

The Aussie Mag  
for Amstrad owners

# THE AMSTRAD USER

Issue No. 28 \$3.75 May 1987

## MASTERFILE 8000

**DATA FILING AND RETRIEVAL FOR HOME AND BUSINESS  
FOR AMSTRAD PCW COMPUTERS**

COUNTRY : Great Britain

SG No	Year	Description	Cnd	Purchase Date	Purchase Amount	Current Value
1	1986	1d intense black	FM	May77	£10.00	£20.00
197	1987-89	2d vermilion	FM	Oct86	£4.00	£4.00
213	1987-89	2d green	UM	Jan87	£1.00	£1.00
198	1987-89	1'd purple and green	UM	Oct85	£3.00	£4.00
200	1987-89	2d green and red	UM	Oct85	£4.50	£4.00

**Megaglomerate Ltd**

Sales Contact : Martin McManic  
Telephone : 0945 654321  
Reference : MGL  
Date of last order : 14 Aug 86  
Value to date : £31,455.00

Be sure to allow at least 10 working days delivery time when ordering close to Christmas for Martin for urgent attention.

File: MGL00111 Records: 00001 Set

**Customer Details and Invoices**

British United Freight  
452 Western Avenue  
Gloucester  
GL5 5JN

Tel: 0452 81  
Contact: Mike  
Ref: BUF

Invoice	Tax point	Amount	Date paid	Co
		£225.00	02 Oct 87	
		£30.00	02 Oct 87	
12044	29 Aug 87	£305.00		
12395	29 Aug 87	£132.00		
12450	01 Oct 87	£1,004.50		
12453	21 Oct 87	£255.65		
12532	03 Nov 87	£200.00		
12598	10 Nov 87	£70.20		
12740	11 Nov 87	£883.55	04 Dec 87	Cash with order
12760	11 Nov 87			
12899	04 Dec 87	£3,253.90		

Totals:

Date of Invoice: File: INVOICES Records: 00017 Selected: 00009 Row:

03: Display Options

```

Store using ..... FILE
Alter data ..... F2
Erase file ..... F3
Bring to sev ..... F4
First page ..... ENTER
Next page .....
Next key = or
Go to record number .....
Print single amount .....
Print record .....
Erase new record .....
Show re-sequenced .....
Rotate format .....
Exit to main menu .....
    
```

## Campbell Systems

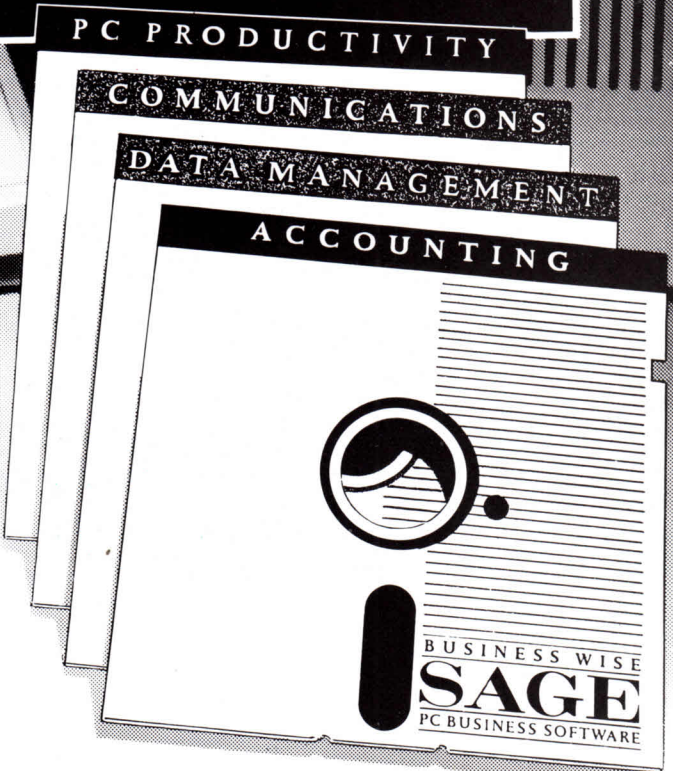
- Review of the PC1512 word processor **TASWORD PC**, Educational Software and Games
- Exclusive Tape Speed Checker program and CPC version of "Battleships"
- Label Printer for PCWs + Mail Order Shopping

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68 Alfred St., Milson's Point 2061



# MASTERFILE 8000

FOR ALL AMSTRAD PCW COMPUTERS

MASTERFILE 8000, the subject of so many enquiries, is now available through The Amstrad User from Campbell Systems in the UK.

MASTERFILE 8000 is a totally new database product. While drawing on the best features of the CPC versions, it has been designed specifically for the PCW range. The resulting combination of control and power is a delight to use.

Other products offer a choice between fast but limited capacity RAM files, and large capacity but cumbersome fixed-length, direct access disc files. MASTERFILE 8000 and the PCW RAM disc combine to offer high capacity with fast access to variable-length data. File capacity is limited only by the size of your RAM disc.

A MASTERFILE hallmark is the provision of multiple, user-designed display formats. This flexibility remains, but now it's even easier. With MASTERFILE 8000 you design your formats "live"; no more questionnaires, just move your format effects around the screen using the cursor keys!

Record updating is even easier than before - just steer your cursor to any field on the screen and then insert/erase/alter as required.

Special options are provided for handling dates and surnames, and column totals can be generated.

All screen work is done graphically - and hence we offer unique panel, box, and ruled line options. Choose the line spacing at pixel resolution - you will be amazed how much clearer 9-pixel lines are than the usual 8-pixels. (Study the picture.) And all this faster than CP/M normally lets you paint the screen! PCW printer functions, under menu control, are provided.

Any file can make RELATIONAL references to up to EIGHT read-only keyed files, the linkage being effected purely by the use of matching file and data names.

You can import/merge ASCII files (e.g. from MASTERFILE III), or export any data (e.g. to a word processor), and merge files. For keyed files this is a true merge, not just an append operation. By virtue of export and re-import you can make a copy of a file in another key sequence. New data fields can be added at any time.

File searches combine flexibility with speed. (MASTERFILE 8000 usually waits for you, not the other way around.) You can even assign subsets of a file into one or more of seven pigeon-holes for subsequent reference or further manipulation.

**Megaglomerate Ltd**

Sales Contact : Martin McManic  
Telephone : 0245 654321  
Reference : MGL  
Date of last order : 14 Aug 86  
Value to date : £31,455.00

Mega House  
143-145 London Road  
Chelmsford  
Essex CM12 5EG

Ref	Maker	Model	Specification	Price ex VAT
			100cps AM10A 00col	£310
			100cps AM10A 132col	£410
			100cps 132col	£195
			100cps 200col	£435
			100cps 200col 00col	£575
			100cps 200col 00col	£395
			100cps 200col 132col	£275
			100cps 200col 132col	£235
			100cps 200col 132col	£225
			100cps 200col 132col	£370
			100cps 200col 132col	£240
			100cps 200col 132col	£410
			100cps 200col 132col	£230
			15cps daisywheel	£260
			30cps daisywheel	£350
			35cps daisywheel	£1,795
			200cps 200col 132col	£2,700
			200cps 200col 132col	£1,300
			200cps 200col 132col	£2,695
			8 page min 44	
			8 page min 44 graphics	
			8 page min 44 graphics	
			8 page min 44 graphics	
			140cps 200col 00col	

Customer Details and Invoices

British United Freight  
493 Western Avenue  
Gloucester  
GL9 5JN

Tel: 0452 G  
Contact: Mike M  
Ref: BUF

Invoice	Tax point	Amount	Date paid	Co
12044	20 Aug 87	£235.00	02 Oct 87	
12399	29 Aug 87	£98.00	02 Oct 87	
12450	01 Oct 87	£305.00		re
12453	21 Oct 87	£133.00		
12533	03 Nov 87	£1,004.50		
12598	10 Nov 87	£355.65		
12703	11 Nov 87	£200.00		
12782	11 Nov 87	£39.20		
12839	04 Dec 87	£883.55	04 Dec 87	Cash with order
Totals:		£3,253.90		

Date of invoice

Drive:A File:INVOICES Records:00017 Selected:00009 Key: Format:1

MASTERFILE 8000 is totally menu-driven, fully machine-coded, and comes with example files and a detailed manual. We claim (modestly) that you will not find another filing system with such power, flexibility, and friendliness.

MASTERFILE 8000 costs \$119.00 including postage and packing, and if you request air-mail within Australia, we'll do that at no extra charge too! (If you live outside Australia please add \$4.00 for air-mail cost.)

Bankcard, Mastercard or Visa orders are welcome, written or telephoned, quoting the card expiry date.

Send your order now to:  
**THE AMSTRAD USER**  
Suite 1/245 Springvale Road,  
Glen Waverley,  
Victoria 3150  
Tel: (03) 233 9661

Keyed files are maintained automatically in key sequence, with never any need to sort. You can have unkeyed files too, where records can be inserted at any point in the file.



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# Issue No. 28

## May 1987

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For Tape subscribers, the programs can be found at the following approximate positions:  
Side 1: SPEEDCHK - 11 , RESRAM1 - 36, RESRAM2 - 98, RESRAM3 - 57, BATSHIPS - 70

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.

The Amstrad User is normally published on the first working day of each month. Reprinting of articles published in The Amstrad User is strictly forbidden without written permission. Copyright 1987 by Strategy Publications. The single copy price of \$3.75 is the recommended retail price only. The subscription rate (for Australia) is

\$37.50 for 12 issues of the magazine only, or \$80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu please add \$21 airmail. Other overseas prices available upon application. Please note that whilst every effort is made to ensure the accuracy of all features and listings herein, we cannot accept any liability whatsoever for any mistakes or misprints. Contributions are welcome from readers or other interested parties. In most

circumstances the following payments will apply to published material: Letters \$5.00, Cartoon \$5.00 and a rate of \$10.00 per page for programs, articles etc. Contributions will not be returned unless specifically requested coupled with a suitable stamped and return addressed padded bag (for tapes or discs).

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# THE AMSTRAD USER

G'day,

There can be no doubt that the PC1512 is creating a few waves in the UK.

First there was the rumour that the IBM compatible had an overheating problem which has since been proven to be unfounded. Now Amstrad has issued a libel writ against the BBC following the publication of an article which alleges that the PC1512 is unsafe!

The article published on 25th March in Ariel, a publication circulated to BBC employees worldwide, reports that British Aerospace and "at least one university" have banned the PC1512 on safety grounds, despite the fact that all eight models have passed the necessary British electrical safety standard and have been granted certificates by the British Electrotechnical Approvals Board.

Amstrad's corporate lawyer says that the BBC have been unable to substantiate the allegations. This is not surprising as he apparently has letters from British Aerospace and a university acknowledging the PC1512 meets recognised safety standards. So too in Australia, where our version is constructed to comply with the safety and double insulation requirements of the relevant Australian Safety Standards.

Obviously the success of the PC1512 is worrying a few people, but if that causes enough large waves, it should wash off any mud thrown at it.

While on the subject, the PC is probably too new to expect any feed back from users. That doesn't mean that the machine should be ignored. Anyone who feels confident enough to put together articles for this magazine are most welcome to contact me with an outline of their ideas.

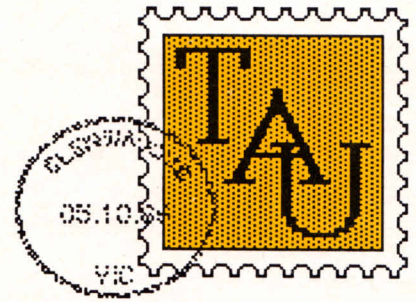
Back to this month's magazine, tape drive owners will be pleased to see an article and program to help them through the frustrations of read errors. For the hackers there is an article on reserved RAM, and to keep all CPC owners out of mischief, an Amstrad version of Battleships. PC owners can rejoice with the fact that Tasword PC is now available for their machine, and PCW owners can produce their own labels.

See you next month,

Ed



# Letters



With reference to Mr. Beltrami's letter in Issue 26 asking about screen dumps from the Trojan Products LP-1 Light Pen, I have a somewhat crude solution which allows me to output my drawings to my Epson-compatible SP-1000A.

I use the Basic Screen Dump program printed in Issue 9 to create an RSX. The modified light pen program is then CHAINED, thus

```
120 READ check:IF check=cs
THEN CALL s: CHAIN
"lightpen.bas" ELSE PRINT
"Error in Data statement"
```

The modifications to the light pen program primarily consist of altering line 10810 to read

```
10810 TX=13:ty=10:WA=0:NU=5:
TS=2: GOSUB 30000: IF NU<>5
THEN GOSUB 19960: POKE &A133,
NU-1: |SCRDMP: GOTO 10800 ELSE
GOTO 10010
```

Of course this won't give you any proportional effects, but it does the job of getting the image on paper.

D.C. MacKinnon, Unanderra, NSW

*We received a number of solutions all pretty well the same as the above, so thanks to those people who took the time to write in but didn't get their's published.*

*Here is a different answer . . .*

I hardly call myself an advanced user, being only 14, but in response to Mr. Beltrami's letter I have a simple solution to the problem which I too came across.

The following program should be placed in front of your screen dump program (for people with a DMP-2000 the "Graphics Screen Dump" at the back of the manual will suffice). Before you commence the dump you need a copy of the screen designer picture saved onto a different cassette.

Type in the program below followed

by the screen dump program in the manual. Save it elsewhere, then RUN and put in the cassette with the saved picture. Press play on the tape and and switch on your printer. Once the screen has been loaded the printer will automatically dump the picture.

If you are using the screen dump in the DMP-2000 manual you can adjust shades on the printer output by changing the DATA statements in lines 10100 and 10110 according to the mode.

```
10 BORDER 0:INK 0,0
20 A$=""
30 A$=LEFT$(A$,8)
40 IF A$="" AND DP=1 THEN 20
50 IF SL<>8 THEN 130
60 IF DP THEN 70
70 IF DP THEN OPENOUT A$+".DAT"
ELSE OPENOUT "!" +A$
80 WRITE #9,A$,MO
90 FOR T1=0 TO 15:WRITE #9,
A(T1):NEXT T1
100 WRITE #9,PA:CLOSEOUT
110 MODE MO:IF DP THEN SAVE
A$=".SRN",B,&C000,&4000 ELSE
SAVE "!" +A$,B,&C000,&4000
130 IF DP THEN OPENIN A$=".DAT"
ELSE OPENIN "!" +A$
140 INPUT #9,A$,A
150 T1=0
160 INPUT #9,PA
170 PAPER PA:CLOSEIN
180 MO=A:MODE MO:IF DP THEN
LOAD A$+".SRN",&C000 ELSE LOAD
"!" +A$
190 CLOSEIN
200 X2=-9:Y2=-9:A$=INKEY$:IF
A$="" THEN GOSUB 220:GOTO 200
ELSE IF A$<>" " AND ASC(A$)<>10
THEN A=500
210 IF ASC(A$)=10 THEN 200
220 GOTO 10000
230 END
```

10000 REM Place your screen dump program here

Robert Jadrijevic, Northbridge, NSW

*. . . but we didn't get the time to check it.*

*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.*



I am operating a CPC6128 and I am having trouble with one of the command files given on the system disk. The problem is with using SET.COM to protect individual files. Once I have obediently followed the instructions given in the handbook, the system won't let me use the file I've protected, coming up with a BDOS error, something to do with passwords.

A friend and I have been struggling to work this out for some time and would dearly appreciate some help in this matter. Also, I don't fully understand the reason for protecting a directory (using SET.COM) as when you have protected it, the system still happily gives you a DIR of the disc.

Can someone help please?

Andrew Kernebone, Mildura, Vic

I have purchased a PCW8512 with dual disc drive to be used in my business. I chose the SAGESOFT accounting package which included a learning tape and a demonstration disc. Both were very helpful indeed for a relative beginner to computer work.

After a short while I mastered allocating accounts and posting routines. And then I struck trouble!

Accidentally, instead of pushing the return key, I pushed the f7-f8 or f5-f6 keys which are right next to the return key, with disastrous results. The computer locked completely and no matter what I did it did not want to exit! The only way was to switch off and start again. This, of course, had also disastrous results to my customer accounts which had already been entered.

Before starting all over again, I fabricated a little gadget from clear perspex to slide over the right hand side of the keyboard. This part is not being used with accounting. When copying or using LocoScript, I slide the cover out of the way. I've never had any trouble since. Has any other user similar troubles? I will gladly send anyone interested a small drawing of the gadget.

Also, I can't find any instructions on how to erase Customers if they are no longer needed. Can anyone help? Finally, I cannot find any information or report on the PCW 8512 in your magazine, in particular games which are suitable for this model.

Harry Hartmann, Sunshine, Vic

*Unless an application has been designed to use specific function keys within the program you will find with both the 8256 and the 8512 that*

*pressing the f5-f6 key will lock the keyboard. To unlock it merely press the f3-f4 key.*

*In the Sagesoft package customers can only be deleted if they have zero balances. This is achieved by calling up the customer and in the name position typing UNUSE CUSTOMER NAME. This flags the record for deletion and it will disappear the next time you run RECONFIG.*

*The PCW 8256 was reviewed in the December 1985 issue of The Amstrad User. There was little point in reviewing the 8512 because it was essentially the same, just a bigger capacity. In terms of information, in most cases you can read 8512 as 8256 and vice-versa in the twenty or so pages allocated to the PCWs each month.*

*Games? We thought you used your machine for business? Watch next month's issue!*

I have 'discovered' a number of special memory locations in my 6128 which correspond to certain functions such as Shift Lock, Caps Lock and Key Repeat which can be incorporated to give programs control over these functions. They are:

46641 Shift lock (0-63 Off, 64-255 On)  
46642 Caps lock (0-127 Off, 128-255 On)  
46643 2nd Speed Key value  
46644 1st Speed Key value  
44041 Width value  
44432 Err value  
44575 Trace (0 Troff, 1-255 Tron)  
46900 Symbol After

Note: Poke will set the values and Peek will check them.

P.S. I have more if you want them.

Chris Wootton, Mornington, Tas

*Yes please.*

In answer to Anthony Trost's letter (January 1987), the easiest way to 'unformat' a disc is to bulk-erase it in a strong magnetic field, in other words to deliberately do what we are warned against on the disc inserts. It will cause no physical damage to the medium, but the information on both sides of the disc will be lost.

Ideally, the magnetic field should be alternating, but permanent magnets would do. Just pass the magnet slowly over the disc, or pass the disc through an electro-magnet and remove slowly before switching off.

Specially designed bulk-erasers for magnetic tapes and discs are available, but any school Physics lab should have suitable magnets. Another option is to retrieve the permanent magnet from a burnt out speaker. The magnet field must be quite strong to have any effect.

Having done it inadvertently, I know that it is possible to scramble the Disc Parameter Block to prevent the DOS recognising any disc format, but I would not advise doing it deliberately.

Petr Lukes, Toowoomba, QLD 4350

May I contribute yet another way of drawing bingo numbers, which I think follows the actual practice of drawing the numbers more closely than those published in the "Mailbag" recently. It is at least ten times faster than Arthur Pounsett's Method 1 (TAU March 1987) and twice as fast as his Method 2.

If you think about the process, once a ball is drawn it is no longer in the container from which the balls are being drawn. My approach is therefore to place the 100 numbers in an array at the beginning of the process (like the balls in the container). As a number is drawn it is replaced with zero (ie. it is no longer there). It is only necessary then to check that the number drawn is non-zero to know that it has not been drawn before.

```
10 CLS;DIM a(100), b(100)
20 FOR k=1 TO 100
30 a(k)=k
40 NEXT k
50 FOR j=1 TO 100
60 bingonumber=INT(RND*100)+1
70 IF a(bingonumber)=0 THEN 60
80 PRINT bingonumber,
90 b(j)=bingonumber
100 a(bingonumber)=0
110 NEXT j
120 END
```

A 'randomise time' could be included in any of the programs to improve the random nature of the drawings.

I recently realised why David Rich (TAU June 1986) had trouble with my synthesiser program. I used 'cursor' as a variable name which works fine on a CPC464 as 'cursor' is not a BASIC keyword on the early machines, even though it is on the 664 and 6128. The problem will vanish if another variable name is substituted, or David's ingenious 'logical' solution is adopted.

The reason for raising it at this late stage is to stress a tip which would have shown that 'cursor' was not a suitable



variable name on a 664 or 6128 the first time the line was listed - **Always type programs in lower case. When listed, all keywords will be converted to upper case.**

It follows that keywords which aren't converted, and variable names that are, need attention - because of mistyping, or the use of reserved keywords as variable names respectively. It is therefore good practice to list the program periodically as you are typing in and check. At the same time 'save' just in case of a power failure or other disaster.

Peter Campbell, North Hobart, Tas

back copies and current Newsletters to, so there could be a central Bank of Information for other clubs to have access also.

My idea would be for Clubs to post back issues to me which could then be sent to other clubs upon request. A stamped self addressed manila envelope would be required with these requests. In this way all clubs would receive a newsletter from another club/area, at minimal cost to the club.

Any other suggestions regarding this scheme would be most welcome. Please write to 17 Ewan Street, Southport, QLD 4215.

Mark Abbott, Southport, QLD

## TEXTDEM1 and 2 (April 1987, Issue 27)

The 464/6128 gremlin struck again at the two listing on Page 57/57 last month. As the number of queries was very small, most 464 readers would have worked out that the ",2" in line 1010 of the first program and lines 1020 and 2030 in the second program should be removed.

Save the revised version and see it spring into life!  
Our apologies.

## ADVERTISING DEADLINES

Issue	Booking by	Copy by
JUL '87	15/05/87	29/05/87
AUG '87	12/06/87	30/06/87
SEP '87	10/07/87	24/07/87
OCT '87	07/08/87	21/08/87

Having just formed the Gold Coast Amstrad Users Group and being surprised at the amount of work this has generated for me, trying to write our first newsletter amongst other things, I was given a newsletter from another club to see if I could find anything interesting to pass on to our club members. I then got to thinking about having a central posting address for clubs all over Australia to send their

*We have trouble persuading user groups to send us a copy of their newsletters each month, but perhaps you will have more success.*

*Frankly, we see too many admin. and distribution problems to make the service a workable proposition. Unless a club has already seen a copy of another newsletter, how are they going to know if it's worth sending for?*

*However, the ingenuity of user groups may devise a modified scheme for the benefit of all.*

# AMSTRAD

# Giltronic

# AMSTRAD

## AUSTRALIA

### DK'tronics Products on SPECIAL Ring us for LOW PRICES !!

#### New GILTRONIC Public Domain Library

Over 600 discs available - CP/M and MS.DOS programs.  
\$13 per disc on 5.25" discs. Add \$6 for 3" discs.  
Postage \$5 extra.  
GILTRONICS is a PC-SIG registered dealer.

#### ALL NEW DK'tronics TV Tuner

As advertised in the "English User". Adapted for Australian conditions. Suitable for all CPC colour monitors.  
Ready to use - direct from the importer.  
(See page 49 of this issue) **\$279 incl. freight**

#### MAIL ORDER

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Phone: (03) 580 9839  
(24 Hrs Ansaphone)

#### RETAIL

528a Nepean H'way, Bonbeach, Vic 3196  
Phone: (03) 773 1244  
Closed Mon, Tue  
Wed - Fri 9.00-6.00  
Sat 9.00-2.30

#### Disc Drives

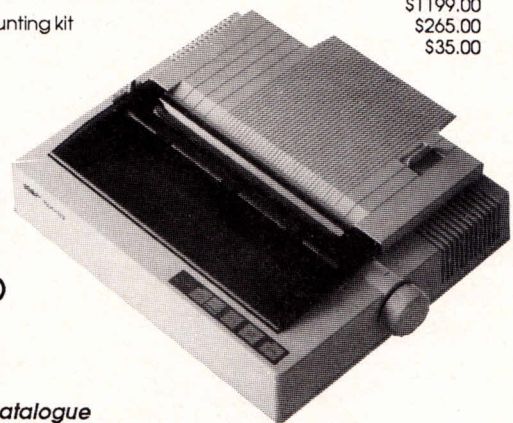
5.25"	40 track Double sided 128/664	\$399.00
5.25"	80 track Double sided 128/664 (Double sided mode can only be accessed under CP/M+)	\$499.00

#### PC1512 Upgrades

Increase your RAM to 640k. Chips and instructions	\$99.00
10 mbs Hard Disc Drive and controller	\$580.00
20mbs Hard Disc Drive and controller	\$880.00
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# NATIONWIDE USER GROUPS

The **Gold Coast Amstrad User Group** enters the list this month which makes Queensland currently the state with the most groups. You will also find amendments to the meeting places of both the **Canberra Amstrad User Group** and the **Northern Computing Society (SA)**. The **Latrobe Valley Amstrad User Group** have also advised of their permanent meeting place.

## WESTERN AUSTRALIA

### ALBANY AMSTRAD USER GROUP

President: Gerry Barr (098 41 6884)  
 Secretary: Steven Hands (098 41 5183)  
 Treasurer: Gavern Grose  
 Venue: Priess Street Centre, 14 Priess Street, Albany on the first and third Mondays of each month at 7.00 pm.

### AMSWEST (Perth)

President: Tony Clitheroe (09 275 1257)  
 Vice Pres: Steve Cushnahan (09 445 2062)  
 Secretary: Mrs. P.T. Ardron (09 361 8975)  
 Treasurer: John Firth  
 Venue: Shenton Park on the first and third Tuesdays of each month starting at 7.30p.m.

### AMSWEST (Blackwood) USERS GROUP

This small group is affiliated to AMSWEST (Perth). For further details contact George Muscat on (097) 61 1488.

### ROCKINGHAM-KWINANA AMSTRAD USER GROUP

President: Bob Harwood  
 Vice-Pres: Keith Gaisford  
 Treasurer: Rob Macilroy  
 Secretary: Keith Saw (095 27 6519)  
 Venue: Cooloongup Primary School, Westerly Way, Cooloongup (Rockingham), every second Wednesday at 7.30 pm.  
 Mail: 29 Milgrove Avenue, Cooloongup, WA 6168

### SOUTHSIDE AMSTRAD USER CLUB

President: John Marshall (09 390 7335)  
 Secretary: Pauline Waghorn (09 459 8702)  
 Treasurer: Eric Tytherleigh (09 390 8865)  
 Librarian: Tom Bird (09 457 5614)  
 Junior Rep: Gary Mottaboy (09 457 8086)  
 Venue: Gosnells Scout Hall on the corner of Verna and Corfield Streets, Gosnells every 2nd and 4th Wednesday of each month from 7.00 pm.  
 Mail: The Secretary, Southside Amstrad Users Club, PO Box 324, Gosnells, WA 6110.

### SOUTHSIDE AMSTRAD USERS CLUB - North

**West Branch (Tom Price)**  
 President: Peter Hoffman (091 89 1608)  
 Secretary: Colin Smith  
 Treasurer: Mark Hedley-Smith  
 Venue: Primary School every 2nd Wednesday night. Contact the above for more details.

## SOUTH AUSTRALIA

### AMSWEST AMSTRAD USERS GROUP

President: Geoff Martin  
 Treasurer: Bob Bleachmore (085 56 2048)  
 Secretary: Ross Kennewell (08 386 2737)  
 Venue: Christies Beach High School, Western Section, Beach Road, Christies Downs (adjacent to Staff Car Park off Mander Road) every 2nd Wednesday of each month at 7.30.  
 Mail: PO Box 612, Noarlunga Centre, SA 5168

### AMSTRAD COMPUTER CLUB INC. (SA)

President: Chris Sowden (08 295 5923)  
 Vice Pres: Frank Matzka (08 382 2101)  
 Treasurer: Les Jamieson (08 356 9612)  
 Venue: The Church Hall, 15 Clayton Avenue, Plympton between 6.30 p.m. and 9.00 p.m. each Tuesday.  
 Mail: PO Box 210, Parkholme, SA 5043.

