

The
Aussie Mag
for Amstrad owners

THE AMSTRAD USER

Issue No. 22 \$3.95

November 1986



- *Reviews on Disc Utilities for CPC's, Business packages for PCW's and the smart new IBM compatible PC1512*
- *Five type-ins for CPC's and two for PCW owners*
- *Two pre-Christmas bargain software "Specials"*
- *Cheat Mode, User Groups and heaps more !!*

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THE AMSTRAD USER

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For Tape subscribers, the programs can be found at the following approximate positions:
Side 1: GIGO - 14, SUPER- 25, WORDSLEU - 68, SOUNDEX - 104 Side 2: CAPTURE - 14

All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150, Australia. Urgent matters can be phoned through on (03) 233 9661.

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THE AMSTRAD USER

G'day,

So now we know. The PC1512, which before its release we have been calling code name AJRO, has launched itself upon a suspecting market. A lot of the rumours were true and others way off beam. But the most closely guarded secret was the Australian price - just \$1499 for the basic mono screen and single disc drive. What makes it even more attractive compared with other IBM clones (especially the low cost ones from our northern neighbours) is the fact that it comes bundled with three operating systems including GEM which may well send mono-screen Macintosh owners and the like 'green' with envy. Before you rush to your dealer to have a look at one, deliveries are not expected until end November/beginning December.

At the same time the PC1512 was announced in the UK, so too was the DMP3000 printer. It's an Epson compatible and IBM character set compatible dot matrix printer with a claimed speed of 105 characters per second. It would seem that Amstrad see this as the companion to the PC.

Whilst I always enjoy Christmas, especially with the children, the run-up before the break is always hectic. This year will be no exception. Apart from getting the magazines out a little earlier than normal, we have got a couple of "specials" you may wish to consider. The stocking fillers or even treat yourself. The first is the Melbourne House production of "Lord of the Rings" with a saving of \$8 on the normal price for all CPC and PCW machines. The second is our Family Fun Pack, an all Australian produced package of software designed to keep most age groups happy over the Christmas period. Like all other offers we provide, stocks are never limitless (as many will have already learnt), so do order early.

Now I must get on with your December magazine

See you next month.

Ed

Letters



I should like to make a couple of comments on letters in the September issue, which I hope may be of interest.

Firstly, on Paul Webb's problem:

As you suggest, Arnold makes notes in a little corner of his memory, but the problem goes somewhat further - the Protex ROM cheerfully appropriates 360 bytes of memory for its own use. However, in most instances, removing the ROM board is not necessary. Arnold's Utopia ROM, which provides a host of useful utilities, has provision for turning ROM's on and off. Of course, it costs another £40, but it does solve the problem except for a few programs which somehow manage to turn the ROM's on again as soon as they begin to run.

Secondly, on G. Nebe's problem: The solution to all this person's troubles is found on page 4.2 of the 6128 User Instructions, a borrowed copy of which I just happen to have handy, "... it has to be emphasised that the 'library discs' that you use, **MUST BE COPIES**, made from the master discs supplied with the computer." To understand why copying the master disc should make possible that which cannot be done from the master itself, it is necessary to understand what SUBMIT does. When you type in SUBMIT LOGO3 you are NOT loading LOGO.

Instead you are loading a file called LOGO3.SUB, which contains two files. The first one contains keyboard definitions and only after it is loaded, is LOGO

SUBMITTED to the command processor. To perform its magic, SUBMIT establishes a temporary file, such as SYSIN59.###, on the library disc. It cannot do this, if the disc is write protected.

Either, G. Nebe is using the master disc, or he/she has closed the write protect tabs on the copy disc. As the use of control keys is far from standard, not **SUBMITTING SETKEYS KEYS.DRL**, before loading LOGO3, causes all those problems with disobedient keys.

Peter Campbell, (Secretary)
Sthn. Tasmanian Amstrad Club
N.Hobart, TAS.

If the following files are "PIP"ed onto a working LOGO disc from side three of the system software it will be found that not only does SUBMIT LOGO3 work, but that the keys (including ESC and the cursor keys) do all the expected things:-
C10CPM3.EMS, SUBMIT.COM, SETKEYS.COM, KEYS.CCP, KEYS.DRL, LOGO3.SUB and LOGO3.COM
It will be found that LOGO will not load if the disc is write protected.

If, in addition to these files, a suitable PROFILE.SUB file is added, LOGO will automatically be loaded when the command "I CPM" is typed at the keyboard. Information about creating PROFILE.SUB files can be found on page 5.18 and 5.19 of the CPC6128 manual. A suitable basic program for creating such a file is

All correspondence published in this section earns a payment of five dollars.

Letters should be addressed to The Editor, The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150.

We regret that we cannot enter into any personal correspondence.

as follows:-

10 OPENOUT "PROFILE.SUB"
20 PRINT #9, "SUBMIT LOGO3"
30 CLOSEOUT

D. Kettlewell, Hornsby, NSW

I have recently purchased an Amstrad PCW8256 from Rampage Computers in South Yarra and was given your leaflet. I have been unable to locate your magazine at a newsagent and so have been unable to determine whether it has anything to offer to the PCW user. I would appreciate it if you could let me know where I can obtain a copy so that I can determine whether to subscribe. Also, the leaflet says that a cassette of each month's programs is available - is there also a disc? I also have a couple of questions that I am hoping that you can resolve for me.

Firstly, I use tractor feed continuous stationery for most of my printing, and would like it if the default setting for the printer could be set to that rather than single sheet paper. Is this possible?

Secondly, is there a way of printing multiple copies of a document without sitting around to repeatedly press the (P) key?

Adam Houston, Melbourne, VIC

The Amstrad User covers the entire range of Amstrad machines, and since September of this year has included about 16 extra pages for PCW owners (20 this month). The cassettes apply to CPC machines only (although you would be surprised how many PCW owners mistakenly take out a tape subscription for their non-tape machine).

The magazine is distributed by Gordon and Golch to newsagents and bookshops throughout the country, so you will have to contact them for the name of your local supplier. Alternatively, get your newsagent to order it in.

In answer to your question concerning continuous stationery, once CP/M is loaded and the A> prompt is displayed type in PAPER 11.

As far as printing multiple copies is concerned, we are not aware of a method. Perhaps some other PCW owner has cracked it?

I am writing in answer to a question in last month's letters section concerning LOGO troubles. I have also had troubles with LOGO, but seeing I used Apple LOGO at school, I have been able to use some of the Apple commands on the Amstrad. Below I have listed some of the commands which I have been able to use, some in edit some out:-
CONTROL A Moves the cursor to the start of the line.
CONTROL B Moves the cursor back.
CONTROL C Confirms the Edit.
CONTROL E Moves the cursor to the end of the line.
CONTROL F Moves the cursor forward.
CONTROL G Stops the program.
CONTROL N Moves the cursor down.
CONTROL P Moves the cursor up.
CONTROL Y Pulls back what you last entered.

P. Graham, Cranbourne, VIC

May I suggest that you use some of the blank spaces in the magazine to acknowledge receipt of letters from your correspondents. I realise that it would be impractical to reply by mail but feel that a list of names (or just initials) and the cut-off date would give writers confirmation that their efforts had reached their destination. You may be tempted to say that there are no blank spaces but a

critical inspection will reveal that the May edition is padded out as tabled:-

Page	Area Taken	Area Printed
2 - Editorial	1 page	2/3 page
3 - Letters I leading	1/6 page	1/23 page
3 - Left column	1/4 page	1/8 page
5 - Eliza Heading	1/6 page	1/23 page
5 - Eliza left column	4/10 page	1/10 page
6 - Left column	1/2 page	3/8 page
17 - Heading	1/6 page	1/12 page
17 - Left column	1/4 page	1/8 page
22 - I leading	1/5 page	1/20 page
22 - Left Column	1/4 page	1/8 page

Pages available = one and a half.

It is my opinion that the subject matter is more important than having a 'pretty' layout.

Less padding and an

acknowledgement list would help. The April issue, page 4 carried a program for print commands for Super 5 EN-P1090 printer.

Line 540 gives the command for release of sub/superscript characters. However it should be remembered that they are formed with double strike mode which should also be released.

Lengthening line 540 will achieve this:-

540 PRINT#8, CHR\$(27)+CHR\$(84);
CHR\$(27)+CHR\$(72):GOTO 10

A. B. Pounsett, (Vice President)
Geelong Amstrad User Club
Norlane, VIC

We have printed this letter for two reasons: firstly for the hint for printer owners and, secondly, to remind readers that in view of the volume of mail we receive, we had to stop providing personal replies in April of this year.

Thanks for your tip and comments Arthur, but had we printed the initials of everyone who wrote to us the Mr. J. Smiths and the Mr. J. Scotts would still not be sure whether their letter had reached us. As for the layout of the magazine, it is important to make it easy on the eyes to read

especially when many of our readers are in the senior citizen class. But most of all, if squashed as you suggest, it would become fragmented and confusing.

Thank you for publishing my request for help regarding the "Flight simulator" --- "SPITFIRE 40". I discovered that the program only saves in "COMBAT" mode, although one must land safely and on the same runway as take off. Instructions are screened for save Yes/No. If yes "ENEMY RAID SCRAMBLE" appears giving position etc. of enemy. CAUTION: when taking off again, (1) Flaps up (2) watch your speed, keep nose down so speed is not less than 100mph or you will lose height and CRASH.

Good flying and good hunting!!
Keep up the good work on the magazine.

J.P. Malusa, Hope Valley, S.A

Readers will be interested to hear that George Searl of Campbell Systems (in the UK) advised me last month that they are developing Masterfile 8000 for the PCW range, and hope to have it on the market by the end of this year - I assume from his comments (in reply to questions from me) that it will accept files from existing Masterfile programs, so users of this top value program can "upgrade" to the PCW and stay with Masterfile.

B. Howes, Wagga Wagga, NSW

I have recently purchased the game "Fu-Kung in Las Vegas". I have managed all right, until one night I collected all the cards. The instructions do not say what to do at this point. I am interested to find out what to do next?

R. Baxter, Wellington, N.S.W

Can anyone help?

I keyed in the Batman program that provided infinite lives in cheat mode (The Amstrad User, cheat mode - Issue No. 20, September 1986) and to my dismay, it only worked on cassettes. As I have Batman on disc, I found this to my disadvantage. My problem with it was in line 110 where LOAD" does not apply to the disc drive.
I am sure many disc drive(s) owners with Batman on disc would appreciate the relevant poke.

S.A. Mah, Willetton, W.A

Cheat Mode deals mainly with tape-based games. We can only print the pokes that are sent in, so please send us some more disc pokes.

Notes on GIANT MULTIPLIER (TAU, September 1986).

I hope that Messrs. Davies and Page will not mind a few

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- **Maths Mania** (8-12) - Makes multiplication and division addictive. Excellent graphics.
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NZ: Alpine Computers, Byron Rd, Takapuni, Auckland 09-493889

suggestions which can make their program run faster.

First of all, all numeric variables should be defined as integers: arithmetic with real numbers involves complex manipulation of five bytes as against a much simpler process with only two for integers. Simply put a statement DEFINT a-z at the start of the program. It will not affect the string variables, since they are explicitly typed. It would be interesting to know the speed improvement.

Rather than using loops to print out the underlines, why not use the STRING\$(n,char) function. In line 250 the loop can be replaced by ...PRINT STRING\$(La,154);... This can also be used when testing: temporarily replace the inputs by a\$=STRING\$(20,"9"), or whatever.

The WHILE-WEND loop in lines 330 to 370 can be replaced by CA=INT(PP/10):PP=PP-CA*10 (ca=number of tens, pp=units).

Our BASIC also has the integer divide (\=backslash) and MOD functions which can be used: CA=PP\10:PP=PP MOD 10

These functions will work with real numbers, as long as they fit into the integer limits, but there can be problems with rounding up when a real number is converted to an integer. Try:

```
pp=63.1:ca=pp\10:pp=pp mod 10?:ca,pp (ca=6,pp=3, correct)
pp=69.5:ca=pp\10:pp=pp mod 10?:ca,pp (ca=7,pp=0, wrong)
However this problem would not arise in the program, since there are no fractional numbers.
```

(This is not the only time where the rounding can cause problems: if you enter 6.6 to an INPUT z%, the value is converted to a real number, then rounded to 7 before storage in the integer variable).

The functions are not explained in my (464) User Instructions. They operate in integer mode, i.e. $63 \div 10 = 6$ (the fractional part is dropped), and $63 \bmod 10 = 3$.

$(63 \div 10) * 10 = 63 - 60 = 3$. Note the brackets in the expression: they are necessary because the multiplication is of a higher order of precedence than the integer division. Without them, the multiplication would have been done first, and the expression would have been evaluated as $63 - 63 \div 100 = 63 - 0 = 63$.

Incidentally, the lack of accuracy of large numbers is not the fault of the 8-bit processor, but of the implementation of the arithmetic routines. Mallard BASIC, which can run on the 6128, has double-precision arithmetic, giving about fourteen significant digit accuracy. MicroWorld BASIC, running on the Microbee with the same Z80 processor, can produce up to thirty significant digits, using Binary Coded Decimal arithmetic.

The DDI-1 Manual states that "it is not permitted to include the | (bar) symbol in a REM statement" (p. 2.1), but does not say why. It is just bug buried somewhere in the depths of Version 1.0. The easiest way to overcome it is to jump over the line with a GOTO next-line, rather than disable it by REM.

P. Lukes, Toowoomba, QLD

It annoyed me having a feature on my 6128 that I was unable to use, I'm speaking of the CONTROL + ENTER which produces RUN" + CHR\$(13). Great for tape users but not much use to me. However, thanks to Karl Wridgway's letter in the September issue I now use the CONTROL + ENTER feature all the time.

To run any program I type in it's name. I hold down the CONTROL key, press the CURSOR LEFT then the small ENTER key in that order. The CURSOR LEFT and small ENTER key are conveniently side by side. The

CTRL+Cursor Left forces the cursor to the start of the program's name and the CTRL+Enter places in the RUN" and automatically hits the ENTER key for me.

A. Trost, Gracemere, QI.

It is hoped to establish a register of Amstrad users on the North Coast of NSW.

The aim of the Register is to establish a list of Amstrad users, rather than to form a club, which can operate as an information exchange.

Those involved may later wish to form a club.

Those Amstrad users interested in joining the register are asked to send the following details, plus one stamp or self-addressed envelope.

Once the information has been compiled a complete list of users details will be sent to each person, using the stamp provided, and individuals may take it from there.

I hope to include a short letter with each list so I am asking those interested for any other information they may have, or any thoughts on the Register.

There will be no formal meeting side to the Register, unless individuals wish to do so between themselves.

Please send the following details to: The North Coast Amstrad Register, PO Box 126, Wardell, NSW 2477:

Name	Address
Telephone	Hardware
Peripherals	Software

(Details will help those with similar interests to contact each other)

Interests: (Machine code, basic programming, games, work etc.) Please enclose a stamped self-addressed envelope to allow a copy of the Register to be posted out.

N. Van Kempen, Wardell, NSW

Recently I purchased Supercalc 2 from Chandlers in Townsville and I am using it on a PCW 8256. At the moment I am having some difficulty in trying to print my spreadsheets in some other format than condensed print. I would appreciate if you would give me some advice on the matter.

I have attempted to change the typestyles through using /O, d, all, setup, and setup. In the 2nd setup, I have started with ALTI M (i.e. ESC M for elite text), and then ALTI E (i.e. ESC E for emphasised text) and then finally entering these codes by pressing RETURN.

It seems that no matter what I try in the setup mode, when I go to print the output is always in condensed print.

I have also tried to alter the typestyles through using the INSTALL program. When coming to save the changes in the SC2 program I am told that the file is READ ONLY and so my efforts

end there.

If you can help in any way, I would appreciate if you would set out the exact keystrokes for me especially those involving the ESC codes. If you are unable to assist, perhaps you could refer me to someone that could.

J.P. Kinch, Townsville, QLD

Hands up if you have just bought a printer and have no idea on how to form the 'printer codes', which are on just about every page of the manual? Well, I lost a lot of sleep over this problem because my dealer was not educated enough to explain the ins and outs of printer-computer communications. Eventually, something clicked upstairs and by trial and error I fathomed it out.

