows:-

n	A4	LISTING	A5	Notes
24	105	99		1/9in.*
27		88	68	1/8in.
28	90			
30	84			
33		72		
34			54	
35	72			
36	70	66	51	1/6in. (default).
	2520	2376	1836	Page total n/216in.

* Minimum possible linefeed. Vertical lines will join up.

A5 continuous paper is produced by Caspell Computer Services, they advertise in all the magazines. It's good for such things as informal letters, for which A4 looks silly. Continuous paper is more convenient and allows print on the whole length of each sheet.

****

STOP PRESS PRINTING on the AMSTRAD DMP2000

P5 PAGE PRINTOUT
Measures 3.79in. x 5.20in. and takes 60 mins on standard quality. The clarity of prints is very poor, due to the small size of the printout.
If printed on A5 paper (5.83in. x 8.50in.), set with the left tractor at the A4 mark, the left margin will be 0.17in., the right 1.87in. The print cannot be centralised horizontally on A5 paper. If the left tractor is set as far to the left as possible, the left margin will be 0.92in, the right 1.12in.
The top margin with no linefeeds is 0.14in. The remainder of the top and bottom margins is 8.50-5.20-0.14-3.16in. (19 standard linefeeds). To centralise the print vertically on A5 paper give the paper 9 linefeeds so top margin is 0.14+(1/6*9)-1.64in., bottom margin is 1/6*10-1.67in.
The sum of the top and bottom margins is 0.14+3.16-3.3in.

P4 PAGE PRINTOUT
Measures 7.60in. x 10.53in., and takes 82.5 mins on standard quality.
If printed on A4 paper (8.25in. x 11.67in.), the margins will be:

POSITION OF LEFT TRACTOR	LEFT MARGIN in.	RIGHT MARGIN in.
10"	0.53	0.12
9.5"	0.28	0.37

A4	0.15	0.50
9"	0.04	0.61

Setting the left tractor 1/5th. of the way from the 9.5" mark towards the 10" mark will centre the printout.
The sum of the left and right margins is 0.65in.
The top margin with no linefeeds is 0.15in. The remainder of the top and bottom margins is 11.67-10.53-0.15-0.99in. (6 standard linefeeds). To centralise the print vertically on A4 paper give the paper 3 linefeeds so top margin is 0.15+(1/6*3)-0.65in., bottom margin is 1/6*3-0.50in.
The sum of the top and bottom margins is 11.67-10.53-1.14in.

N.B. Don't forget the External Command feature in Goodies Mode. From here you can Catalogue the disc (|DIR in fact, but the result is similar). You can also change drives and user, and RENname and ERAse.

****

AMX MOUSES

The following is a letter that I sent to Amstrad Action. They deleted about three quarters of it and rewrote the rest, but I don't mind because they paid me lots of money for publishing it. You may be interested in the contents.

'Anybody considering the purchase of a mouse may be interested in the following information concerning the AMX mouse (The Genius mouse is another matter altogether).
Once connected, movement of the mouse returns values to key no's 72-75, the same key numbers as joystick 1. (See your manual - diagram 'Key & Joystick Numbers' and description of 'INKEY'). The fire buttons concur with fire 1 and fire 2. The third button apparently does nothing - but yes it does, it is Key No. 78, (which unless defined otherwise, does not print to the screen). It also returns 64 to JOY(0). These last snippets are not in the manual. Knowing the key number of the third button, it is an easy matter to get an input from it using KEY. If you want all 3 buttons to be of equal value (the best way to program a mouse), then use 'IF JOY(0)>15'.
I have used a joystick splitter (Tandy is cheapest), so that joystick and mouse are both permanently connected. They are then both joystick No. 1, which causes a minor problem with the actual joystick in that 'left hand down a bit' does not function. This is easily solved by fitting a switch in line with the mouse power supply (which comes from the monitor/keyboard wire). I used a double pole switch, and I don't ever switch it across powered up, both just in case!
The mouse functions with any program that accepts joystick input, but if movement is in character size jumps, things work a little strangely. Elite is weird by mouse! It's great fun experimenting - I have tried using the mouse to move Protext's cursor, but it is not practical. 'Smart' (AA29) works fine and the main loop therein could be used as a basis for your own mouse driven program.'
I now believe that the Tandy splitter may be unusual in that it leaves both inputs as Joystick 1. If an alternative splitter was used that was wired so that one input was joystick 2, I do not think it would be much use, because most programs will not recognise Joystick 2.

****

ADVANCED ART STUDIO TO STOP PRESS SCREEN SWAPS

Screens can be drawn on A.A.S. and then transferred to Stop Press:
1. Draw the screen in Mode 2 (to avoid loss of resolution).
2. The Stop Press screen is smaller than a full screen (see paragraph 5.2.1 of the manual). To ensure that no details of the A.A.S. screen are lost during the transfer, a border is needed around the part of the screen that will not be lost. The border is drawn as a rectangle. The rectangle should have co-ordinates 7,322 and 632,6. If it intended to transfer the border along with it's contents, the co-ordinates should be 8,320 and 631,8.
3. Provided the screen is not saved as a compressed screen, it will now load successfully into Stop Press. Palette files are not used by Stop Press.

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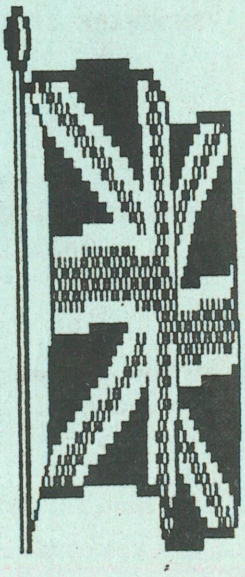

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ISSUE 27: JUNE 1991