### NORTHERN COMPUTING SOCIETY INC.

President: Grant Wilson (08 250 2760)  
 Treasurer: Percy Cook (08 248 1065)  
 Secretary: Judith Thamm (085 20 2377)  
 Venue: Salisbury North Primary School, cnr Bagster and Woodyates Rds every Wednesday from 7.00 pm.  
 Mail: PO Box 269, Two Wells, SA 5501

### PORT LINCOLN AMSTRAD USERS GROUP

Contact: Rita Bascombe (086 82 1633)  
 Venue: Third Tuesday of each month from 8.00 pm. Ring above number for address.

### PORT PIRIE AMSTRAD USER GROUP

President: Doug Gowers (086 36 5206)  
 Treasurer: Dave Green (086 32 6834)  
 Secretary: Tim Eckert  
 Youth Rep: Mark Fusco (086 36 2452)  
 Venue: Education Centre, 370 The Terrace, Port Pirie every 2nd and 4th Monday from 7.30 pm.  
 Mail: The Port Pirie Amstrad User Group, c/o D.T. Green, 207 Senate Rd., Port Pirie, SA 5540.

### SOUTH EAST AMSTRAD USER GROUP (SA)

Contact: Neil Taylor (087 25 8068)  
 Venue: Mount Gambier from 1.00p.m. to 4.00p.m. on the 3rd Sunday of each month. Ring above number for address.

## NORTHERN TERRITORY

### NORTHERN TERRITORY AMSTRAD USER GROUP

President: Kevin Bateman (089 32 1463)  
 Treasurer: Greg Heron (089 27 8814)  
 Secretary: Colin Gorton (089 84 4655)  
 Venue: Casuarina Library, Darwin at 8.00 p.m. every 2nd and 4th Monday.

## VICTORIA

### CENTRAL AMSTRAD USER SOCIETY

President: Fred Gillen (03 580 9839)  
 Vice-Pres: Dennis Whelan (03 367 6614)  
 Treasurer: Doug Jones (03 560 8663)  
 Secretary: John Holmes (03 434 1607)  
 Venue: Hall at the corner of Church and Somerset Streets, Richmond on the first Sunday of each month commencing at 1.00 p.m. and generally twelve days later on a Friday evening starting at 7.00 p.m.

### EASTERN AMSTRAD USER GROUP Inc.

President: Tony Blakemore (03 890 3116)  
 Secretary: Barry Fredrickson (03 846 1340)

Treasurer: Ron Dunn (03 277 7868)  
 Venue: St. Ninian's Church Hall, cnr. McCracken Avenue and Orchard Grove, South Blackburn on the 1st Sunday of each month from 1.00pm.  
 Mail: PO Box 279, Heidelberg, Vic 3084.

### GEELONG AMSTRAD USER CLUB

President: Reg Morse (052 43 3239)  
 Vice-Pres: Arthur Pounsett (052 78 2160)  
 Secretary: Ron Butterfield (052 50 2251)  
 Venue: South Barwon Community Services Centre, 33 Mount Pleasant Road, Belmont on the first Wednesday of each month, starting at 7.30p.m.

### GOULBURN VALLEY AMSTRAD USERS CLUB

President: Shad Aitken (058 52 1001)  
 Sec/Treas: Bill Brown (058 21 7569) or (058 22 1011)  
 Venue: 98 Nixon Street, Shepparton on the first floor every third Wednesday from 7.30 pm.

### LATROBE VALLEY AMSTRAD USER GROUP

President: Stan Hughes  
 Secretary: M.G. Donaldson (051 343 5711)  
 Venue: Morwell Neighbourhood House, 17 Symons Crs., Morwell on the first Thursday of each month at 7.30pm.  
 Mail: PO Box 947, Morewell, Vic 3840

### MACEDON RANGES AMSTRAD USER GROUP

Contacts: Wayne Urmston (03 744 2719)  
 Ken McMaster (054 22 2620)  
 Venue: Admin. Building of Flexdrive Industries on the 2nd Wednesday of each month from 7.30 p.m.

### MARYBOROUGH AMSTRAD USER CLUB

President: Chad Banfield (054 68 1351)  
 Treasurer: Brendan Severino (054 61 3191)  
 Secretary: Paul Clark (054 61 2135)  
 Venue: Maryborough CCC each week on Friday from 12.10 p.m.

### MOUNTAIN DISTRICT AMSTRAD USER GROUP

President: Ian Poli (03 758 5282)  
 Treasurer: Lindsay Bell (03 758 9921)  
 Secretary: Wayne Darvell (03 221 2182)  
 Venue: Country Womens Association Hall, 4 Sundew Avenue, Boronia from 7.00 pm. every second Monday of the month.

### NORTHERN AMSTRAD USER GROUP

Contact: Brian Ellis (03 469 4425)  
 Venue: Preston every second Sunday. Contact above for more details.

### SOUTHERN AMSTRAD USER GROUP INC.

President: Peter Bradley (03 786 3953)  
 Secretary: Bob Patterson  
 Treasurer: Vickie Finlayson (059 98 8328)  
 Venue: Senior Campus at John Paul College, Frankston every third Tuesday from 7.30 to 10.30 pm.  
 Mail: The Secretary, PO Box 100, Seaford, Vic 3198.

### WENDOUREE AMSTRAD USER GROUP

Contact: Brad Maisey (053 44 8356)  
 Venue: Cnr. Charles and Appleby Drive, Cardigan Village on the first Sunday of each month at 3.00 pm.

### WESTERN COMPUTER CLUB

Venue: Fairbairn Kindergarten, Fairbairn Road, Sunshine on alternate Tuesdays from 6.30 pm.  
 Mail: PO Box 161, Laverton 3028.

## ACT

### CANBERRA AMSTRAD USER'S GROUP

Convenor: Neale Yardley  
 Secretary: Steven Walker (062 58 2323)  
 Treasurer: Roger McLennan (062 82 3064)  
 Venue: The Oliphant Building, ANU, Canberra on the first Wednesday of each month from 7.30 pm.



Mail: PO Box 1789, Canberra, ACT 2601.

## NEW SOUTH WALES

### AM-USER's (North Ryde)

Contact: Lawrence Walters (02 888 1898)  
Venue: Meeting Room at 2 Leisure Close, North Ryde from 7.30 p.m. on the first Tuesday of each month.

### BLUE MOUNTAINS AMSTRAD USERS

President: Bob Chapman (047 39 1093)  
Vice Pres: Dennis Shanahan (047 39 4568)  
Treasurer: Peter Traish (047 53 6203)  
Secretary: Christine Preston (047 51 4391)  
Venue: Springwood Neighbourhood Centre, Macquarie Road, Springwood on the fourth Wednesday of each month at 8.00 p.m.

### CENTRAL COAST AMSTRAD USERS CLUB

President: Lloyd Mitchell (043 88 2950)  
Secretary: Ray Thompson (043 32 9095)  
Venue: The Entrance Aquatic Club, Salt Water Reserve, Long Jetty every second Monday at 7.30 p.m. sharp.

### COFFS HARBOUR AMSTRAD COMPUTER CLUB

President: Bruce Jones (066 52 8334)  
Secretary: Don Donovan (066 52 6909)  
Treasurer: Brian Claydon (066 49 4510)  
Venue: Orara High School, Joyce Street from 7.00 pm. on the first Friday of each month.

### FAIRFIELD MICRO USER GROUP

Contact: Arthur Pittard (02 72 2881)  
Venue: Room 65, Canley Vale High School, Prospect Road, Canley Vale every third Wednesday from 7.00 pm.

### ILLAWARRA AMSTRAD USERS CLUB

President: Paul Simpson (042 27 1574)  
Secretary: Ken Waegle (042 56 6105)  
Publicity Off: Steve Parsons (042 96 3658)  
Venue: AGA Gremania Club, Berkeley at 2.00 pm. every third Saturday.

### LISMORE DISTRICT AMSTRAD COMPUTER CLUB

President: Max Muller (066 337 113)  
Vice Pres: Nick Van Kempen (066 874 579)  
Sec/Treas: Chris Rosolen (066 216 810)  
Venue: CYSS Hall, 16 King Street, Lismore on the last Tuesday of each month from 6.30 pm.  
Mail: PO Box 88, South Lismore, NSW 2480

### NAMOI AMSTRAD USERS GROUP

Contact: Martin P. Clift, JP (067 92 1333) B/H (067 92 3077) A/H  
Venue: Narrabri Technical College, Barwan Street, Narrabri on the first Saturday of each month at 2.00 p.m.

### NEWCASTLE AMSTRAD USER GROUP

President: John Harwood (049 48 5337)  
Treasurer: Erica Harwood  
Secretary: Chris Hollander (049 67 5864)  
Venue: Kotara Public School, Park Avenue, Kotara on the first Tuesday of each month. Contact the above for meeting times.

### PCW AUSTRALIA GROUP

Contact: Reuben E. Carlsen  
Venue: Permanent venue to be arranged shortly. Meetings planned for the second Tuesday of each month from 7.30 pm.  
Mail: PO Box 1879, North Sydney, NSW 2060.

### PORT MACQUARIE AMSTRAD USERS GROUP

Mail: Craig Tollis, Box 584, Port Macquarie, 2444.

### SYDNEY AMSTRAD COMPUTER CLUB

President: Bob Knowles (02 810 7373)  
Secretary: Reed Walters (02 560 9487)  
Treasurer: Jim Chryst (02 327 7872)  
Venue: Newtown area on the 1st Saturday of every month for a normal club meeting and on the 3rd Saturday for the purposes of programming tutorials only. Both meetings commence at 2.00 p.m. For more details contact either the

Secretary or Treasurer between 6.00 p.m. and 9 p.m.

## QUEENSLAND

### BRISBANE AMSTRAD COMPUTER CLUB

President: Paul Witsen (07 393 4555)  
Secretary: John Roberts (07 283 3349)  
Treasurer: John O'Connor (07 271 3350)  
Librarian: Peter Gollidge (07 376 1651)  
Venue: Main meetings at in Room 15a of Junction Park State School, Waldheim St., Annerley starting at 7.30p.m. Another is held at Wynnum Central State School, Florence Street, Wynnum Central on the first Saturday of each month at 1.00p.m. The co-ordinator is Warren Kennedy (07 351 4232). A third is held at Newmarket State School, Banks St., Newmarket on the second Saturday of each month at 1.30p.m. The co-ordinator is Cherry Shrier (07 351 6179).

### BUNDABERG AMSTRAD USER'S GROUP

President: Ray Babbidge (071 72 1223)  
Secretary: Ron Simkin  
Treasurer: Sheila Cole (071 72 8884)  
Venue: The third Tuesday of the month. For more details contact the above.  
Mail: PO Box 865, Bundaberg, QLD 4670.

### CABOOLTURE AMSTRAD USER GROUP

President: John D'Archambaud (071 95 4860)  
Secretary: Stephen Yench  
Treasurer: Craig Deshon  
Venue: Contact above number for more details.

### CAPRICORN AMSTRAD USERS GROUP

Contact: Graeme Annabell (079 27 4915)  
Venue: Waraburra State School, Graemere on the first Friday of each month at 7.00 pm.

### GOLD COAST AMSTRAD USER GROUP

Contact: Mark Abbott (075 31 2114)  
Venue: Ashmore Health and Medical Centre, Cotlew St. on the first Saturday of each month at 2.00.  
Mail: 17 Ewan Street, Southport, Qld 4215

### HERVEY BAY - MARYBOROUGH AMSTRAD COMPUTER USER GROUP

President: Ian Jardine (071 28 3688)  
Vice-Pres: Gerhard Schulze  
Sec/Treas: Les Patford (071 28 9737)  
Venue: Sports Club, Tavistock Street, Torquay on the first Thursday of each month at 7.00 pm.

### MACKAY AMSTRAD USER GROUP

Contact: Des Mulrealley (551 409)  
Ron Coates (547 222)  
Venue: Meet every second Sunday morning. Contact the above for location and time.

### PENNSULA AMSTRAD CLUB

President: Ivan Dowling (07 269 8795)  
Treasurer: Keith Johnston (07 203 2339)  
Secretary: Tracie Payne (07 267 6645)  
Venue: Kippa-Ring State School Library, Elizabeth Avenue every third Tuesday of the month at 7.30 pm.

### SOUTHSIDE AMSTRAD USER GROUP (QLD)

President: Michael Toussaint (07 200 5414)  
Vice-Pres: Peter Incoll (07 208 2332)  
Secretary: Ken Henry (07 208 8730)  
Treasurer: Wayne Stephens (07 287 2459)  
Librarian: Brian Moore (07 209 1488)  
Venue: Loganlea State High School (in the Communications Room) every third Saturday of the month starting at 2.00 p.m. A Basic programming course is held fortnightly.

### TOOWOOMBA AMSTRAD USERS GROUP

President: Stephen Gale (076 35 5001)  
Vice-Pres: Robert Nisbet (076 35 7025)  
Secretary: Malcolm Woodside (076 32 8867)  
Treasurer: Peter Fraser (076 34 7032)  
Venue: Toowoomba Education Centre, Baker Street, Toowoomba on the 4th Monday of each month.

### TOWNSVILLE AMSTRAD USER GROUP

President: Ian Wallace (077 73 1798)  
Vice Pres: Doug Selmes (077 79 6011 xt 252)  
Treasurer: Allan Maddison (077 79 2607)  
Secretary: S. Crawshaw (077 73 3933)  
Venue: Science Block of the Kirwan High School in Thuringowa Drive on the first and third Tuesdays each month at 7.30pm.

### THE WARWICK AMSTRAD USER GROUP

President: Adrian Christensen  
Secretary: John Wode (076 61 5176)  
Treasurer: Neville Christensen  
Venue: Warwick Education Centre on the first and third Saturday of each month from 3.00 p.m.

### WEIPA AMSTRAD USERS CLUB

President: Andrew Seaborn  
Vice-Pres: Dave Wootton  
Treasurer: Frances Casey  
Secretary: Gary Chippendale (070 69 7448)  
Venue: Noola Court in Weipa. Contact above for more details.  
Mail: 15 Noola Court, Weipa, QLD 4874.

### WESTERN SUBURBS AMSTRAD USERS GROUP

President: Peter Wighton (07 288 4571)  
Secretary: Jimmy James (07 376 1137)  
Contact: Keith Jarrot (07 376 3385)  
Venue: The Jamboree Heights State Primary School, 35 Beanland Street, Jamboree Heights at 1.30 p.m. on the first Saturday in each month.  
Mail: Jimmy James, 36 Penong Street, Westlake, Brisbane 4074.

## TASMANIA

### SOUTHERN TASMANIAN AMSTRAD USER CLUB

President: Frank Self (002 49 5499)  
Secretary: Peter Campbell  
Treasurer: Cindy Campbell  
Publicity Off: Danny Brittain (002 47 7070)  
Venue: Elizabeth Matriculation College on the first Wednesday of each month from 7.30 pm.

### NORTHERN TASMANIA AMSTRAD COMPUTER CLUB

President: Paul Gerard (003 34 0441)  
Treasurer: Russell Lockett (003 44 8972)  
Secretary: Andrew Blazely (003 93 1687)  
Publicity: Marie Griffiths (003 93 6568)  
Venue: Launceston Community College (opposite Park Street) in Room 11 on the first Saturday of the month at 5.00 p.m.

### N.W. COAST AMSTRAD USER'S CLUB

President: John Wilson (004 31 7162)  
Treasurer: Peter Cocker  
Publicity: Noel Davies (004 31 8490)  
Venue: Burnie Technical College, Mooreville Road, Burnie on the third Saturday of each month at 1.00 p.m.

## NEW ZEALAND

### AMSTRAD CANTERBURY

Contact: Christine Linfoot 459 132  
Ian Orchard 524 064  
Venue: Four Avenues School, cnr. Madras Street and Edgeware Road, Christchurch 1 on the fourth Wednesday of each month.  
Mail: PO Box 23.079 Templeton, Christchurch, NZ.

### WELLINGTON AMSTRAD USER GROUP

Contact: Tony Tebbs 791 072 (evgs)  
Venue: Room 718, Kirk Block, Victoria Univ. on the last Wednesday of each month from 7.30 pm.  
Mail: PO Box 2575, Wellington, New Zealand.

Closing date on amendments to this  
list for Issue 31 (July 1987) is  
27th May 1987



# CHEAT MODE

...perhaps the only way to improve your scores, but don't tell anyone!

## Poke Methods

Here is how to input the majority of Cheat Mode pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, you'll have to type | tape before typing either.

### Method 1

Make sure that you've rewound the game tape to the beginning. Now type in the poke listing. Then type RUN and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working). Press the Play key on the cassette deck, and then any key on the main keyboard - the spacebar will do nicely. The tape should now start to play through in the normal way.

### Method 2

For this method, you have to skip the first bit of the game program.

To do that, start by rewinding the game tape to the beginning. Now type in the listing.

Then type CAT and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

After a little while you'll get the message Found something block 1

It doesn't matter what the something actually is; this will vary from one game to another. If the instructions with the poke just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the Found message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

## LIGHT FORCE

A real treat for owners of FTL's shoot-em-up: two tape pokes and one for the disk. Peter Featherstone has produced a poke for the cassette version that gives infinite lives and invulnerability (lines 100 and 110). It was then converted to work with the disk version. Enter the tape poke using Method 1. The disk poke you just type in, save onto the game disk and run.

### Disk poke

```
2 'The Amstrad User May 87
10 OPENOUT"Y":MEMORY &500
20 MODE 1:LOAD"DISC"
30 FOR t=&641 TO &660
40 READ a$
45 POKE t,VAL("&"a$)
50 NEXT t
60 CALL &5D0
70 DATA 21,B8,1C,CD,83,BC
80 DATA CD,7A,BC,21,DA,79
90 DATA 36,00,21,87,79,36
100 DATA C9,0E,FF,21,31
110 DATA 73,CD,16,BD,00
120 DATA 00,00,00,C9
```

### Tape poke

```
1 'Lightforce 1
2 'The Amstrad User May 87
10 MODE 1
20 f=&BE00
30 READ a$
35 IF a$="999" THEN GOTO 60
40 POKE f,VAL("&"a$)
50 f=f+1:GOTO 30
60 OPENOUT"d"
65 MEMORY &5DB
70,LOAD"!"
80 POKE &642,195
83 POKE &643,0
86 POKE &644,190
90 CALL &5DC
100 DATA af,32,da,79
110 DATA 3e,c9,32,87,79
120 DATA 0e,ff,21,31,73
130 DATA cd,16,bd,999
```

Meanwhile, Phil Howard has been rummaging around to find some lovely little pokes as well. It not only gives you four bullets every time you press the fire button, but provides the Escape key as a pause key (restart with Enter). When you restart with the '+' key you get an extra life. Use Method 1.

```
1 'Lightforce 2
2 'The Amstrad User May 87
```



```

10 DATA 00,3e,ff,32,8a,8a,3a,00,be,3c,32
20 DATA 00,be,fe,03,d8,af,32,00,be,3e,ef
30 DATA 32,8a,8a,c9,21,2b,7b,36,c3,23,36
40 DATA 01,23,36,be,21,30,85,36,cd,23,36
50 DATA 33,23,36,be,c3,31,73,3e,42,cd,1e
60 DATA bb,28,18,3e,42,cd,1e,bb,20,f9,3e
70 DATA 12,cd,1e,bb,20,0a,3e,1c,cd,1e,bb
80 DATA 28,f2,cd,d4,78,3a,89,8a,c9
90 DATA MODE 1:OPENOUT"w":MEMORY &500
100 y=0:FOR x=&BE00 TO &BE55
110 READ a$
112 a=VAL("G"+a$)
120 POKE x,a:y=y+a:NEXT
130 IF y<>&227D THEN PRINT "Data error!"
:END
140 LOAD"Lightforce"
150 POKE &642,&C3
160 POKE &643,&1A
170 POKE &644,&BE
180 CALL &5DC

```

### GREEN BERET

Nicholas Pavis has done some delightful things to the disk version of the Imagine stab-em-up. Just type in the poke and run it. When prompted for a number type in one of these combinations followed by pressing the Enter key. Type them in as shown, with the comma separating the two parts.

Charlie Chaplin-style movement	BD,19
You are invisible	16,F1
Start, abort and restart to move along top of screen	03,DB
Send baddies to bed	1E,66
No character detection	25,3B
Fast game	25,0B
Infinite bazookas if you have them	14,34
No sound	0A,F1

```

1 'Green Beret Disk
2 'The Amstrad User May 87
10 MEMORY &3000
20 LOAD"beret.bin",&3ECE
30 POKE &BC5F,&C3
40 POKE &BC60,&50
50 POKE &BC61,&BF
60 INPUT"Enter the number you want"
;a$,b$
70 POKE &BF50,&21
80 POKE &BF51,VAL("&"+b$)
90 POKE &BF52,VAL("&"+a$)
100 POKE &BF53,&36
110 IF b$="34" THEN t=0 ELSE t=&C9
120 POKE &BF54,t
130 POKE &BF55,&C9

```

```
140 CALL &3ECE
```

### HERBERT'S DUMMY RUN

This poke from Phil Howard for the Mikro-Gen game gives infinite lives. It's entered using Method 1.

```

1 'Herbert's Dummy Run
2 'The Amstrad User May 87
10 DATA 21,08,1d,36
15 DATA 00,c3,03,01
20 MEMORY &1FFF
30 FOR x=&BE03 TO &BE0A
40 READ a$
50 POKE x,VAL("&"+a$)
60 NEXT
70 LOAD""
80 POKE &2030,&BE
90 CALL &2000

```

### IKARI WARRIORS

Nicholas Green has some invaluable advice for Elite's latest bomb-and-shoot-em-up.

The section leading up to the first tank is probably one of the trickiest in the game. Grenade and shoot frequently. Bullets are easily replenished by picking up supplies. Always slow down to kill green soldiers: these carry supplies which you can pick up. When you come to the pillbox, stand below it and slightly off-centre, then grenade it.

When you're in the tank don't waste bombs-just run over most soldiers. If the tank is hit and starts to flash, get out as soon as possible by holding the fire button down and move well away from it. To blow up an enemy tank stand out of its firing range about an inch from the edge of the screen. Fire a grenade as the tank moves across the screen and move up with it. If the tank fires in line with you, quickly move down again.

When a helicopter arrives keep firing grenades and walk forward in line with it. When crossing water keep well away from the blue blobs because they kill even when you aren't touching them. You can shoot them only when they appear or disappear at the edge of the screen.

On the final blue-and-yellow section the small box-like things have no function. But be careful of the helicopters. On the barracks you should pick off the men before advancing through the cleared area. Try to take on bazooka firers from the side as they always fire down then screen, but with a long range.

Stay out of the water as much as possible: you move slower and are therefore more vulnerable. At the end you get a million points and start again from the beginning with seven lives. Keep away from the edges of the screen because enemy soldiers can blunder aimlessly into you, giving you no time to react.



## TRAP DOOR

The solution to this very enjoyable game comes from Kenneth Bamford. It tells you everything you need to do, but you may still find a problem or two in actually carrying out the tasks.

**Can of Worms:** Easy-peesy this one. Simply get the can from the room just left of the start. Then go and open the trap door and fill it with worms. Watch out for Drutt - he doesn't give you much chance to get them!

**Fried Eggs:** Not too hard. Get the pan from the same room as the can and take it to the room just right of the start. Drop it in front of the stairs, go back to the can room and tip up the wicker basket to reveal the bullet. Take this and put it next to the trap door. Open the trap door and let the bird out. If another creature starts to appear, close the door quickly and try again. Once the bird is out, put the bullet on the trap door and wait for the bird to come back. As it passes over the door, open and close it very quickly, stunning the bird. Run to the pan and the bird will lay an egg - catch it. Repeat this four times and then place the pan on the small stove until it flashes, then send it up.

**Eyeball Crush:** It's a good idea to try to set this up beforehand. It's not hard but takes a lot of time to do. First plant the eye-ball seeds in the plant pots in the far room up the stairs. Then push the vat up to the ledge in the room where it's found. Wait until the eyeballs drop off the plants and put them in the vat by dropping them from the ledge above it.

Push the vat just to the right of the room where the vat was and place it under the pipe leading from the bottom of the vat. Let the bouncing creature with boots on out of the trap door. If the vat is in the right place the crush will be bottled; if not, see where the creature bounces and push the vat to that spot.

**Boiled Slimies:** Again it's a good idea to have this one ready-planned because it's the hardest and most time-consuming. Get the cauldron from the can room and push it to the same place as you put the pan for the eggs. Go to the only room downstairs and get the slimies one by one. Drop them into the cauldron by climbing the stairs and dropping them into it from above.

Let out the fire-breathing creature. Go and stand right in front of the cauldron. Wait until the creature is about to breathe fire at you and then move away. While it's spinning around, move back in front of the cauldron and repeat the action about seven times. Go to the weight and lift it to the top, then move up one step. The lift has a pressure-pad; as soon as the creature comes under it will be destroyed. Quickly push the cauldron onto the dumb-waiter and send it up.

**Clearing Up:** You have to be playing Superberk level

to do this. When you get here, everything has to be got rid of. You can crush things under the weight or send them down the trap door. When you've finished send the lift up and a safe comes down. Push it under the weight and hey presto.

**General Tip:** When you open the trap door watch out for the ghost, because it's very irritating. To get rid of it pick up a worm and walk into it.

## ZUB

Having trouble with the teleport system? Well Gerard Fazakerley has the answer.

Planet	Base destinations:		
	Left	Middle	Right
Zub 1	2	3	2
Zub 2	1	3	3
Zub 3	1	2	4
Zub 4	6	5	3
Zub 5	4	6	7
Zub 6	7	4	5
Zub 7	8	9	6
Zub 8	7	9	7
Zub 9	7	10	8
Zub 10	9	9	9

If you're uncertain whether the next base is upper right or left, always travel to the left when trying to get your bearings. Crashing into the barrier at left means you can stay on the platform, whereas you fall off at the right.

If you're further along the left side of the screen, ensure that you're pointing to the right for firing, as the aliens come down from the centre. The reverse obviously applies when you're on the right. It's far easier to get into a safe position to shoot the aliens by waiting for them to come to you. Single touches allows correct positioning on the platform.

Before making the last leap onto the transporter, check your life indicator. If it's considerably above the gun then carry on but if it's only just above it then reduce energy a bit so that you can get extra power pills at the end of the level.

**All "cheats" are received with enthusiasm and should be sent to:**

**CHEAT MODE  
The Amstrad User  
1/245 Springvale Road  
Glen Waverley, Vic 3150**



# TAPE TROUBLES

Some guidance on how to deal with tape errors including a Tape Speed check program

---

## Messages, messages - the erroneous type

Cassette users see those familiar read or write error messages rather too frequently. Message pops up, system crashes. All very infuriating. Here is an analysis of these errors - when they occur and why.

**Read Error a:** The data bit read was too long. This occurs if the cassette is halted during loading or cataloguing. It may even happen if there is a lot of wow. ('Wow' sounds like what it means: the tape motor running at an uneven speed).

**Read Error b:** There has been a CRC (cyclic redundancy check) fail. This is the most common of the errors and can occur if there is dust or a defect on the tape surface.

**Read Error d:** I tried desperately to attain this error message, but failed to do so. It indicates that the block read was too long. The only way to get this error, it seems, is to program it deliberately. Write Error a: The write frequency is set too high. This again can only be programmed intentionally. So you shouldn't ever encounter this and the previous error message.

## We have - but don't want

Read errors can be caused by dirty tape heads or pinch rollers - this could lie with any tape deck. In Amstrad 664 and 6128 machines, the problem could be with improper setting of volume and

tone controls. Owners of the 464 don't have this problem as these levels are preset.

Your recording heads could do with a good clean fairly often - especially if you frequently use low-grade cassettes. The best way is with cotton buds dipped in methylated spirits (or Isopropyl Alcohol). Definitely do not use abrasive detergents or sharp objects. Ensure that the head is dry when you finish.

As well as the head, the pinch roller (usually rubber, to one side of the mechanism) should be given the treatment.

Using a 'cleaning tape', which you can buy from a hi-fi shop, will give the best results. Dirty pinch rollers can be the cause of many a problem: they can make the tape speed vary or, even worse, they can eat or crease your tape.