The type of printer you have determines what sort of code you must use. The code for my printer which produces Italic font is:-

ESC+4 [(34,B4),[52,180]d]! First of all, you can discard the jargon which follows the ESC+4. Your manual may or may not have the succeeding characters but these have no importance while you are entering the codes in BASIC. If you now turn to somewhere in the back of the Amstrad manual, (Appendix III pg. 1 for the 464) you will find a table headed ASCII. You will notice it contains the ASCII character set in Decimal, Octal and Hexadecimal notation. You only need be concerned with the decimal notation. If you take ESC and go down the column titled ASCII characters, you will find that the decimal number is 27. The number for 4 is 52.

Now, take 27 and 52 and put them into a chr\$() format:-

CHR\$(27) + CHR\$(52)

Add PRINT #8, so that the code should end up as:

PRINT #8, CHR\$(27) +

CHR\$(52)

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If you enter this code it should be accepted (provided this is the format which your printer uses) and the printer will signify acceptance by a carriage return or line feed. A semicolon (;) could also be used between the CHR\$ instead of a + (plus sign).

Also, a code may be in the format ESC+W [57,D7]h,[87,215]d] +NUL in which case the NUL at the end must be included otherwise the code will not work. Based on what I have said, that code would be:

```
PRINT #8, CHR$(27) +  
CHR$(87) + CHR$(0) or:  
PRINT #8, CHR$(27) ;  
CHR$(87) ; CHR$(0) .
```

You can use these codes as direct commands, or in a program to set a certain type of font. They can be compiled to make a utility which will save you looking up the ASCII tables all the time. An example of a utility which I wrote is in the letters section of the April '86 edition of this magazine. The utility can also be merged with a program such as a database so that fonts can be called up when printing a file. I hope this has helped somebody who was in the dark about printer codes and will allow some owners to sleep better at night, in the knowledge that those strange little codes aren't as impossible as they seem.

P. Mezzavia, Coolong, VIC

Please forgive me if this letter is somewhat terse... I edited a beautiful letter that said everything exactly as I wanted... and I, when editing a Footer, selected "Abandon Edit Altogether", thinking that this meant "Abandon editing of Footer". Aaaagh! Oh well, the other letter was a bit long anyway...

Your magazine is very, very good. I bought my first copy yesterday, having purchased a

PCW8256 about a month ago.

Could I offer some suggestions for improvement?

Firstly, how about some reviews of the compilers available for the Amstrad range? (Please forgive me if you have already implemented any of my suggestions in past issues... and, if you have, please tell me which back issues I need to order). I don't mean BASIC compilers: as far as I can see most people who buy them are 14-year olds who have self-delusions of the significance and/or quality of their programming. I mean real compilers: Fortran, C, COBOL, Pascal! While fully appreciating the fact that there is only one compiler for each of these languages available at the moment (according to your much-welcomed "PCW Software list" in your very much welcomed "Software for the PCW's"), how about reviews of these products so that:

1) People like me who want EVERY compiler available (to help with a University degree) can find out whether the ones available NOW are of sufficient quality to be worth purchasing, or whether we should wait until better ones are available;

2) People who (like me a month ago) are trying to decide between an Amstrad (cheaper) and, say, an IBM-compatible (lots of software) can get independent reviews and thus choose which computer to buy. (Can the software available now match up to MS-DOS?)

Secondly, how does one go about submitting articles for consideration for publication? The information in the mag. is sketchy to say the least.

Thirdly, how about being a bit more discriminating about the listings you publish? The Amstrad Editor program (TAU Aug,p.28) was absolutely DISGUSTING!

What I really want to say is this. Not all 464,664 and 6128

owners do nothing but play games... and not all PCW owners compute in a business environment. Some of us just like to program the stupid things, you know! Call us hackers if you like (not that I see why), but there must be a lot of us out here who, stuck for technical information, rely on magazines like yours for info... surely 1 page (both sides) could be "sacrificed" from your mag to make room for a "Programmer's section".

Hints and tips are all very well, but surely they are of more service when they are grouped together! If you feel really adventurous, why not hire some poor Uni. student (like me) to write a column about my (I mean his) experiences with my (oops! his) computer ... or reviews of compilers ... or even a monthly "Teach yourself" series of various computer languages. While catering to a large field of arcade-game players and business users, I think that your magazine has gone the way of many others in that it fails to recognize the importance of we "professional amateurs" in the marketplace. Sure, we may not gain your mag much advertising revenue (who needs to advertise when you sell the only Pascal compiler on the market?). Economic arguments probably wouldn't work. How about a moral one? Your magazine is the only one on the Australian market that caters exclusively to Amstrads, what about us poor people who bought one because we LOVE programming computers? Sure, I talk in RAMs, bytes and bauds, but so do a lot of people. I am just one of that group who are fascinated by computer technology, but we aren't that small a group. Couldn't just 2 pages a month be devoted to us? I respectfully submit, as self-appointed representative, that this would not be all that hard. I'll even do all the work myself. Publish my address under the heading "Send your tricks/traps

etc. to", I'll organize it all, print it nicely, write a column if you like, and send it to you. All you have to do is typeset it... surely, surely, not so much work for a mag that purports to be of value to its readers?

Sorry the letter's so long ... perhaps I was a bit carried away. This letter is twice as long as the original! but please, don't doubt its sincerity. There are thousands of us here who are starving for interesting, general interest reading about our pet subjects. I really feel that another great increase in sales would be the result.

I wish your magazine every success now and in the future.

Adrian Booth, Orelia, WA

Phew! We thought you'd never make it. The short answer is that The Amstrad User is published for USERS and is supported by contributions from USERS. The more we get, the more we print - so go for your life. Anyone of the same mind can write to Adrian care of these offices and we will pass the info on to him. We look forward to the first article for "Amstrad RAMBOS".

Firstly, thank you for a great magazine, most informative, also many thanks to Dennis Shanahan for COPYCAT, just what we needed.

We have made just a couple of changes to the listing so that the printed catalogues could fit into a Grandpa's Photo Brag Book. The changes are as follows:-

Delete Lines 750, 780 and 890
Then insert the following:

```
730 PRINT #8, CHR$(27) + "SO"  
+CHR$(15);  
731 PRINT #8, CHR$(27) + "S"  
CHR$(0); : RETURN  
732 PRINT #8, CHR$(27) + "1"
```

These changes will produce a smaller print, (superscript plus condense) so as not to need the

"Continued Overleaf" feature.
G. Muscat & A. Gilchrist,
Bridgetown, WA

With reference to P. Mezzavia's problem in obtaining a printer dump from "Screen Designer", I have a solution which may not be elegant, but which works, and is very simple.

First you produce your masterpiece on "Screen Designer", and save it to tape or disc under a suitable filename... maybe "Masterpc". This produces two files called "Masterpc.sds" and "Masterpc.scn". You may then reset the computer and you will find that, with the tape rewound as appropriate, "Run MASTERPC.SDS" will dump the picture, in the colours you have used, to the screen. When you have verified this for yourself, there is no need to actually produce the copy in this way.

You now run Mr. Eiberg's (or any other dump RSX) program and type or load in the following:

```
10000 MEMORY 10224:LOAD  
"MASTERPC.SDS": CALL 10225  
10010 |SCRDMP:
```

Now position your tape containing the two "Masterpc" files and 'RUN'. The picture will appear on the screen and be dumped to the printer, with no prompts appearing on the screen until the hard copy is complete.

The LOAD/CALL bit avoids using the command "RUN" which would wipe the last line. 10225 happens to be the execute address of the .SDS file.

I have typed in the dump Mr. Mezzavia is using, and it works fine. I have also used it with "Tascopy" with line 10010 changed to 1 copy. For my own use I have the routine merged with my favourite dump program, and that, together with disc operation, makes it all very easy.

J. Rahmann, Wavell Hts, QLD

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A working version of the program in memory is then saved to disc and the program will restart. The saved version, when reloaded, will start from exactly the point the button was pressed (very useful). In most cases the process is then complete. With some programs it will be necessary to make one or two adjustments to the saved programs using a simple routine supplied. However this will also allow you to make certain custom alterations to the programs, e.g. screen size, windows, etc.

"DISC WIZARD" is a hardware interface that fits the expansion or floppy disc port of the 484/664/6128. It is equipped with a through port and is supplied with simple instructions.

At the time of going to press we have been unable to find even one, memory resident program that the "WIZARD" has been unable to handle.

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CHEAT MODE

Some Tips, Pokes and Game busting ploys to improve your scores. If you've got any - let's have 'em.

To input the majority of pokes, there are two methods.

Method 1: Type in the listings. Rewind the game tape. Type RUN followed by pressing enter.

Follow on screen prompts to load the game.

Method 2: The tape header/loader/title screen, comprising usually of one or two data blocks has to be skipped. Rewind the game tape. Type in CAT followed by enter and play the tape. Watch the screen and a message will come up:

Found FILENAME block 1 OK

where FILENAME will be replaced by the name of the loading section. The next message that appears will be the main program appearing in the same style:

Found MAINFILE block 1 OK

where MAINFILE will be different for each game. Note the point on the tape counter at which this second file appears. Stop the tape and rewind to just before that point. Type in the program and RUN it. Then press play on the tape deck.

Beach-Head

If you happen to discover a bug in this program, then pressing the TAB key will take you back to the beginning of the game. You'll still have to start all over again but atleast you won't have to reload.



Here are a few tips to help you on your way around the castle in this tough arcade adventure.

1. After killing a guard, pick up his helmet and drop it near a whirlwind to stop him reappearing.
2. After killing an ogre, put a barrel on the spot to stop him reappearing.
3. Place a barrel over the spot where a bubble appears to stop it reappearing when you enter the room again.
4. Guards only attack if you get close - except materialising guards which attack immediately.
5. Dropping gold lures the guards, so if you push it under something where it can't be reached you can move around without being attacked.
6. Watch out for flowers on stalks - if you get too close they reach out and rapidly sap your energy.
7. Don't fall in the well - it's fatal.
8. Keep food for as long as possible, and eat the smaller food first because food is useful for standing on to reach things.
9. Fire depletes Isvar's energy.
10. There are three teleportals: two of them link lowers and the third links the tomb with the north side of the Chasm.
11. The loading screen is a view from the wizard's chamber, and the bird points to the start.
12. Falling long distances depletes energy.

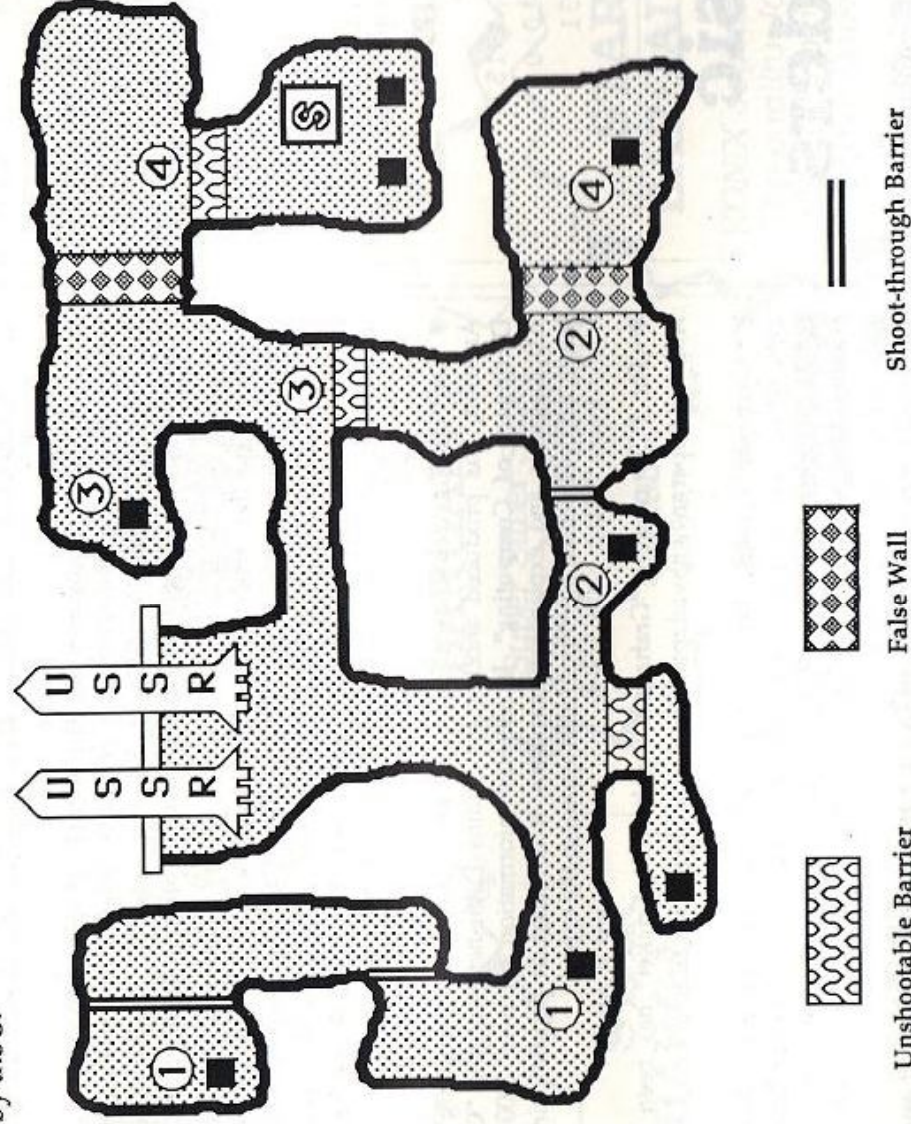
Commando

This poke gives 255 lives on the Elite shoot-em-up and is entered using Method 1.

```
10 MEMORY &5BFF:LOAD"commando", &5C00
20 FOR a=&9000 TO &9012:READ b:POKE a,b:NEXT
30 POKE &5C33,&C3:POKE &5C34,&C:POKE &5C35,&90
40 CALL &5C00
50 DATA 205,122,188,175,50,15,78,6,6,33,59,7,119,35,
16,252,195,54,92
```

Airwolf

This old game still causes people a lot of problems, so here is a map that shows how everything should be done. Shooting the numbered boxes removes the correspondingly numbered barriers. The scientist is indicated by the S.



'BOUN'DER

If you're trying to crack Gremlin's wildly addictive Mastergame - here's some help. It's the cheat mode that's mentioned in the scrolling message display, and comes courtesy of Gremlin themselves.

All you have to do is type in POKE 800,201, press Enter, and then load the game without resetting

the machine.

When it has finished loading wait

for the scrolling message

to tell you that the cheat mode is operative, and

to see the whole game.

then

start

the game. You will have

infinite lives and be able

to see the whole game.



INTO OBLIVION

There is no way to lose with this poke which removes all the monsters from the Mastertronics game.

10 MEMORY 4999
20 LOAD "IO", 5000
30 POKE &3232, 0
40 CALL 5003

SABOTEUR

This poke gives infinite strength on the Durell game and is entered using Method 1.

```
10 MODE 1
20 INK 0,0
30 INK 1,1
40 INK 2,6
50 INK 3,24
60 BORDER 1
70 MEMORY 5000
80 LOAD"!1",49152
90 LOAD"!2",25200
100 LOAD"!3",6000
110 LOAD"!4",16419
120 LOAD"!5",23296
130 BORDER 0
140 LOAD"!6",49152
150 POKE 24210,0
160 CALL 23431
```

Classic Invaders

This poke stops the Aliens dropping bombs (except UFOs) and is entered using Method 2 to skip the first three blocks of the program called "INVADERS":

```
10 MEMORY 16499
20 x=16500
30 FOR f=1 to 12: READ
   a:POKE x,a:x=x+1
40 NEXT f
50 CALL 16500
60 POKE 18658,0
70 CALL 16896
80 DATA 62,22,17,101,
   66,33,0,66,205,
   161,188,201
90 END
```

Gossip from the U.K.