One final step to improve the performance of your cassette deck is to align the tape head - the azimuth angle. Azimuth, from Latin, means 'degrees of arc above the horizontal'. In the case of cassette players, it means the angle of the head relative to the horizon - the magnetic tape inside the cassette shell.

There are various commercial azimuth aligners on the market and in the first instance you could enquire with your local hi-fi dealer.

## On the outside trying to get in?

The 664 and 6128 machines need an external cassette recorder if tape programs are to be loaded into

memory. Naturally, a new set of problems is likely to come into play.

Positioning of the cassette deck and leads can be crucial for satisfactory loading or saving. The recorder should not be too close to any magnetic field - such as the monitor. Likewise, the leads shouldn't run parallel to mains leads, or close to magnetic fields. The reason is that tiny impulses in the cassette leads can easily be distorted. (And of course tapes or disks should never be placed on top of the monitor.)

Whenever possible, use a tape deck that runs from mains electricity. Battery-operated decks are prone to fluctuating power signals, which causes a degree of wow.

Everyone's favourite now: tone and volume settings. (Memories from my Spectrum programming days). Being the hardest and the most annoying to set correctly, they are the most common cause of data loss. The volume should be set fairly high. However, if it's too loud, distortion results - poor old Arnold will get an earache. The tone should be set between three-quarters and full, giving a high (treble) sound.

If you go carefully through all these procedures and you still have read/write problems, there is either something wrong with your tapedeck or the software you are trying to load is faulty (ie. the tape has been corrupted).

One point I failed to mention concerning external cassette decks:



# CPCs - TAPE TRAUMAS

you may not have remote-control on your deck. This causes problems when loading certain commercial software that insists on stopping the cassette motor while it draws a title screen or something.

There is no simple way of overcoming this problem. The only thing I can suggest is that every time you hear a relay click in your CPC, pause the tape till another click.

There is certain, very old, software that insists on having all the memory it can grab. Machines with a disc drive will reserve about 500 bytes of memory - if not more. The result is that these software packages will not run on your Amstrad. Here is a short program that will reclaim all memory, giving a completely free machine.

```
10 FOR t=&A000 TO &A017
20 READ a$:POKE t,VAL
   ("&" + a$)
```

```
30 NEXT t:CALL &A000
40 DATA 21,08,A0,0E,FC,
   CD,16
50 DATA BD,3E,C9,32,CB,
   BC,11
60 DATA 40,00 21,FF,AB,
   DF,16
70 DATA A0,06,C0
```

## Tape Speed Check program

This utility checks the health of your tape drive - not for azimuth but for defects in the mechanics.

It works by recording a fixed-frequency test tape, then replaying it to measure fluctuations in frequency every 0.1 of a second. These are plotted on a graph as speed variations over  $\pm 5\%$  of the average.

Several things can be deduced from the graph. If there is a general trend downwards with time, it indicates a tight wind-off spool. Occasional sharp peaks would point to 'snatching' of the spool. A regular variation

indicates a fault related to rotation of a part of the mechanism - the frequency of this will give a clue to which part.

At the end of the test you will get a read-out of the maximum and minimum variation. For a good drive these should be within  $\pm 1\%$ . Anything over  $\pm 3\%$  suggests a problem.

The most common of these is the pinchwheel.

The program gives you two more graphs to help in diagnosing this. The first shows a filtered version of the original graph, making it easier to see any regular changes. If you can line up the pinchwheel grid with regular peaks (use Shift and the cursor keys for faster motion) it indicates slippage each time the pinchwheel rotates. This can be taken further by pressing E. to take you onto a frequency spectrum plot of the section around the grid.

```
1 'Speed Checker
2 'j Kenneally
3 'May 87 Amstrad User
10 MEMORY 41999:GOSUB 1050
20 MODE 2:DEFINT i,k:DIM v(600),f(50)
30 WINDOW#1,1,80,5,24
40 CLS:LOCATE 30,1
50 PRINT"Tape Speed Checker."
60 CLS#1:WINDOW#2,30,50,11,14
70 PRINT #2,"1. Create test tape."
80 PRINT #2:PRINT #2,"2. Run a test."
90 GOSUB 1260:IF a$ = "2" THEN 160
100 IF a$ <> "1" THEN 90 ELSE CLS#1
110 LOCATE 20,12:PRINT "Load test tape ";
120 PRINT"for recording. Press any key."
130 GOSUB 1260:CALL &BC6E
140 FOR i = 1 TO 2000: NEXT
150 CALL 42050,1200:CALL &BC71:GOTO 40
160 CLS #1:LOCATE 20,12
170 PRINT "Load test tape, press ";
180 PRINT "Play then any key"
190 GOSUB 1260
200 CALL &BC71:CALL &BC6E
210 FOR i = 1 TO 200:NEXT
220 CLS#1:ORIGIN 0,0,0,639,399,0
230 DRAW -604,0:DRAW 0,304
```

```
240 i1=10:GOSUB 740
250 GOSUB 1020
260 LOCATE 30,3:PRINT"Running test"
270 av=0:FOR i=1 TO 20
280 i2 = 0:CALL 42000,@i2
290 IF i2 > 300 AND (i2<500) THEN av=av+i2 ELSE 280
300 NEXT
310 iav=av/20:var=0.05*iav
320 plus=-100:minus=100
330 FOR i=1 TO 600:i2=0
340 CALL 42000,@i2:PLOT i,0
350 change=(i2-iav)/var:v(i)=change
360 DRAW 0,change*150
370 plus=MAX(plus,change)
380 minus=MIN(minus,change)
390 NEXT
400 CALL &BC71
410 LOCATE 1,23:PRINT"Test over. ";
420 PRINT "Peak variation is:";
430 PRINT INT(50*plus)/10;" to ";
440 PRINT INT(50*minus)/10;" %"
450 LOCATE 30,25
460 PRINT"Press any key to continue."
470 GOSUB 1260
480 GOSUB 640
490 GOSUB 710:PRINT CHR$(23);CHR$(1);
```



```

500 ix=0:GOSUB 610
510 LOCATE 1,24:PRINT CHR$(20);
520 PRINT"Pinch-wheel grid. Move ";
530 PRINT"using l/r arrow keys"
540 PRINT "Press E to continue."
550 GOSUB 1260
560 IF a$="E" THEN GOSUB 800:GOTO 490
570 GOSUB 610:i=ASC(a$)
580 IF i=242 OR (i=246) THEN ix=MAX(0,ix-i+241)
590 IF i=243 OR (i=247) THEN ix=MIN(ix+i-242,530)
600 GOSUB 610:GOTO 550
610 a=ix
620 FOR i1=0 TO 9:PLOT a,-50:DRAWR 0,100
630 a=a+6.68:NEXT:RETURN
640 LOCATE 1,24:PRINT CHR$(20);
650 PRINT"Filtered plot coming."
660 t=0:FOR i=1 TO 600
670 t=0.95*t+0.05*v(i):v(i)=v(i)-t:NEXT
680 t=(v(1)+v(2)+v(3))/3:FOR i=3 TO 599
690 v(i)=t:t=0.5*t+0.5*v(i+1):NEXT
700 RETURN
710 CLG:i1=10:GOSUB 740
720 FOR i=3 TO 599: PLOT i,0
730 DRAWR 0,v(i)*150:NEXT:RETURN
740 ORIGIN 20,200,20,620,350,50
750 PLOT 0,-150
760 DRAWR 0,300:PLOT 599,-150
770 DRAWR 0,300:PLOT 0,-150
780 FOR i=0 TO i1:DRAWR 600,0
790 MOVER -600,30:NEXT:RETURN
800 PRINT CHR$(20);CHR$(0);:k1=ix
810 LOCATE 1,24:PRINT CHR$(20);
820 PRINT"Calculating spectrum."
830 t=0:FOR i=k1 TO k1+49
840 t=t+v(i):NEXT:t=t/50
850 b=2*PI/50:RAD:fmx=0
860 FOR k=0 TO 24:f1=0:f2=0
870 b1=b*k:FOR i=0 TO 49
880 f3=v(i+k1)-t:f1=f1+f3*SIN(b1*i)
890 f2=f2+f3*COS(b1*i):NEXT
900 f(k)=SQR(f1*f1+f2*f2)
910 fmx=MAX(fmx,f(k)):NEXT
920 CLS#1:i1=-1:GOSUB 740
930 PLOT 0,-150:DRAWR 600,0
940 FOR i=0 TO 24:PLOT i*24,-150
950 i1=f(i)/fmx*300:DRAWR 0,i1
960 DRAWR 24,0:DRAWR 0,-i1
970 IF i>5 AND (i<9) THEN FOR i2=1 TO 24:MOVER -1,i1:DRAW
R 0,-i1:NEXT
980 NEXT
990 LOCATE 1,24:PRINT CHR$(20);
1000 PRINT"Press any key to continue"
1010 WHILE INKEY$="":WEND:RETURN
1020 LOCATE 1,3:PRINT"+5%"

```

```

1030 LOCATE 1,23:PRINT"-5%"
1040 LOCATE 1,13:PRINT"0":RETURN
1050 RESTORE 1050
1060 GOSUB 1070
1070 READ a,a$
1080 WHILE a$<>"
1090 FOR i=1 TO 19 STEP 2
1100 i1=VAL("&"MID$(a$,i,2)):POKE a,i1
1110 a=a+i1:NEXT:READ a$:WEND
1120 RETURN
1130 DATA 42000
1140 DATA f30100f5110000216419
1150 DATA 0e00ed70e680b9280213
1160 DATA 4f2b7cb520f2dd6e0Cdd
1170 DATA 6601732372fbc9000000
1180 DATA ""
1190 DATA 42050
1200 DATA f30100f6dd5e00dd5601
1210 DATA 2ec92d20092ec81b7bb2
1220 DATA 2007fbc93e033d20fd3e
1230 DATA 10ed793e3d3d20fd3e30
1240 DATA ed793e393d20fd18db00
1250 DATA ""
1260 a$="":WHILE a$="":a$=INKEY$:WEND
1270 a$=UPPER$(a$):RETURN

```

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## AT YOUR LEISURE

Seven Games under the critical eyes of  
Andre Urankar and Darren Robinson

### Three Martial Arts games reviewed by Andre Urankar . . . .

Having been accused of being an "adventure freak", I thought it might be opportune to break new ground and examine another branch of the games field; that of the Martial Arts simulation. Three current games were selected for the purposes of comparison, and to see if I would become a convert. These were:

**Sai Combat from Mirrorsoft**  
**Karate from Endurance Games**  
**Thai Boxing from Anco**

The objective in each of these games was, through a combination of kicks, jabs and jumps, to pound the opposing combatant to a pulp. Sounded frightfully violent, particularly since I had only been used to the gentleness of adventures - killing dwarves and pirates, and facing other nasties on, under and off this planet.

Each simulation was examined both in 'isolation' (how did it measure up as a game), and then in comparison to each other. As a summarization I have tabulated my evaluation so that it is possible to see how I judged these games.

So, armed with my (t)rusty joystick I was ready to face my first battle.

### INTERNATIONAL KARATE

This is described as a one or two player fighting game, using recognized Karate moves and contested against a backdrop of six locations. Sixteen different

movements are possible via joystick or keyboard control.

The rounds are organized as a 'best of three' bouts, with each bout lasting 60 seconds. The winner of each round has the opportunity to increase his score by an irrelevant bonus round consisting of smashing his (the screen figure, not the button pusher!) head against a stack of tiles.

Apart from the change in background, the only difference between the levels is the amount of 'computer' aid that is provided to the 'non-active' combatant in the two player option. I had visions of setting up the two player option then leaving one of the fighters static while I pounded it with the other. My delusions were shattered when at round two, the computer took over and gave me a battle royal. Thus forcing me to reach the higher levels 'more honestly'.

Scoring is based on the effectiveness of a particular strike and is assessed by a 'wise old judge'. He decides whether the blow merits a 'half point' or a 'full point'. A total of two full points are required before a winner is declared. Timeout results in either the judge deciding on a winner (in the two player mode) or declaring a re-match. (Wish I knew how to bribe the judge!).

The graphics depicting the fighters could only be described as adequate rather than impressive, due to the relatively small size of the figures. Execution of the various moves is smooth and graphically good. Particularly

effective are the somersaults.

Thankfully the inappropriate continuous 'background music' can be switched off, leaving only the sound effects for the blows.

'Game play' is good in the sense that I could not determine a particular set of moves that would guarantee success. Every bout was different. Actually I found that I was progressing further when I concentrated on perfecting only a few moves, rather than trying to use the full repertoire. By the way, the computer controlled opponent does use the full complement of moves; to devastating effect.

In a sentence: an enjoyable simulation, easy to manipulate, even though the backgrounds are totally irrelevant.

### SAI COMBAT

Sai (or to give it its full title - Sai Karate) is a Martial Arts form that combines 'normal' Karate and the use of a quarterstaff (the Sai) to inflict damage on the opposing fighter. Play can be against another button pusher or the computer.

The objective in this simulation is to win your way through the eight coloured 'belts' levels (from white to black) and then through the eight 'Dans' levels to become the Sai Master

Joystick or keyboard is used to provide 16 possible combinations or moves, all brilliantly executed.

The bouts are performed on what appears to be a stage, with an audience of two innocent looking old men; one on each side. These



old men didn't remain 'innocent' at the black belt stage - but more about that later.

Points are scored by the effectiveness of the type of blow used, and is seen as the colouring of the dragon's head in the lower section of the screen. Three 'lives' are provided for the complete battle. A life is forfeit at each fall. Unfairly though, the opposition receives three lives at the start of each belt (and Dan) level while you have only the initial three.

A very oriental sounding theme plays until the first movement of the fighters. Subsequent sound effects are for the movements and blows.

Technically the game looks brilliant: reasonable sized characters, attention to detail, beautifully staged animation, smooth flow, and almost ballet precision in the moves.

'Game play' was another matter in the one-player mode. I found that I could progress from one level to the next by simply staying at the starting point, and exercising a continuous series of 'thrust to the neck' attacks. Four hits and the opposing fighter was flattened; all the way up to Dan 3 of the Black belt level. After that the play was complicated by those 'innocent' old men throwing nasty three-bladed spinning knives across the stage. In the next few bouts I lost my three lives in trying to avoid these knives and having to cope with the attacking figure. My best result was 32800 points and Black belt, 7th Dan level.

After losing a contest, two options are provided. Either to return to the previous successful level, or starting from the White Belt level. In both cases however the points scored are reset to zero.

In a sentence: brilliantly produced simulation, spoilt only by the lack of randomness of the opposition tactics.

## THAI BOXING

This is a rather brutal combination of Karate and street fighting, with the aim of inflicting as much damage to the opponent as possible in the shortest possible time.

The fights are staged in four different locations with two 'levels' per locations. Thus requiring eight wins to reach the end. The combat zones are graphically represented in 3-dimensions in that familiar 'Ultimate' style (used in Knight Lore, etc), and the fighters can move in all directions.

This is strictly a 'man against computer' battle (no two player option!) and is further limited by having only 5 aggressive and 3 defensive moves. Control is via joystick only.

The state of the boxers are shown in the two 'faces' at the top of the screen. These faces show the effects of the blows in gory detail - complete with bruises and blood. A feature that I found slightly repulsive and not really necessary. Two colour bars also show the stamina levels of both fighters throughout the bout. Each attacking move takes a toll on stamina. Stepping back out of the close-contact battle helps regain some stamina (it also helps the stamina re-building of the opposition).

A bouncing melody accompanies the game until the first contact blow. Unfortunately I believe the writer of this theme may have had the thought that it was intended for some cowboy type simulation, rather than an Asian Combat simulation.

The fighting figures are much too small for any detail, and I had no idea of what the attacking moves were actually achieving. So it was a matter of getting in close and twiddling the joystick. It really is a pity since there is obviously some good programming in this package that is going to waste.

In a sentence: ineffective, frustrating, not worth the effort.

## SUMMARY

A particular lack that I noticed in all three games: no 'practice' mode. I would have had more enjoyment if I had the opportunity to experiment with a combination of moves before facing those computer-controlled killing machines.

One factor that I found amusing was the background. All three games went to some effort to detail various background scenes. However, once the action had started, all concentration was on the fight, and it really did not matter where the battle was staged. Perhaps less emphasis on the background and more on the fight would have improved the ratings.

Did I get converted? Almost. There is a lot of fun to be had with these games, and I will be re-visiting both Sai Combat and Karate. If only there was a way to combine the technical excellence of Sai, and the randomness of Karate, then I would be converted.

... and four games reviewed  
by Darren Robinson

## WILLOW PATTERN

Don't be put off by the title, this particular game is nothing to do with wallpaper hanging... in fact it's a 2D maze game where the objective is to defeat the Samurai army, rescue a damsel in distress and outrun the princess's father on the way to a rescue boat.

Set in an Oriental jungle, Chang (the hero) travels around a detailed landscape, consisting of trees and many buildings of various description. Strategically placed around the maze are many rather large samurai with a passion for trying to kill you. You see, these fellows like to guard the pathways. Find a sword, kill one, he disappears and the path is



clear. Simple eh? Actually they're very easy targets as they just remain in one place and spin around. Touch him and you die. If you're lucky the samurai will throw a sword at you. Dodge this successfully and Chang has another weapon to take and use on the next guard. There is a catch of course - only a limited number of swords are available. Make a mistake and the game cannot be finished. Attempting to carry 2 swords at once results in the inexplicable loss of one, so this is a mistake!

Despite a good size maze, mapping is not necessary as the path is fairly straightforward. There is dull background music to accompany Chang's exploits and no other sound effects. Collision detection is sometimes terribly inaccurate.

A couple of bridges are placed on the pathways near the start. Touching one transports him to a weird screen where he must jump across a river using 4 islands situated beneath a bridge. On this bridge are some giant Japanese men reaching down to grab him. Survive this and you are returned to the pathway.

The overall appearance of the maze is pleasing to the eye; the temples scattered around sure beat boring old brick walls. Chang charges around the maze with a good turn of pace, though there is no time limit.

Chang has 5 lives and the score is given as a percentage. This can be boosted by collecting the odd treasure. There are joystick/keyboard and music on/off options. The doco is wrong regarding pause mode-hit 'R' to restart.

While Willow Pattern is addictive and has pretty good graphics, there isn't much variety in the gameplay. Still, not a bad effort from the Firebird budget range.

## ELEVATOR ACTION

Agent Otto has been having his ups and downs lately. Y'see, he's just been assigned to travel the most dangerous elevators in the world in order to penetrate the enemy building, find the red doors and steal the secret plans kept therein.

"Prepare to die", says the intro screen, but Otto is no novice in these matters, as all good spywatchers know, because this is the licenced Quicksilva version of the original Taito coin-op game.

Your well trained spy is able to shoot, jump, duck and perform devastating karate kicks. Formidable as this fellow is, he needs to be because he is vastly outnumbered by the enemy agents occupying the building, which has 30 stories. As you descend, all of the red doors must be entered before you are permitted to exit the ground floor and zoom away in an unglamorous delivery van.

Terrific spy music is played constantly in EA; unfortunately there are no other sound effects during gameplay whatsoever. I would dare say this music is even better than the original game's theme.

As progress is made, Otto discovers that not all floors are connected by lifts - sometimes escalators must be used instead. He also finds some darkened corridors, and here agents often pop out unexpectedly from an invisible doorway.

When travelling in an elevator it's a good idea to try shooting the lights. Not only do agents appear to dislike the dark - there are less of them here - but you may succeed in making a light fall onto one. Other ways to score include shooting, entering a red doorway and squashing someone with an elevator. It appears all these enemy agents have soft heads because once you get the knack Otto can start leaping onto them. Doing this kills them just the same and

scores better. It's not too hard avoiding bullets - you can either duck or leap up. The way Otto jumps is weird; he sort of hangs there and lifts his legs off the ground.

The main appeal of EA is the constant action, so it can be frustrating just standing around waiting for a lift to arrive. However it is quite amusing to watch a would-be assassin commit suicide by jumping atop a moving elevator and getting squashed at the top. Of course, that won't happen to any of us!

So overall, how does EA shape up to the coin-op? Apart from lacking some speed, pretty darn good. If you like Commando-type games where it's just you against everybody then I can recommend this.

## WEST BANK

TV western movies have always portrayed banks as dangerous places to be, and now West Bank puts you right in the thick of the action. Based on the arcade game 'Bank Panic', the plan is to collect deposits from the good citizens of South Dakota, whilst keeping out the villains who want to steal it.

Upon beginning WB you are faced with 3 doors. One by one these will open to reveal a character of the town. It is quickly learnt that some ought to be shot on sight, while others are best left alone.

Five lives are granted to you and one is lost whenever you shoot a good citizen or if a villain beats you to the draw. To make things harder, further into the game more characters with less predictable personalities are introduced.

Apart from the normal people, there is a funny little bloke called Bowie the dwarf who wears a lot of hats. Shooting them all reveals the object beneath the last hat; it may be a bomb but usually it's a deposit for you.

Once money has been received



from each of the 9 doors a bonus screen is reached. This comprises facing 3 of the nastiest looking hombres in town. After a short countdown they reach for their weapons. Kill them in the correct order, and a bonus is awarded, depending on how fast you react.

Other features of West Bank include an excellent loader screen, joystick/keyboard option, a difficulty selection menu and a high score table. One minor complaint is unless you get onto the high score table your score gets erased immediately the shootout is over. This is a problem because the table is very hard to get onto.

Sound - some merry piano music jangles between games. A different tune accompanies gameplay but other sound effects are limited.

Graphics - are fairly good but there is little animation to speak of. The scrolling is jerky when new doors come into view.

Documentation - unfortunately the doco doesn't accurately describe what the program does. One can only assume it was written for another version.

In summary, this is mainly a reflex action game with insufficient variety of gameplay to keep me coming back for more.

## WIBSTARS

Software distributors have a tough job if Wibstars is anything to judge by. This game claims to be part business simulation and part arcade game, but in the end it is only arcade skills and luck that decide your measure of success. The basic idea is to deliver computer goods from a central warehouse to the customers, making as much money as possible in the process.

You start off in Wibstars guiding a man in a forklift to select goods for purchase and distribution. Two hundred pounds is granted for the task, and items available are cassettes, discs and Sinclair computers.

All stock is then taken to the blokes in Despatch whose job it is to drop the whole lot down several vertical chutes. The aim in this screen is to drive a delivery van left and right in order to catch the raining merchandise. This occurs all too quickly and usually about half my stock gets destroyed because the van isn't fast enough.

The next part involves driving along a grid of streets, a bird's eye view being shown of the road you are in. A competitor's van travels ahead and drops dangerous garbage behind him. Hitting this causes damage to your van which is calculated in pounds in a running total, and comes out of profits later on. He also drops some goods which may be picked up.

In the final screen, having arrived at a customer's loading bay, you are required to remove the goods from the van either individually or in bulk. Then the problem is to push the item around a screen full of conveyor belts, lifts and platforms so that it arrives at a doorway at the top. Goods are quite easily smashed underneath the elevator or by dropping them too far.

Wibstars is best described as 3 mini arcade games rolled into one. Although it's a good idea only the last is skilful and interesting - these days that's not enough. There is also an error in the program in the driving sequence. Picking up a disc or cassette from the road not only adds to your stock, the damage total increases as well, much more than the item is worth. Also there are several customers that offer prices below what you paid for the item, thus making a profitable delivery impossible.

If this was a budget game there would be some value in it, but it's not so I suggest you dust the cobwebs off that old copy of Ghostbusters - at least that plays a jolly tune.

## If you are searching for:

AFTERSHOCK  
AIR COMBAT  
EMULATOR  
ACTIVATOR  
BOMBSCARE  
BOOTY  
DR. WHO  
DRUID  
ELEVATOR ACTION  
FORMULA 1  
SIMULATOR  
FUTURE KNIGHTS  
HYPERBOWL  
LORD OF THE RINGS  
MAGIC MATHS  
MINI OFFICE II  
NECRIS DOME  
SPORT OF KINGS  
STORM  
TERRA COGNITA  
TOMAHAWK  
TRAILBLAZERS

## LOOK NO FURTHER THAN PAGE 64



# PRIVATE TUITION

A look at 16 Educational Software packages across the CPC and PCW range

It is a common plea from Amstrad owners that there is little Educational software, or that which is available is hard to locate. On the other hand, speak to most dealers and they will tell you that when they do get it in they find it difficult to sell. It seems to be a vicious circle, an unsolvable equation.

Perhaps one of the *excuses* given when choosing to buy a computer is to provide oneself or ones children the means to improve our education. This may not necessarily be the *reason*. Perhaps Educational software developers find it difficult to compete against a classroom environment (although I don't believe they intentionally try), or just run out of ideas to make the subject as exciting as Space Invaders. There are too many unknowns to solve the equation. My feeling is, in terms of Educational software, that it sounds like a good idea to use a home computer to improve oneself. But in reality 'going to school' lacks attraction to many which in turn reflects upon the software houses' keenness to develop low demand packages.

However, if my thoughts are to be believed, the next few pages will please the minority and perhaps convert others. You will find a list of some sixteen Educational packages (three of them got a mention in greater detail a couple of issues ago). Don't look at them as being the answer to all your problems - they have not been written, nor can be, for that purpose. Most serve as a basis for revision to be used in conjunction with text books.

If you know of any more, we'd be pleased to hear from you.

## MATHS

PLAY-SCHOOL (Ages 3-4)

School Software/Pacronics

A cute package which will surely get the little ones used to a computer keyboard and pick up some rudiments on the way. Various Nursery Rhymes play during the course of running the program which is split up into 6 small modules with normally just four questions to answer in each.

Counting - a number of objects are displayed on the

screen, counted and the result entered by child or parent.

Find it - press the letter on the keyboard which corresponds with the display.

Paint Box - choose a colour and draw simple lines via the cursor keys.

Match Up - match the design in the last box with the five numbered boxes.

Game - youngsters own version of Pacman. Gobble up any or all objects by moving the "man" over the objects via the cursor keys.

How Many - very simple maths achieved by adding separately the number of objects in each box and, of course, providing the answer. (See also Issue 26).

CPCs - Disc \$34.95; Cass \$22.95

MAGIC MATHS (Ages 3-9)

Players/ISD/The Amstrad User

The difference with this package is that it comes with digitised speech which uses the built in speaker of the Amstrad and so requires no bolt-on goodies. There are 10 levels of difficulty spanning the whole range of addition, subtraction, multiplication and division. It is colourful and easy to use.

CPCs - Cass \$9.98

MAGIC MATHS (Ages 4-8)

School Software/Pacronics

Not to be confused with the previous package, this one claims to be "in keeping with the best pedagogical standards and modern mathematical educational methodology". In the CPC versions, a train is presented on the screen. The idea is to provide the right answer to the question and thereby increase the train's speed by 10 m.p.h. each time. Success arrives with a speed of 100 m.p.h. Failure comes with two incorrect answers (to the same question) - the train explodes. You don't get these graphics with the PCW version but all keep a log of the last 100 questions and answers, so the parent/guardian/teacher can isolate persistent problems. Covers addition and subtraction only.

CPCs - Disc \$34.95; Cass \$22.95

PCWs - Disc \$34.95



## **MATHS (Ages 4-12)**

**North Coast Computers, Taree, NSW**

Compared with the School Software Magic Maths, this package provides a bit more for your money in that side one deals with addition, subtraction and a combination of both and side two covers multiplication and division plus combination. However, the same "train" idea has been used but to less effect as there is no incentive to increase the speed. The wide age range is catered for with six levels of difficulty.

**CPCs - Disc \$29.95; Cass \$19.95**

## **MATHS MANIA (Ages 8-12)**

**School Software/Pactronics**

The next step up from Magic Maths. You still get the train but this time the questions deal with multiplication and division.

**CPCs - Disc \$34.95; Cass \$22.95**

**PCWs - Disc \$34.95**

## **MAXI MATHS (Ages 12-16)**

**School Software/Pactronics**

It says 9-15 on the cover but the program displays 12 to 16 which is probably nearer the mark. This set essentially covers basic Geometry. Angles, triangles,

rectangles, circles and sin/cos/tan all get a mention in the form of diagrams and information on how to perform the calculations. The revision section at the end is where one tests to see if it's all sunk in.