- * With all the excitement on the launch of the PC1512, the rumours arising about which software deals are likely to be closed by Alan Sugar and his henchmen. The most credible is that the new PC will be supported with SuperCalc3, Wordstar and Reflex database - all pretty cheaply priced.
- * While on the subject of the PC1512, there is much gnashing of teeth at finger pointing within Amstrad here in the UK. It appears Mr. Sugar is displeased at the leaking of details of his new baby some six weeks before the official announcement. The leak has been traced back to Taiwan where (another rumour coming) a PCW8256 clone is being developed.
- * Ian Sinclair, well known for his books on computers including four for the Amstrad, has produced another for Collins Publishers entitled "Collins Computing Dictionary of Computing". It contains information on over 2000 terms with 100 diagrams and explanatory captions. It is aimed at people using micro home, office or school but should also appeal to the expert.
- * For PCW owners "Graham Gooch's Test Cricket" has been released by ASL and Supernova has adapted the classic "Space Invaders".
- * Gargoyle Games, famous for their excellent arcade adventures, are moving into arcade games with the launch of a new label called Faster than Light. The first three games on FTL are Light Force, Shockway Rider and Samurai Dawn, which all feature a new technique they call 'Lasermation'.
- * The disc version of Doors of Doom has arrived from Amsoft and - surprise - it's called Doors of Doom+. It has three delightful scene backgrounds, including the one from the cassette. One of the three is picked randomly when you start each new game, so you'll quickly get to know the all. The excellent screen-design facility is there also. Although the gameplay is uncomplicated, the superb graphics and compulsiveness make this a worthy addition to disk software.
- * Vanguard Leisure the people behind the Maestro package (amplifier, two speakers and headphones) have just released a collection of ten digital tunes for the CPC entitled "Easy Listening". They include TV and film themes and works from Abba, Queen and Bach. There are five tunes on each of two cassettes or all ten on one disc.
- * Looking ahead, Martech plan to release W.A.R. which, according to the press release, is a very fast, smooth-scrolling, addictive shoot-em-up, with clever underlying strategy. Also in their pipeline is Uchi-Mata, another martial-arts game but this time based on Judo, and Cosmic Shock Absorb described as a 'fast'n'furious 3D shoot-em-up, down, left, right and any other way possible. Even further ahead is Catch 23 featuring 'total environment representation' and SDI a Star Wars program starring Ronald "Bedtime Bonzo" Reagan. It all sounds very frightening.

Disc Utilities

by C.J. Collin

Chris gives us the benefit of his experience in using two Disc Utilities namely Transmat and Disc Demon.

TRANSMAT

Transmat is one of the many tape-to-disc copy programs that are available on the market today. There are many others available for the Amstrad range, but I have found that Transmat, although it has been around for a fair while, is as good as most and better than some.

Before we get into this too far, be very wary of copy programs that claim they will copy any program available on tape and then put it onto disc. To try and combat software piracy the software companies these days sell programs on tapes that usually run their own loader software which plays around with the internals of your computer and no program that I have yet come across will transfer them to disc. More on this later.

For those of you that think it will be easy to transfer your favourite programs onto disc, forget it! Some programs go over very simply, others take a bit of work to get over and some are damn near impossible. Apart from all this, just because you can transfer a program to disc does not mean that it will automatically work.

Some of the early programs that were available for our computers made funny use of the memory and may try to address the page of memory that the disc drive interface uses and these will have to be relocated. Transmat will ask you if you want it to relocate the offending program to overcome the problem. Into Transmat itself. Transmat operates in two modes, auto and non-auto. Both modes have their uses.

Auto mode is very useful for copying lots of programs off the one cassette where you will be looking at them later and sorting them out. I find it very useful for

copying the monthly cassette from this magazine to disc. Auto mode has the following features:

- *\ It will force the cassette filename to a legal disc filename,

- *\ It will not relocate any program that overlays the disc drive interface,

- *\ If you insert 0 as the number of programs to copy, Transmat will keep copying until such time as you press the ESC key. Useful if you don't know how many programs there are to transfer.

- *\ Using 0 as the number of programs, this mode will attempt to transfer any program on the cassette until told to do otherwise, so if there is more than one program with the same name you will end up with .BAK files.

Non-Auto mode is the other way to use Transmat. This is a totally manual way to use Transmat and requires that you tell it what to do. It will allow you to have the following options when transferring programs;

- *\ Allows you to give all programs a legal filename, so avoiding .BAK files.

- *\ Allows relocation of offending code that wishes to overlay the disc drive interface.

- *\ If you press the CLR key when asked for a filename, the program will not be transferred,

Other options available from the command level of Transmat are as follows;

- *\ Selecting disc drives,

- *\ Information on the files on the selected drive, useful when trying to get programs to work,

- *\ Ability to enter CP/M,

- *\ Renaming, erasing, directory and change of user number for any file on default drive, and

- *\ Return to Basic.

Once a program has been transferred to disc, it is then up to you to get it working. Transmat will have removed the protection on any basic loader, so you can LOAD and LIST it to possibly find that all you have to do is insert a filename into a RUN or LOAD command for the program to work. If not you could be in for a lot of work to get it going.

Ever since I have had my 6128, I have been using Transmat and to write this review I went back over

my transfers and also tried to transfer some newer programs with it. The result was a lot better than I had hoped for. I was given three tapes to transfer and managed to get two of them transferred and then up and running on my 6128. This might not sound like much, but one of the programs that I got working was the original version of Mini Office by Database Software, which is in effect 4 separate programs.

Like a lot of programs of this type, Transmat must never be used to invade a manufacturer's copyright on a program. It is to be used only to transfer programs that you have bought yourself for your own personal use. Piracy of commercial software is rife and for that reason manufacturers are using very devious methods to try and protect their products, which makes it very difficult for those of us that buy a program on tape and then wish to transfer it.

There are other programs of this type available on the market that will claim to transfer any program to disc. Don't believe it! The only program that I am led to believe that will transfer any programs available are "Disc Wizard" and "Doubler+" both available from Evesham Micros in the UK. (*The Disc Wizard is produced in Australia by Micro Accessories of SA. Enquiries can be made on (08) 287 0191 - Ed.*) But both of these work in a different way to a normal tape-disc copier. What they do is to look at the program to be transferred and then generate a machine code program that will do the same thing.

However, I have not tried either program so I cannot swear to their success.

The word for Transmat is that it will do the job on all normal format loaders and a few of the odd ones available for the Amstrad that I have come across and for that reason alone I would have to recommend it if you need to transfer your cassette based programs to disc. Just don't expect it to do everything.

DISC DEMON (by Beebugsoft)

Disc Demon is another one of the many disc utility programs that are now available for the Amstrad range. It has the usual commands that all the others have, plus it also has a few of its own. Another difference is the way in which they are implemented. This will be explained more clearly as this review continues.

Disc Demon is available in two forms. It is one of only two programs of this type, that I know of, that come in a ROM as well as on disc. These comments apply to the disc version, although I believe that there are no differences between the two. The manual does mention one point regarding the ROM version. If at any time you find that Disc Demon's commands clash with the command set of another ROM in your

board, it is possible to precede the Disc Demon command with a 'b' for BEEBUGSOFT. Therefore a command such as |helped would become |bhelped. I would think that this should cure any possible problem.

Disc Demon is rather unusual for the reason that it can operate as a normal utility from a menu, or you can use any of the commands that are available on the menu as RSX commands. To those of you not quite sure what I mean by this, a RSX is a command preceded by a |, as in |demon.

On the disc version of this program are four files.

These are called disc, discc, Version 1.0, and demon.

There are two ways of loading Disc Demon,

although the manual only lists one. The manual says to RUN"disc. This is similar to the method used in

LOCKSMITH, as it loads the program into memory as an RSX file and then waits there until you call it to the foreground with the command |demon.

I find it easier to use method two. The choice is yours.

The commands that are available from the opening menu include helped, access, cats, catb, copy, dedit, direct, dis, dmap, disccopy, dsearch, dump, enable, fedit, fmap, form info, load, mdump, medit, msearch, recover, tdisc, verify and wipe.

As you can see, there are a lot of commands in there. However, if you look closely you will find that some of them seem very similar to the normal commands that your computer uses. There is very good reason for this. They do exactly the same job as you could do under AMSDOS, using the exact same command. Why these have been included in this package, I do not know. I suppose that the programmer had a good reason.

When called into being, Disc Demon sets up the function keys on your keypad to emulate some of the commands that you would use most commonly. These include selecting modes, cata, printer on/off, recalling Disc Demon, and 3 help commands. All of these are listed in the documentation.

To recall Disc Demon at any time after leaving it, simply press 9 on the keypad and you will be back at the main menu. Now to the list of new commands that are listed on that almighty main menu.

ACCESS allows for the locking and unlocking of

any file on a disc. Also referred to as

changing files to Read/Only.

CATA simple, catalogue of the disc in drive A.

CATB ditto, except that it operates on drive B.

COPY copies individual files or groups of files from one disc to another or one drive to another.

DEDIT

used to examine and modify a disc sector.

Can have a display in either hex or

ASCII

allows for editing of the disc catalogue. used to disassemble a block of memory. used to copy the entire contents of a disc to another disc. Will not copy disc with funny formatting patterns.

gives you a visual display of the way in which the disc sectors are being used.

allows you to search an entire disc for a specified string. I must admit that I cannot see a use for this.

dumps the contents of a disc file to the screen in either hex or ASCII. Anything outside the printable range is shown as dots.

enables a ROM so that you can examine it with either MEDIT or DIS.

gives the ability to examine and then edit a file, sector by sector.

displays user numbers and the active state of files on the disc. Includes erased files.

format all or part of a disc. Very selective formatting.

reads the header on a disc file and then displays the information.

similar to the BASIC LOAD command, but will load any file anywhere in memory.

used to dump a block of memory to the printer.

examine and edit blocks of memory.

search through memory for a specified string.

direct output from commands to printer. Not available on main menu.

switch off printer output. Also not available on main menu.

allows selective recovery of erased files. Only useful if the file has not been written over.

renaming of files. Selective or not. Same as AMSDOS command. Not available from the main menu.

save a block of memory with a different load address. Use with LOAD. transfer tape files onto disc.

checks to see if a disc is correctly formatted.

selective crasing of disc files.

Almost all the above commands require different parameters to work. If not supplied when the command is called, they will be asked for. Also, as is stated in the manual, three of these commands will destroy any program that resides in memory when

they are called. Read your manual!

Two further commands are available that are not listed on the menu. These are demon and demon off. The first is used to call Disc Demon into being if loaded as an RSX file. The second is used to clear Disc Demon from memory if you require the space for basic programs. On the ROM version, this completely disables the ROM. The computer will need to be reset if you require Disc Demon again. Also asks you if you are sure that you want to clear it.

If like me you keep an auto-loader on your games discs, Disc Demon will also help us even further. When run, it resets the CONTROL/Small ENTER combination to give RUN"DISC instead of just RUN" just rename your auto-loader to DISC.BAS. Much simpler.

After all that, what do I really think of DISC DEMON? I am afraid that I am not quite sure. It seems to offer a few extras on top of the other disc utilities that are available, but it would greatly depend on whether you require those extras as to whether it will be useful to you.

As far as I personally am concerned, it offers little more than some other disc utilities that I could name apart from two major attractions:

The first would have to be the resetting of the function keys, which I could do under BASIC anyway and the second and most important is the ability to remain co-resident with other basic programs while work on them. This second ability is the best reason that I could think of for buying Disc Demon. If you already have a disc utility program, keep it and learn how to get the best out of it. However, if you don't, then by all means have a look at DISC DEMON.

NEXT MONTH

We plan to take a close look at the Australian made "Disc Wizard", a piece of hardware which claims to be able to back-up your software, regardless of loading method.

We also plan to provide details of more disc utilities to hit these shores recently.

If that's not enough, for music fans we shall tell you all about music composers a 'drumkit' and other packages.

Don't miss them !!

A talk with Max Headroom

by J.C. Ablett

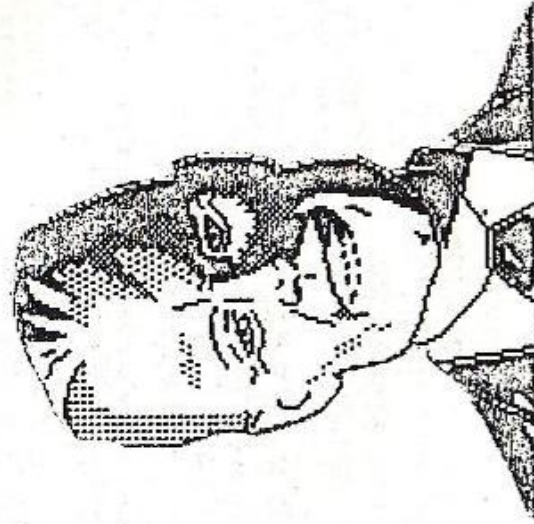
If you despaired over "ELIZA" the 37K conversation piece a couple of months ago, then a talk with Max Headroom in this 6K program may restore your sanity. On the other hand it could send you off into a loop forever.

The program is called "GIGO" (which, for the benefit of those new to computing terms, means Garbage In, Garbage Out). The name is very apt, although you may have to use it for a while to see why.

Where it differs from ELIZA (apart from: the length) is in the graphics. You can hold a conversation with a little Max Headroom character who moves his lips as a message prints up on the screen. His vocabulary is limited, however this doesn't mean he has to repeat himself. He will learn your replies and throw them back at you when you least expect them. So don't be rude to him or eventually you will get as good as you give.

Max's comments are stored in the array r\$(0) and line 90 selects from them at random. When the chosen answer is displayed it is replaced in the array by the comment you've just entered. This means that he forgets each comment so can't repeat himself unless you do.

One obvious development you could make would be to get Max talking through a speech synthesiser. The relevant routine runs from line 330 onwards and at present just moves Max's lips.



```
10 REM 'GIGO De-luxe'. Copyright J.C. Ablett, July 1986
20 MODE 1:PAPER 2:BORDER 11:SYMBOL AFTER
   0:PRINT CHR$(23);CHR$(0);
30 FOR a=0 TO 3:READ b:INK a,b:NEXT a:FO
  K a = 1 TO 7:READ b,c,d,e,f,g:WINDOW #a,
  b,c,d,e:PAPER #a,f:PEN #a,g:NEXT a:FOR a
  = 1 TO 8:READ b:CLS #b:NEXT a:DATA 0,26,
  11,1,19,22,3,7,0,0,18,21,2,6,1,0,2,39,9,
  24,1,3,3,40,10,25,0,0,2,15,2,6,1,0,3,16,
  3,7,0,0
40 DATA 25,40,3,7,0,0,4,3,1,2,6,5,7
50 WINDOW #1,24,39,2,6:PAPER #1,1:CLS #1
   WINDOW #3,3,38,10,23
60 LOCATE #1,1,2:LOCATE #5,1,2:PRINT #5,
  " GIGO De-Luxe "+CHR$(164)+" J.C. Ablett
  + July 1986":PRINT #1," WATCH THIS
  SPACE":LOCATE #1,5,4:PEN #1,2:PRI
  NT #1,CHR$(242)+" "+CHR$(242)
70 FOR a = 1 TO 3: READ c,d:PLOT c,385,0
  :DRAWR d,0:DRAWR 0,-82:DRAWR -d,0:DRAWR
  0,82:NEXT a:PLOT 15,272:DRAWR 0,-258:DRA
  WR 610,0:DRAWR 0,258:DRAWR -610,0:DATA 1
  5,226,271,66,367,257
80 DIM r$(100):FOR a=0 TO 100:READ r$(a)
  :NEXT a:GOSUB 230:a$="hi!",what do you
  want to talk about today?":GOSUB 330:PR
  INT #3
90 r=INT(RND*101):a$=r$(r):LINE INPUT#3,
  r$(r):GOSUB 330:PRINT #3:GOTO 90
100 DATA please,thankyou, bonjour, I don
  't know,yes,no,possibly...,that's rather
  a rash statement to make-can you prove
  it?,what's that got to do with me?,I d
  on't care, are you trying to be sarcasti
  c?,is that meant to be a rhetorical que-
  stion?
110 DATA how should I know?,what's that
  supposed to mean?,I beg your pardon?,
  well you see doctor - it's like this...
  , was that supposed to be funny?,you lo
  ve me really,I've run out of things to s
  ay - it's your turn now, do you come her
  e often?
120 DATA have you ever wondered what we'
  re doing here?,nice weather we've been
  having lately, let's talk about marmoset
  s, you aren't making a lot of sense, ple
  ase don't contradict me - I don't like i
```

t, I have this fear of being replaced by a human

130 DATA pass the salt, ho-hum, gibber...g
 ibber, can I flog you a musical toilet se
 at ?, you don't say, well I never, who woul
 d have thought it ?, you're only saying t
 hat to make me feel better, that's not a
 very nice thing to say, I fink you spelt
 dat rong

140 DATA you don't know the half of it, I
 f only you knew, je ne comprends pas, spra
 ken sie deutsch, I heard rumours that the
 y were teaching a computer to have intel
 ligent conversations, what's new ?, I wou'
 t answer that, rubbish, utter waffle, well.

....

150 DATA I'll see what I can do for you,
 but...., this is a recorded mesd sage. Can
 I help you ?, stop trying to change the
 subject, good question, I never could get
 to grips with humour, I cannot tell a lie

....

160 DATA it makes you feel really silly
 when you realise that you are talking to
 a computer. (or a human in my case), I tr
 y my best, please could you type that in
 again ? slowly, you're twisting my words,
 no comment, I think I'm in love with you

170 DATA I like you - you're cute, that's
 the nicest thing anybody's said to me a
 ll day, it makes me very happy to hear yo
 u type that, you don't really mean that, h
 onestly ?, you wouldn't be telling fibs b
 y any chance ?, that sounds interesting

180 DATA could you explain that to me ?,
 that's facinating, I'd love to, you must b
 e joking, you can't be seroius, I quite ag
 ree, my sentiments exactly, never !, I woul
 dn't mind learning to do that, sorry if I
 don't make a lot of sense

190 DATA I'll bear that in mind in futur
 e, parlez-vous franglais ?, I like a perso
 n with a sense of humour, it's no laughi
 ng matter, I'm bored with this - let's t
 alk about something else, O.K., ignorance
 is bliss, neccessity is the mother of inv
 ention

200 DATA great minds think alike, time an
 d tide wait for no man, a fool and his ho
 ney are soon parted, monday is the root o
 f all evil, amazing how I can come up wit
 h such intelligent responses isn't it ?

210 DATA there's no money to be made fro
 m max headroom impersonations, have you e
 ver considered being a wally full time ?
 , I'm feeling depressed, oh dear - that is
 dismal, personally speaking - I prefer m
 armosets, can I go home now ?, oh please -
 just for me

220 DATA the mind boggles, I see, but of c
 ourse, help-I'm a prisoner in an Amstrad
 computer factory typing out silly commen

```

ts
230 FOR a=1 TO 20:READ b,c:m$(0)=m$(0)+C
HR$(b):m$(1)=m$(1)+CHR$(c):NEXT a:DATA 3
2,218,234,219,235,220,32,32,236,221,237,
222,238,223,239,32,240,224,241,225,242,2
26,243,32,32,227,244,228,245,229,32,32,2
46,230,247,231,248,232,249,233
240 FOR a=1 TO 3:a$(a)=" "+CHR$(a*2+248)
+CHR$(a*2+249)+" ":NEXT a:a$(0)=MID$(m$(
0),13,4):b$(0)="MBP":b$(1)="CDGKNRSTHZLF
V":b$(2)="OAEIY":b$(3)="WQU":FOR a=37 TO
0 STEP-1:READ b,c,d,e,f,g,h,i:SYMBOL 25
5-a,b,c,d,e,f,g,h,i:NEXT a
250 DATA 0,0,1,6,15,24,55,46,0,63,197,50
,136,100,20,200,0,0,192,96,32,16,16,11
6,103,239,249,234,245,238,111,96,136,34,
72,162,81,255,223,16,8,30,62,250,124,1
24
260 DATA 124,126,62,63,63,31,15,190,1
66,116,122,229,233,232,235,58,50,18,146,
234,130,114,146,15,7,7,3,3,1,1,230,209
,232,216,228,251,245,254,34,194,18,98,2,
4,216,160
270 DATA 1,2,7,7,15,15,31,31,255,127,159
,195,224,208,204,216,216,151,39,115,167,
93,91,185,0,192,248,252,254,254,255,255
280 DATA 0,0,7,60,114,137,196,160,0,0,24
0,156,38,75,23,79,1,1,1,1,1,1,3,2,1,0,12
,66,1,121,255,242,47,87,47,31,35,31,255,
253,128,128,128,128,128,128,192,64
290 DATA 2,2,2,1,0,0,0,0,236,124,50,4,13
8,137,144,144,251,221,237,227,115,183,95
,15,192,192,128,128,0,0,0,151,128,67,4
0,16,25,55,80,230,22,238,108,28,60,254,2
55
300 DATA 1,7,31,127,255,255,255,255,232,
228,242,241,243,253,249,253,127,63,99,19
7,100,119,207,223,128,192,248,252,255,25
5,255,255
310 DATA 139,140,67,32,19,24,55,80,230,5
4,206,44,220,60,254,255,147,135,70,34,17
,24,55,80,198,230,110,76,156,60,254,255,
147,135,67,32,19,24,55,80,134,198,142,76
,156,60,254,255
320 RETURN
330 LOCATE #2,1,1:PRINT #2,m$(0):FOR m=
1 TO LEN(a$):LOCATE#2,1,4:PRINT#2,a$(L):
FOR b=0 TO 3:IF INSTR(b$(b),UPPER$(MID$(
a$,m,1)))<>0 THEN L=b
340 NEXT b:PRINT #3,UPPER$(MID$(a$,m,1))
:;NEXT m:IF L<>0 THEN FOR a=0 TO 500:NEX
T a:LOCATE #2,1,4:PRINT #2,a$(0):FOR a=0
TO 200:NEXT a
350 IF INSTR(a$,"?")=0 THEN LOCATE #2,1,
1:PRINT #2,n$(1);
360 RETURN

```

Brainstorm

Reviewed by Arnold Goldman

Brainstorm is advertised in the English Amstrad magazine in glowing terms, with an impressive list of users. With an introduction like this I was quite prepared to be impressed. What a let-down! I can only assume some of the corporate users listed in the advertisement bought the package without an extensive trial. Let me explain what BRAINSTORM does and you can decide for yourselves whether it could be of use.

The first step is to decide what form of complex organisation you wish to develop. This can be a complicated holiday program, a multi-branched industrial operation, a structured computer program, or, as shown in the accompanying book, a complicated appointment diary. Having done this, give it a title. This is the first entry to the program.

Next, set out the task into a number of sections each having a title. Then break down each section into sub-sections, and then into sub-sub-sections. This can go on for several levels, and if two of the sections contain identical sub-sections, then whatever you do to one of these sub-sections occurs to all other identical sub-sections. Any amount of text may be inserted at any of these levels, and then repeated anywhere else by use of simple codes. "So what", I can almost hear you cry, "doesn't LOCOSCRIPT do all this?". Well, yes it does.

The main advantage of BRAINSTORM over LOCO-SCRIPT is that any or all of these different levels may be printed out independently of other

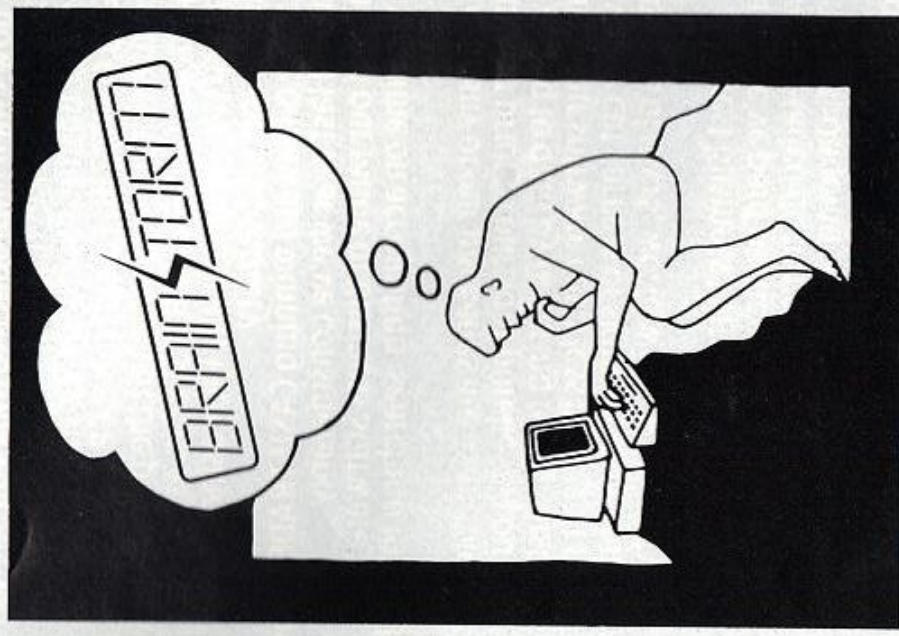
levels. This is particularly useful in computer program development, where the steps can be set out with numerous comments at one level, and the actual program listing at another level. For documentation all levels could be printed, and for program storage on disc just the listing would be used.

I can see the benefit in using this approach to computer programming, but there are some traps if it is used to write programs in languages having line numbers on every line. The first that I came across was the way

BRAINSTORM used the same line number if the same statement appeared more than

once in a program. I accept that it would be fairly easy to go through later and edit out these problems, but it is an annoyance. The other drawback I found was the continual jumping back and forth to other areas to see what line number a sub-routine was on. I find it easier to work with a piece of paper and the editing facilities in the PCW8256 BASIC, but then I am probably too set in my ways and well beyond redemption.

If the package were a lot cheaper then I might be inclined



Perhaps not such a good ideas processor?

to suggest that it could be a useful addition to the PCW8256 owner's library, but at \$125 I would suggest that you would need to be a professional programmer to justify its purchase.

The other uses suggested for BRAINSTORM could be adequately carried out using LOCOSCRIPT or whatever brand of word-processor is in use on your CPC6128.

Please try BRAINSTORM before you buy it. It may be ideal for the way you work, but it certainly isn't a program I shall bother to use.

WORDCOUNTER

A valuable LocoScript aid anyone can type in

Usually you would have to invest in a commercial word-processor package to be able to get a word counter, but here's a way of adding that ability to LocoScript for free! All it takes is a simple program which anyone can type in by following the instructions on these pages. It will count the actual number of words, rather than "typists' words" of six characters each.

If you've never used your PCW for anything other than running LocoScript then prepare yourself for an illuminating experience - it can also operate as a powerful computer running the programming language BASIC and an operating system called CP/M. Maybe you've had a quick look at the discs that came with the PCW, or the last half of the LocoScript manual where it talks about CP/M, and hastily put them in the back of a cupboard with a shudder. Well, while this isn't the time or place for a lengthy tutorial, we're going to describe everything that you need to do to get the word counter up and running, even if you've never heard of BASIC or CP/M before.

Loading BASIC

First of all, here's how to get the PCW to run BASIC.

Find the discs that originally came with the PCW, or your copies of them if you have taken back-ups as you should have done, and look for side 2 which is labelled "CP/M PLUS". Now turn the PCW on, or press [SHIFT]+[EXTRA]+[EXIT] to reset it, and insert the disc into the top disc drive with the "CP/M PLUS" label facing towards the screen. After a few seconds, the disc will stop whirring and the screen will say "A>". In case you haven't realised, you are now inside CP/M - and you never knew how easy it was. Now type BASIC [RETURN], and the disc will whirr again, print out a message about "Mallard-80 BASIC", and eventually stop with the message "OK". Now you are inside BASIC; try typing PRINT "Hello world!" [RETURN] and you will see Hello world!
OK

appear on the screen. If you know something about BASIC, feel free to play around a little. You can

One of the most often repeated complaints about LocoScript is that there is no way of telling how many words you have written. This is particularly important for professional journalists or authors, who often have to write to a strict word limit. But a word-count can be an invaluable aid for other users too.

leave BASIC at any time by typing **SYSTEM [RETURN]**. This will return to the CP/M prompt "A>".

The word counter program

If you don't understand BASIC, don't want to either, and just want to get a working word counter that you can use, then here's what to do.

Start BASIC up as described above, and you'll be at the familiar "OK" prompt again. Now type in the program listing itself (see box for instructions on typing in).

Once the listing is complete, before you do anything else find a work disc that you can write to and put it in the disc drive. It's not a bad idea to use one of your LocoScript discs, so you can keep the word count program with your documents, and it cuts down the number of different discs you have floating around too.

Type **SAVE "WRDCOUNT" [RETURN]**. Now your typing is safely saved on disc. Incidentally, if you are using a LocoScript disc, you will see the program appear as the document **WRDCOUNT.BAS** in the first group of the disc when you run LocoScript, and you mustn't move it from that first group.

Now it's time to check that you typed in the program properly. Read the section below on using the word counter, and try it out with any small LocoScript document that you have. After this, make sure you have saved any corrections you may have made to your listing, and type **SYSTEM [RETURN]** to finish with BASIC.

Using the word counter

You'll be relieved to know that you won't have to go through all that typing again every time you want to run the word counter. However, there is a catch: BASIC runs from CP/M, and LocoScript doesn't, so you can't run the word-counter directly from LocoScript. Here's what you should do. The process starts from the Disc Management Screen in LocoScript, so start up LocoScript if you haven't already. Place the document selection highlight bar over the document that you wish to word count, and press [F7] (the "Modes" menu). Select the *Make ASCII file* option, press [ENTER], and you are prompted to pick a document group for the result. Put the highlight bar in the first group of the A: disc, and press [ENTER]. On the menu that now pops up, name the file, select *Page image file*, and press [ENTER] again. Now you will see the new document appear on the document index.

Now remove the LocoScript disc and start up BASIC as you did earlier. Put the disc that you saved the word count program on back in the disc drive, and

type

RUN "WRDCOUNT"

You will see the prompt asking you for the name of the file to be word counted - if your LocoScript document is on a different disc put that disc into the drive and type the name that you gave the ASCII file when you created it (NOT the original LocoScript document). Press [RETURN], and the program will complete the process.

Finally, next time that you run LocoScript don't forget to delete the ASCII file that you have just created. This isn't needed any more, and only eats up valuable disc space.

```

B>basic
Mallard-88 BASIC with Jetsan Version 1.29
(c) Copyright 1984 Locomotive Software Ltd
All Rights reserved

31597 free bytes

Ok
run "rdcount"
File name? wjfile.bas

Line 18
65 words counted in wjfile.bas

Ok
system
B>

```

What the screen should look like after a successful run.

HOW TO TYPE IN A LISTING

First you have to load in Mallard BASIC, instructions for which we've printed elsewhere. Then copy out each line in the listing very carefully, including the line number, and press [RETURN] at the end of each line.

When you've finished, type **LIST [RETURN]** and the whole program will appear on the screen. Check it, and if any lines are wrong you can correct them with the line editor. For example, if the mistake was in line 100 you would type **EDIT 100 [RETURN]**, and use the cursor keys and delete keys to fix the line. Press [RETURN] when the line is correct. If you have mistyped a line number, so that a line appears in the wrong sequence, just type the incorrect line number, then [RETURN], which effectively deletes the line. Then retype the line with the correct number.

WHAT TO DO IF IT GOES WRONG

It's more than likely, no matter how meticulously you copied the listing out, that the first time you run the program it won't work as just described. If something strange happens, read the error message carefully: it probably says something like "Syntax error in 100". List the program out (using LIST), and carefully check the screen listing against the original in the magazine, the line number, 100 in the example, tells you which line is wrong. Correct the error either by retyping the line wholesale or by using the line editor as described in the "How to type a listing in" box, and then type RUN again. Hopefully this time everything should have worked as planned but if not go on correcting lines and re-RUNning until it works. Finally, save the correct version again (with SAVE "WRDCOUNT").

THE PROGRAM LISTING

```

10 INPUT "FILE name";file$
20 OPEN "I",1,file$
30 PRINT
40 wds%=0:Lno%=0
50 WHILE NOT EOF(1)
60 inwd%=0:Lno=Lno+1
70 LINE INPUT #1,line$
80 PRINT CHR$(13);"Line";Lno%;
90 FOR i=1 TO LEN(line$)
100 c$=MID$(line$,i,1)
110 IF c$=" " AND inwd% THEN
    wds%=wd%+1:inwd%=0
120 IF c$<>" " THEN inwd%=-1
130 NEXT i
140 IF inwd% THEN wds%=wds%+1
150 WEND
160 PRINT:PRINT
170 PRINT wds%;" words counted in ";
    file$
180 CLOSE

```

Boffin Note

You've seen WRDCOUNT totting up ordinary ASCII files, but if you've understood the program listing you will see that it can process any characters that are accepted by the BASIC LINE INPUT statement. This means that you can count Wordstar document files, for instance, although the resulting word total may be an overestimate by a few percent. The problem is caused by input lines longer than 255 characters - fairly common for WordStar document paragraphs.