**CPCs - Disc \$34.95; Cass \$22.95**

## **BETTER MATHS 1 (Ages 12-16)**

**School Software/Pactronics**

Life is now getting a little more complicated with the introduction of more advanced aspects of maths. This package covers Measurement (a strange title that I cannot find in my dictionary) meaning volumes, surface areas and so on. Statistics, simple interest rates/ratios, factors, percentages and algebraic expressions and factors are brought into play along with tables and approximations. Again, the test at the end will tell you if you've grasped it all.

**CPCs - Disc \$34.95; Cass \$22.95**

**PCWs - Disc \$34.95**

## **MICRO MATHS (Ages 12-16)**

**LCL/AAUC**

This package differs from the other formats in that it will ask a question and if your answer is wrong will give you a clue to the formula required. If you don't get



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**MAGIC MATHS (Age 4-9)** - Covers simple addition & subtraction for younger children. Captures interest with a train.

**MATHS MANIA (8-12)** - Makes multiplication and division addictive. Excellent graphics.

**MAXI MATHS (12-16)** - A geometry revision. Real learning aid for those hard to remember formulae.

**BIOLOGY (12-16)** - Learn key definitions. Cover cells, mammals, photosynthesis, respiration, reproduction.

**PHYSICS (12-16)** - Nine menu options. Pressure, heat, matter, electricity, magnetism, light. Excellent graphics.

**CHEMISTRY (12-16)** - Ideal for examinations. Eight menu options. Oxygen, hydrogen, atoms, acids, carbon.

**GEOGRAPHY - Weather/Climate (13-17)** - Menu driven. In depth analysis of weather, pressure, wind, temperature.

**BETTER SPELLING (9 to adult)** - Best spelling program on the market. Endless fun with sixteen menu options.

**BETTER MATHS (Age 12-16)** - Menu driven. Excellent graphics. Covers wide range.

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Tel: (02) 406 5311.



# EDUCATIONAL SOFTWARE

it right a second time it then provides the correct answer but also tells you how it arrived at the answer. As the calculations are likely to get a bit lengthy, depressing function key 0 will break the program and allow you to use the Amstrad as a calculator. Pressing function key 0 or 1 takes you back. Both sides of the disc are used. Side one covers such subjects as percentages and fractions, ratio and proportion, base numbers etc. Flip the disc and you move on to geometry, algebra and calculus.

**CPCs - Disc \$79.00; Cass \$79.00**

## **MEGA MATHS (Ages 16+)** **LCL/AAUC**

Now we are into the big time, going beyond the HSC level in many areas. More advanced geometry (including three dimensional), complex numbers, logarithms, quadratic equations, series, and polynomial, remainder and binomial theorems can be found on the first side. Side two reveals derivatives, trigonometry (graphs, identities etc.) partial fractions and integrals to name but a few. The "calculator mode" is also available on this package.

**CPCs - Disc \$79.00; Cass \$79.00**

## **SCIENCES**

All the packages in this subject are from the same source. They follow the same format of a question, a hint if you get the answer wrong, and the answer. They are all menu driven with notes optionally displayed at the beginning of each selection.

### **PHYSICS (Ages 12-16)** **School Software/Pacronics**

Contents: Matter (density), law of the lever, pressure, states of matter, heat and temperature, electricity, magnetism and electrostatics, and light and sound. (See also Issue 26).

**CPCs - Disc \$34.95; Cass \$22.95**

### **BIOLOGY (Ages 12-16)** **School Software/Pacronics**

Contents: Life and cells, mammals and plants, photosynthesis and enzymes, respiration and excretion, transport including osmosis and transpiration, sensitivity/stimulus/response, reproduction/growth/development, and soil and micro-organisms.

**CPCs - Disc \$34.95; Cass \$22.95**

**PCWs - Disc \$34.95**

### **CHEMISTRY (Ages 12-16)** **School Software/Pacronics**

Contents: Chemical changes, oxygen and hydrogen,

atoms/bonding/valency, carbon/sulphur, oxidation/reduction, acids/bases/salts, activity series and ion exchange/water. (See also Issue 26).

**CPCs - Disc \$34.95; Cass \$22.95**

**PCWs - Disc \$34.95**

### **GEOGRAPHY : Weather and Climate (Ages 13-17)** **School Software/Pacronics**

Although titled Geography, it really deals with weather and climate- its subtitle. It is a revision course covering measurement and recording, rainfall, climate types, pressure, wind and temperature.

**CPCs - Disc \$34.95; Cass \$22.95**

## **SPELLING/ENGLISH**

You may wonder how a spelling tutor can improve your spelling. To flash on the screen "How do you spell OCCUR" obviously doesn't work because you've got the answer already! To ask for the past tense of the word OCCUR is a different matter. There are certain rules and exceptions to learn in our extremely complex English language. This is where the tutors can help. They test the "pupil" for knowledge of the language and at the same time provide the spelling lesson.

### **BETTER SPELLING (Ages 9-Adult)** **School Software/Pacronics**

This package is effectively split into two sections. The first delves into plurals, irregular and otherwise, words with prefixes and suffixes, words with "silent" Es and past tense traps. The second part deals with common spelling errors (eg. their/there/they're or to/two/too) and the IE/EI rule. It also covers the use of WHOM/WHO/WHICH, IS/ARE and BEEN/BEING.

**CPCs - Disc \$34.95; Cass \$22.95**

**PCWs - Disc \$34.95**

### **SPELLING (Ages 10-16)** **North Coast Computers**

Whereas the School Software package spread its testing over 16 modules, North Coast Spelling extends to 24. All the words (there are 900 of them) and rules have been taken from a grade four text book. The screen layout includes an image of a head which moves its mouth as a particular rule is displayed. [It looks remarkably like the Max Headroom figure published in Issue 22 of The Amstrad User - I don't know what Mr. J.C. Ablett would say about his work being used in a commercial piece of software!]

Words which have been incorrectly spelled keep popping up until the right answer is entered.

**CPCs - Disc \$29.95; Cass \$19.95**



# EDUCATIONAL SOFTWARE

## MICRO ENGLISH (Ages 12-16) LCL/AAUC

This is by far the most comprehensive package dealing in the main with composition and comprehension. Within the composition section are punctuation, elementary and advanced spelling, vocabulary tests, figures of speech, irregular plurals and 'phrase to word' summary. The spelling tests are different from any other packages in that an audio cassette is supplied with the package and is played through a normal cassette recorder/player. A voice barks out the word which is entered by the 'pupil' onto the screen. In the comprehension section (side two) are eight multiple choice tests and eight summary tests.

Let me expand on that a bit. The multiple choice tests involve a display of a passage of text which when read will provide the correct answer to a choice of five questions at the foot of the screen. This tests to see if the reader has understood the passage. The summaries on the other hand test the reader in understanding the salient points of a displayed passage. This is achieved by the reader identifying the key phrases through moving the cursor across selected text. The selections are checked with a 'blue-print' in the program and reported accordingly.

The package has a degree of flexibility which cannot be found in others as it allows the user, parent or teacher to change some of the questions and answers or even record words for the spelling tests. This is done by changing selected data statements, so the person making the changes will have to have some understanding of Basic. If you buy the disc version, any amendments are restricted to one spelling and one comprehension test.

**CPCs - Disc \$79.00; Cass \$79.00**

For more details on the above software items you can contact the relevant distributors below:

**PACTRONICS**  
33-35 Alleyne Street  
Chatswood, NSW 2067  
(02) 407 0261

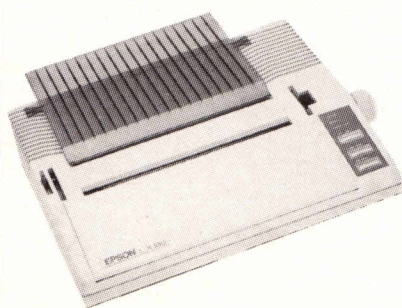
**AAUC**  
Suite 5, 26 Whistler St  
Manly NSW 2095  
(02) 977 4697

**NORTH COAST  
COMPUTERS**  
22 Albert Lane  
Taree, NSW 2430  
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# TASWORD PC

The latest version to come from the proven Tasman stable

Reviewed by Chris Collins

For those of you out there that are already familiar with the range of Amstrad computers, you will surely know of Tasword, whether it be Tasword 6128, Tasword 464D or even Amword, all of these were written by a company called Tasman Software in England. I don't know your opinion of their word processors, but I for one am an avowed fan of Tasword 6128. Now that I have moved onto the IBM compatible range of machines, I am more than happy to be able to say that Tasword has come to the PC range.

Looking at the packaging for Tasword PC, reminded me of the first time that I first went to Billy Guyatts, looking for a copy of Tasword 6128, to go with my new Amstrad CPC 6128 computer. I found it, and with it a new range of software that has proved to be the most used software package that I owned.

The software comes in a small A5 sized binder, with a strong cardboard front and back cover. Inside the binder are two pockets that occupy half of either side. In one of these was a small 64 page book, and in the other one was a 5.25 inch disc, suitable for an Amstrad PC1512 or any other PC compatible. I always thought that these binders were stronger than they needed to be, especially in view of the strength of the Amstrad's three inch disks, but with the PC disk in there, I am very happy that the binder is as strong as it is.

This disk contains 12 files totalling 123k. Of these, six are example text files, one is the actual Tasword program, another is the renowned Tasword Tutor, and another three are utility programs for Tasword to use. There is also a README file, for information that doesn't make it into the manual.

Okay, lets fire up the PC and see what Tasword PC has to offer. As

always, Tasman has refused to copy-protect their software, so there was no great difficulty in making a directory on my hard disk, copying all the Tasword files into it, and then booting Tasword up to see what it would be like. For those of you out there that don't have hard disks, do not worry! If you format a disk with the system tracks on it, customise Tasword, and put it all on the one disk, you will still have over 280k of space in which to store your data files.

Firing up Tasword is no more difficult than I remember from my 6128 days. Boot up DOS, then simply type 'tasword' at the DOS prompt, and up it comes. When I had my 6128, I thought it was rather amazing that I could have text files of approximately 64k. Now, I find that rather a limit, so I was overjoyed to find that Tasword still fits completely into memory, and still leaves me with approximately 510k of space in which to put my text file. 380k!! Can you believe that! That means almost 190 single spaced pages of text before I have to save some of the file to disk.

With Tasword being completely in memory, and any file that you happen to be working on also in memory, it ensures that the time that you spend running around your document will be kept to a minimum. Even with a file of around 41k, as the Tutor is, takes no longer than a second to go from one and to the other.

Tasword PC looks exactly the same on screen as every other version of Tasword that I've ever seen. For those of you that don't understand what I am talking about, there is a small seven line help screen along the top, and a status line along the bottom. The small help screen at the top can be removed simply by pressing SHIFT/F1, and you will then have a clear screen to work with. The help screen will also scroll as

you push one of the necessary command keys. Press SHIFT and the help screen will show you what SHIFT in combination with other keys can do. However, whereas Tasword 6128 made use of mostly alphabetical keys, Tasword PC makes full use of the function keys that are standard fare on IBM compatibles.

Also very helpful, and a carry-over from the earlier version of Tasword, is the knowledge that at any time in a text file if you press the ESC key, you will be able to see the full help screen that are available to help you. This makes it much easier to use than most word processors, especially whilst you are learning to use Tasword. The small help screen will show you most of the commands that you will use, until you have learnt them. Once done, you can remove the small help screen, knowing that all you have to do if you get into trouble, is to press ESC!

When you wish to go to the main menu, simply press the F10 key, and you will be there. This menu will allow you to do all sorts of wonderful things to your files, including the following:

*Printing and printing with data merge,  
Saving and loading of text files,  
Merging of text files into other text files,  
Return to the text file that you were working on,  
Changing of DRIVE or DIRECTORY,  
Exiting to Tasword, back to DOS,  
and finally  
Taking you to the second menu.*

Yes, Tasword's options have become so great that it requires two main menus to fully cover them all. The second of the main menus gives you the following further options:

*Erasing, Renaming, Copying and*



Viewing of files,  
 Making and Removing Directories  
 from disk,  
 Word Counting,  
 Spelling Checking,  
 Customising Tasword and then  
 saving that to disk,  
 Returning to your text file  
 and finally  
 Returning to the other menu.

Quite a range of options in there! I'm sure you will agree. I notice that there is an option for spelling checker, so I assume that Tasman will be bringing out a Tasspell PC at some time in the future. Taspriint PC will probably be available by the time you see this review, and I may get a look at it for next month's issue.

One of the big advantages to Tasword is the great way in which it can be customised to suit your own tastes. In fact, the sixty-four page manual donates a whole eight pages to telling you how to go about customising the program. At the moment, I have white text on a black background, help in yellow, highlights and messages in black on cyan and page breaks in red. I think that I might have to change it a bit as the highlights and messages are starting to give me the willies in that colour.

Now that looks a bit better. Now, I've got yellow text, brown help and light cyan highlights on a grey screen. It just goes to show some of the adjustability of the program.

You can also setup your own printer initialization code, codes to make your printer use all of its capabilities, and also user keys that will put in whole lines of text at the touch of a key. The customization part of the program can be changed at any time, and then checked on the screen, before you decide if that is how you want to save it.

As far as its capabilities as a word processor, Tasword is far more powerful than most users would ever need. The only thing that Tasword does not have is a WYSIWYG option. This acronym simply means 'What You See is What You Get'. If you want to underline something, it will show on the screen as underlined, if you want something in italics, that is how you will see it on the screen. However, I am one that believes that this is a very over-rated method of operation. It also

tends to make word processors of that style very slow, as they must be run in graphics mode to make it work properly.

Tasword supports all of the following options, as do most word processors:

*DELETE* - word, line, paragraph and text file,  
*UNDELETE* - line (approx 5 can be held in memory),  
*CENTRE* - line,  
*MOVE TEXT* - left, right,  
*JUSTIFY* - line, paragraph, and hard re-justify,  
*TABS* - set, clear and reset,  
*HEADERS and FOOTERS*,  
*COPY and PASTE blocks*,  
*MARGINS* - set, reset and remember,  
*MULTIPLE RULER LINES*, and  
*Full screen cursor control*.

As you can see, Tasword has all the power that a home user would ever need in a word processor, along with a few that he/she would probably never have to use. It must be admitted at this point that it is definitely better to own a word processor that has more power than you will use, than to own one that doesn't have the capabilities that you want.

This however does not mean that you must pay hundreds of dollars for word processing software. Some of the well known wp software for IBM compatibles, such as Microsoft Word, can run as high as \$750 to \$1000. This is a ridiculous price to pay, especially when you have paid less than \$2000 for your computer. This is another area where Tasword PC comes into it's own. The recommended retail price is \$89.95.

My final word would have to be this, if you've just progressed to IBM compatibility from an Amstrad CPC computer, or if your PC1512 is your first computer, then TASWORD PC is the word processing software for you. It is easy to use, easy to learn, very powerful and above all CHEAP!!

TASPRINT PC is also available, now all we have to wait for is TAS-SPELL PC. Where is it Tasman??

IBM is a registered trademark of International Business Machines.

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# Tasman

SOFTWARE

## Advanced text processing software for the AMSTRAD family of computers

### TASWORD

The word processor. A TASWORD is available for every Amstrad computer, each making the best use of the computer's processing power and memory. Fast, efficient and thoroughly professional.

### TAS-SPELL

The spelling checker option for Tasword. Use the dictionary provided to check your spelling, add new words at your choice.

### TASCOPIY

Provides high resolution screen copies (up to poster size) via your dot matrix printer. Shaded copies use different dot densities for the various screen colours.

### TASPRINT

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Title	RRP(\$)
<b>Amstrad CPC 464/664</b>	
Tasword 464 (cass)	59.50
Tasword 464-D/664 (disc)	79.00
Tas-spell 464-D/664 (disc)	56.00
Tascopy (cass)	32.95
Tascopy (disc)	45.95
Tasprint (cass)	32.95
Tasprint (disc)	45.95
<b>Amstrad CPC 6128</b>	
Tasword 6128	79.00
Tas-spell	56.00
Tascopy	45.95
Tasprint	45.95
<b>Amstrad PCW 8256/8512</b>	
Tasword 8000	79.95
Tas-spell 8000	56.00
Tasprint 8000	52.00
<b>Amstrad PC 1512</b>	
Tasword PC	89.95
Demo disc (Tasword PC)	5.00
Tas-spell PC	TBA
Tasprint PC	89.95

Send SAE for more information.  
 Specify computer type.

Australian Distributor



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# TIP-OFFS

Continuing the lowdown on LocoScript, CP/M et al.

Welcome to four more pages of Tip-Offs to get the best from your PCW. The flood of tips is still only running at a trickle. It would seem that Australian PCW owners don't want to help each other. Come on Aussie - get your thinking caps on, your pens out and send your revelations to Tip-Offs, The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria, 3150. By the way, please make sure they are original - it's illegal to copy from other magazines.

## MEMORY BLOCK

When storing and pasting various phrases or blocks throughout a long document, it can be a problem remembering what letter or number corresponds to the phrase or block you want. One solution is to note down on a piece of paper, key words from each block and phrase, then stick the paper along the top of the keyboard to ensure these notes are always in sight. By using a narrow strip of paper, or a length of paper stickytape (such as Scotch Post-it Cover up tape), notes about blocks can be jotted down directly over their corresponding number keys.

## LOCODATA

LocoScript can be used as a simple database, which for simple lists could be all you need. While the facilities LocoScript provides are much more limited compared to proper database programs, it's free! There is no automatic sorting into alphabetical order, but the "record" size and layout is completely flexible for each entry. Probably the easiest method is to make each record a separate page. An index can be put on the first page, so moving to the required entry is simply a matter of pressing the [PAGE] key the required number of times.

The other movement controls, such as the cursor arrows, [UNIT] and [PARA] keys can also be used to move through the listings. The find/exchange function can also be used to search for and/or amend data.

## NUMBER LOCK

As well as using [ALT]+[ENTER] for CAPS LOCK (TAU December issue), [ALT]+[RELAY] gives NUMBER LOCK, allowing use of the number keys when [SHIFT LOCK] is engaged. However... this also activates the cursor movement keys as a numeric keypad - [FIND] becomes 7, [=] becomes 5, [-] becomes 1, etc. Cursor and scroll movements are lost; pressing [-] to move back simply generates a series of 1's. The numeric keypad is also activated by [EXTRA]+key, for whichever number you require.

## BASIC SPACE IN PROFILE

Renaming the CPM file PROFILE.ENG to PROFILE.SUB gives a very useful submit file which is read automatically when CPM+ is booted. As well

as using the SETDEF utility to define a drive search order, PROFILE.SUB copies several files into drive M. These command files are then available at any time, without disc swapping. (The relevant section of the CPM manual is page 15 - "Some shortcuts to take.") Among the files copied to M is BASIC.COM, or Mallard Basic. Unless you frequently use Basic, either for programming or to run RPED, leaving Basic on disc gives a further 28k of usable space in drive M. Using the text editors ED or RPED, simply delete the line <m:=basic.com[o] from the profile.sub file. Basic can easily be called from disc when required, leaving the M drive to carry only frequently used utilities such as PIP and ERASE, as well as any desired program command or overlay files. Running programs from M drive usually speeds up many operations, and loading only the minimum number of utilities with PROFILE.SUB ensures maximum space to load applications. PAPER.COM is another utility which may be omitted from PROFILE.SUB, and called from disc when a change of printing paper size is required.

Robert Moore.

## QUICK LINE MOVES IN NEW WORD

New Word has a little-known short cut which



allows you to move single words and lines around very fast, by using it's 'undelete' command. Normally to move a line you have to mark it as a block and then do a [ALT]KV(move block command). Instead, to move a line, go to the line, do [ALT]Y (delete line), move the cursor to where the line is to go and do [ALT]U (undelete). The line reappears magically. This works for words too; [ALT]T deletes a word, and [ALT]U reproduces it wherever you happen to be at the time. To copy a line rather than move it, delete it with [[ALT]Y to store it in the move buffer, immediately undelete it to reinstate it, move to where you are copying it to, and undelete again. This way you can duplicate a line repeatedly - [ALT]Y once then [ALT]U 20 times results in 20 copies of the same line.

### LOCOSCRIPT SHORT CODES

There are a lot of short cuts to 'doing without menus' in LocoScript. Many of these are shown in the mystical shorthand of the capital letter codes in the Set and Clear menus - see page 133 of the dreaded manual. It's simple really! All you do is to type, for example, +SB to get SuBscript, and -SB to cancel that particular code. Type fast enough, and the 'Set' Menu won't

## SOUPED UP SUPERTYPE

SuperType, previously marketed by Gemini as FontGem, is a useful program which offers 8 new typefaces for LocoScript and CP/M with the standard PCW printer.

Despite what the manual leads you to believe, it is possible to have all the SuperType fonts on one LocoScript work disc. The standard LocoScript printer font is contained in the file MATRIX.STD on the distribution disc - Digital have, in effect, supplied eight different alternatives that can be used in its place.

When LocoScript starts up from your work disc, it looks for the MATRIX.STD file and sets up its printer font from that. Therefore, to change the font you have to use a different MATRIX.STD when you start. To make up a LocoScript work disc with all SuperType's fonts on it, try this:

Use DISCKIT to make a copy of your LocoScript master disc on a new work disc. Start LocoScript going and erase (using [f16]) any files you don't want, such as the tutorial example files, to give yourself enough disc space to work.

Now, in the Disc Manager screen, press [f8] (Options), move the cursor bar over 'Hidden' and press the +key, then [ENTER] to quit the menu. This now lists out the Hidden files on the disc, which includes the MATRIX.STD in the first group.

Now using [f3], copy MATRIX.STD to a new file called MATRIX.OLD, so your disc manager screen ends up like the one shown.

Now put in your auto-loading SuperType disc (created using steps 1-7 in the manual), reset the PCW and let the program load. Choose which font you want to use - for example the 'Business 1' font, number 1 on the list. So press '1', and then when asked, 'L' to install a LocoScript disc. Follow SuperType's instructions and wait for it to do its work. Now restart LocoScript from your new disc, and show the hidden files again with [f8]. You will

still have a MATRIX.OLD and a MATRIX.STD file, but SuperType has modified the MATRIX.STD to hold the Business 1 font.

Suppose that you also want to have an Olde English font on the disc: using the [f5] menu, rename,e MATRIX.STD to be MATRIX.B1 (for 'Business 1'), and copy with [f3]MATRIX.OLD to be MATRIX.STD, so you now have three MATRIX files.

Restart SuperType, via CP/M, and with the same LocoScript disc install the Olde English font. When you run LocoScript again, rename MATRIX.STD to be called MATRIX.OE (for 'Olde English'). For every font you want to use, repeat this process - ie. copy MATRIX.OLD to be MATRIX.STD, run SuperType normally, then rename the MATRIX.STD to be MATRIX.??? (??? being three letters to remind you which font it contains).

Now you can use this disc to get to any of SuperType's fonts. To change fonts, start LocoScript up, delete the current MATRIX.STD and then copy the MATRIX.??? of your choice to be the new MATRIX.STD.

Press[SHIFT]+[EXTRA]+[EXIT] to reset the PCW, and the new font will be loaded. That disc will continue to generate that font until you next change it's MATRIX.STD file. You can get back to the standard font by using MATRIX.OLD as the MATRIX.STD.

Unfortunately, this method still doesn't allow you to mix fonts in document - you can only print in your current SuperType font. Be careful with all the renaming and copying that you always have a file called MATRIX.STD, or LocoScript won't start at all. Don't forget too that SuperType only works with LocoScript version 1.2, not (yet) LocoMail or LocoSpell.

A.J. Clarke.



appear at all, so this puts the code into your text very much more rapidly than using either the ordinary menus or even the Set and Clear menus. If you use the 'f1 Show' menu and tick the 'Codes' option you will see the codes appear as you type them in the document as normal.

If you press + and forget what initials you need to type to get a code, press 2 on the keyboard (or just wait a second) and then the Set menu appears. Now you can see the right letters capitalised in the relevant choice - so I for italic, RV for reverse

and so on. Finally, to get a hard space you press +(space bar). However, you can't get hard hyphens with +-, which seems to be a 'bug' or a 'feature'!

Ray Gladden.

## RUNNING CP/M SOFTWARE

When you buy a new piece of software to run under CP/M, no matter how simple it is there always seem to be tortuous instructions in an obscure manual designed to prevent you using it. The first thing you always ought to do is use DISCKIT to make a

backup of the master disc as described in the Amstrad manual (although some programs like Prospell or certain games cannot be copied). Secondly, put your newly copied disc in the drive, type DIR [RETURN] and you will see a directory listing of all the files in the disc. The files have names of up to eight letters, a dot, and three more letters. The final three letters tell CP/M what kind of file it is - .BAS means a BASIC program, and .COM means a CP/M command file.

So, if you have just

bought a (fictional!) database called 'Turkey', on the directory listing you should see a file called TURKEY.COM or TURKEY.BAS. If .COM, the program will be run by typing TURKEY [RETURN], and if .BAS then by loading BASIC and typing RUN"\"TURKEY" [RETURN]. Unfortunately, you'll still have to read the manual to get any further.

## COUNTDOWN

If you are writing long documents like books, you will probably be storing

## RUNNING BASIC FILES FROM CP/M

When you are faced with the awesome 'A>' prompt in CP/M and you type a name like BURBLE [RETURN], CP/M looks on the current disc for a file called BURBLE.COM and runs it.

However, there is a sneaky way of hacking CP/M so that instead CP/M will look for BURBLE.BAS and run that as a BASIC program - handy if you do a lot of BASIC programming.

You will need:

> One blank, formatted disc.

> PIP>COM

> J14CPM3.EMS

> BASIC.COM

> SID.COM (side 3 of the master discs).

Using PIP, transfer the above files onto the new disc, and then, type: SID J14CPM3.EMS [RETURN]. Now for the tricky bit: very carefully type the following instructions in (pressing [RETURN] at the end of each line). If you get any of them wrong, type [ALT]C to abandon SID and get back to CP/M, then re-enter the SID command and keep trying until you get everything right:

```
S5d47
```

```
"BAS
```

```
.
```

```
S5ca2
```

```
"BASIC COM (3spaces between BASIC and COM).
```

```
.
```

```
S59dc
```

```
"EXEC .BAS
```

20

```
W J14CPM3.EMS
```

```
[ALT]C
```

What this has done is to hack your CP/M startup file (the .EMS file) so that whenever it would normally run a .SUB file it looks for a .BAS file instead.

Normally, when CP/M starts it looks for a file called PROFILE.SUB and, if it is there, automatically runs the command SUBMIT PROFILE. Your new version of CP/M instead looks for a BASIC program file called EXEC.BAS loads BASIC up and runs it.

For example, take an existing BASIC program - maybe a simple one-liner like

```
10 PRINT "hello" -
```

copy it onto your modified disc and rename it to be EXEC.BAS. Now reset the PCW with

```
[SHIFT]+[EXTRA]+[EXIT], and you will see
```

EXEC.BAS automatically run in front of your eyes.

Now for the final frill. Make sure you have the file SETDEF.CAM on your current disc and type SETDEF [ORDER=(SUB,COM)].

As long as you used your modified CP/M disc to start the PCW with, when you type at the 'A>' prompt something like TEST [RETURN], CP/M runs the BASIC program TEST.BAS. Ordinary.

One word of warning: with your modified CP/M system you cannot use SUBMIT.COM or the PROFILE.SUB facility - this is why you must keep the unmodified CP/M work disc around so that you can go back to it if necessary.



them in separate chunks since LocoScript doesn't handle screens of text very fast. This means that you have to jiggle the page numbering so that the second chunk begins one page after the first chunk ends, and so on.

A quick way of finding out how many pages a section has without actually editing it is to 'print' it. Press P for print, and select the 'Print some pages' option. The menu now tells you what the last page in the document is numbered as. Press [CAN] to cancel the print command. Now you can set the first page number for the next section correctly.

Angela Roger.