SUPER

A program to calculate Superannuation
from Arnold Goldman

This simple program will calculate the lump sum receivable after any number of years for a superannuation scheme where the monthly contribution is based on current salary. The user enters the current value of investment, several other initial conditions and the date of retirement. I have deliberately left our comment statements to reduce the amount of typing and storage space. I believe it will also run faster without them. This increase in speed is hardly noticeable, but there is a matter of principle involved. It is for this reason I have also used the minimum length of name for most of the variables.

HOW IT WORKS

Please do not feel insulted if I go into detail at too basic a level for you, but the editor did say that some readers are very new to computers and may appreciate some explanations. I also should apologise for the lack of sophistication in the program. I had thought of providing options for input of savings instead of superannuation payments but the program would quickly become very lengthy with all manner of IF and GOTO statements to cover the choices.

Lines 10 - 130 This is the explanation that appears on the screen at the start to inform the user what is required. The PRINT commands on their own are there to provide a space between instructions. Lines 140 - 210 These are the INPUT statements where the user enters the information required by the program.

Lines 220 This is a command sending the computer off to a subroutine to effectively clear the screen. The subroutine is at line 550 and simply carries out 40 blank PRINT commands before returning to the original point in the program.

Lines 230 - 250 These lines print out on the screen the initial equity and salary at the date entered.

Line 260 Converts the Y/N input in line 210 to upper case. This allows for either form of input. Lines 270 - 280 Are directions to two subroutines which convert the names of the months into numbers which can be used to determine the end of the year,

and for comparison, the retirement date. Both subroutines are similar and make use of the INSTR command which searches the long string for the first three letters of the month entered. The subroutine also converts to upper case to allow for entry variations.

Lines 290 - 380 This is the main part of the program which loops round and round calculating the increasing equity for each month as the interest rate is added. It also awards the pay increase expected each January. Line 290 resets the month count when it gets to 12. Lines 300 and 310 print out the annual amounts if requested. Line 320 increases the year whenever the month count is reset, and provides the increase in salary. Line 330 is the monthly calculation of equity. Lines 350 and 360 check the current year and month against the retirement date, and redirect the program accordingly.

If you require the results to be printed out on the printer instead of the screen, then all the statements with the PRINT command will need changing to LPRINT. Alternatively, some may be changed, or duplicated, to appear on both output devices.

I have not included any error traps to allow for incorrect typing-in errors, but Amstrad users don't make those sort of mistakes, do they?

```

10 PRINT.. Program to calculate super
annuation equity at a time in"
20 PRINT" the future for initial equ
ity E, interest rate I, "
30 PRINT" annual salary S, and perce
ntage super. payment P"
40 PRINT
50 PRINT" Do not type in the $ sign
or the % sign."
60 PRINT
70 PRINT" Enter month by name (e.g.
NOV) in either upper or lower case lett
ers, "
80 PRINT" and year in full (1986 for
example). "
90 PRINT
100 PRINT" Remember to separate mont
h and year by a comma."
110 PRINT
120 PRINT" All inputs must be entere
d by pressing RETURN key."
130 PRINT:PRINT
140 INPUT "Input Equity in fund at prese
nt time"; E
150 INPUT "Input interest rate earned by
fund"; I

```

```

160 INPUT "Input current Annual Salary";
S
170 INPUT "Input percentage contribution
";P
180 INPUT "Input expected percentage ann
ual pay increase";R
190 INPUT "Input present month and Year
with a comma between";M1$,Y1
200 INPUT "Input Month and Year balance
required for";M$,Y
210 INPUT "Are annual balances required?
Y/N";A$
220 GOSUB 550
230 PRINT "At ";M1$,Y1
240 PRINT "Present Equity = $";E
250 PRINT "Present Salary = $";S
260 A$=UPPER$(A$)
270 GOSUB 500
280 GOSUB 450
290 IF A=12 THEN A=0
300 IF A$="N" THEN GOTO 320
310 IF A=0 THEN PRINT "at Dec ";Y1;" you
r equity = $";E;" and your salary = $";S
320 IF A=0 THEN Y1=Y1+1:S=INT(S+S*R/100)
330 E=INT((E+S*P/1200)*(1+I/1200))
340 A=A+1
350 IF Y1<Y GOTO 290
360 IF A<B GOTO 290
370 PRINT
380 PRINT" At month ";M$;" of year ";Y;
" your equity will be $";E
390 PRINT" and your salary will be $";S
400 PRINT
410 INPUT" Further calculations? Y/N
";F$
420 F$=UPPER$(F$)
430 IF F$="Y" THEN GOSUB 550: GOTO 140
440 STOP
450 MON$=LEFT$(M$,3)
460 MON$=UPPER$(MON$)
470 X=INSTR(1,"AAAJANFEBMARAPRMAJUNJULA
UGSEP OCTNOVDEC",NOW$)
480 B=(X-1)/3
490 RETURN
500 NOW$=LEFT$(M1$,3)
510 NOW$=UPPER$(NOW$)
520 W=INSTR(1,"AAAJANFEBMARAPRMAJUNJULA
UGSEP OCTNOVDEC",NOW$)
530 A=(W-1)/3
540 RETURN
550 FOR J=1 TO 40
560 PRINT
570 NEXT J
580 RETURN

```

The above "SUPER" program can be run on the CPC range, more suitably in Mode 2, and is supplied on this months tape for tape subscribers.

280 things to do with a straight line

from Arnold Goldman

This program has been around for many years and the designs possibly pre-date computers, or maybe computer graphics were used to inspire the fad, some years ago, for wall hangings using nails and coloured string.

The program makes the Logo turtle draw a straight line, turn through a set angle, and draw another line slightly longer than the previous one. The turtle repeats this 180 times, or until it tries to get out of the frame.

I have written the program to make use of the 'go' and 'label' functions. It could be rewritten to draw the frame first and use 'go "frame]' in the repeat statement. I have also used long variable names to assist with the understanding of the program. 'Number', 'angle', and 'length' could be replaced by 'n', 'a', and 'l' to save some typing time and possible errors. The use of 40 added to 'number' to make 'angle' ensures that some very uninteresting patterns are avoided. These may be examined by using input numbers between 280 and 320. Number 140 has been precluded. If you want to see why, remove the 'it' statement that checks for 'number=140', and try 140. The 'repeat 180' was chosen to satisfy my choice for pattern 139, shown in Fig.1, and the '+2.2' added to 'length' combines with the 180 to limit the pattern to the 420 square I have used for the frame.

The only problem you will encounter when typing in the program should be in the long repeat statement when a 'beep' will sound and further entries will not be accepted. Don't worry, press RETURN and continue on with the other statements. When the screen says 'design defined' use 'ed "design' to return to the program and enter in the rest of the statement. Ignore

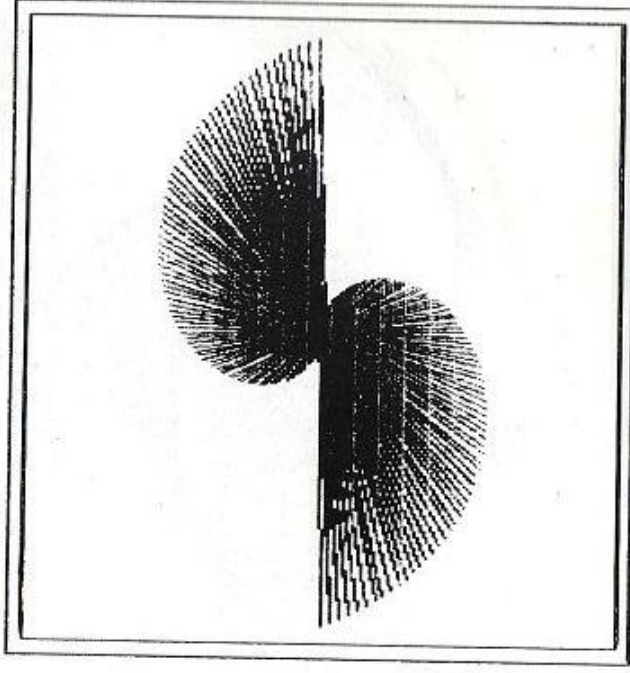


FIGURE 1 - DESIGN 139

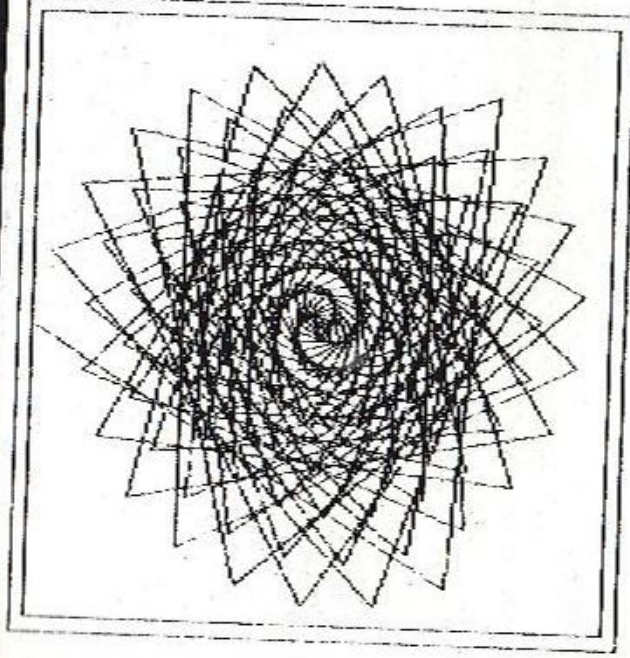


FIGURE 2 - DESIGN 75

the '?' that appears where the line wraps around to the next line. Do not type this in. Having entered the program as shown, save it on your disc with the 'save' command and run the program by typing in 'design' in response to the '?' prompt.

Items to fiddle with if you want to make some interesting changes are the '180' and '2.2' in the repeat statement. Another interesting change will occur if a 'setcrunch' command is placed after the 'setsplit' command. Changes in both these areas lead to a whole new range of patterns. The frame may need changing though, or perhaps omitting.

After you have obtained the pattern of your choice, print it out on your PCW8256 printer by pressing [EXTRA] + [PTR]. Figs. 2, 3, & 4 provide examples from

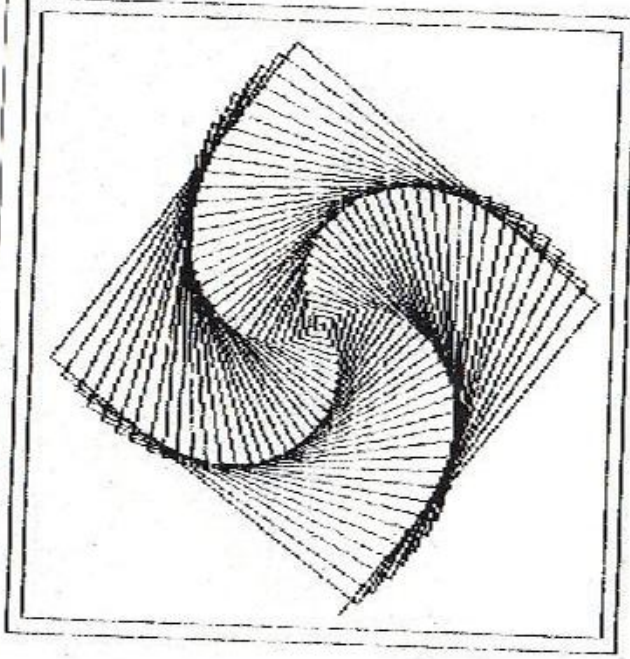


FIGURE 3 - DESIGN 51

the range.

I first stumbled on this program by accident when learning Fortran graphics programming on a Data General NOVA computer, and have since used it in BASIC on a Hewlett-Packard computer and plotter to produce patterns at a school fete for a very appreciative audience who paid 20 cents to type in the number of their choice.

```
to square :side
repeat 4 [fd :side rt 90]
end
to design
setsplit 2
label "more pi [Enter a number between
and 280, and press RETURN. To stop,
enter 0]
make "number rl
```

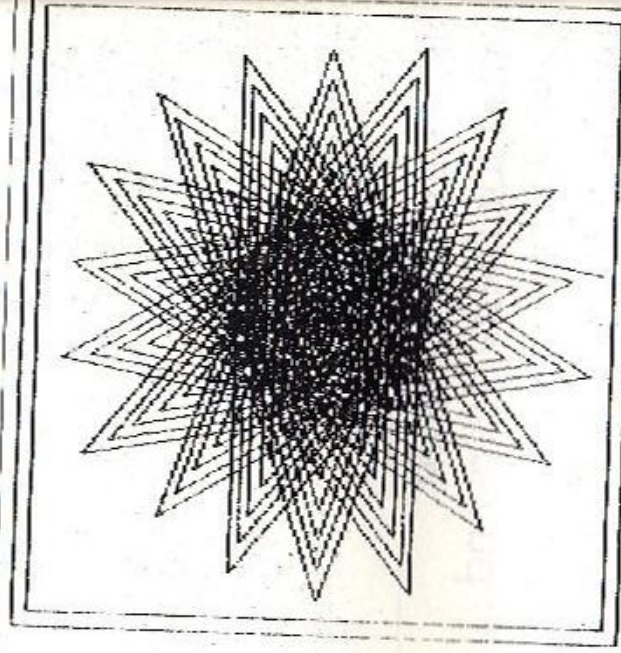


FIGURE 4 - DESIGN 100

```
make "number first :number
if :number = 0 [stop]
if :number = 140 [pr [Number 140 is not
recommended] go "more]
pu setpos [0 0] seth 90 pd
clean ht
make "length 1
make "angle :number + 40
repeat 180 [fd :length rt :angle make
"length :length + 2.2 make "pos tf make
"x first :pos make "y item 2 :pos if :x
> 200 [go "frame] if :x < -200 [go
"frame] if :y > 200 [go "frame] if :y <
200 [go "frame]]
label "frame pu setpos [-210 210]
seth 90 pd square 420
pu setpos [-220 220]
seth 90 pd square 440
go "more
end
```

The Amstrad User Hall Of Fame

GAME	SCORE/TIME	ACHIEVER
Airwolf	1500/25 mins	Heath Corcoran
Android One	5700/7 mins	Robert Baxter
Atom Smasher	940/6 mins	John Baxter
Battle for Midway	8 carriers: speed 1: level 3	Steve Alatakis
Beach Head	132500/16 mins	Anthony Eden
Bomb Jack	1235960/15 mins	John Dawson
Chuckie Egg	395960/45 mins	Tony Barberi
Codename Mat	20470/90 mins	Brett Hallen
Combat Lynx	81450/no time specified	Steve Alatakis
Commando	92850/no time specified	Brett Hallen
Decathalon	1232800/178 mins	Dale Derksen
Defend or Die	59400/8 mins	Bev Palfrey
Dragons Gold	1610/4 mins	Robert Baxter
Er-Bert	68350/21 mins	Anthony Eden
Galactic Plague	118690/80 mins	B. Welch/G.Cherry
Gilligan's Gold	107403/9.75 mins	Justin McShane
Grand Prix Rally II	47984/10.5 mins	Michael Hopkirk
Harrier Attack	337600/14.5 mins	Lorraine Martin
Haunted Hedges	466450/35 mins	Tony Barberi
Hunchback	552600/no time specified	Chris Catalfamo
Hunter Killer	17/67 mins	Phillip Nicol
Jet Set Willy	35 items/11 mins	Umut Akcelik
Knight Lore	98%/44 mins	Malcolm Fraser
Kong Strikes Back	284600/40 mins	Steve Alatakis
Minder	\$17749/no time specified	A. Kippenberger
Moonbuggy	160110/no time specified	Allan Etherington
Raid	416950/26 mins	Anthony Eden
Roland in the Caves	97488/15/6 mins	David Thomas
Roland goes Digging	\$805.65/45 mins	Allison Pilbeam
Roland on the Ropes	738900/92 mins	Paul Azzopardi
Roland in Time	72/18 mins	Robert Baxter
Scout Steps Out	7737/10 mins	Mike Nicolai
Sorcery	92500/15 mins	Keith Watmough
Sorcery +	136880/no time specified	Andrew Coppens
Space Hawks	74100/5 mins	Andrew Craddock
Spannerman	55200/15 mins	Neil Campbell
Splat	7280/45 mins	Alex Smyth
Star Commando	193810/133 mins	Alex Smyth
Survivor	223160/19.5 mins	Gavern Cherry
Way of Exp. Fist	558900/66 mins	Steve Alatakis
Wild Bunch	10539/no time specified	Gavern Cherry
Yie Ar Kung Fu	7065940/3 hours	Jason Scott
Zorro	999900/32 mins	Adam Broadway
3-D Monster Chase	1320:7 keys/7 mins	