## MORE SUPERCALC PRINT STYLES

People seem to be having a lot of trouble getting SuperCalc to produce high quality ('NLQ') print. After getting it going with SC 2 [RETURN], you can change between draft and NLQ at will with the [PTR] key. To change, press [PTR], use the cursor right key to highlight "high quality", press + and [EXIT].

If you want to change the style of print to get italics or whatever, give the /O command for 'Output' and as normal choose D or C for 'Display' or 'Contents'. But before choosing P for 'Printer' choose S for 'Setup' - you then enter S again for setup codes and the following can be used

to change the style of the spreadsheet you print out:

Condensed text	[ALT] O	(on)
	[ALT] R	(off)
Bold	[EXIT] G	(on)
	[EXIT] H	(off)
Enlarged text	[ALT] N	(on)
	[ALT] T	(off)
Italic	[EXIT] 4	(on)
	[EXIT] 5	(off)
Underline	[EXIT] -1	(on)
	[EXIT] -0	(off)
Pica text	[EXIT] P	
Elite text	[EXIT] M	
Superscript	[EXIT] S0	(on)
Subscript	[EXIT] S1	(on)
Both of these	[EXIT] T	(off)

Will Parfitt.

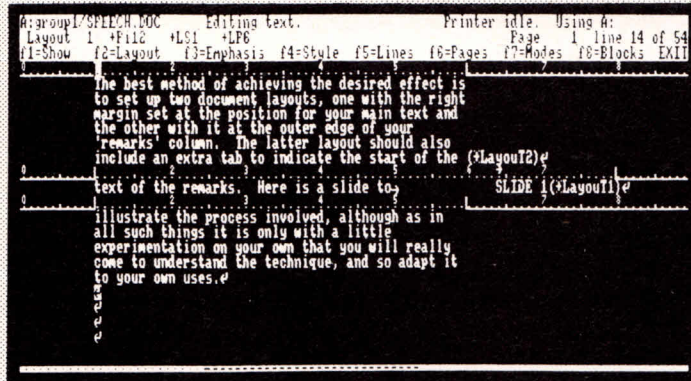
**Send your tips,  
hints, bribes or  
anything else to:  
The Amstrad  
User  
1/245 Springvale  
Road  
Glen Waverley  
Victoria 3150**

## MARGIN NOTES

If you have to type up the script for a speech or a brief, you need to leave a wide right hand margin into which you can place notes, references or instructions for switching visual aids on and off. There is no simple way of writing text in multicolumn format, but you can do occasional margin notes without too much trouble. Suppose that you normally write text between a left margin of 10 and a right margin of 80, but you want to leave a space at the right for notes. You need to have one format for writing text between columns 64 and 80 (leaving a small column gap). While editing your document, use [f2] to create a Brand New Layout with the margins at 10 and 60 as desired.

Then create another new Layout with the margins at 10 and 80, and a Tab marker in column 64. Type in all your text using the first (narrower) layout, and then go through finding the points which you need to have margin notes for. On each line to be annotated, type a [RETURN] at the end of the line above, insert the code for the wider layout, type a TAB at the end of the next line to take the note, enter the code for the narrower layout again and press [RETURN]. Since putting these [RETURN]s at the end of lines stops them being justified as they would if they were part of a paragraph, your document will look best if you have justification turned off throughout.

Alexander Deucher.



*PRINTS OUT  
AS THIS ...*

The best method of achieving the desired effect is to set up two document layouts, one with the right margin set at the position for your main text and the other with it at the outer edge of your 'remarks' column. The latter layout should also include an extra tab to indicate the start of the text of the remarks. Here is a slide to illustrate the process involved, although as in all such things it is only with a little experimentation on your own that you will really come to understand the technique, and so adapt it to your own uses.

SLIDE 1

... THIS



# A LOOK AT LOGO

## Don't ignore Side Four of your master discs

Although this article is aimed at PCW owners, it is just as relevant to any other machine in the Amstrad range with a disc drive.

One of the least well documented, and therefore least used, programs in the PCW 'package' is the programming language Logo. When Logo is mentioned in computing circles the most common comment is "Oh Yes, the children's language". While it's certainly true that Logo can be very helpful in teaching children mathematics and logic, it's also an ideal language for anyone wanting to dabble in programming. You can produce attractive patterns and drawings on the screen of your PCW with the minimum of learning.

To use Logo first prepare a work disc. Start your PCW with this disc in the top drive and away you go.

### TURNING TURTLE

The easiest way to approach Logo is on a turtle. Not one of the Galapagos Island varieties but an imaginary reptile symbolised by a small dart-shape on the screen. The screen turtle is at your command and you can move it around the screen with simple commands like `fd` and `bk` for forwards and backwards, and `lt` and `rt` to turn left and right.

The Logo turtle is an extremely literate one, and carries a pen with it on its travels. The `PD` command puts the pen down so the turtle leaves a trail wherever it goes. It's this trail which forms the drawings and patterns that Logo can make on the screen. The `PU` command lifts the pen up again. Two other useful commands are `HOME` which puts the turtle back in the centre of the screen, pointing upwards, and `CS` which clears the screen as well.

The movement commands are followed by a number which tells the turtle how far to travel or by how many degrees to turn. You can put several commands on one line or press `RETURN` after each. You must separate each command from its associated number and from other commands by a space, however, or Logo will get confused. For example:

```
cs fd 200 rt 90 fd 200 rt 90 fd 200 rt 90
fd 200 rt 90
```

will draw a square on the screen, but:

```
csfd200rt90fd200rt90fd200rt90fd200rt90
```

only provokes the response:

```
I don't know how to
csfd200rt90fd200rt90fd200rt90fd200rt90
```

All Logo's error messages are full and helpful like this. Gone are the 'Syntax error' of BASIC or the 'OPEN FILE INVALID DISC SELECT' of CP/M.

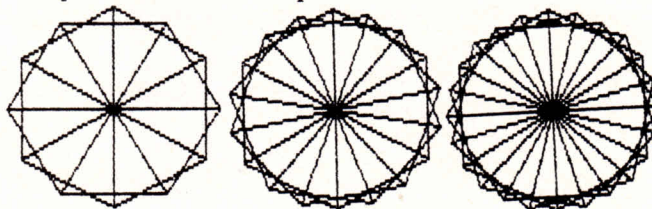
### ENDLESS VARIATIONS

Not only can you define your own commands, which Logo automatically adds to its vocabulary, but you can attach numbers to them in the same way as with `fd`, `bk`, `lt` and `rt`. Logo handles this by using a *variable* within the user-defined command. It's easier to explain the mechanism with another example.

Suppose you want to draw a star with any number of points. You can do this by rewriting the `star` command to expect the number of points as a number directly following the command name. The new command would look like this:

```
to anystar :points
cs repeat :points [repeat 3 [fd 80 rt
120] rt 360/ :points]
end
```

Now type in `anystar 8`. Logo takes the number (8) after the `anystar` command and puts it in the variable



anystar 12

anystar 18

anystar 24



points. It then uses this value in the **repeat** loop and to determine the angle through which the turtle must turn between drawing each triangle in the star. There's an awful lot more you can do with Logo, and to whet your appetite here's a working Logo clock, courtesy of Glentop's excellent Logo Pocketbook by Martin Sims (*Should be available through The Amstrad User in June*). You run the program by typing **start**, and you may need to 'adjust' its timekeeping by altering the number of repeats of the **pu pd** operations in the **delay** command. You can look up any of the Logo commands you don't understand in your PCW manual.

```
to clock
seth :mh pe fd 70
pu home
make "mh :mh + 6
pd seth :mh fd 70
pu home
seth :hh pe fd 40
pu home
make "hh :hh + 0.5
pd seth :hh fd 40
pu home
delay 3600
end

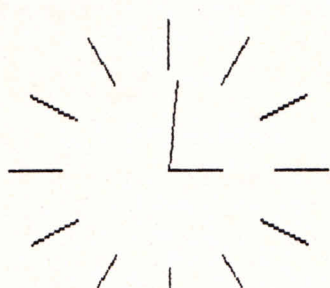
to start
pu home pd
face
hands
repeat 720 [clock]
end

to face
cs repeat 12 [line]
end

to line
pu fd 80 pd
fd 40 pu bk 120
rt 30
end

to hands
pr [Enter minute hand heading]
pr [then hit RETURN]
make "mh item 1 rl
pr [Now the hour hand heading]
make "hh item 1 rl
end

to delay :tick
repeat :tick [pu pd]
end
```



Enter minute hand heading  
then hit RETURN  
⓪  
Now the hour hand heading  
90  
■

Note: the headings are entered in degrees

### REPEAT AFTER ME

It's really quite boring to type in these nine commands just to draw a square, especially since eight of them are just the sequence **fd 200 rt 90** repeated four times. Logo has a convenient shorthand for this kind of repetition, and the square routine can be rewritten in the form: **cs repeat 4 [fd 200 rt 90]** As you can probably guess, the **repeat** construction repeats whatever is inside the square brackets. The number of repeats is determined by the figure preceding the opening bracket.

You can draw an interesting pattern with no more than these few commands. Try:

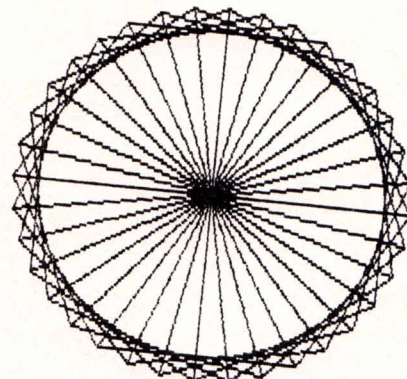
```
cs repeat 36 [repeat 3 [fd 150 rt 120]
rt 10]
```

This produces a 36 pointed star. The trouble is that you still have to type this sequence of commands every time you want to draw the star. Well, no, actually you don't. In the same way you can use the *primitive* commands like **fd** and **cs**, you can also use ones which you've defined yourself.

To define a command of your own, you must first give it a name. A command to draw the 36 pointed star might be called **star** and to define it you would type:

```
to star
fs cs ht
repeat 36 [repeat 3[fd 150 rt 120]rt 10]
END
```

Logo now knows how to 'star' and you can draw one on the screen simply by typing **star**.





# BUSINESS MATTERS

## Using LocoScript to polish off simple business letters

The advent of low-cost LocoScript word processing has encouraged many people in business to type their own letters and documents, whereas previously they might have dictated a letter for a secretary to type up. Beware, though - there are well defined conventions for laying out business letters, and ignoring these could give your business an amateurish image.

There's an old Disney cartoon which ought to be compulsory viewing for all driving test candidates. It stars placid, mild mannered Goofy, and follows him on his route to work one day. In the morning he ambles out to the car and gets in; at the instant he turns the ignition key, a miraculous transformation overtakes him. His eyes bulge, his face goes red, he hits the horn, screeches off with a plume of burning rubber and careers down the road leaving a trail of wreckage behind him.

This all goes to show how ordinary people become mentally unbalanced when faced with a car. In some respects, word processors can have the same effect; people who chat to you on the phone quite normally suddenly get hold of a word processor and forget the basic principles of putting one word after another on a page.

### The business of writing

Different secretarial colleges teach different styles of letter writing, and if you work in a big company there may well be a 'company standard' which you have to use anyway. But for general use, here are some simple guidelines for writing single page letters. Following it are notes which go through each part of the letter. Overall you need to aim for a friendly but professional feel to the letter. This means using the parts of the standard layout which are appropriate to your reader, but avoiding irrelevant bits (like the 'Our Ref' part) where they aren't needed. Don't get seduced into wordy officialese, like 'With reference to the conversation between the aforementioned and the

undersigned.'

When you've finished a letter, imagine that you are on the phone to the person and reading out the body of the letter text. If it doesn't sound natural, you've probably gone over the top.

### THE AMSTRAD USER

1/245 Springvale Road, Glen Waverley, Vic 5150

1 Our Ref: Tau/001

2 Mail Order Department  
Ideal Gnome Magazine  
12-14 Troll Street  
Rivendale  
Victoria 3000

1st May 1987

3 Dear Sir

4 ARTICLE IN 'IDEAL GNOME' MAGAZINE 31/03/87

I read with great interest the review in your magazine of the new model ACME garden gnome, with illuminated nose and electrically operated fishing rod.

5 I would like to take advantage of your excellent special offer and order 500 gnomes at \$149.95 each.

I look forward to receiving my gnomes.

6 Yours faithfully  
7 The Amstrad User

8 Arthur Elf  
Managing Director

**1 References.** The idea of a reference on a letter is to help you trace it later on. If somebody writes to you saying, "Thank you for your letter of 1st May, reference TAU/001" you will be able to quickly find your copy of the original text and remember what's going on.

With LocoScript, one good idea is to have your reference as the name of the file in which the letter is stored. If you have several discs numbered 1,2,3... then you can add this in too. For example, if you have written a letter in a file called IGM.001 on disc number 2, you might use the reference 2/IGM.001.

If you don't keep formal records of letters then leave



out the word 'Ref:' altogether - it looks pompous to have irrelevant headings flying around. Also, don't use this if you are writing as a private individual rather than as a company, since that looks silly too.

**2 Address.** This is positioned so that when an A4 letter is folded into 3, the address will show properly through a standard envelope. In keeping with the modern punctuation style, there are no commas at the ends of lines.

You may have to experiment a little to find the best position for the address on your envelopes, but it will probably start around the 11th or 12th line on the page. Bear in mind that the PCW automatically leaves 6 blank lines at the top of a page when you use single sheet paper, so the first line of your LocoScript letter appears on line 7 of the page.

Leave two blank lines above and below the address, so that you don't get rogue lines showing through the address window of the envelope.

**3 Greeting.** Obviously, the whole tone of a letter is determined by how well you know somebody. If you are writing to an organisation where you don't know who will read the letter, begin off 'Dear Sir' (or 'Dear Sir or Madam' if you want to keep your options open). With this greeting, the letter should be ended 'Yours faithfully'.

On the other hand, if you know the name of the person you are writing to (perhaps you have spoken on the phone), begin off 'Dear Mr. Elf', 'Dear Arthur' or whatever. End these letters with 'Yours sincerely'.

**4 Title.** If the occasion demands it, put the subject of the letter in capitals at the start. Not all letters need this line, so use your judgement to tell whether it looks silly or not. Generally, it is used when you are writing to someone for the first few times, but not once you get onto an involved correspondence.

**5 Text body.** The modern style for text is that paragraphs start hard against the left margin (no indentation), and there is a blank line between each paragraph. This helps to break up long pages of text and make them easier to read.

The final line of the letter should give some clue as to what will happen next. If you expect a reply from someone, say so here. Equally, if they have to wait for you to do something, say so.

**6 Close.** What form of close you use depends on what you wrote in the 'Dear ...' slot. Often, to a fairly close business acquaintance, 'Best wishes' is a good informal close - it is friendly without being too familiar.

**7 Affiliation.** If you are writing on behalf of a company, put the name in capitals here, otherwise forget this bit.

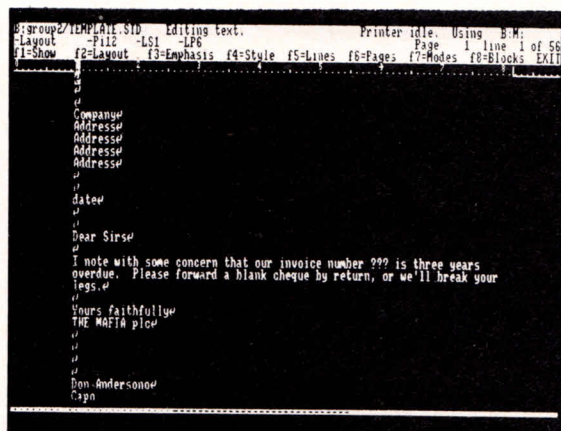
**8 Signature Block.** Your name and position, which allow you to indulge in a flowery signature since no-one actually has to read it to discover who you are.

## Where LocoScript's templates come in.

LocoScript is tailor made for letter writing. By now you must have written at least one letter with it - all the manuals and teach-yourself courses start by showing you how to create a document, type in simple sentences and print it out. However, there are several ways to use LocoScript to make repetitive letters simpler.

First of all, a quick refresher course on disc organisation and 'templates', starting from the familiar Disc Management screen. The highlight bar shows you which group you are currently in. Each group should have a document in it called TEMPLATE.STD; when you press the 'C' key to Create a document, your new document starts off as a copy of its group's TEMPLATE.STD.

This means that if you write a lot of similar letters, like credit chasing, you can write a standard form letter with the names and amounts left blank and store this as the TEMPLATE.STD for your credit chasing group. Then when you create a new document in that group, you always start with that basic form letter, and you just go through filling in the blanks. TEMPLATE.STD is a normal LocoScript document, you can edit it like any letter, rename it or delete as you wish.



```
B:group2/TEMPLATE.STD Editing text. Printer id: Using B.M.
-Layout -P112 -LS1 -LPG Page 1 Line 1 of 58
F1=Show F2=Layout F3=Emphasis F4=Style F5=Lines F6=Pages F7=Modes F8=Blocks EXIT
|
|
| Company
| Address
| Address
| Address
| Address
|
| date
|
| Dear Sirs
|
| I note with some concern that our invoice number ??? is three years
| overdue. Please forward a blank cheque by return, or we'll break your
| legs.
|
| Yours faithfully
| THE MAFFIN plov
|
|
| Don Anderson
| Capt
```

## Grouping it all together.

Discs can have up to 8 groups for you to organise your files into - perhaps one group for invoices, one for final demands, and so on. You just use the cursor keys to move between groups and documents.



# PCWs - LETTER LAYOUTS

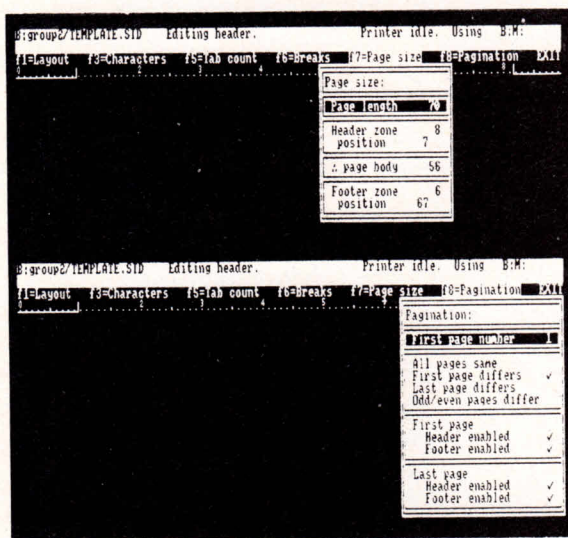
One catch is that groups with no documents in them are not shown on the screen at all, so you can't move the highlight bar into those groups. In the top third of the Disc Management screen is a list of the groups, with a highlight bar over the current one. To move to a new group, you hold the [SHIFT] key down and use the arrow keys; if you are in group 0 of a disc, [SHIFT]→ takes you into group 4, even if there are no files in group 4.

Each group ought to have a TEMPLATE.STD. The best way to create a new group is to place the cursor bar over any existing TEMPLATE.STD file and press the 'f3=Copy' key. The screen now asks you to select the 'destination group', so use [SHIFT] and the cursor keys to get into the group you want, press [ENTER], and bingo! Your new group opens up on the screen with its TEMPLATE.STD, which you can then edit as you want.

## Headers and footers for letters.

LocoScript's headers and footers are at times complex to use, and were covered fully in Issue 26 of The Amstrad User. They are particularly useful when writing letters, as you can number continuation sheets automatically.

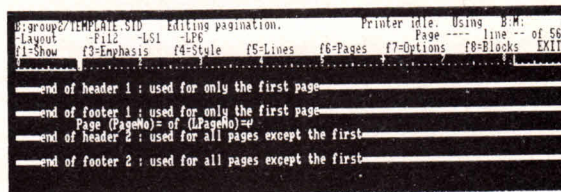
For multiple page letters, you may want to have at the top of each sheet (except the first) 'Page 2 of 4', or whatever the numbering actually is. LocoScript can handle this very nicely.



Edit your TEMPLATE.STD file in the group you keep letters in, and from the Editing screen, use the [f7] key, the 'Edit Header' option. [f7] again and finally [f7] yet again to get to the page size menu. Set this up to the sizes shown, which are good values for A4 paper. When this menu is OK, press [ENTER] to clear it off and then [f8] for the Pagination menu. Set this up too

as shown.

Press [ENTER] to clear the menu off, and then [EXIT] which takes you back into the 'Editing Pagination' screen. Now you can set up the headers and footers.



For the first page, leave both the header and footer blank. Use the cursor down key to get into the header region of 'All pages except first', and type Page = of = Now place the cursor on the first equals sign, and put a 'This Page Number' code there, either with the [f6] key or by the short-cut +PN. Place the cursor on the second =, and put a 'Last Page Number' code there, again either with the [f6] menu or by typing +LPN.

All this magic means that when the pages are printed out, the first equals sign is replaced by the current page number, and the second equals sign by the number of the last page in the letter (ie. the total number of pages in the letter). If you have a letter longer than 9 pages, this method will go wrong - you need to use == instead of just =, but otherwise it works in the same way.

## Caveat Scriptor!

So now you can write beautifully laid out, grammatically perfect letters. We at The Amstrad User expect to receive nothing but excellence in our postbag from now on. No excuses - you have been warned! A final piece of advice; don't forget to use a spelling checker for letters more than a paragraph or so long.

## Boffin Note.

LocoScript's Groups are really the same thing as CP/M's User Numbers. If you start CP/M up, put a LocoScript disc into the drive and type DIR, all the document names in the first group will appear. If you type USER I and then DIR again, you will see all the documents in the next group. CP/M has 16 user areas numbered 0 to 15; LocoScript's 8 groups are in user areas 0 to 7. If you have deleted a letter with the [f6] key in LocoScript, it is marked as a 'Limbo' file; Limbo files for groups 0 to 7 are stored in the user areas 8 to 15 respectively.



# SYNERGY SOFTWARE

'Professional Software for the Amstrad PCW Computer wordprocessor'

## SHAREMASTER

In 1984 we released an integrated investment package for the BBC Micro called Share Analyser. The package was an instant success receiving exceptional praise from both users and the computer press with reviews ranging from a modest 'excellent' from Micro User magazine to an 'excellent-very highly recommended' from The Which? Software Guide.

Since the release of Share Analyser we have received many suggestions on how we could make Share Analyser even more sophisticated and flexible.

Following two years of research and development and the incorporation of the suggestions received we are proud to announce ShareMaster, a completely new package which we believe will be regarded as the most significant advance in investment analysis since the birth of the microcomputer.

Sharemaster is the ultimate integrated investment analyst and reporting system designed to utilise the powerful features of the Amstrad PCW8256 and 85512 wordprocessors.

Designed for the small professional investor, ShareMaster is the most powerful tool available for predicting the mood and direction of the stockmarket and analysing investment performance. ShareMaster can analyse share prices, currencies, traded options, commodities or any other time based series by a variety of comparative, statistical and analytical measures.

Price information can be entered on a daily or weekly basis and the package supports full date and decimal handling and provides intelligent time series comparisons.

Charting facilities include log/in representation, point & figure, linear regression, exponential curve smoothing, correlation, six types of comparison, momentum, RSI oscillators, moving averages, highs, lows, trendlines, Epson compatible screendump etc.

Profit Analysis facilities include Valuation, Performance Reporting, Single Share and Portfolio Profit analyses etc.

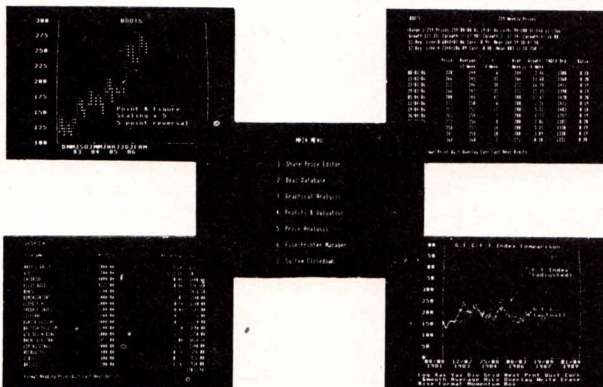
Numerical analysis facilities include most charting indicators, Ratios and generalprice statistics for any selected price range.

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These are only a fraction of the facilities offered by ShareMaster, ask for our FREE comprehensive brochure. We believe that NO investment package can match ShareMaster in terms of facilities, performance flexibility, ease of use and price and are convinced that ShareMaster will be the best investment you will ever make.

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 \_\_\_\_\_  
 Phone number \_\_\_\_\_ Charge my \_\_\_\_\_ card  
 Number \_\_\_\_\_ Expires on \_\_\_\_\_  
 Allow up to 4 weeks for delivery  
 Phone (075) 325464 for faster service TAU586

## "SHARE-WARE" ON THE PCWs and PCs

At first sight, the stockmarket appears to behave in an unpredictable way. In theory, the performance of a share should reflect the trading record and prospects of the company itself....but this is only part of the story.

The main factor which influences share prices is the imbalance between buyers and sellers in the market. A share's price increases because more investors believe that it will rise than those who believe it will fall. A point is eventually reached when some buyers take profits or lose their nerve and switch their allegiance to the "sell" camp until sellers outnumber buyers and the price falls. When the price drops to a level which the majority of investors consider cheap, then buyers will return and the whole process will begin again.

The stock market is therefore driven by emotional factors which can be measured scientifically in the form of trends, resistance levels and other key signals. The skillful investor is one who can measure these trends, recognise the signals and take advantage of an impending movement before the market has time to react.

A new product from the U.K. "Sharemaster" has been designed to identify trends, highlight resistance levels and provide a variety of indicators to help you decide the right time to sell or buy. With Sharemaster, you will never need to invest blindly or follow market tips without consulting your own personal analyst. Armed with Sharemaster, the investor can assess the alternatives and make decisions before the ink on the Brokers newsletter has dried and before other investors have an inkling that the time is right to buy or sell.

In short, you will have a range of facilities at your fingertips that would be the envy of the professionals.

Instead of reacting with the herd you will be able to stand back and evaluate the market objectively and with an insight which few investors can hope to possess. In addition, Sharemaster will keep track of your success, strategy and keep you constantly informed of the value of your portfolio and the profits made.

Sharemaster comes with a full suite of charting systems, including Point and Figure, Relative Strength, Demand Oscillators and Momentum Curves. It's statistical measures include Smoothing Curves and Linear Regression. Sharemaster comes with a full reporting facility and screen dumps to your printer for hard copy.

For the small investor Sharemaster has no equal. Sharemaster is available from PC Network at 106a Scarborough St. in Southport on the Queensland Gold Coast and costs \$365 (PCWs). Sharemaster can be purchased by phone on 075-321465 or ask your local retailer to contact PC Network.



## PHRASES and the PCW

Add some padding to your writing with integrated functional phraseology!

by Arnold Goldman

Now you know how to correctly layout letters as explained in the previous article, you may wish to further embellish them. Arnold Goldman gives a tongue in cheek example of one method but with more serious uses.

Have you often wished for a better expression or phrase to raise your writings from the routine mundane to the vaguely obscure level that is often seen in output from a true professional writer. With the aid of integrated functional phraseology you will be able to join the ranks of the gobbledygook producers. Instead of writing in plain English that can be understood by almost anyone, with a few subtle phrases you can write meaningless paragraphs that even you will not fully comprehend. Here is an example:-

'With the aid of integrated functional phraseology you will be able to produce *synchronised logistical concepts* and avoid *balanced incremental hardware* with the consequential *parallel monitored mobility* which will emphasise your *optional reciprocal capability*'. (The phrases are in italics.)

Here is what you need to do to update your LocoScript to provide access to over 600 different phrases with very little effort. What is required is that the PHRASES.STD file on your start-of-day disc be used to store the following 26 words in phrases A to Z as shown.