THIS NEXT PART MUST BE
COMPLETED

Name _____
Address _____
Telephone Number _____
Game _____
Score Achieved (date) _____
Game lasted (mins) _____
Signed _____

Witness' Name _____
Address _____

Telephone Number _____
Occupation _____
I confirm that the above claimed score is
accurate and genuine

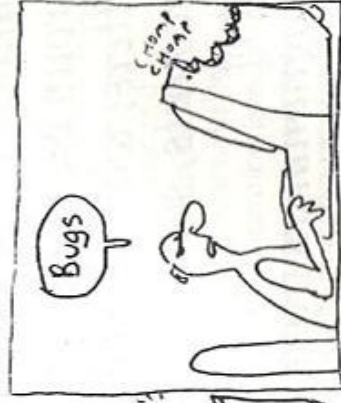
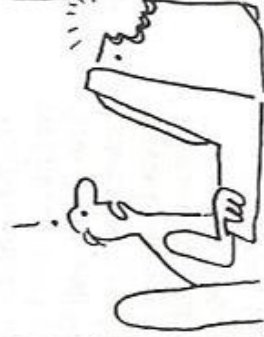
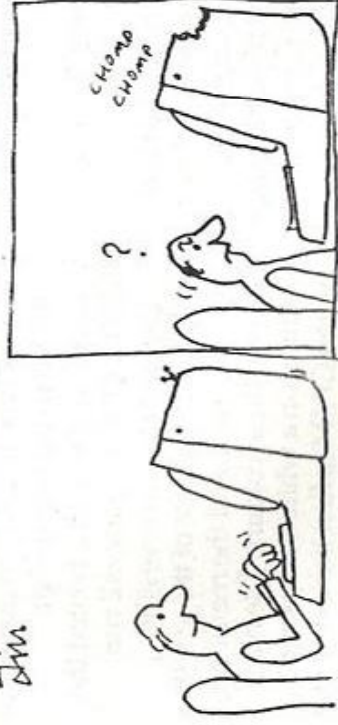
Signed _____

Post this form (or a copy) along
with your tips for playing the game
to:

Amstrad Achievers,
The Amstrad User,
Suite 1,245 Springvale Road,
Glen Waverley, Vic 3150



Dim



CP/M Revisited

A Primer for beginners - Part 1

by Fred Robertson-Mudie

If you jumped in at the deep end and are floundering or are plucking up courage to dip your toe in the CP/M pool, you must have missed our articles on this subject published earlier this year. To put that right, Fred Robertson-Mudie has passed on his articles, previously published in the Canberra User's Group News-letters, which by all accounts, saved a lot of programmers from drowning.

This primer is being presented in the form of a short series of articles to assist the beginner in using the CP/M 2.2 operating system and some of the more useful CP/M 2.2 programs that are available. It is not intended to cover all aspects of CP/M nor, as a primer, is it intended to be an expert treatise on the subject.

The CP/M operating system, version 2.2, in the case of the CPC464 with disc drive, and version 2.2 and 3.0 (or CP/M Plus) in the case of the CPC6128, is included with the machine when purchased. Whilst this primer is intended mainly for CP/M 2.2, it may cover some CP/M 3.0 material rather daunting and of limited value at first sight but it can be a very useful tool for computer enthusiasts - provided it is known how to utilise it. There is also a vast amount of Public Domain (i.e. free) software available for CP/M 2.2 Unfortunately, the information on the system, as provided with the Amstrad manual is, to say the least, limited.

As can be seen from the manual, booting CP/M 2.2 from Basic on the Amstrad is done by entering the following:

```
|CPM <enter> where the "|" is the shifted "@"
```

The screen will then change to 80 column with, in the case of a colour screen, black writing on a white background, and a sign-on message "CP/M 2.2 - Amstrad Consumer Electronics plc" followed by the prompt "A>" You are now ready to

go on CP/M.

At the prompt, i.e. A> (where "A" is the disc drive in use, and ">" is the prompt), type DIR and enter. This will give a directory of the contents of the disc (just like CAT in Basic). Included in the contents of the supplied CPM disc is a program called SFTUP.COM, and this is the one which is used to change colours and various other parameters. So, to proceed, at the prompt type SETUP then enter; i.e. A>SETUP <enter>

This will give the following message:

```
** Initial command buffer empty is this correct (Y/N) ;
```

Answer N <enter> at this point and the machine will ask you to enter the correct initial command buffer. Now, type DIR^M (where the "A" is an unshifted £) and then enter. The machine will then put your new instruction on screen and ask if it is correct, so type Y <enter>. What you have done with this change is to ensure that when CP/M is first booted, a directory of the disc will

automatically appear on screen. If you have the program CAT.COM on a particular disc you could, of course, type in CAT^M instead of DIR^M so that when that particular disc is first booted the CAT.COM program will run.

The next step involves the colours, in the case of those with a colour screen, and the method to change these colours. The black writing on a white background when CP/M is first booted is a bit wearing on the eyes. So, to change

the colours and the sign-on data, use the method outlined below. As soon as the initial command buffer has been dealt with, as outlined above, the machine will come up with the following message:

Sign-on string:

^^@mm^a@^]mmCP/M2.2

- Amstrad Consumer

Electronics Plc^J^M

is this correct (Y/N) :

Answer N <enter>aa at this point and the machine will ask you to enter the correct sign-on string. This is where the choice can be made about the colours you require for your screen.

Looking at the sign-on string, it can be broken up into three sections or strings, each preceded by the control symbol "^". The first deals with the screen colour, i.e. ^@mm meaning a white screen where the mm denotes the colour; the second with the writing, i.e. ^a@@ meaning Black writing where the @@ denotes the colour; and the third with the border colour, i.e. ^]mm where the mm denotes a border colour, also white.

The question of deciding which double letter code denotes which colour can easily be answered by looking at the Master Colour Chart in the Amstrad User

Manual, and making a direct comparison with the table below.

Using these colour codes, it can be seen that should you wish, for example, to change the CP/M colour to a Black background with Orange writing and a Black border, the sign-on string would be entered as:

^^@@@^aoo^]@@

Whereas a Black background with Green writing and a Black border would be entered as:

^^@@@^aii^]@@

And, for a Blue background with Bright White writing and a Blue Border (just like CPM Plus) it would be entered as:

^^@aa^azz^]aa

You could, of course, have Pink writing on a Magenta background with a pastel Green border, it's really a case of whatever turns you on!

The sign-on string can be followed by a disc file or whatever you wish, e.g. CP/M 2.2 - Fred's Utility Disc^J^M, where the ^J is a line feed and ^M is a carriage return (a carriage return is identical to pressing the Enter key). Again, whatever turns you on.

Having entered your choice of sign-on string, and confirmed it by answering Y <enter> when the computer asks if this new string is correct, just answer Y <enter> to all other questions for the moment (there are about another 14

questions), including the last two where you are asked if you wish to update your system disc, and if you wish to restart CP/M. Some of the other questions will be dealt with in the next part of this series.

If you are a bit wary about trying this out, do it the easy way by formatting a blank disc and copying the program SETUP.COM onto it, then practice with this disc alone. You cannot damage the computer or anything else by playing about with a practice disc, so no harm will be done.

Basic Ink No.	CPM Ink No.	Colour
0	@@	Black
1	aa	Blue
2	bb	Bright Blue
3	cc	Red
4	dd	Magenta
5	ee	Mauve
6	ff	Bright Red
7	gg	Purple
8	hh	Bright Magenta
9	ii	Green
10	jj	Cyan
11	kk	Sky Blue
12	ll	Yellow
13	mm	White
14	nn	Pastel Blue
15	oo	Orange
16	pp	Pink
17	qq	Pastel Magenta
18	rr	Bright Green
19	ss	Sea Green
20	tt	Bright Cyan
21	uu	Lime Green
22	vv	Pastel Green
23	ww	Pastel Cyan
24	xx	Bright Yellow
25	yy	Pastel Yellow
26	zz	Bright White

ELITE

FIREBIRD'S FAMOUS STRATEGY/ARCADE GAME

Reviewed by Darren Robinson

The much hailed BBC space battle and trading game has arrived on the Amstrad. Few programs in the history of the micro have had the coverage and rave reviews of Elite, so I had to find out - does this version live up to the hype?

Elite is set on a large scale area comprising 8 galaxies. Each galaxy has 250 planets to visit, and each world has a screen of general information and market prices. There are also 2 star charts to call up. The Galactic chart shows the entire galaxy and is useful for information on planets outside your range. The local cluster chart shows mainly the planets within the fuel range.

Commander Jameson (that's you) pilots a Cobra MkIII trader ship. On screen features include forward, rear, left or right views, two radars, front pulse laser and numerous bar graphs of craft functions, the main ones being 4 defence shields and speed control. When deciding which system to visit, the political classification should be taken into account. If visiting a corporate state or democracy you'll be fairly safe. However, if travelling to a feudal or anarchy world, attack by pirates wanting your cargo is certain.

Whilst meandering in space you will come across other craft either attacking or ignoring you. These

craft consist of line graphics like the DD Atari Battlezone. There is very little flicker as they fly past at high speed. The more space craft you blow up, the higher your combat rating will go, beginning from the initial Harmless, then Mostly Harmless, right through to Deadly and Elite. There is also a legal status which goes from Clean to Offender to Fugitive if you shoot at Police, Vipers, or trade in illegal goods, such as slaves and narcotics. A criminal record means the Police will join the pirates in trying to kill you.

Inside the box containing Elite can also be found a colour poster of spacecraft in the game, a short space adventure book entitled 'The Dark Wheel', a comprehensive training manual, a quick key control guide and a form for a U.K. Elite club. The training manual is probably the best documentation I've seen for any game. This informs you of things like navigation, the political structure of the universe, docking, trading, market prices, weaponry and more.

The key control guide shows which keys do what.

If working entirely from the keyboard you have a grand total of 48 functions to think of, therefore a joystick is recommended, mainly to make combat manoeuvres easier. Blasting other craft such as

pirates will boost the number of credits that you own. With these credits, cargo or ship modifications can be purchased. However shooting at a space station will only make it angry, and several fighters will be launched to sort you out.

The status of Commander Jameson may be saved to tape if you die or decide to quit.

There is an aspect of the game that I didn't like. Upon arrival in a system you head towards the planet, shooting or ignoring craft in the area. Once the space station is in sight, even at full speed you must wait and wait for it to get close enough to begin docking. The approach is boring to say the least and is unnecessarily time consuming in a game of already massive proportions. Docking itself is extremely tricky as there is little margin for error and it isn't that easy to point the Cobra in the right direction anyway.

Once safely inside the space station you can buy and sell cargo at the local prices, hopefully making a good profit. A good strategy is to check the general data on a nearby planet and buy cargo that you think will fetch a high price.

SUMMARY - While it is undoubtedly the most sophisticated space game on the Amstrad to date, Elite is initially very difficult and much practise is required before you can be successfully fighting and trading between planets.

Assessment (out of 8)	8
Ability to hold interest:	8
Documentation	7
Originality	6
Graphics	6
Entertainment Value	3
Speed	3
Ease of Use	3

TAUINDEX

73%

Word Sleuth

from Keith Saw

Have you ever wondered how long it takes the word puzzle compilers to put together a matrix of letters containing hidden words? I always thought they spent hours fitting everything in until Word Sleuth from Keith Saw arrived.

Word Sleuth allows you to put words into the matrix and randomly surround them with letters. The computer places the words into a square, and prints out the finished product, complete with answers, ready for duplicating if required.

You choose the level of complexity and the words for which to search and circle. They can be written in any direction, including backwards.

The program determines the size and complexity of the puzzle by your answers to the initial questions. Limits have been set so that it will fit on to an A4 size paper.

You will notice that the program was originally written for pupils at the Cooiloongup Primary School in WA, so you may wish to alter lines 1970 and 1980 to personalise it.

HOW IT RUNS

- 10-60 REM statements
- 70-330 Windows, questions asked
- 340-990 Initialization, handles word entry
- 1000-1110 Puzzle routine starts, answers handled
- 1120-1370 Word routine, random selection of direction
- 1380-1550 Random selection of start point
- 1560-1880 Entry of word into puzzle
- 1890-1960 Fill remaining positions with a random selection of letters
- 1970-2090 Print hard copy of words to find
- 2100-2370 Check for errors and correction routine

VARIABLES USED

- C Number of columns
- R Number of rows
- N Number of words
- L\$() Letter array
- W\$() Words
- A\$() Letter array
- Y Random number
- LO Length of word
- QQ,P,Q,PO Word directions
- Z1,Z2,X1,X2 Random rows and columns
- ANS Answer selection
- WORDS\$ Corrected word

```
10 REM ** WORDGAME PROGRAMME **
20 REM ** WORD SLEUTH **
30 REM ** FOR AMSTRAD **
40 REM ** by KEITH SAW **
50 INK 1,0:INK 0,13:BORDER 9:PEN 1:PAPER
   0:MODE 1
60 INK 2,3:INK 3,1
70 WINDOW #3,1,40,1,25
80 PAPER #3,1:CLS #3
90 WINDOW #4,2,39,2,24
100 PAPER #4,0:PEN #4,2:CLS #4
110 ANS=1
120 PRINT#4:PRINT#4," WORDGAME
PROGRAMME"
130 PRINT#4:PRINT#4
140 PRINT#4," ENTER THE NUMBER OF C
OLUMNS"
150 PRINT#4," IN YOUR WORD GAM
E"
160 PRINT#4:PRINT#4," (Maxim
um of 39)"
170 INPUT #4,C
180 PRINT #4
190 IF C>39 THEN GOTO 10
200 PRINT #4," ENTER THE NUMBER OF ROWS
IN THE GAME"
210 PRINT #4:PRINT#4," (Maxi
mum of 22)"
220 INPUT #4,R
230 PRINT #4
240 IF R>22 THEN GOTO 10
250 PRINT #4," ENTER THE NUMBER OF WOR
DS TO FIND"
260 PRINT#4
```

```

270 INPUT #4, N
280 PEN #4, 3
290 BORDER 13
300 PRINT#4:PRINT#4,"
E WAIT"
310 PEN 3
320 REM *** DATA INITIALIZATION ***
330 DIM L$(C,R)
340 DIM W$(N)
350 DIM A$(26)
360 LET A$(1)="A"
370 A$(2)="B"
380 A$(3)="C"
390 A$(4)="D"
400 A$(5)="E"
410 A$(6)="F"
420 A$(7)="G"
430 A$(8)="H"
440 A$(9)="I"
450 A$(10)="J"
460 A$(11)="K"
470 A$(12)="L"
480 A$(13)="M"
490 A$(14)="N"
500 A$(15)="O"
510 A$(16)="P"
520 A$(17)="Q"
530 A$(18)="R"
540 A$(19)="S"
550 A$(20)="T"
560 A$(21)="U"
570 A$(22)="V"
580 A$(23)="W"
590 A$(24)="X"
600 A$(25)="Y"
610 A$(26)="Z"
620 Y=1
630 FOR I=1 TO C
640 FOR J=1 TO R
650 L$(I,J)="."
660 NEXT J
670 NEXT I
680 CLS
690 FOR K=1 TO N
700 PRINT "ENTER WORD NUMBER *;K
710 INPUT W$(K)
720 W$(K)=UPPER$(W$(K))
730 NEXT K
740 GOSUB 2080
750 CLS
760 PRINT "YOUR WORDS ARE:--":PRINT
770 FOR K=1 TO N
780 PRINT K; ". ";W$(K)
790 GOSUB 1100
800 NEXT K
810 PRINT:PRINT"I'LL SHOW YOU WHERE
I'VE HIDDEN THE WORDS IF YOU SAY
PLEASE !"
820 INPUT G$
830 MODE 2
840 G$=UPPER$(G$)
850 IF G$<>"PLEASE" THEN 900
860 GOSUB 990
870 PRINT:PRINT:INPUT "PRESS <<<ENTER
>>> TO PRINT WORD SEARCH ";K