A - integrated	B - parallel	C - functional
D - responsive	E - optional	F - synchronised
G - compatible	H - balanced	I - management
J - organisational	K - monitored	L - reciprocal
M - digital	N - logistical	O - transitional
P - incremental	Q - policy	R - options
S - flexibility	T - capability	U - mobility
V - programming	W - concept	X - projection
Y - hardware	Z - contingency	

For information on how to use the PHRASES.STD file refer to pages 113 and 114 of your LocoScript manual. If you have trouble deciphering the instructions the following procedure will get you there.

Using the f4 key, move the PHRASES.STD file to the first group in Drive M. Then create in the same group a document called JARGON, for want of a better name.

Now type into this document the list of words shown above. Next erase the existing phrase Z which is rather large and takes up too many of the 550 characters available for the PHRASES file. To do this press COPY, Z, COPY. This stores a null string in phrase Z and effectively deletes it.

The overwriting of the 26 phrases is now possible. Move the cursor to the space in front of the first word and press COPY. Now move the cursor to the space after the last character in the word and press A and COPY. Continue on through the list using all the letters from A to Z, in the correct order.

When this is completed use the f8 key to obtain the Blocks menu, and select the 'Save all phrases' option. Finally, using the f4 key again, move the PHRASES.STD file back to the first group on Drive A.

It is essential that the PHRASES.STD file that you wish to use is on the start-of-day disc and not on your working disc.

To make the best use of this new phraseology, write or type, the following three rows of letters onto a piece of paper:-

Row 1	A B C D E F G H
Row 2	I J K L M N O P Q
Row 3	R S T U V W X Y Z

When you wish to introduce a phrase into your document press PASTE followed by a letter from the first row, then PASTE followed by any letter from the second row, and lastly PASTE followed by any letter from the last row. Choose the letters at random and perhaps tidy up a bit by adding capital letters or plurals as appropriate.

Of course you are not obliged to use the words I have listed. These are a set of general purpose words that generate general purpose phrases. If you wish to substitute with other words more applicable to your type of writing just bear in mind the following rules.

**The words in the first two rows must be adjectives and those in the last row must be nouns, preferably abstract ones.**

Right then, off you go to prepare for the next time you write to your local member of parliament, or to the taxation commissioner. It's the only language they understand.



# LOCOMAIL & LOCOSPELL

You have seen the superb reviews that these products have been getting (page 24 Dec issue T.A.U). Now, after lengthy negotiations with The OFFICIAL BRITISH AMSTRAD USER CLUB (the exclusive UK distributors), The AUSTRALIAN AMSTRAD PROFESSIONAL USER CLUB has Locomail and Locospell in stock .

**YOU CANNOT OBTAIN THESE PRODUCTS ELSEWHERE IN AUSTRALIA!**

Make sure the mailmerger and spell checker you buy work from *within* LocoScript. Locomail and Locospell do, which means they are instantly available at the press of a button, without the hassle of booting CP/M and swapping discs every time you use them (unlike QMAIL and PROSPELL).

**Locospell and Locomail are only \$125 each  
May only members price \$99.99 each**

This month's 'Members only' special offers include:-

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**THE AUSTRALIAN**

**AMSTRAD  
PROFESSIONAL  
USER CLUB**

name pending

**About the club:**

The AUSTRALIAN AMSTRAD PROFESSIONAL USER CLUB has been formed on the success of the *official British Amstrad User Club*. The British Club, due to its size and success, has an enviable position in being first to release many AMSTRAD products, and due to the close links between the two, the Australian Club also enjoys similar benefits (eg Locomail and Locospell are only available through us).

The aim of the club is to fully support business users in any way they need. Members enjoy lots of benefits including:-

\* Big discounts on software and peripherals - RRP less 15% or more. We have one of the largest ranges of software in Australia ( Major suppliers include AMSOFT,CAXTON, COMPSOFT, SAGESOFT, LOTUS, MAP, NEWSTAR, DIGITAL RESEARCH, ASHTON TATE, ARNOR ....and many more!!)....All at the best prices available.

\* Telephone ordering - our helpful staff enjoy receiving your calls, goods can be posted on the same day in most cases

\* Exclusive offers on brand new software releases (for example LOCOMAIL and LOCOSPELL are only available through the Professional User Club).

\* New software developments

\* Monthly newsletter produced by AMSTRAD experts and other professionals containing news, product information, your Q+A, details of the month's special offers and a Business bulletin, which gives tips on the accounting side of your business.

\* Access to "Members only" special offers.

\* Access to the special professional user help line which supports all the business software.

\* **FREE 3" blank disc** on joining the club.

Yes I wish to join one of the New AMSTRAD USER CLUBS.

I would like the following introductory gift (*Tick one*)

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All special offers are subject to availability

TAU

**Professional Club  
Membership is only \$59.90.  
Join NOW!**



# GIVE ME A NUMBER

## Part Two of a Basic programming course

by John Hughes

---

Last month, we learned how to load the BASIC computer language into the computer from the CP/M Plus Disc, as well as how to use the PRINT command to carry out simple calculations and put the answer on the screen and to output simple messages.

The simple programs which we wrote last time had all the calculations which we wanted to perform specified inside them. If, for example, we had wanted Line 10 of our program to multiply 12 by 52, we would have written something like:

```
10 PRINT 12*52
```

Although this does work, it has the disadvantage that every time we want to carry out a different calculation, we have to change the program.

Obviously, it would make more sense to keep the program unaltered, and simply enter the numbers which we want the computer to work on. Indeed, if you have been running any commercial programs which manipulate numbers, you will realise that this is precisely the way in which they always work.

### Open the box

This is done by using Variables rather than fixed numbers. Variables can be thought of as 'boxes' used by BASIC to hold values which may change from time to time, either while a program is running or from one run of a program to another.

In BASIC, Variables are given simple names, precisely like the 'X' and 'Y' names used in algebra. There are rules about what names you can give, and these are unfortunately not the same in all versions of BASIC, but single letter names like 'A' or 'X' are always acceptable, as are letter-and-number combinations where the letter comes first, like 'A1' or 'X4'. Variable names must never start with a number so, for example, '6X' isn't a valid variable name.

To see how variables work in practice, here is a

simple example you can enter using the same calculator mode that we began with last month - that is, without using line numbers or needing to type RUN. Enter the following lines exactly as they are printed here (though you can use small letters instead of capitals if you prefer). Remember to press [RETURN] or [ENTER] after each line.

```
A=12  
B=52  
PRINT A*B
```

As each of the first two lines is entered, BASIC will respond with 'OK' to show that it is ready for your next command. When you press [RETURN] after entering the last line, you should see the answer '624' displayed on the next line.

### LET It = Be

To understand what has happened, you need to know that the first two statements are called 'Assignment statements'. In effect, they evaluate the expression on the right of the '=' sign and put the result in the variable whose name appears to the left of it. Some people find it easier to understand these Assignment statements when they are written in the expanded form LET A=12 and this is perfectly acceptable if you prefer it, though most experienced programmers find it rather clumsy.

When the first two statements have assigned values to the variables A and B, the third statement PRINTs on the screen the result of multiplying the two variables together. What is more, the values of the two variables will not be forgotten when the program ends. If you type in PRINT A the computer will respond at once with the answer '12'.

### R.S.V.P.

It is often very convenient to be able to ask the user to type in a particular number from the keyboard while a program is running, and then to carry out some arithmetical operation on that number. The BASIC statement which does this is INPUT followed by one or more variable names.



For example, the program line 10 INPUT X expects you to type in a number and then to press [RETURN] when you have finished. It then assigns that number to the variable X.

Similarly, 10 INPUT X, Y expects you to type in two numbers on the same line, separated by a comma, and to press [RETURN] when you have finished; the value of the first number would be assigned to X and the value of the second number to Y.

If you only type in one number and then press [RETURN], you will receive the error message 'Redo from start' to warn you that what you have typed in does not match what BASIC was expecting. It doesn't mean there is anything wrong with your program, so if you get this message at any time, just re-enter all the values for which the program is asking.

To see what effect the INPUT command has on the screen, type in the following short program, which will input a value, assign that value to the variable X and then print the value of X on the screen.

```
10 INPUT X
20 PRINT X
30 END
```

Type RUN and press [RETURN].

Take careful note of what the INPUT statement actually does: it puts a question mark on the screen with the cursor next to it to mark the place where you should type in a number. Type in any reasonable number and press [RETURN], and the program will display the same number on the screen again and then stop.

You can run the program as often as you like, typing in a new number each time in response to the question mark prompt.

## Prompt me

As soon as a program becomes a little more complicated than this very simple example, you will find that the question mark prompt isn't really enough. It's far better to have a little sentence on the screen to remind you of exactly what to do.

In the same way, instead of having the final number displayed on its own, you could have a short explanation of just what it stands for. Both of these improvements can be carried out by using the PRINT command with a suitable message enclosed in inverted commas.

Let's make the first prompt appear immediately before line 10, and the second between lines 10 and 20, so we shall give the first new line the number 5 and the second the number 15 - any number smaller than 10 would have been suitable for the first new line, and any number between 10 and 20 for the second. The new

lines will look something like this, depending on the exact message you want to display:

```
5 PRINT "Type in any number"
15 PRINT "The number you entered was"
```

When you have entered these lines, you can prove to yourself that they are really in the right places by typing LIST, and the expanded program will be shown on the screen. The next time you type RUN, the simple instructions you have included in the program will appear on the screen.

## A real program

So far, we have really only been entering simple practice programs; the time has now come for us to try a real, useful one.

The purpose of the program is to convert a number representing a temperature in degrees Fahrenheit into the equivalent temperature in Centigrade.

There are a couple of things to notice about the program. First, there is a prompt telling a user what input is required, and a further line of explanation about the output.

Second, notice the special use of two PRINT statements on their own, without any associated print list. When the program is run, these will place blank lines on the screen making the output tidier.

We shall be using this program next month as well, so it would be sensible to save it when it is working. You'll need a formatted disc to put it on. Type in the program as carefully as possible, making sure that each line is correct before you press [RETURN]. If you do make a mistake, either use the EDIT command as described last time - EDIT 10, for example, to correct Line 10 - or just re-enter the whole line again, making the correction as you go.

When you are sure that everything is correct, try running the program. Don't be surprised if you find it doesn't work first time; if you get a 'Syntax error', go back and correct the faulty line and then try again. You have our word for it that the program really does work correctly!

```
10 PRINT "Type in a temperature in
    Fahrenheit,"
20 PRINT "then press Return or Enter"
30 INPUT X
40 Y=(X-32)*5/9
50 PRINT
60 PRINT
70 PRINT "The temperature in Centigrade
    is"
80 PRINT Y
90 END
```



## Saving your work

To save your program onto a disc so you can use it again, insert your formatted disc into Drive A and type

```
SAVE "TEMP.BAS"
```

or whatever name you prefer, and press [RETURN]. The rules about acceptable file-names are the same as for LocoScript and other files; almost any name made up of letters and numbers, up to eight characters in length and not including spaces, is acceptable.

The three-letter file-extension .BAS is traditionally used to identify BASIC programs, and if you leave it off Mallard Basic will automatically add it to the file name. You can choose a different extension of your own if you prefer, but there isn't much point.

## Reloading your program

Assuming you have just switched on your machine, before you can reload and run any BASIC program which has been saved to disc, you must first load BASIC into your PCW. Load it from the CP/M Plus disc in the usual way.

Place the disc with the program on it into Drive A: and type:

```
LOAD "TEMP.BAS"
```

and RUN the program in the usual way, or type

```
LOAD "TEMP.BAS", R
```

or just

```
RUN "TEMP.BAS"
```

The last two commands have the same effect: that is, they will automatically LOAD the program first and then immediately RUN it.

To make things even easier, with all three of the above commands you can leave the file extension 'BAS' off, just as you could leave it off the SAVE command; the program will still be found in the usual way. However, if you have chosen some other extension for your program, you will have to include it in whichever command you use.

## Different types

BASIC recognises three different types of variable: real numbers (those which can have a decimal point and a fractional part after them); integers (whole numbers); and strings (sets of characters, punctuation marks, letters etc., which cannot be operated on

mathematically).

The difference between real numbers and integers is not really an important one just yet. The programs in these articles work with whole numbers or real ones.

However, if you want to insist that a particular variable will always be an integer, add the symbol '%' to its name. Thus 'A' is a 'real' variable, while 'A%' is an 'integer' variable. If both 'A' and 'A%' occur in the same program, BASIC treats them as different variables.

String variables are marked with a dollar sign, '\$' after the variable name; thus 'A\$' would always represent a string variable.

String variables are used where a program needs to hold names, addresses and other non-numeric data. String variables can be used in INPUT and PRINT in exactly the same way as integer and string variables, but their use will be covered later on.

## Homework?

When you have your Fahrenheit to Centigrade program working properly, see if you can write another one to make the conversion in the opposite direction. When you have written it, try it with some data for which you know the right answers and see if it is working properly.

## Name dropping

The rules about acceptable variable names are not the same for all versions of BASIC. The rules for Mallard BASIC can be summarised as follows:

- Variable names must begin with an alphabetical character; any following characters may be either letters or numbers or a dot.
- Variable names can be up to 40 characters in length.
- Both variable names and BASIC commands must always be separated from other items by a space, a mathematical operator (such as '\*' or '=') or punctuation. If you type in the examples from this series exactly as they are printed, you should have no problems.
- Variable names can never be BASIC command words, like PRINT or INPUT.
- Variable names can be written in either capitals or small letters, or in any combination of the two. No distinction is made between a name in capitals and a similar one in lower case - that is, the variable 'FRED' is the same as 'fred', 'Fred' or fReD'.



# MAY MADNESS SALE

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	PCW DISC	90.00	72.00	18.00
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PROTEXT ONLY	CPC TAPE	68.00	51.00	17.00
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"	CPC ROM	136.00	102.00	34.00
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"	CPC DISC	85.00	63.75	21.25
"	CPC EPROM	119.00	90.00	29.00
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"	CPC DISC	85.00	63.75	21.25
"	CPC EPROM	119.00	90.00	29.00
QMAIL	PCW	99.00	80.00	19.00
LOCOSPELL	PCW	125.00	102.00	23.00
LOCOMAIL	PCW	125.00	102.00	23.00
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LERNLOCO	PCW	49.95	37.50	12.45
TYPERITE	PCW	49.95	37.50	12.45
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"	CPC DISC	45.00	28.60	16.40
BRIDGE PLAYER 3	CPC TAPE	39.95	25.50	14.45
"	CPC DISC	45.00	28.60	16.40
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SCRATCHPAD PLUS	PCW-IBM	204.00	153.00	51.00
GLP2 80 COL 100CPS		540.00	486.00	54.00
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" ON CASSETTE	MODEL 3001	112.00	84.00	28.00
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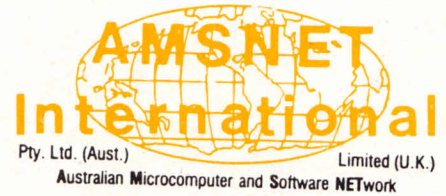
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# GET STUCK INTO LABELS

A GSX program that brings the printer into play

by Arnold Goldman

In my previous two articles on the subject of GSX graphics, the emphasis was on showing how GSX graphics could be added to the standard Mallard Basic, and how it could be used to produce a 'commercial looking' package. In those articles I had difficulty in getting the printer to accept the output that was easily generated for the screen. Since December when I wrote them, a lot of learning has taken place. I have had access to a publication called 'THE AMSTRAD COMPANION' which is an excellent book on the use of BASIC, GSX and LOGO on the PCW computers. I would strongly recommend this book to anyone interested in graphics, or the use of the Jetsam filing abilities of the PCW.

This month my program is aimed at using the printer to produce labels of any size up to 300 millimetre square, with up to 10 lines of text on the label. Obviously some judgement is required, as a 300mm. square label with one line on it is as ridiculous as a 25mm. label with 10 lines. No error trap has been provided for the latter case, so think before you start. The program sorts out how many can be fitted onto the A4 sheet, and selects the appropriate character size to fit on the size of label selected. Before I go into the detail of how the program works its way around the information supplied, I must mention the preliminary requirements that must be attended to before this GSX-Basic program can run.

As mentioned in my previous articles, it is necessary to carry out a GENGRAF operation on the standard BASIC.COM file. This was explained in the February edition. For this month's program it will be necessary to use on ASSIGN.SYS file with both the printer drivers and the screen driver listed. The standard file on your original disc is correctly formatted, so copy it across to your working disc to replace the cut-down

ASSIGN.SYS file that you may have used following my earlier recommendation. Also make sure the following files are on the working disc:

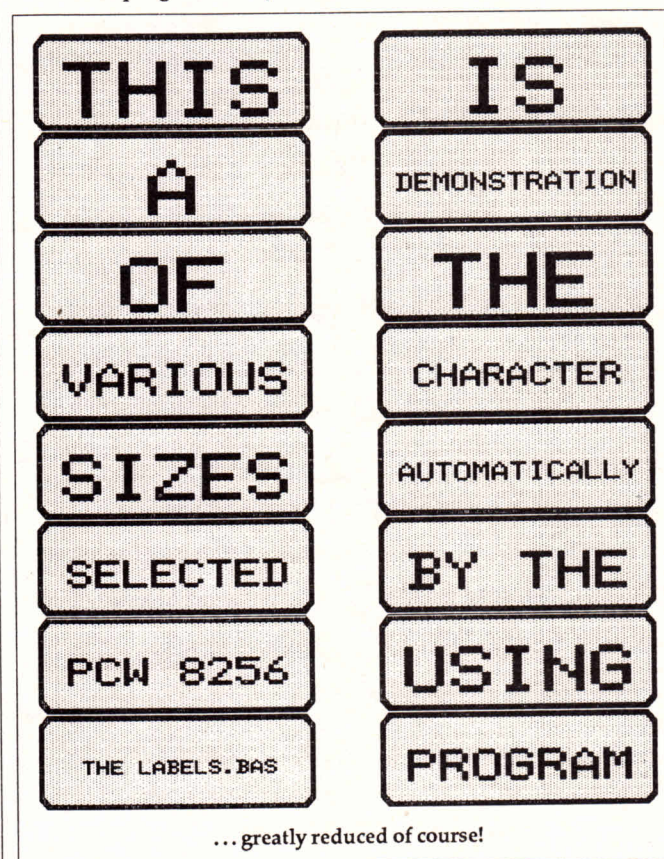
DDFXHR8.PRL, DDFXLR8.PRL, DDSCREEN.PRL,  
GSX.SYS, ASSIGN.SYS (as mentioned above) and the GSX-  
BASIC.COM file modified using GENGRAF.COM

Instead of having the GSXPREP.BAS program as a

separate item it seems obvious now to have it as the preliminary part of the overall program. It doesn't matter if it is run each time the program is run. The other change I have made in my approach to GSX graphics is in the way the instructions are given to GSX. This follows my reading of the book I mentioned above. I find the methods explained in the book so superior to those in the magazines mentioned in previous articles, that I have adapted them as a better way to achieve the desired end result. Well, on to the listing, and an explanation of what the program is doing. At least as far as I understand what the program is doing.

Lines 10 to 120: This is a simple form of introduction. I left out any attempt to provide a spectacular opening. Last month was probably sufficient to show what can be done.

Lines 140 to 320: This is the section which replaces the GSXPREP program in my last articles. It also sets the





dimensions of several of the variables, and introduces a DEF FN function to take the place of the LOCATE command that is seen so often in the listings for the CPC Amstrads. In line 190 I have set a limit on the number of labels to be produced on one sheet. This works out at 60 labels of up to 90mm. wide and approx. 7mm. high. Quite ridiculous really, unless someone out there adjusts the program to make three columns of labels 10mm. height.

**Lines 330 to 1670:** are the main program module. All that appears after line 1670 are the standard GSX modules used in this program, and which can be used in any other graphics program. I shall refer to them as we work our way through the main section. The first few lines up to line 390 takes the user's input of width and height in millimetres and converts them into numbers the computer can use. This is because the GSX system uses a screen, or sheet of paper 32767 units x 32767 units in size.

I have chosen to work within an area 31000 x 31000 and, to make things more confusing, I started using 310 x 310 with corrections later when needed. It is too late now to go through and change to the larger numbers. The fact that both screen and paper use the same unit dimensions means that a square on the printed output is not square on the screen. As the end product of this program is a sheet of labels that is where the dimensions are required to be correct. In line 400 the program skips a few lines if the label size is such that only one label will fit down the page. Lines 410 to 440 sort out the number of labels down the paper allowing a small space between labels. The variable yset is the vertical offset between the labels, and line 470 checks to see if two columns can be printed on the sheet, and allows line 40 to calculate the number of labels on the sheet.

**Lines 490 to 680:** take in the text for each label after asking whether they are to be all the same, and whether more than one line of text is going on each label. The section of program at lines 1300 to 1330 checks that the text will fit on the selected label size. This means of checking uses the fact that at the minimum size the characters are 420 units wide. At line 560 the program goes off to line 1340 if multi-line labels are required. The lines from 1340 to 1530 take in the text and check for length as described above. Lines 690 to 710 select the output device and open the workstation through the subroutine at line 1810.

**Line 720 to 1080:** the program goes into a loop, set by the number of labels. Lines 720 to 840 draw the outer lines of the label using the 'draw polygon' subroutine at line 2650. Style=2 sets a grey scale and index=5 sets the scale at dark grey. For the polygon subroutine, GSX requires information in ctrl%(2) of the number of points on the polygon, and the array of pts.in%(1,i) and pts.in%(2,i) accept the x and y coordinates of each of the four points. The call to GSX is made from within the polygon module. Lines 850 to 940 repeat the procedure for the inner polygon with a lighter index number.

This section also has the complication of printing the text on the label. Line 970 gets the length of the text, and line 980 sets the size of the characters in terms of the 310 x 310 area I am working with. The maximum size of character permissible is 2300 graphics units so line 990 sets the

character height with this as a limitation. Line 1000 checks that the character size is not greater than 80% of the ideal height. Line 1010 uses the text height module at line 2410 to check on the actual size of character to be used by GSX. This is because GSX only allows a fixed number of character sizes and selects the one smaller than that requested on high in line 1000. The information comes back as phigh and is then used to calculate the position within the label that GSX is to commence printing the text.

This is done in lines 1020 to 1030, textx and texty being the locations that GSX will be asked to print at. In calculating textx the left hand side of the label is taken [px(1)]. To this is added half the difference between the label width [wide\*100], and the length of the text [1.07\*length\*phigh]. 1.07 is the ratio of width to height of the characters. A similar exercise is carried out for the vertical position of the text within the label in line 1030. Line 1040 goes off to the module for drawing the text. Similar operations take place in lines 1540 to 1670 for multi-line labels.

If you have selected the screen as the device for output, the program will draw each label as the program works through the loops. If the printer is selected as output, nothing happens until all labels have been drawn in memory. Even then nothing would happen unless the module at 2050 was called up at line 1100. This is the 'Update GSX workstation' module which causes GSX to carry out all operations held in the memory buffer before clearing the buffers for further input. While I was developing this program I had an update call within the loop and the result was to print each label on a separate sheet. So do not update the workstation until all the operations for that picture have been completed.

**Lines 1050 to 1070:**

set the required offsets for the next label using the yset value and a value for xoffset which is halfway across the page. This is the area that could be tampered with to produce three columns of labels instead of two. From line 1090 to 1290 the program moves according to your requirements for printer output, if you have initially chosen the screen for a preview. It also allows for the printing of another sheet of labels using either the high or low resolution printer drivers. The high resolution printing is more than twice as slow as the low resolution. In line 1160 is an instruction to the printer to move to the top of the next page [LPRINT CHR\$(12)]. This is for use with continuous paper and is necessary to prevent me forgetting to wind on the paper after each sheet of labels.

The above may all seem very complex, but is really quite straight-forward once the initial inertia has been overcome.

To obtain other shadings in any polygon that you draw using the module at line 2120, the key items are the style and index. The styles available are 0-hollow, 1-solid, 2-grey scale, 3-hatch. The index sets the fill pattern as follows:

if style is 2 then 1-vertical lines, 2-horizontal lines, 3-diagonal lines +ve, 4-diagonal lines -ve, 5-cross lines, 6-diamond pattern.  
if style is 3 then 1-white, 2-very light grey, 3-



light grey, 4-medium grey, 5-dark grey, 6-black.

These fill patterns may also be used with the 'draw bar' function which was covered in my first article. To refresh your memory, for a bar  $\text{ctrl}\%(1)=11$ ,  $\text{ctrl}\%(2)=2$ . and  $\text{ctrl}\%(6)=1$ . The co-ordinates of the bottom left and top right corners are sent to GSX as  $\text{pts.in}\%(1,1)$  to  $\text{pts.in}\%(2,2)$ .

A small point which may be of interest is that with the screen driver supplied with your PCW computer the style and index facilities are not available. However, if by chance you have a software package that produces filled pictures on screen, look on the disc for the screen driver. It will probably be called DDSCREEN.PRL, the same as the one you already have. But it will be different, and if you use it to replace the original one supplied you will have access to screen presentations that almost match the printer output. The screen drivers do not show the text in the full size but the text is correctly positioned on the screen.

Now, what can you use this program for? Especially when there are address printing programs on the market, and pre-cut self-adhesive labels are readily available in many sizes on continuous computer paper.

Well, this program allows you to choose the size appropriate for your task, and if you want several different sizes, you don't have to buy several boxes of different size labels. It is possible to purchase a box of 100 A4 sheets of self-adhesive label material for \$27.50. These can then be cut up to suit the labels. Even cheaper is plain paper and a UHU-glue stick.