```

PLEAS

```

880 PEN 1
890 PRINT:PRINT:PRINT * PLEASE WAI
T"
900 GOSUB 1880
910 PRINT
920 PRINT#8:PRINT#8
930 PRINT
940 GOSUB 990
950 REM *** TERMINATION POINT ***
960 CLEAR
970 END
980 REM *** PUZZLE POINT ROUTINE ***
990 IF ANS=1 THEN PRINT#8, " ANSWERS":P
RINT#8:GOTO 1000
1000 FOR J=1 TO R
1010 FOR I=1 TO C
1020 PRINT L$(I,J)";
1030 PRINT#8, L$(I,J)";
1040 NEXT I
1050 PRINT
1060 PRINT#8
1070 NEXT J
1080 ANS=2
1090 RETURN
1100 REM *** WORD BREAKDOWN ROUTINE ***
1110 REM SOME LANGUAGE DEPENDENCE IN THI
S ROUTINE ***
1120 REM
1130 L0=LEN(W$(K))
1140 REM **** RANDOM SELECTION OF DIRECT
ION ****
1150 LET T=1
1160 IF T<100 THEN 1190
1170 PRINT"I COULDN'T FIT THE WORDS IN -
SORRY TRY AGAIN"
1180 GOTO 970
1190 P=1
1200 P0=1
1210 Q=-1
1220 IF RND(Y)<=0.5 THEN 1240
1230 LET Q=1
1240 Q0=-1
1250 IF RND(Y)<=0.5 THEN 1270
1260 Q0=1
1270 D=2
1280 IF Q<>1 THEN 1300
1290 P=0
1300 IF Q0<>1 THEN 1320
1310 P0=0
1320 IF RND(Y)<0.75 THEN 1340
1330 D=1
1340 IF RND(Y)>0.25 THEN 1360
1350 D=0
1360 REM *** RANDOM SELECTION OF START P
OINT ***
1370 C0=C
1380 R0=R
1390 IF D<>1 THEN 1410
1400 R0=R-L0
1410 IF D<>0 THEN 1430
1420 C0=C-L0
1430 IF D<=1 THEN 1460
1440 R0=R-L0
1450 C0=C-L0
1460 IF C0<>C THEN 1480

```



```

1470 P0=0
1480 IF R0<>R THEN 1500
1490 P=0
1500 Z1=(RND(Y)*R0/100+0.01)*100+P*L0
1510 Z2=(RND(Y)*C0/100+0.01)*100+P0*L0
1520 X1=INT(Z1)
1530 X2=INT(Z2)
1540 REM***ENTRY OF WORD IN THE PUZZLE
1550 IF D=1 THEN 1770
1560 IF D=0 THEN 1670
1570 FOR I=1 TO L0
1580 IF L$(X2+(I-1)*Q0,X1+(I-1)*Q)="." T
HEN 1600
1590 IF L$(X2+(I-1)*Q0,X1+(I-1)*Q)<>MID$(
W$(K),I,1) THEN 1140
1600 NEXT I
1610 T=0
1620 FOR I=1 TO L0-1
1630 LET L$(X2+I*Q0,X1+I*Q)=MID$(W$(K),I
+1,1)
1640 NEXT I
1650 L$(X2,X1)=MID$(W$(K),1,1)
1660 GOTO 1860
1670 FOR I=1 TO L0
1680 IF L$(X2+(I-1)*Q0,X1)="." THEN 1700
1690 IF L$(X2+(I-1)*Q0,X1)<>MID$(W$(K),I
,1) THEN 1140
1700 NEXT I
1710 T=0
1720 FOR I=1 TO L0-1
1730 L$(X2+I*Q0,X1)=MID$(W$(K),I+1,1)
1740 NEXT I
1750 L$(X2,X1)=MID$(W$(K),1,1)
1760 GOTO 1860
1770 FOR I=1 TO L0
1780 IF L$(X2,X1+(I-1)*Q)="." THEN 1800
1790 IF L$(X2,X1+(I-1)*Q)<>MID$(W$(K),I,
1) THEN 1140
1800 NEXT I
1810 T=0
1820 FOR I=1 TO L0-1
1830 L$(X2,X1+I*Q)=MID$(W$(K),I+1,1)
1840 NEXT I
1850 L$(X2,X1)=MID$(W$(K),1,1)
1860 RETURN
1870 REM *** FILL OF REMAINING POSITIONS
***
1880 FOR I=1 TO C
1890 FOR J=1 TO R
1900 IF L$(I,J)<>". " THEN 1930
1910 Z1=(RND(Y)*0.26+0.01)*100
1920 L$(I,J)=A$(INT(Z1))
1930 NEXT J
1940 NEXT I
1950 REM***PRINT OF THE WORDS TO FIND
1960 PRINT
1970 PRINT#8, CHR$(14); " COOLOONGUP P
RIMARY SCHOOL":PRINT#8
1980 PRINT#8, " NAME.....:P
YEAR..... ROOM.....":P
RINT#8
1990 PRINT#8
2000 PRINT " WORD LIST"
2010 PRINT#8, " WORD LIST"
2020 PRINT#8

```

```

2030 FOR K=1 TO N
2040 PRINT W$(K)
2050 PRINT#8, W$(K)
2060 NEXT K
2070 RETURN
2080 REM ** Check for errors **
2090 CLS
2100 PEN 1
2110 PRINT " YOUR WORDS ARE:-":PRINT
2120 FOR K=1 TO N
2130 PRINT K: ". ";W$(K)
2140 NEXT K
2150 WINDOW #1,24,39,6,15
2160 PAPER #1,1
2170 WINDOW #2,25,38,7,14
2180 INK 2,1:INK 3,24
2190 PAPER #2,2:PEN #2,3
2200 CLS #1:CLS #2
2210 PRINT #2:PRINT #2," DO YOU WISH"
2220 PRINT #2," TO CHANGE"
2230 PRINT #2," A WORD <Y/N>"
2240 INPUT #2,RES$
2250 IF RES$="N" OR RES$="n" THEN RETURN
2260 CLS #2
2270 PRINT #2:PRINT #2, " WHICH NUMBER"
2280 INPUT #2,NUM
2290 CLS
2300 PRINT W$(NUM)
2310 PRINT:PRINT
2320 INPUT "Type the correct word":word$
2330 word$=UPPER$(word$)
2340 W$(NUM)=word$
2350 GOTO 2080

```

The grid below was produced using Word Sleuth.
See if you can find the following: AMSTRAD, DISC,
CASSETTE, KEYBOARD, MAGAZINE, BASIC,
PASCAL, MONITOR, MAGENTA, BOOKS.

```

J Q S D W F H Q B W J L E O J F Q Y T B
F N Q A K B Z Y C J M C N Y A O B C O M Y J E X G
W L I U V H E S T A C T E N S A N V S M M P F S G R U
M X K R C Z D J Y N O M R O B L L I
K R G F V F W S K O P L Y K E N
C Z D J Y N O M R O B L L I
F N Q A K B Z Y C J M C N Y A O B C O M Y J E X G
W L I U V H E S T A C T E N S A N V S M M P F S G R U
M X K R C Z D J Y N O M R O B L L I
K R G F V F W S K O P L Y K E N
C Z D J Y N O M R O B L L I

```

Adventurer's Attic

by Philip Rile

This month Philip gives advice on how to deal with a maze both when playing or writing an adventure game.

IF YOU'RE STUCK

Many adventures contain that most infuriating of problems - a maze. Unlike the rest of the adventure a maze need follow no set rules. Moving in one direction and then moving back again may not put you into the same place as you started. Another difficulty is that the descriptions are usually brief and generally identical. This can make things rather hard and you could in fact spend days just going around in circles. But despite these overwhelming odds you can actually map out a maze. It is rather a long and drawn out task but it will help further on in the game.

Once you have entered the maze, don't start wandering around aimlessly - get a piece of paper and a pencil and start making notes. You will require at least one item that can be picked up and dropped although you would be well advised to take as many

items as possible into the maze.

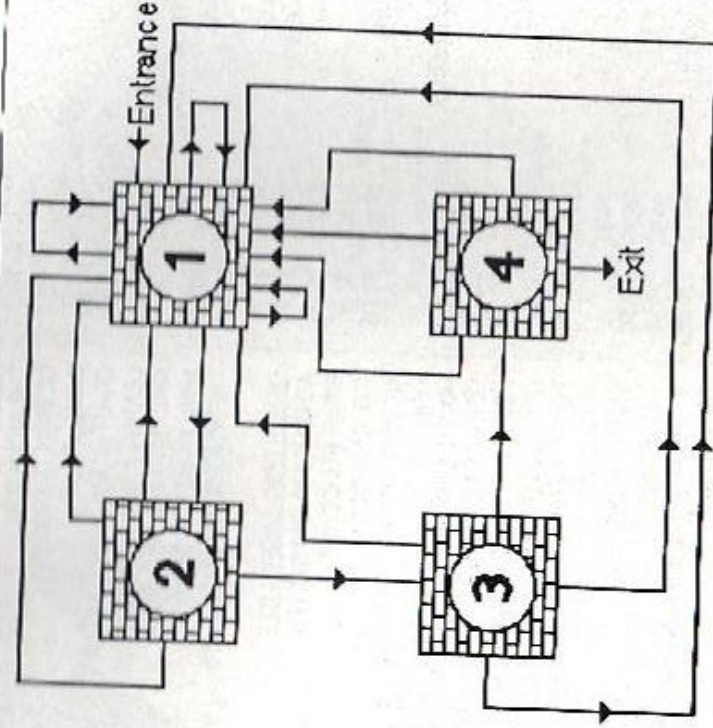
So, you are at the beginning of the maze. Generally you can move in all directions all of the time. Drop an item in your current location, pick a direction (any direction that takes your fancy) and move. If you have another item, drop it then attempt to move back to your original position. If you can see the first object that you dropped you have successfully returned. If the object is not there you are obviously in a different place. So by moving backwards and forwards and dropping items you should be able to map out the maze.

This method will probably take a long time for you to discover all the secrets of the maze, but as I said earlier, it can be very helpful later on.

WRITING YOUR OWN

Of what use is a maze anyway, after all, if a person has blundered into it once, they are unlikely to stroll into it again. The answer to this is simple. All you need to do is make it necessary to enter the maze each time the game is played. There are two ways to achieve this. One is to put another part of your adventure on the other side of the maze that is only accessible by going through the maze. The other is to put a useful object inside the maze that the player must retrieve to complete the game.

The next little problem is putting a maze into your own game. You don't want it to take too much memory (Golden Rule No. 1 - save memory wherever possible). Below is a simple idea for a maze.



As you can see from the example map, there is not much to it. You can, of course, make it any shape or design you wish. The above example is presented to show you how a maze works. If you follow the arrows, you can see that by moving incorrectly you are automatically sent back to the start. Another point to note is that you are not able to leave the maze by the way you came in - you must leave through the exit.

If you do incorporate a maze into your own adventure game remember, that to make it most effective, it is best to keep all the location descriptions the same. This will make it much harder for the person playing to map it. Most mazes generally have short descriptions and in most cases the players will not realise that they are in one - until they get hopelessly lost! The following are a few descriptions that you could use for your own maze:

You are in the Mad House
 You are in the Catacombs
 You are in dense Fog
 You are in a dense overgrown jungle
 You are in the House of Horrors

As you can see they are most definitely brief. Of course, it is always better to come up with something different, but if you are at a loss, then you can always fall back on one of the above suggestions.

SOME ANSWERS FOR "LOST SOULS"

Having done the review of "Mordon's Quest" for TAU some time ago, I felt a duty to come to the rescue of Clinton Willis.

1. To get past the pygmy: you will need the bamboo and poison darts (from an earlier location). When in the pygmy's hut, make a blowpipe from the bamboo, and use it against the pygmy. Result - one dead pygmy.

2. To get past the carnivorous plant: you will need the body of the pygmy. Feed the body to the plant.

I completed this particular adventure many months ago, and am pleased to confirm that my original rating of 80% was a reasonably accurate assessment of the standard of the adventure.

I notice also that Douglas Mansell has some problems in the Jewels of Babylon. The following should help him.

1. To get past the lion: feed him the fish (from the Secluded Beach).

2. To get past the crocodile: you will need the gunpowder (from the Caves past the lion) and the match (past the Cannibal Village). What to do? Blow it up! (of course).

Keep up the good work Philip. We need to develop as many adventurers as possible.

Andre Urankar

P.O. Box 1522
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SOUNDEX

MATCHING SOUND-ALIKE WORDS

from Petr Lukes

SOUNDEX is an algorithm for encoding names as a sequence of the first letter and three digits, so that similar-sounding names produce the same code although the spelling may differ considerably. If you try to find a BAILEY in the telephone directory, you are advised to try also BAILLIE, BAYLEY, BAYLY, AND BAILYE. All these versions would produce the same code, namely B400.

The algorithm has been around for a long time, since the famous 1890 U.S. Census during which Dr. Hollerith introduced punched cards (he later formed a company which developed into IBM), but it keeps cropping up in magazines in various versions. It could be useful if you have a large address book with similar-sounding names, but it can also help with look-up of frequently misspelt words. In the dictionary part of the program, the code for 'scimitairey' will match 'cemetery', 'scimitar', and 'symmetry', so exact spelling is not essential. The algorithm, as coded here, requires two passes. The first pass eliminates all non-letter characters and saves the group code of each letter, provided it is not a duplicate of the preceding one. The second pass sets the first character of the code to either the first letter or the group of the first letter, depending on the choice of the mode, then eliminates the non-significant copies.

Simpler forms of the algorithm use only one pass, but do not eliminate the repetition of the first letter ('llama' would be encoded as L450 rather than L500), and do not recognise letters belonging to the same group but separated by one or more non-significant letters ('decision' and 'thicken' would both be encoded as 3250 in the dictionary mode, rather than 3225 and 3250 respectively).

```
100 CLS:PRINT"SOUNDEX LKS 860719"
110 'Soundex grouping:
120 'group 0: AEHICUWY non-significant letters
130 'group 1: BFFV
140 'group 2: CGJKQSZ q is sometimes placed in gr. 0
150 'group 3: DT
160 'group 4: L
170 'group 5: MN
180 'group 6: R
190 'Letter-to-group table:
200 gr$="01230120022455012623010202"
210 ',","ABCDEFCHJKLNOPQRSTUVWXYZ"
220 c%="0:WHILE c%<1 OR c%>2:PRINT"Select
:"
230 PRINT" 1 Names":PRINT" 2 Dictionary"
:INPUT c%
240 WEND:ZONE 20:ON c% GOTO 250,450
250 PRINT"Names"
260 z$="":WHILE LEN(z$)<1:INPUT"Enter name: "
,z$,z$:WEND
270 GOSUB 300:IF y$>" THEN PRINT"name: "
,z$,z$:code:"y$
280 GOTO 280
290 'Encoding
300 y$=UPPER$(z$):a%=ASC(y$)-64
310 IF a%<1 OR a%>26 THEN PRINT"Invalid"
:y$="":RETURN'must start with a letter
320 w$=MID$(gr$,a%,1)'group of first letter
330 FOR d%=2 TO LEN(y$):a%=ASC(MID$(y$,d
%,1))-64
340 IF a%<1 OR a%>26 THEN 370'ignore non-letters
350 x$=MID$(gr$,a%,1)'find group of letter
360 IF x$<>RIGHT$(w$,1)THEN w$=w$+x$'transfer non-repeated codes
370 NEXT d%
380 IF c%<1 THEN y$=LEFT$(y$,1)'first letter of name
390 IF c%<2 THEN y$=LEFT$(w$,1)'group of first letter
400 FOR d%=2 TO LEN(w$):x$=MID$(w$,d%,1)
410 IF x$>" THEN y$=y$+x$'transfer significant codes (groups 1-6)
420 NEXT d%
430 y$=LEFT$(y$,"000",4)'pad out with 0s, chop to length
440 RETURN
450 PRINT"Dictionary"
460 z$="":WHILE LEN(z$)<1:INPUT"Enter word: "
,z$,z$:WEND
470 GOSUB 300:IF y$>" THEN 460
480 w$=y$:PRINT"word: "z$,z$:code:"us
490 RESTORE 490:READ z$
500 WHILE z$<>"end":GOSUB 300
510 IF y$=w$ THEN PRINT z$,
ch":GOTO 460
530 DATA apology,cemetery
540 DATA conscientious,dexpair
550 DATA omit,scimitar,symmetry
560 DATA end
```

did not have any add-on cards to try, but from the information supplied with the machine the only cards that won't run are the EGA or CGA graphic cards because of the internal graphic card.