Also using a full size label with several lines of text, impressive transparencies could be made for overhead projectors. The possibilities are endless.

```

10 PRINT SPC(15)"*****
*****"
20 PRINT SPC(40)"LABELS.BAS"
30 PRINT:PRINT SPC(25)"a GSX label producing program
for the Amstrad PCW"
40 PRINT SPC(35)"Arnold Goldman 1987"
50 PRINT SPC(15)"*****
*****"
60 PRINT:PRINT SPC(10)"This program produces labels
of various sizes on a standard A4 sheet of paper
."
70 PRINT SPC(10)"All labels on a single sheet will
be the same size."
80 PRINT SPC(10)"The wording on the labels may be
all the same or all different."
90 PRINT SPC(10)"More than one line of characters
is permitted on each label."
100 PRINT SPC(10)"The program will take care of character
size and positioning."
110 PRINT SPC(10)"All you need to do is enter the
size of label and the contents."
120 PRINT:PRINT
130 '*****
140 ' Initialise GSX system
150 '*****
160 OPTION BASE 1
170 DIM code%(10),ctrl%(6),int.in%(80),pts.in%(2,7
5)

```

```

180 DIM int.out%(45),pts.out%(2,75)
190 DIM labels$(60),mlabel$(10,10)
200 d%=0
210 a=0
220 RESTORE 280
230 FOR i = 1 TO 7
240 READ t
250 POKE VARPTR(code%(i))+i-1,t
260 NEXT i
270 ON ERROR GOTO 1680
280 DATA 197,209,14,115,195,5,0
290 DEF FN rad(d) = d/180*pi
300 cls$= CHR$(27)+"E"+CHR$(27)+"H"
310 cursor$ = CHR$(27)+"e"
320 DEF FNloc$(row,col,text$)= CHR$(27)+"Y"+CHR$(3
2+row)+CHR$(32+col)+text$
330 '*****
340 ' Program to draw labels
350 '*****
360 INPUT "Select width of label in millimetres, 1
86 mm. max. width";widm
370 PRINT "Select height of label in millimetres,
216 mm. max. height"
380 INPUT higm
390 wide = widm*100/62: high = higm*100/72
400 IF high >150 THEN GOTO 460
410 labrows = INT(310/high)
420 yset = INT((high + 1)*100)
430 page = yset*labrows
440 IF page <31000 THEN GOTO 470 ELSE labrows = la
brows - 1
450 GOTO 430
460 labrows = 1: yset = 0: yoifset = 0: moifset =
0
470 IF wide <151 THEN labcol = 2 ELSE labcol = 1
480 labnum = labrows * labcol
490 PRINT labnum;"labels will be printed on one p
age."
500 INPUT "How many labels do you require";many
510 INPUT "Are all labels to be the same? Y/N";rep
eat$
520 PRINT "How many lines of text are to be printe
d on each label?"
530 PRINT "Not more than 10 on a full page is sugg
ested."
540 INPUT "Enter number of lines.";multi
550 repeat$=UPPER$(repeat$)
560 IF multi > 1 GOTO 1340
570 IF repeat$="Y" THEN GOTO 630
580 PRINT "Input the text for each label"
590 FOR t = 1 TO labnum
600 IF t > many GOTO 690
610 PRINT "label - ";t;
620 INPUT labels$(t): word$=labels$(t): GOTO 1300
630 INPUT "Enter label text";word$: GOTO 1300
640 FOR w=1 TO labnum
650 labels$(w) = word$
660 NEXT w
670 GOTO 690
680 NEXT t
690 PRINT "Select device - 1 for screen, 21(high r
esolution) or 22(low resolution) for printer"
700 INPUT "Enter your choice from 1, 21, 22";dev
ice
710 GOSUB 1810: yoifset = 0: xoifset = 0

```



```

720 FOR lab = 1 TO labnum
730 IF lab > many GOTO 1090
740 style = 2: index = 5
750 px(1)=1000 + xoffset: py(1)=(310-high)*100-yof
fset+high*10
760 px(2)=1000+xoffset: py(2)=31000-yoffset-high*1
0
770 px(3)=1000 + xoffset + high*10: py(3)=31000-yo
ffset
780 px(4)=(10+wide)*100+xoffset-high*10: py(4)=310
00-yoffset
790 px(5)=(10+wide)*100 + xoffset: py(5)=31000-yof
fset-high*10
800 px(6)=(10+wide)*100 + xoffset: py(6)=(310-high
)*100-yoffset+high*10
810 px(7)=(10+wide)*100 + xoffset - high*10: py(7)
=(310-high)*100-yoffset
820 px(8)=1000 + xoffset + high*10: py(8)=(310-hig
h)*100-yoffset
830 pts = 8
840 GOSUB 2650
850 style = 2: index = 2
860 px(1) = px(1)+high*5: py(1) = py(1) + high*3.5
870 px(2) = px(2)+high*5: py(2) = py(2) - high*3.5
880 px(3) = px(3)+high*3.5: py(3) = py(3) - high*5
890 px(4) = px(4)-high*3.5: py(4) = py(4) - high*5
900 px(5) = px(5)-high*5: py(5) = py(5) - high*3.5
910 px(6) = px(6)-high*5: py(6) = py(6) + high*3.5
920 px(7) = px(7)-high*3.5: py(7) = py(7) + high*5
930 px(8) = px(8)+high*3.5: py(8) = py(8) + high*5
940 GOSUB 2650
950 IF multi > 1 GOTO 1540
960 text$=label$(lab)
970 length = LEN(text$)
980 size = 0.85*wide/length
990 chigh = INT(size*100): IF chigh > 2300 THEN ch
igh = 2300
1000 IF chigh>(80*high) THEN chigh = 80*high
1010 GOSUB 2410
1020 textx =INT( px(1) +((wide*100 - 1.07*length*p
high)/2))
1030 texty =INT( py(2)-high*40-phigh/2)
1040 GOSUB 2520
1050 yoffset = yoffset + yset
1060 IF yoffset < (31000-high*100) THEN GOTO 1080
1070 yoffset = 0: xoffset = 15000
1080 NEXT lab
1090 IF device <11 GOTO 1130
1100 GOSUB 2050
1110 IF device > 10 THEN PRINT FNloc$(31,10,"Wait
at least a minute for printer to start")
1120 GOSUB 1980
1130 PRINT FNloc$(31,10,"press SPACE BAR to contin
ue")
1140 WHILE INKEY$="" : GOTO 1140
1150 WEND
1160 IF device < 20 GOTO 1170 ELSE LPRINT CHR$(12)
1170 PRINT"Do you want a printer output? Y/N"
1180 INPUT print$
1190 IF print$="N" GOTO 1250
1200 IF print$="n" GOTO 1250
1210 INPUT "21 for high or 22 for low resolution p
rint"; device
1220 GOSUB 1980
1230 PRINT FNloc$(31,10,"Wait at least a minute fo

```

```

r printer to start")
1240 GOTO 710
1250 GOSUB 1980
1260 PRINT " Do you require more labels?"
1270 INPUT "Enter Y or N";more$
1280 IF UPPER$(more$)="Y" GOTO 330
1290 END
1300 word = LEN(word$)*420
1310 IF word<wide*100-high*10 THEN IF repeat$ <> "
Y" GOTO 680 ELSE GOTO 640
1320 PRINT"Label wording is too long for label siz
e"
1330 IF repeat$="Y" THEN GOTO 630 ELSE GOTO 610
1340 PRINT "Enter text for each label line as requ
ested."
1350 FOR t = 1 TO labnum
1360 IF t > many GOTO 690
1370 FOR m = 1 TO multi
1380 PRINT " label - ";t;" line - ";m
1390 INPUT mlabel$(t,m)
1400 word$ = mlabel$(t,m)
1410 word = LEN(word$)*420
1420 IF word < wide*100 - high*10 GOTO 1450
1430 PRINT "Text is too long for label size chosen
. Enter again."
1440 GOTO 1380
1450 NEXT m
1460 IF repeat$ = "Y" GOTO 1480
1470 NEXT t
1480 FOR r = 1 TO labnum
1490 FOR m = 1 TO multi
1500 mlabel$(r,m)=mlabel$(1,m)
1510 NEXT m
1520 NEXT r
1530 GOTO 690
1540 FOR m = 1 TO multi
1550 text$ = mlabel$(lab,m)
1560 length = LEN(text$)
1570 size = 0.85*wide/length
1580 chigh = INT(size*100): IF chigh > 2300 THEN c
high = 2300
1590 IF chigh>(80*high/multi) THEN chigh = 80*high
/multi
1600 GOSUB 2410
1610 textx =INT( px(1) +((wide*100 - 1.07*length*p
high)/2))
1620 texty =INT( py(3)-high*40/multi-phigh/2-moffs
et)
1630 GOSUB 2520
1640 moffset = moffset + high/multi*90
1650 NEXT m
1660 moffset = 0
1670 GOTO 1050
1680 '*****
1690 'Shut down GSX on error
1700 '*****
1710 IF ERR=4 THEN RESUME NEXT
1720 GOSUB 1980
1730 ON ERROR GOTO 0
1740 STOP
1750 '*****
1760 ' Call GSX
1770 '*****
1780 a=VARPTR(code%(1))
1790 CALL a (d%,d%,ctrl%(1),int.in%(1),pts.in%(1,1

```



```

),int.out%(1),pts.out%(1,1))
1800 RETURN
1810 '*****
1820 'Open GSX workstation
1830 '*****
1840 ctrl%(1) = 1
1850 ctrl%(2) = 0
1860 ctrl%(4) = 10
1870 int.in%(1) = device
1880 RESTORE 1970
1890 FOR i = 2 TO 10
1900 READ int.in%(i)
1910 NEXT i
1920 GOSUB 1750
1930 nchars = int.out%(6)
1940 minchar = pts.out%(2,1)
1950 maxchar = pts.out%(2,2)
1960 RETURN
1970 DATA 1,1,1,1,1,1,3,1,1
1980 '*****
1990 'Close GSX workstation
2000 '*****
2010 ctrl%(1) = 2
2020 ctrl%(2) = 0
2030 GOSUB 1750
2040 RETURN
2050 '*****
2060 'Update GSX workstation
2070 '*****
2080 ctrl%(1) = 4
2090 ctrl%(2) = 0
2100 GOSUB 1750
2110 RETURN
2120 '*****
2130 'Set style and index for a polygon
2140 '*****
2150 ctrl%(1) = 23
2160 ctrl%(2) = 0
2170 int.in%(1) = style
2180 GOSUB 1750
2190 ctrl%(1) = 24
2200 ctrl%(2) = 0
2210 int.in%(1) = index
2220 GOSUB 1750
2230 RETURN
2240 '*****
2250 'Draw pie slice
2260 '*****
2270 pts.in%(1,1) = x
2280 pts.in%(2,1) = y
2290 count = 2
2300 FOR i = start TO start+angle STEP 5
2310 pts.in%(1,count) = radius*SIN(FN rad(i))+x
2320 pts.in%(2,count) = radius*COS(FN rad(i))+y
2330 count = count + 1
2340 NEXT i
2350 pts.in%(1,count) = radius*SIN(FN rad(start+angle))+x
2360 pts.in%(2,count) = radius*COS(FN rad(start+angle))+y
2370 ctrl%(1) = 9
2380 ctrl%(2) = count
2390 GOSUB 1750
2400 RETURN
2410 '*****

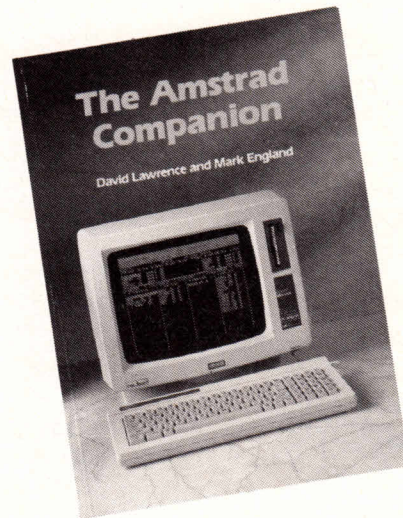
```

```

2420 'Set the text height
2430 '*****
2440 ctrl%(1) = 12
2450 ctrl%(2) = 1
2460 pts.in%(1,1) = 0
2470 pts.in%(2,1) = chigh
2480 pts.out%(2,1) = phigh
2490 GOSUB 1750
2500 phigh = pts.out%(2,1)
2510 RETURN
2520 '*****
2530 ' Draw text$
2540 '*****
2550 ctrl%(1) = 8
2560 ctrl%(2) = 1
2570 ctrl%(4) = LEN(text$)
2580 FOR i = 1 TO LEN(text$)
2590 int.in%(i) = ASC(MID$(text$,i,1))
2600 NEXT i
2610 pts.in%(1,1) = textx
2620 pts.in%(2,1) = texty
2630 GOSUB 1750
2640 RETURN
2650 '*****
2660 ' Draw a polygon
2670 '*****
2680 GOSUB 2120
2690 ctrl%(1) = 9
2700 ctrl%(2) = pts
2710 FOR i = 1 TO pts
2720 pts.in%(1,i) = px(i)
2730 pts.in%(2,i) = py(i)
2740 NEXT i
2750 GOSUB 1750
2760 RETURN

```

## The Amstrad Companion



by David Lawrence and Mark England

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# OVERVIEWS

## Two LocoScript tutorials and a Disc Management Utility

### LERNLOCO

Minerva/AMSNET - \$39.95

The LocoScript manual is an evergreen source of frustration for newcomers, which explains the legion of companies selling tutorial packages of varying types - books, audio tapes, and now from Minerva a disc.

LernLoco is a set of files on a disc, which you read while running LocoScript. This seems to be a natural way to learn the program, so that you can fiddle around and try out the keys as you read about them. The files form a progression of lessons, each one ending with an instruction on where to go next.

It's good on the actual editing features of LocoScript, but weaker on the other parts (eg. Disc Management, when the screen it is talking about isn't part of the text itself). There are some nice tips on how to get special effects on the screen and printer. However, you've got to understand the bare basics of editing to get the most from it. Best to ignore the early lessons, and treat it as an improvers course.

How you get on with LernLoco depends on whether you like the writing style. The lessons are personalised to "Jenny", and the idea is that you change all the Jenny's in a file to your own name with the [EXCH] command. This personalisation is heavily overused, and ends up being excruciatingly painful. Overall, a good idea, but LernLoco needs some serious attention to the text to realise its potential. Still, at the price it's fair value and has some useful tips for many people.

### TEACH YOURSELF LOCOSCRIPT

Linc/AAUC - \$49.95

The natural way to learn LocoScript is through a disc based tutorial system, which is just what this package from LINC provides. It is a disc of LocoScript documents that cover all the topics of LocoScript, which you read as you please, and follow the instructions on the screen.

The advantage of this method over a manual, no matter how well written and illustrated, is that you can actually try out the functions as you read about them, and see the effects incorporated into the text that you are reading. The level of discussion is aimed at adults, and it manages to be informative and friendly without being patronising.

The screen is very thoughtfully laid out, so that when the text says "now press [f] for the menu, the on-screen text is arranged so that the menu doesn't obscure any of it.

Further, the various documents are named after the topics that they cover. Rather than having to wonder what EXAMPLE.007 covers, you can happily browse through topics of interest contained in files called BASE.LYT and BOLD.

Tutorial material is difficult stuff to write, because ultimately there is no substitute for having someone standing over your shoulder who can answer your questions. LINC seem to have produced a well written cheap tutorial that will suit most new initiates in LocoScript's mysteries; as with all beginners tutorials, it lacks the depth to answer more

sophisticated queries from experienced users.

For beginners and intermediate users, it's definitely a good buy.

### DISC MATE

Siren Software/AAUC - \$94.95

Here's a scenario to fuel the nightmares of every computer user: you are working with some files on the M drive and want to get rid of them, so you type ERA \*.\*. Automatically you hit the Y key to confirm the command without thinking, and realise with horror that you have just deleted all the files on your master floppy disc in the A drive. "Ah," you say, "but I would never do anything as silly as that." Well I did just that two weeks ago!

Disc Mate is a collection of programs to make working with discs just that bit easier on the PCW. Just out is a new version which can work on both A- and B-type drives on PCW's. First and foremost is a "directory editor" which amongst other things allows you to un-erase erased files. Although there is some quite complex CP/M trickery behind Disc Mate, the user is given a very simple menu of options to follow.

Two other programs come with Disc Mate: COPYFILE does much what its name suggests, and provides the file copying facilities of CP/M's tortuous PIP command in easily digestible tablets. It is particularly useful for owners of PCW 8256's who want to copy files between floppy discs. Finally, ZIPDISC is a bit of CP/M wizardry which claims to speed up your disc operations by up to 20%.

The documentation with Disc Mate is scanty, just an inlay card, but the programs don't really need much explanation. A file un-erase program, specially one as good as Disc Mate, is an essential part of anyone's toolkit - not having it is like driving a car without having a spare wheel. Can you afford not to have one?



# GOSSIP FROM THE UK

\* Figures recently released by Amstrad in the UK prove that the company is going from strength to strength. The half-yearly figures show a dramatic increase in profit of nearly 160% to over £70 million. Pundits expect a pre-tax profit for the year to be in the region of £130 million helped along with the controlled release of new products. One of these products is the DMP4000 printer, essentially for the PC1512 but also compatible with the CPC range. It has a 15 inch wide carriage with more than 100 type face combinations. It should also work on a PCW if a Centronics interface unit (CPS8256) is attached.

\* Will the ingenuity of games manufacturers never end? Alligata Software have just included a "Quick - the boss is coming" escape button for all those PCW people who play computer games in the office when they should be slaving away over a hot word processor. The idea is that if you are in the middle of a game and suddenly hear the sound of footsteps behind your back you use your lightning quick reactions to hit the delete key. Immediately the screen is filled with an impressive looking Word Processing Tutorial screen which the company suggests is certain to impress the head man, especially if he thinks he has caught you playing games. When he's gone you hit the delete key again and you are right back into the action with lives and points intact. This special feature comes

with Blogger and Guardian.

\* Amstrad is getting tough with people who it thinks are using its name, or part of it, improperly. They have been successful against a dealer calling himself Amstrad Computers Limited. That one's pretty obvious, but Amstrad are also looking at another 20 or so companies who are using the 'Ams' prefix.

\* You may remember reading in the March issue the scurrilous rumours concerning the PC1512 overheating. ICI, where the trouble supposedly began, have now concluded that there are no overheating problems with the machine. ICI's director of Information Technology has written to Amstrad stating "The PC1512 met all ICI's requirements for a 808X processor based personal computer and is judged to offer very good value for money. During the trials no problems were experienced with overheating when the Amstrad was connected to a token ring network." He confirmed that the machine had been approved for purchase by ICI operating units.

\* Two simulations are on their way from Activision for two sports not usually associated with computer games. Championship Basketball - Two on Two where you are partnered by the computer in one or two player games of basketball, and Sailing, a game based on the America's Cup race.

\* Mastertronic, the long established budget software house, has acquired Melbourne House, producers of such games as The Hobbit and Way of the Exploding Fist. The acquisition will not effect Software Licensing and Marketing (nee Melbourne House) in Australia who will continue to operate independently.

\* Cheetah Marketing, responsible for the highly acclaimed Amdrum, had launched another set of voices for its digital drum system. The package called Afrokit contains eight new sounds; trunk, buash, hi conga, low conga, clave, coconut, guiro and whistle. This new release brings the total number of drum sound kits to four - standard rock (free with Amdrum), Latin, Electro and now Afro.

## No overheating problems at Albury

To dispel any rumours, Ashlin Computers can testify to having run both a dual floppy colour and a hard disc colour PC1512 continuously for over 2 weeks without any errors occurring and certainly no overheating problem. The company has a store in Benalla and now a new one in Albury situated in Kiewa Street. Their main product is the Amstrad PC1512 which is sold with two hours free training on the basic operation. In addition they offer training on most of the popular professional packages, eg. Wordstar, Lotus 123, dBase II and III, Supercalc 3, Multiplan, Easy, Gem and Paradox. They are also responsible for developing a special bracket set to fit Tandon Hard Discs to the PC1512.

*Enquiries to Ashlin Computers,  
531 Kiewa St, Albury, NSW 2640  
Phone (060) 411 744*



## Turn your Monitor into a colour TV.

by Julian Tipper

The latest offering for the Amstrad range of computers is a handy little device which turns any colour monitor into a colour television. The company DK'Tronics is a successful third party hardware add-on vendor, which has been around for as long as the Amstrad computers.

The initial tuner was made for the British television system and was not suited to Australian conditions. After an outcry from users in Australia, DK'Tronics were approached by Fred Gillen of Giltronic (an independent Melbourne Amstrad dealer). The result in less than two weeks, the first and only Australian version of the tuner arrived.

The concept for the tuner was simple - plug in the monitor and the TV aerial and away you go. This was done (very quickly) and soon our anxiety was put to rest, for on our 6128 monitor was a crisp, clear smiling Humphrey B. Bear!

After the initial excitement had



died down a little, Fred contacted England and told DK'Tronics the good news and soon ten more were on their way out to the colonies.

The actual tuner comes in an attractive black box with on/off, channel select, brightness and colour switches. It has a connector for the aerial at the back, one at the front for a monitor and a switch which changes from VHF to UHF allowing Channel 0/28 to be accessed. The sound is through a 2" mini speaker on the front panel giving a good quality output.

The operation is simple, you connect it up, turn it on, select the channel you wish to view, adjust the picture controls, then sit back and relax.

The unit has been checked with

the 464, 664 and 6128 range and works excellently. There is a possibility in the future that the tuner will work with the PC1512 colour monitor, so stay tuned for more details. Any aerial which works on a domestic television set will work on the tuner, including 'rabbit ears', but the best quality is obtained using an external aerial.

In summary the DK'Tronics tuner is an excellent product, and with a special introductory price of only \$279 makes a good investment instead of a second colour TV. They are available right now at Giltronic but be quick - they will sell very quickly.

*Enquiries to Giltronic, 528a Nepean Highway, Bonbeach, Vic 3196  
Phone (03) 773 1244.*

## Electronic Workshop for Motor Trade

One of the new products now being demonstrated at PC Network is a program for any Garage, Motor mechanics or home mechanic with a PC1512. Called "The Electronic Workshop", it is a series of computerised servicing modules used in conjunction with a PC to service Electronic Fuel Injected motor vehicles. The programs are guaranteed foolproof and, as long as the instructions on the screen are followed, success is ensured along with a saving of many hundreds of dollars on service fees. As every type of vehicle has differing specifications there is a module for each make and model of car. Demo discs are available for retailers. Each module retails for \$199 with generous discounts to retailers. Vehicles currently supported include the Holden Commodore VK and Calais, the Camira JD, the Mazda 323 and the Ford range. More modules are being developed to eventually cover the entire range of vehicles available in Australia.

*Enquiries to AMSNET, 106a Scarborough Street, Southport, Qld 4215 : Phone (075) 325 464.*

## New Business Software for the PCW

A new range of business software for the PCW range is available from Pactronics. Three packages are currently available - TAIT Accounting, TAIT Database and Labeller and TAIT Manager. TAIT Accounting has been specifically designed for smaller businesses, and operates on the normal double entry method using three ledgers - Debtors, Creditors and Nominal. A single entry posts to both relevant ledgers. No real experience is required as the on screen prompts guide the user through all functions. The package includes a special section dealing with company overheads and, for total control, also includes TAIT Manager - a menu driven utility program which records and evaluates sales tax expenditure.

TAIT Database and Labeller is a simple but effective database for the PCW. No training is required with this package which will store or retrieve data, sort or print out all records, or print out labels.

*Enquiries to Pactronics, 33-35 Alleyne Street, Chatswood, NSW 2067 : Phone (02) 407 0261*



# RESERVED RAM

## A trip into the foreground data area of an unadulterated 464

by Ian Wallace

Reserved RAM on the unexpanded CPC 464 occupies a total of 5614 bytes, from &0000 to &0170, and from &AB80 to &BFFF. An extra 1284 bytes are reserved when a disc drive is connected; upper reserved RAM then occupies &A67C to &BFFF. Of this, only the following areas are explained in any detail in the 'official' literature:

&0000 to &0040;	Low kernel jumpblock.
&B900 to &B923;	High kernel jumpblock.
&BB00 to &BDF3;	Main jumpblock.
&BFFF down;	The stack.

Don Thomasson's excellent book, the Whole Memory Guide, explains most of the remaining area from &B100 upwards, which is used by the Firmware, or lower ROM. This article will provide details on some of the locations in the foreground data area, from &AC00 to &B0FF, when the Basic interpreter (or upper ROM) is using it. Only a small proportion of the actual locations will be mentioned, providing but a glimpse of the useful things that can be achieved through manipulation of this area. Although the information will mainly be of interest to assembly language programmers, much of it will be useful to everyone.

Of course the information applies only to the CPC464, but BASIC 1.1 users should note that the corresponding locations for their machines are usually not far away, and should not be too difficult to find, with the information presented here.

It is a good idea to draw your own memory map on graph paper, with useful locations and their details written down, so that all information is on one (or two) pages. However, since related information is not always stored at nearby locations in the foreground RAM, it will not be presented here in numerical order of location.

### The Stack

This area is not part of foreground data, but is mentioned because it can be useful for other purposes. On the unexpanded machine the area from &BDF4 to &BFFF is available: Clearly few programs would use this much stack space. Even with a disc connected, the remaining area available from &BE80 to &BFFF is quite large, and could be used for short machine code routines, with the added bonus that this area is not written over after a reset. (And is probably unique in this regard.)

### &AC01 to &AC1B

There are nine three byte instructions stored here which are called by the interpreter at various times, as listed below:

&AC01 Called just before the 'Ready' message appears and the interpreter is in command mode.  
&AC04 Called just before an error message is printed.  
&AC10 Called during evaluation of each character in a program during run time.  
&AC13 Called during evaluation of each character in a program while listing the program.  
&AC16 Called whenever a Basic keyword is found during run time.  
&AC07, &AC0A, &AC0D, &E30B ? Sometimes called prior to error handling and CALL &AC04, for syntax errors only.

Normally these locations contain RETurn instructions, but it is possible to write vectors to your own program so that, for example, your program is executed every time an error appears (like ON ERROR GOTO, except that it also works in command mode). The following frivolous program (RESRAM1) is an example of a possible use of these locations.

Change lines 100 - 120 to whatever messages you want, but each message, including control codes, must not exceed 40 characters, and must end with a zero byte.

The Basic program NEWs itself after writing the machine code to reserved RAM, and must be saved before running. The machine code program itself is located below the stack, but the messages are stored in the sound manager workspace, so if you define a volume envelope you will destroy them. Of course the Basic program will have to be rerun after a reset, since the messages and pointers are destroyed.

Because the program calls an interpreter routine to print the messages (to save memory), it will not work on Basic 1.1. machines.

### (RESRAM1)

```
90 'PERSONALISE your interpreter
100 m1$=CHR$(10)+"Hi handsome, I'm "+CHR$(10)+CHR$(0)
110 m2$="Silly sausage, there's a"+CHR$(10)+CHR$(0)
120 m3$="thinking... "+CHR$(10)+CHR$(0)
130 s=&BE80
140 j=&AC01
150 k=&AC16
160 FOR i=s TO s+6
170 READ v:POKE i,v:NEXT
```



```

180 FOR i=s+8 TO s+14
190 READ v:POKE i,v:NEXT
200 FOR i=s+16 TO s+24
210 READ v:POKE i,v:NEXT
220 FOR i=1 TO LEN(m$)
230 POKE &B620+i,ASC(MID$(m$,i,1))
240 NEXT
250 FOR i=1 TO LEN(m2$)
260 POKE &B650+i,ASC(MID$(m2$,i,1))
270 NEXT
280 FOR i=1 TO LEN(m3$)
290 POKE &B680+i,ASC(MID$(m3$,i,1))
300 NEXT
310 FOR i=j TO j+5
320 READ v
330 POKE i,v
340 NEXT
350 FOR i=k TO k+2
360 READ v
370 POKE i,v
380 NEXT
390 DATA &21,&21,&bb,&cd,&41,&c3,&c9
400 DATA &21,&51,&bb,&cd,&41,&c3,&c9
410 DATA &e5,&21,&81,&bb,&cd,&41,&c3,&e1,&c9
420 DATA &c3,&88,&be
430 DATA &c3,&88,&be
440 DATA &c3,&90,&be
450 NEW

```

## LOADING AND SAVING FILES

Several locations are of use here:

&AE3F and &AE40	Start address of last loaded file
&AE43 and &AE44	Length of last loaded file
&AE45	File type flag
&B821 and &B822	Entry address for cassette files
&A76F and &A770	Entry address for disc files

Using these addresses, backup copies of binary files can be made by:

- 1 Load the program
  - 2 If there is a 'Memory full' message, reset memory with MEMORY PEEK(&AE3F)+256\*PEEK(&AE40) - 1, then load again.
  - 3 If the file was loaded from tape, save (to tape or disc) with SAVE"filename",B, PEEK(&AE3F)+256\*PEEK(&AE40), PEEK(&AE43)+256\*PEEK(&AE44), PEEK(&B821)+256\*PEEK(&B822)
- If the file was loaded from disc, save with SAVE"filename",B, PEEK(&AE3F)+256\*PEEK(&AE40), PEEK(&AE43)+256\*PEEK(&AE44), PEEK(&A76F)+256\*PEEK(&A770)

Further action may be required when a program is loaded from tape and saved to disc for later use. Files that load into the symbol table area or the DOS ram area will have to be relocated.