In conclusion the machine functioned fairly well in the limited time that I had to test it out. It runs a lot faster than the original IBM, so you can get on with what you are doing in a reasonable amount of time. The machine crashed a few times and I had to turn it off rather than resetting it. I think that this might have been due to flat batteries. Being used to MS-DOS, the first time I tried to reset the machine with CTRL/ALT/DEL it

did not work, so I tried the delete key next to it and then both together with no success. I referred to the manual and it said use CTRL/ALT/DEL so another look at the keyboard revealed the correct delete key on the numeric keypad. The graphics card does not seem to emulate any popular cards (eg. Hercules) so you might be limited by it.

With the base machine (a monochrome monitor and single drive) starting at about \$1500, this would seem to be a pretty good price considering that it has got the most popular add-on cards built into it and the bundled software.

So I suggest that you get yourself

down to your nearest Amstrad selling point and check it out and see for yourself.

THE BOTTOM LINE

PC152SD+PCDM Mono screen/single drive	\$1499.00
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CAPTURE

A Game from Donald O'Connor

Capture is a "thinking" game you play against the computer. You each have six men in an 8x3 grid. The object is to capture three of the computer's men before it gets yours. This is achieved by sandwiching your opponent between two of your own men on the top and bottom line.

As life could be a little difficult for green screen owners, the following changes may help:

Add these lines:

```
2215 n$=chr$(159)+chr$(159)
2515 GRAPHICS PEN 1
2411 GRAPHICS PEN 2
2412 MOVE 96,70
2413 TAG
2414 PRINT "Player";
2415 TAGOFF
2416 LOCATE 14,21
2417 PRINT m$
2418 LOCATE 14,22
2419 PRINT m$
2461 LOCATE 17,21
2462 PRINT n$
2463 LOCATE 17,22
2464 PRINT n$
2465 MOVE 304,70
2466 TAG
2467 GRAPHICS PEN 3
2468 PRINT "Computer";
2469 TAGOFF
```

Edit line 2210 to read:

```
2210 m$=chr$(125)+chr$(123)
```

In the following lines change m\$ to n\$:

```
2320, 2330, 1750, 1760, 1560, 1570, 1600, 1610,
1830, 1840.

100 RANDOMIZE(TIME)
110 DIM s(8,4),c(16)
120 GOSUB 2590
130 MODE 1
140 GOSUB 2070
150 PRINT #2,"Do you want to go first (Y/N) ?"
160 a$=UPPER$(INKEY$)
170 IF a$="Y" THEN 270
180 IF a$<"N" THEN 160
190 fx=5
200 fy=2
210 lx=4
220 ty=1
230 GOTO 1540
240 ,
250 , players move
260 ,
270 GOSUB 940
280 PRINT #2,"Your move (number) ? ";
290 a$=UPPER$(INKEY$)
300 IF a$="" THEN 290
310 PRINT#2,a$
320 ym=VAL(a$)
330 IF ym>0 AND ym<9 THEN 380
340 CLS#2
350 PRINT #2,CHR$(7)"Illegal move."
360 FOR i=1 TO 1000:NEXT
370 GOTO 270
380 IF s(ym,1)=1 THEN mfy-1:GOTO 410
390 IF s(ym,1)=0 AND s(ym,2)=1 THEN mfy-2:GOTO 410
400 IF s(ym,2)=0 AND s(ym,3)=1 THEN mfy=3 ELS
E 340
410 PRINT#2,"left or right (L/R) ? ";
420 a$=UPPER$(INKEY$)
430 IF a$="" THEN 420
440 PRINT#2,a$
450 IF a$="L" THEN d--:GOTO 470
460 IF a$<"R" THEN 340 ELSE d=1
```

```

470 mt=d+ym
480 IF mt>8 OR mt<1 THEN 340
490 IF s(mt,3)=0 THEN mty=3:GOTO 520
500 IF s(mt,2)=0 THEN mty=2:GOTO 520
510 IF s(mt,1)=0 THEN mty=1 ELSE 340
520 mfx=ym
530 mtX=mt
540 WINDOW #1,mfx*3+2,mfx*3+3,mfy*3+8,mfy*3+9
550 PEN #1,0
560 PRINT#1,m$;
570 PRINT#1,m$;
580 WINDOW #1,mtx*3+2,mtx*3+3,mtx*3+8,mtx*3+9
590 PEN #1,2
600 PRINT#1,m$;
610 PRINT#1,m$;
620 s(mfx,mfy)=0
630 s(mtx,mty)=1
640 IF s(mtx,3)<>1 OR s(mtx,2)<>2 OR s(mtx,1)
<>1 THEN 1070
650 ,
660 , player captures man
670 ,
680 PRINT#2,CHR$(7)"Player captures man"
690 FOR i=1 TO 1000:NEXT
700 WINDOW #1,mtx*3+2,mtx*3+3,14,15
710 PEN #1,0
720 PRINT#1,m$;
730 PRINT#1,m$;
740 WINDOW #1,mtx*3+2,mtx*3+3,11,12
750 PEN #1,0
760 PRINT#1,m$;
770 PRINT#1,m$;
780 WINDOW #1,mtx*3+2,mtx*3+3,14,15
790 PEN #1,2
800 PRINT#1,m$;
810 PRINT#1,m$;
820 s(mtx,1)=0
830 s(mtx,2)=1
840 ps=ps+1
850 LOCATE 36,14
860 PEN 2
870 PRINT ps
880 PEN 1
890 IF ps=3 THEN 1970
900 GOTO 1070
910 ,
920 , any possible moves
930 ,
940 x=0
950 FOR i=1 TO 8
960 FOR j=1 TO 2
970 IF i=1 THEN d=j ELSE d=-1
980 IF (d=1 AND i=8) OR (d=-1 AND i=1) THEN i
020
990 IF s(i,1)=1 AND s(i+d,1)=0 THEN x=1:i=8:i
=2:GOTO 1020
1000 IF s(i,1)=0 AND s(i,2)=1 AND s(i+d,1)=0
THEN x=1:i=8:j=2:GOTO 1020
1010 IF s(i,2)=0 AND s(i,3)=1 AND s(i+d,1)=0
THEN x=1:i=8:j=2
1020 NEXT:NEXT
1030 IF x=0 THEN 1990 ELSE RETURN
1040 ,
1050 , computers move
1060 ,
1070 PRINT#2,"Thinking..."
1080 FOR i=1 TO 16
1090 c(i)=0
1100 fx=INT((i+1)/2)
1110 IF i/2=INT(i/2) THEN d=1 ELSE d=-1
1120 tx=fx+d
1130 IF tx>8 OR tx<1 THEN c(i)=-10:GOTO 1360
1140 IF s(fx,1)=2 THEN fy=1:GOTO 1170
1150 IF s(fx,1)=0 AND s(fx,2)=2 THEN fy=2:GOT
O 1170
1160 IF s(fx,2)=0 AND s(fx,3)=2 THEN fy=3 ELS
E c(i)=-10:GOTO 1360
1170 IF s(tx,3)=0 THEN ty=3:GOTO 1200
1180 IF s(tx,2)=0 THEN ty=2:GOTO 1200
1190 IF s(tx,1)=0 THEN ty=1 ELSE c(i)=-10:GOT
O 1360
1200 IF ty=1 AND s(tx,2)=1 AND s(tx,3)=2 THEN
c(i)=c(i)+2
1210 IF s(fx,fy+1)=1 AND s(tx,3)=1 AND s(tx,2
)=0 THEN c(i)=c(i)-2
1220 IF fx=1 OR fx=8 THEN 1250
1230 IF s(fx,fy+1)=1 AND s(tx,3)=1 AND s(tx,2
)=0 THEN c(i)=c(i)+1
1240 IF fy=2 AND s(fx,2)=2 AND s(fx,3)=1 THEN
c(i)=c(i)+1
1250 IF d=1 THEN 1300 ELSE IF fx=8 THEN 1280
1260 IF s(fx,fy+1)=1 AND s(fx+1,3)=1 AND s(fx
+1,2)=2 AND s(fx+1,1)=0 THEN c(i)=c(i)-2
1270 IF fx=2 THEN 1290
1280 IF s(tx,3)=1 AND s(tx,2)=0 AND (s(fx,fy+
1)=1 OR (s(tx-1,3)=1 AND s(tx-1,2)=0) OR (s(t
x-1,2)=1 AND s(tx-1,1)=0) OR s(tx-1,1)=1) THE
N c(i)=c(i)-2
1290 ,
1300 IF d=-1 THEN 1350 ELSE IF fx=1 THEN 1330
1310 IF s(fx,fy+1)=1 AND s(fx-1,3)=1 AND s(fx
-1,2)=2 AND s(fx-1,1)=0 THEN c(i)=c(i)-2
1320 IF fx=7 THEN 1340
1330 IF s(tx,3)=1 AND s(tx,2)=0 AND (s(fx,fy+
1)=1 OR (s(tx+1,3)=1 AND s(tx+1,2)=0) OR (s(t
x+1,2)=1 AND s(tx+1,1)=0) OR s(tx+1,1)=1) THE
N c(i)=c(i)-2
1340 ,
1350 IF fy=2 AND s(fx,3)=1 AND s(tx,ty+1)=1 T
HEN c(i)=c(i)+1
1360 NEXT
1370 x=-10
1380 y=0
1390 FOR i=1 TO 16
1400 IF c(i)=-10 THEN 1430
1410 IF c(i)>x THEN x=c(i):y=i:GOTO 1430
1420 IF c(i)=x THEN rn=INT(RND(TIME)*2):IF rn
=0 THEN x=c(i):y=i
1430 NEXT
1440 IF y=0 THEN 1990
1450 fx=INT((y+1)/2)
1460 IF y/2=INT(y/2) THEN d=1 ELSE d=-1
1470 tx=fx+d
1480 FOR i=1 TO 3
1490 IF s(fx,i)=2 THEN fy=i:i=3
1500 NEXT
1510 FOR i=1 TO 3
1520 IF s(tx,i)=0 THEN ty=i
1530 NEXT
1540 WINDOW #1,fx*3+2,fx*3+3,fy*3+8,fy*3+9
1550 PEN #1,0
1560 PRINT#1,m$;
1570 PRINT#1,m$;
1580 WINDOW #1,tx*3+2,tx*3+3,ty*3+8,ty*3+9
1590 PEN #1,3
1600 PRINT#1,m$;
1610 PRINT#1,m$;
1620 s(tx,fy)=0
1630 s(tx,ty)=2
1640 PRINT#2,"My move : "fx;
1650 IF d=1 THEN PRINT#2,"R" ELSE PRINT#2,"L"
1660 FOR i=1 TO 1000:NEXT

```

```

1670 IF s(tx,3)<>2 OR s(tx,2)<>1 OR s(tx,1)<>
2 THEN 270
1680 ,
1690 , computer captures mat.
1700 ,
1710 PRINT#2,CHR$(7)"Computer captures man"
1720 FOR i=1 TO 100:NEXT
1730 WINDOW #1,tx*3-2,tx*3+3,14,15
1740 PEN #1,0
1750 PRINT#1,m$;
1760 PRINT#1,m$;
1770 WINDOW #1,tx*3+2,tx*3+3,11,12
1780 PEN #1,0
1790 PRINT#1,m$;
1800 PRINT#1,m$;
1810 WINDOW #1,tx*3+2,tx*5+3,14,15
1820 PEN #1,3
1830 PRINT#1,m$;
1840 PRINT#1,m$;
1850 s(tx,1)=0
1860 s(tx,2)=2
1870 cs=cs+1
1880 LOCATE 38,17
1890 PEN 3
1900 PRINT cs
1910 PEN 1
1920 IF cs=3 THEN 1980
1930 GOTO 270
1940 ,
1950 , game over
1960 ,
1970 PRINT#2,"You win. Well done.":GOTO 2000
1980 PRINT#2,"I win. Bad luck.":GOTO 2000
1990 PRINT#2,"No possible moves. Game drawn.
"
2000 PRINT#2,"Do you want to play again ?"
2010 as=UPPER$(INKEY$)
2020 IF as="N" THEN MODE 1:END
2030 IF as="Y" THEN GUN ELSE 2010
2040 ,
2050 , draw heard
2060 ,
2070 WINDOW #2,1,40,24,25
2080 PLOT 56,248
2090 DRAW 440,248
2100 DRAW 440,104
2110 DRAW 56,104
2120 DRAW 56,248
2130 PLOT 56,200
2140 DRAW 440,200
2150 PLOT 56,152
2160 DRAW 440,152
2170 FOR i=1 TO 7
2180 PLOT 56+i*48,248
2190 DRAW 56+i*48,104
2200 NEXT
2210 ms=CHR$(143)+CHR$(143)
2220 FOR i=1 TO 6
2230 PEN #1,2
2240 READ x,y
2250 WINDOW #1,x,x+1,y,y+1
2260 PRINT #1,m$;
2270 PRINT #1,m$;
2280 s((x-2)/3,(y-8)/3)-1
2290 PEN #1,3
2300 READ x,y
2310 WINDOW #1,x,x+1,y,y+1
2320 PRINT #1,m$;
2330 PRINT #1,m$;
2340 s((x-2)/3,(y-8)/3)-2
2350 NEXT
2360 PEN 1
2370 LOCATE 30,11
2380 PRINT"score : "
2390 PEN 2
2400 LOCATE 30,14
2410 PRINT"player 0"
2420 LOCATE 10,2
2430 PRINT"CAPTURE"
2440 PEN 3
2450 LOCATE 30,17
2460 PRINT"computer 0"
2470 LOCATE 9,4
2480 PRINT"by Don O'Connor"
2490 PEN 1:GRAPHICS PEN 1
2500 TAB;
2510 MOVE 72,270
2520 PRINT"1 2 3 4 5 6 7 8";
2530 TAGOFF
2540 RETURN
2550 DATA 5,14,5,17,8,14,8,17,14,14,17,14,14,
17,17,17,23,17,23,14,26,17,26,14
2560 ,
2570 , instructions
2580 ,
2590 INK 0,1
2600 INK 1,24
2610 INK 2,2
2620 INK 3,6
2630 MODE 1
2640 PEN 1:GRAPHICS PEN 1
2650 BORDER 1
2660 LOCATE 1,13
2670 PRINT"Do you want any instructions (Y/N)
?"
2680 as=UPPER$(INKEY$)
2690 IF as="N" THEN 2940
2700 IF as<>"Y" THEN 2680
2710 CLS
2720 PEN 3
2730 LOCATE 14,1
2740 PRINT"CAPTURE"
2750 LOCATE 14,2
2760 PRINT"=====
"
2770 PEN 1
2780 PRINT
2790 PRINT
2800 PRINT" You have blue men, the computer
has red men. The idea of the game is to
capture the computer's men. You do this by
moving one of your men on the bottom row, one
on the top row, and the comp- uter's man let
mean the two."
2810 PRINT
2820 PRINT" You may move any of your men tha
t is on the top row, or a man on either of
the other rows, as long as there are no men
on top of it."
2830 PRINT
2840 PRINT" The first to capture 3 men is th
e winner."
2850 PRINT
2860 LOCATE 16,21
2870 PEN 3
2880 PRINT"GOOD LUCK"
2890 LOCATE 9,25
2900 PEN 1
2910 PRINT"Press ENTER to continue."
2920 as=UPPER$(INKEY$)
2930 IF as="" THEN 2920
2940 INK 0,0
2950 RETURN

```

BBBBBOOKSSS

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