It is worth noting that saving and loading binary programs do not require the cassette buffer areas. However, loading using LOAD (as opposed to RUN") will produce an error message if there is no room for the (unused) buffer below HIMEM (dare we call this a bug?). In this case it is not possible to save a backup copy of this program in the normal way. This can be solved by loading using RUN"filename" while a machine code program to intercept the interpreter before the file is closed is resident. Such a program is listed below (RESRAM2) in the form of a Basic program that loads the mc routine then destroys itself.

```

5 'UNRUN BASIC LOADER
6 'BASIC PROGRAM DISAPPEARS AFTER LOADING BINARY PROGRAM
10 READ n
30 FOR i=&BE80 TO &BE80+n
40 READ a:POKE i,a
50 NEXT i
60 FOR i=&BC7A TO &BC7C
70 READ a:POKE i,a
80 NEXT i
130 NEW
140 DATA 14
150 DATA 33 , 69 , 174 , 175
160 DATA 119 , 33 , 140 , 190 , 229 , 207 , 252
170 DATA 163 , 195 , 183 , 192
180 DATA 195 , 128 , 190

```

As an extra, the file type at location &AE45 is also changed (to 0, or unprotected Basic). One problem with this program is that the re-entry point into the interpreter is not entirely suitable, resulting in syntax errors until something like "76<enter>" is typed. If anyone knows of a better re-entry point please share it. (Note: RESRAM2 changes the file type flag. If you don't want this to happen delete line 150, amend line 140 to DATA 9 and line 160 to DATA 33, 140, 190, 229, 207, 252)

Generally, Basic programs are relatively easy to make backup copies of, but a problem can arise when there is not enough room for the buffers between the top of the Basic program and HIMEM. This might occur because a large program on cassette is being loaded while the DOS is resident. The locations listed below store values relating to the locations in RAM of the buffers used by Basic:

&B08F and &B090, &AE7B and &AE7C, &AE7D and &AE7E

These can be altered to point to screen RAM, by the following method:

Before loading, POKE &B090,&D0

After loading, POKE &B090,&A6: POKE &AE7C,&A6 (&A6 is the standard value when a DOS is present, but check the value your computer has stored here first)

Before saving, POKE &AE7C,&D0: POKE &AE7E,&D0

After saving, POKE &AE7C,&A6: POKE &AE7E,&A6

Trying to use this method to load binary programs does not work, since when MEMORY is set, the interpreter expects



# CPC464 - RESERVED RAM

the buffers to be below HIMEM, and if they are not then the program will not load. I have used this method successfully to save GEMS OF STRADUS, when all else had failed. At this point I should mention that screen RAM, while generally unavailable, should not be forgotten when short term storage is required, as in this case.

&AC21 holds the number of the currently selected output stream.

&AC22 Holds the number of the currently selected input stream.

These can be changed to redirect output or input from one stream to another, but care must be taken as the rules can change from one device to another.

The RSX in the Basic program below (RESRAM3) is an example of how the first location can be utilised. The program was created using Brenton Ross's RSXGEN, from the source code that is listed here after the Basic program. All characters that are sent to the jumpblock for printing to the VDU are also sent to the line printer via a ROM routine that determines the control codes to send. This routine requires the number 8 to be at &AC21. Unfortunately, many outputs (most notably the 'echo' of keyboard input) are sent straight to the output routine in lower ROM, and cannot be intercepted. Use this program with care; be prepared to turn your printer off if it does strange things because the computer sent it some strange control codes. The new commands are shift@,TIE and shift@,UNTIE. This RSX will not work on BASIC1.1 machines because the interpreter routine it calls is not standard.

## (RESRAM3)

```
7 'TIE
8 'Ties screen output to the printer
9 '
10 READ n: cs = n
20 s=HIMEM-n: MEMORY s-1
30 FOR i=1 TO n
40 READ a:cs=cs+a:POKE s+i-1,a
50 NEXT i
60 READ n:cs=cs+n
70 FOR i=1 TO n
80 READ a,b:cs=cs+a+b
90 a=a+s:ah=INT(a/256):al=a-ah*256
100 POKE s+b-1,al:POKE s+b,ah
110 NEXT i
120 READ check: IF check=cs THEN CALL s: NEW ELSE PRINT"error in data statements !"
130 END
140 DATA 121
150 DATA 33 , 0 , 128 , 1 , 10 , 128 , 205 , 209 , 188 , 201
160 DATA 18 , 128 , 195 , 29 , 128 , 195 , 47 , 128 , 84 , 73
170 DATA 197 , 85 , 78 , 84 , 73 , 197 , 86 , 195 , 0 , 17
180 DATA 100 , 128 , 33 , 90 , 187 , 1 , 3 , 0 , 237 , 17
```

```
6
190 DATA 33 , 63 , 128 , 205 , 54 , 128 , 201 , 33 , 100 , 128
200 DATA 205 , 54 , 128 , 201 , 17 , 90 , 187 , 1 , 3 , 0
210 DATA 237 , 176 , 201 , 195 , 66 , 128 , 245 , 124 , 254 , 203
220 DATA 32 , 6 , 125 , 254 , 80 , 204 , 104 , 128 , 58 , 33
230 DATA 172 , 50 , 95 , 128 , 62 , 8 , 50 , 33 , 172 , 241
240 DATA 245 , 223 , 26 , 128 , 62 , 0 , 50 , 33 , 172 , 241
250 DATA 0 , 0 , 0 , 201 , 62 , 13 , 205 , 100 , 128 , 205
260 DATA 43 , 189 , 62 , 10 , 205 , 100 , 128 , 205 , 43 , 189
270 DATA 201
280 DATA 16
290 DATA 0 , 2 , 10 , 5 , 18 , 11 , 29 , 14 , 47 , 17 , 100 , 31
300 DATA 63 , 42 , 54 , 45 , 100 , 49 , 54 , 52 , 66 , 65 , 104 , 77
310 DATA 95 , 83 , 26 , 93 , 100 , 108 , 100 , 116 , 1530 , 0
```

This is the source code for the above program, for the interest of assembler enthusiasts who may like to change it.

```
*SC-PR
;PRINT ALL SCREEN OUTPUT
;TO PRINTER AND SCREEN
;
;          ORG 08000H
;          LOAD 08000H
;
LOGEXT:   EQU 0BCD1H ;LOG EXTENSION
TXTOUT:   EQU 0BB5AH ;TXT OUTPUT
PRICHR:   EQU 0BD2BH ;PRINT CHAR
; SETUP
SET:       LD HL,SET ;WORKSPACE
           LD BC,COM
           CALL LOGEXT
           RET
COM:       DW COM1 ;COMMAND TABLE
           JP TIE ;FIRST COMMAND
           JP UNTIE ;SECOND COMMAND
COM1:     DB "TI","E"+80H
COM2:     DB "UNTI","E"+80H
;
PRICHR:   DW 0C356H ;ROM PRINT+CHECK
           DB 0 ;ROM 0 (BASIC)
; SETUP VECTORS
TIE:      LD DE,NORM ;STORAGE OF
           LD HL,TXTOUT ;NORMAL INSTRUCTIONS
           LD BC,03H
           LDIR
```



# CPC464 - RESERVED RAM

```
LD HL,REDIR ;REDIRECT INSTRUCTIONS
CALL PUT ;PUT INTO JUMPBLOCK
RET
;
UNTIE: LD HL,NORM ;NORMAL INSTRUCTIONS
CALL PUT ;PUT INTO JUMPBLOCK
RET
;
PUT: LD DE,TXTOUT ;CHANGE JUMPBLOCK
LD BC,03H
LDIR
RET
;
REDIR: JP PROG ;THESE TO JUMPBLOCK
; MAIN PROGRAM
PROG: PUSH AF ;STORE CHAR
LD A,H
CP 0CBH
JR NZ,GOPRIN
LD A,L
CP 50H ;HL @ 'BREAK'?
CALL Z,BKED ;CR BEFORE BRK
GOPRIN: LD A,(0AC21H) ;PRESENT STREAM
LD (RESEL+1),A ;STORE IT
LD A,8 ;PRINTER STRM
LD (0AC21H),A ;SELECT STREAM
POP AF ;RECOVER CHAR
PUSH AF
RST 18H
DW PRCHK ;CHECK AND PRINT
;
RESEL: LD A,0 ;RESELECT STREAM
LD (0AC21H),A ;STREAM
POP AF ;RECOVER CHAR
NORM: DS 3 ;PRINT INSTRUCTIONS
RET
; EXTRA
BKED: CR + LF
LD A,13 ;CR
CALL NORM ;SCREEN
CALL PRCHR ;PRINTER
LD A,10 ;LF
CALL NORM ;SCREEN
CALL PRCHR ;PRINTER
RET
END
```

By the way, there is a small bug (?) in the RSXGEN program. Any start or end addresses above &8000 that are input in hex form (and most assembly language programmers work in hex) produce incorrect values. This is because the UNT() function is performed automatically, producing negative values above &8000. If the following inverse-UNT instruction is executed after input the problem is solved:

```
sal = sal - 65536 * (sal<0)
```

## THE BASIC PROGRAM

The group of locations below refer to the storage of a Basic program and its variables and other storage areas. The list is

in ascending order of the storage location referred to. If two or more locations store the same information, it is probable that the values will differ at some time during the operation of the interpreter.

&AE7F and &AE80 Points to the bottom of the lower foreground data area (normally contains &0040).

&AE81 and &AE82 Points to the top of the lower reserved ram area and one less than the normal location for the start of the Basic program (normally contains &016F). These values can be altered before loading a Basic program so that memory is reserved for machine code programs or data: eg POKE &AE82,&02:POKE &AE80,&01 will reserve 256 bytes, from &0040 to &013F. The advantage of this method of reserving memory compared with the MEMORY command is that subsequent Basic programs are unlikely to overwrite the area, or to reset HIMEM above it, which can happen even to RSX's.

&AE83 and &AE84, &AE85 and &AE86 Location of end of Basic program, and start of variables.

&AE87 and &AE88, &AE89 and &AE8A Location of end of variables in Basic program.

&B08D and &B08E Location of bottom of current string storage space.

&B09D and &B09E, &B0BB and &B0BC Location just below current string storage space.

(The difference between the above values (&AE87 - &B08D) is the available free memory.)

&B092 and &B093 HIMEM minus 4kBytes (Used to set I/O buffers)

&B08F and &B090, &AE7B and &AE7C Bottom of buffer area. (=(&B092/3) when buffers used, =HIMEM when no buffers). It is possible to alter HIMEM by POKEing values into the location &AE7B/C. This has the advantage over the MEMORY command that the computer cannot reject the value, as it will often do if, for instance, a binary program has just been loaded.

&AE7D and &AE7E Bottom of buffer area. (=top of symbol table when no buffers)

(A use for these locations when loading and saving was mentioned earlier.)

&B094 and &B095 Bottom of symbol table area.

&ADAB and &ADAC. Location in line at which Break was pressed.

&ADAD and &ADAE. Points to line number at which Break was pressed.

Used by CONTINUE. Altering these values can make a Basic program start at a different line (with the same variables) after typing CONT. Perhaps there is a key here to a method of saving all the variables in a Basic program, then continuing from the same point with the same variable values after re-loading the program and variables.

&ACA4 to &ADA3 This is the Basic command buffer, where anything entered straight from the keyboard is stored while it is being analysed. Binary programs could use this as a temporary storage area.



## JOYSTICK or CURSOR CONTROL

by Ian Barnes

This is the second article in a series that is aimed at giving you ideas and routines that will help you when writing games and utilities. In this month's article I will be looking at ways to control a program using the joystick or keyboard, starting with simple joystick control and advancing to a completely re-programable joystick/keyboard control.

The Basic program used for this article is the simple line drawing program shown in List 1.

There are two main ways to control a program of this type. The first I will call the 'PACMAN' method. In a game such as PACMAN, it is necessary to receive each new change of direction only once. The character will keep moving in its current direction until it becomes possible to move in the direction that has been selected most recently, of

course in our demonstration program the line can change direction at once. The input routine is shown in List 2.

This routine first discards all but the most recent input and then, if the key that has been pressed most recently is one used for a direction, the current direction is altered. In a game such as PACMAN, lines 1020-1050 would also contain a check to test if it was possible to move in the selected direction, and if it was not possible, the current direction would not change. Note that until another key is pressed, the most recent input is stored in b\$ which means that the program will repeatedly check to see if it can move in the selected direction, which is the effect we were after.

As you can see from this example, it is possible to implement this type of movement routine by simply reading the characters that are put into the keyboard buffer whenever the joystick is moved or a key is pressed. If you have typed in this short example program you will have found that it is only possible to move in four directions,

and that the only way to stop is by running into the edge of the screen. This means that this type of input is useful in only a few situations.

The next type of routine is one that is used (in some form or another) in most computer and arcade games; and in utilities such as drawing programs or any programs that use a pointer. In this type of routine the keyboard or joystick is being tested constantly. As soon as a direction is selected the pointer (or whatever) will begin moving in the selected direction, but if the key is released the movement will stop. Using this method you would normally have eight different possible directions, compared to four for the last method. You also have much more control over the position of whatever you are controlling. The example input routine for this method is shown in List 3 for cursor key control.

The 'Key Numbers' in the INKEY() command can be changed so that any of the normal keys (or the joysticks) can be used to control the program.

### LIST 1

```
10 MODE 1
20 x=320:y=200
30 ix=0:iy=0
40 WHILE (1<>0)
50 GOSUB 1000
60 x=x+ix:if (x<0 OR x>638) THEN x=x-ix
70 y=y+iy:if (y<0 OR y>398) THEN y=y-iy
80 PLOT x,y,1
90 WEND
1000 REM The input routine goes here
```

Set the mode

Set the starting X and Y co-ordinates

Set the starting X and Y increments

This is an infinite loop

Go to the input Subroutine

Add X inc to X and check screen edges

Add Y inc to Y and check screen edges

Plot a point at X,Y

End of loop



## LIST 2

```

1000 a$=INKEY$
1010 IF a$<>" " THEN b$=a$:GOTO 1000
1020 IF b$=CHR$(&0B) THEN ix=0:iy=2
1030 IF b$=CHR$(&0A) THEN ix=0:iy=-2
1040 IF b$=CHR$(&08) THEN ix=-2:iy=0
1050 IF b$=CHR$(&09) THEN ix=2:iy=0
1060 RETURN
    
```

Keep reading inputs until the most recent is found  
Up on joystick.  
Down on joystick.  
Left on joystick.  
Right on joystick.  
End of subroutine

## LIST 3

```

1000 ix=0:iy=0
1010 IF (INKEY(0)<>-1) THEN iy=2
1020 IF (INKEY(2)<>-1) THEN iy=-2
1030 IF (INKEY(8)<>-1) THEN ix=-2
1040 IF (INKEY(1)<>-1) THEN ix=2
1050 RETURN
    
```

Reset direction at beginning of routine  
Test if UP is being pressed  
Test if down is being pressed  
Test if left is being pressed  
Test if right is being pressed  
End of routine

Alternatively the joystick(s) can be tested by use of the JOY() command which returns a bit significant value. (Anyone who already understands bit significance feel free to skip this next section). This means that if you were to type PRINT BIN\$(JOY(0),5) you would have a five digit binary number on your screen in which each digit indicates the state of one of the switches in joystick 0. For example the lowest (ie. right-most) digit will be a 1 if the UP switch on the joystick is 'on', otherwise it will be a zero.

To test the joystick, we take this number and mask it by using the AND function so that we are only looking at one switch at a time. The final routine is given below in List 4.

This routine is exactly the same as

the one above, except that it gives you joystick control. Note, even in machine code a routine that operates similarly to this is easily implemented by use of the KM GET JOYSTICK function at &BB24.

Finally, it is possible to fairly easily alter the cursor key control given earlier to give you an entirely reprogrammable control so that people will be able to select keys that suit them. The altered routine is given in List 5.

Of course, 'up', 'down', 'left' and 'right' have not been defined yet, and this will require a special routine. This routine redefines the keys so that the character they produce when pressed will have an ASCII code equal to the key number. Hence when a key is pressed, the character placed into the keyboard buffer will be the

number needed to test that key using INKEY(). Note that CALL &BB00 will reset the keyboard to its normal state, as otherwise the keyboard will produce rubbish after this routine is used. The routine required is shown in List 6.

It would be possible to alter this routine in a number of ways. One way to improve the routine would be to have a string for each key stored in an array so that the user is given some positive feed-back to which keys have been selected, another simple way would be to print the messages used in the above routine using the shadowed text routine in the last article. These routines are by no means the only or the best ways to control an object on-screen, but they can form the basis for a large variety of programs.

## LIST 4

```

1000 ix=0:iy=0
1010 IF (JOY (0) AND &X0001)<>0 THEN iy=2
1020 IF (JOY (0) AND &X0010)<>0 THEN iy=-2
1030 IF (JOY (0) AND &X0100)<>0 THEN ix=-2
1040 IF (JOY (0) AND &X1000)<>0 THEN ix=2
1050 RETURN
    
```

Reset direction at beginning  
Test if up switch is on  
Test if down switch is on  
Test if left switch is on  
Test if right switch is on  
End of routine

## LIST 5

```

1000 ix=0:iy=0
1010 IF (INKEY(up)<>-1) THEN iy=2
1020 IF (INKEY(down)<>-1) THEN iy=-2
1030 IF (INKEY(left)<>-1) THEN ix=-2
1040 IF (INKEY(right)<>-1) THEN ix=2
1050 RETURN
    
```



# CPCs - PROGRAMMING TIPS

## LIST 6

```
35 GOSUB 2000
2000 FOR loop=0 to 79
2010 KEY DEF loop,0,loop,loop,loop
2020 NEXT
2030 FOR loop=0 to 40:a$=INKEY$:NEXT
2040 PRINT:PRINT "Which key for UP:";
2050 GOSUB 3000:down=ASC(a$)
2060 PRINT:PRINT: "Which key for DOWN:";
2070 GOSUB 3000:down=ASC(a$)
2080 IF (down=up) THEN 2070
2090 PRINT:PRINT "Which key for LEFT:";
2100 GOSUB 3000:left=ASC(a$)
2110 IF (left=down) OR (left=up) THEN 2100
2120 PRINT:PRINT "Which key for RIGHT:";
2130 GOSUB 3000:right=ASC(a$)
2140 IF (right=left) OR (right=up) THEN 2130
2150 IF (right=down) THEN 2130
2160 CALL &BB00
2170 RETURN

3000 a$=""
3010 WHILE a$=""
3020 a$=INKEY$
3030 WEND
3040 RETURN
```

Reprogram keys

Discard all characters in buffer

Get key used for UP

Get key used for down  
Try again if same as for up

Get key used for left  
Try again if already used

Get key used for right  
Try again if already used

Reset keyboard

Get the next character  
Or wait if no key pressed yet

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# ADVENTURER'S ATTIC

by Philip Riley

In this month's column I have decided to present a pot-pourri of different odds and ends which although they don't have anything in common should help you to program better adventures.

## MAZES

You may recall a few months ago I talked about mazes, how to solve them and how to program them.

Well it was while driving along in my car one sunny day that a thought suddenly struck me (as you can see I didn't have my mind on the road, I was thinking of my next adventure!). *How to make solving mazes more difficult.* You may also remember that I suggested the best way to find your way around a maze was to drop items as you went. How do you combat this? Simple, each time a person moves in a maze you check through all the rooms of the maze and move any items that you find to other locations in the maze. Simple isn't it? (*That's not fair! - Ed*)

## SETTING THE MOOD

Probably the simplest part of writing an adventure is preparing the introductory story line, and it is very important that it is done well. You need to tell the people who are playing your game just what has been happening but it is always a good idea that you don't tell them too much - let them find out later on in the game (possibly

the hard way). Remember the one Arnold Blackwood adventure in which you had no idea what you were supposed to be doing? Remember also, the more mystery that you can create the better.

## LARGE ADVENTURES ARE NOT NECESSARILY GOOD ADVENTURES

Your adventure does not have to be large to be good. I have seen and played many good adventures that had only a small amount of rooms (the smallest had only 12 locations). If the various problems that have to be solved are clever and the various items that can be picked up are originally placed in the right position you can have people moving backwards and forwards a great many times. Remember also that it is your location description that take up most room and the more you have of these the less room you have for other more important things.

## RANDOM

The use of RND statements can also make an adventure more enjoyable and interesting to play. I played one adventure that was set in a seven floored castle and at the base of each flight of stairs was a door. To open the door you had to have the correct password. Each floor's password was different and each time you played the game a new one was chosen using the RND statement.

Another way of using random would be to place the player or objects at random places in the

game when you commenced a new game. One thing to be careful of if doing this is to make sure that you don't put the person into a situation that they cannot get out of or that you don't put an object where it cannot be reached.

Yet another use of random statements is to have creatures, monsters and other assorted nasties roaming around your adventure in random directions. You could then introduce things like a level of strength for your character in the game. When he bumps into one of the above mentioned nasties he must do combat. Depending on how the fight goes, strength can be lost. Food and drink found around the game could give more strength. Of course, if you lose all strength you will die. The amount of strength lost in a fight could depend on the type of weapon you are carrying, the better the weapon the shorter the fight and the less strength lost.

I think that is about all the odds and ends that I can think of for this month. Next month I hope to have one of the maps drawn for us by Steve Alatakis ready. Sorry about the delay Steve but the maps are on the drawing board now and I should have them completed for the Editor by next month.

## GAMEWORX SOFTWARE

We are still getting the odd complaint from people who have sent \$2 to Gameworx Software for a hint sheet, normally Secrets of Bastow Manor. The telephone number we have is (03) 735 3525.



# ADVENTURES

## ADVENTURE BASE

Danny Liebke has written to advise of an amendment to his program published in the February issue of The Amstrad User. In line 120 change the number 255 to "p" and add line 1145 PRINT "YOU CAN'T GO THAT WAY."

## A HINT OF SUCCESS

Sea Base Delta, Forest at World's End, King Solomon's Mines, Mordons Quest, Jewels of Babylon - the list goes on - are all responsible for generating a great deal of queries to these offices. Then we had a brain wave. Why not offer \$25 to those people who have managed to solve these or other popular adventure games on the Amstrad? Good idea eh?

All the clever people who have "been there and done it" take note. If you want to help other less fortunate adventurers and earn some loot at the same time, put together an original "Hint Sheet", not necessarily giving the whole game away, as clearly (preferably typed) and succinctly as possible. We will pick the best each month, publish it and send the author a cheque for \$25.

## IN THE MEANTIME

Justin Alcorn (Brisbane) wants to know how to get into the volcano in Forest at Worlds End, how to pick up the dish in Message from Andromeda and a quick way into the Cannibals Village in Jewels of Babylon. He also want some hints for Three weeks in Paradise and a poke to open all the doors and to score with infinite lives as well! A tall order indeed. In compensation Justin advises that to get into practice mode in Sorcery+, press the fire button and "C" together when given the message, and to get into demo mode press "S".

K. Rigby (Para Hills) is unable to master the fuel skimming from a sun's surface, needs a full proof way to collect space debris without

sacrificing any integrity, and wants to know how to obtain a "cloaking device" in Elite.

Lord of the Rings has become a major problem for Karla Slack (Springwood). How many elf-stones are there (*three from memory - Ed*), one is in a tree, where are the others? How does she get from the tree with the elf-stone back to Merry's house? How does she get to the Blue Mountains Observatory to visit Radagast the Brown? Actually, there are too many questions to print here, so Karla has suggested that anyone who can help with this game can write direct to PO Box 201, Springwood, NSW 2777. She offers in return a solution to Adventure Quest if anyone wants it.

Herrin Larkan (Nambour West) is unable to work out how to stick the photograph onto the blank ID card, thus making him qualified enough to talk to the flight crew. The game is Knight Tyme.

A belated answer for James Edmundsen's problem with The Hobbit (he's probably solved it now but others may be interested). The original question was 'what path do you need to take to get to the Dragon from Beorn'? David Brooks (Maitland) says 'you must first find the wood elf. He is almost always in the forest both north and south of Beorn's house. The wood-elf should then catch

you (follow him around if he doesn't) and place you in his dungeon. The secret is to wait by typing in "WAIT" (I prefer "SIT") until someone unlocks the door. Open the door twice (someone will attempt to close it) and head west then south. If you have the ring put it on and wait for the butler to throw the barrel through the trapdoor. Type "JUMP ON BARREL". This will take you to the Long Lake. If you don't have the ring, you must go north and south and continue this cycle until the barrel is thrown. You must also make sure that the dungeon door is kept open (in case you are caught again). From here you must go to the Wooden Town then head north to the dragon.

Another belated answer, this time for Stephen Snow from "Ed II". The original problem was to get past the witch's hovel. The answer is to enter the hovel wearing the ring obtained from the nymph (say "WEAR RING"). Then enter the hut and she will scream and die. By the way, the chest at the bottom of the ledge (in the volcano) can be opened with the key in the hovel. After getting your sword, go to the rock wall and touch the glowing rock - the rest is easy. If you save the princess, you've got to get back to the beginning.

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# BATTLESHIPS

from Steven Hall

Most people have probably played Battleships at one time or another, and we have Steven to thank for transferring the popular game to the Amstrad. It provides two levels of difficulty with operation through either the joystick or cursor keys. We have tested the program successfully on both the 464 and 6128.

## How it Works

- 150-320 Initial Input Section, Choice for instructions, Joystick or Keyboard & Difficulty level.
- 320-420 Draws the Game grid.
- 420-570 Print ammunition & difficulty level reminder onto screen.
- 580-710 Prints co-ordinates onto game grid.
- 720-830 Draw ships onto Right Hand Side of screen.
- 840-1180 Handles Keyboard/Joystick input of type of ammunition & your co-ordinates.
- 1190-1250 Tests and prints whether co-ordinates have been used before and if there is a hidden ship at this location.
- 1260-1340 Erases ships on left hand side when fully destroyed.
- 1350-1440 Prints the results of your shot onto the grid whether hit/miss.
- 1450-1490 Erases a bomb when one fired.
- 1500-1600 Erases a torpedo when one is fired.
- 1610-1670 Fires a Horizontal Torpedo.
- 1680-1730 Fires a Vertical Torpedo.
- 1740-1960 This is the main routine where the computer hides the ships.
- 1970-2200 Symbols for ships on left hand side of screen.
- 2200-2350 Instructions Routine.
- 2360-2420 Instruction stepping routine.
- 2430-2540 Lose routine, also uncovers any ships not yet revealed.
- 2550-2670 Win routine, Plays tune and prints a message.
- 2680-2760 Data for win tune.
- 2770-2830 Lose tune routine.
- 2840-2870 Lose routine's tune data.

```

80 REM ***** DATE           : 23 OCTOBER 1986 *****
90 REM *****                               *****
100 REM *****
110 REM *****
120 a$=INKEY$:IF a$(">") THEN 10
130 FOR n=500 TO 10 STEP -50: SOUND 1,n,10,15,0,0:NEXT n
140 REM
150 REM ***** INITIAL SELECTIONS *****
160 REM
170 MODE 1:PAPER 0:INK 0,14:INK 1,0:INK 2,4:INK 3,3:BORDE
R 16
180 LOCATE 10,10:PRINT "Instructions (Y)/(N)"
190 a$=INKEY$:IF a$="" THEN 190
200 IF a$="Y" OR a$="y" THEN GOSUB 2270
210 GOSUB 2010
220 CLS:LOCATE 10,10:PRINT "(J)oystick or (K)eypad"
230 a$=INKEY$:IF a$="" THEN 230
240 IF a$="J" OR a$="j" THEN j=1 ELSE j=0
250 CLS:LOCATE 10,10:PRINT "  Select Difficulty (1)-Easy
(2)-Hard"
260 a$=INKEY$:IF a$="" THEN 260
270 IF a$="2" THEN torp=2:dif=2 ELSE torp=4
280 FOR n=2 TO 5:a(n)=n:NEXT n:a(1)=2
290 ON ERROR GOTO 1990
300 bomb=30
310 MODE 1:BORDER 14
320 GOTO 1760
330 REM
340 REM ***** DRAW GRID *****
350 REM
360 FOR n=(21*16) TO (640-16) STEP 32
370 PLOT n,6*16,2:DRAW n,400-16,2
380 NEXT n
390 FOR n=(6*16) TO (400-16) STEP 32
400 PLOT 21*16,n,2:DRAW 640-16,n,2
410 NEXT
420 PEN 2
430 REM
440 REM ***** BOMBS TORPS. & Diff. LEVEL *****
450 REM
460 LOCATE 2,2:PRINT"BOMBS:";
470 LOCATE 2,24:PRINT "Difficulty Level"
480 PEN 1
490 IF dif=2 THEN LOCATE 7,25:PRINT"HARD" ELSE LOCATE 7,2
5:PRINT "EASY"
500 LOCATE 8,2:PRINT " ";
510 FOR a=1 TO 3
520 FOR n=1 TO 10:PRINT CHR$(252);:NEXT n:PRINT
530 PRINT " ";
540 NEXT a
550 LOCATE 9,8:FOR n=1 TO torp:PRINT CHR$(131);" ";:NEXT
n
560 LOCATE 9,9:FOR n=1 TO torp:PRINT CHR$(132);" ";:NEXT
n

```

```

10 REM *****
20 REM *****
30 REM *****
40 REM ***** PROGRAM NAME : BATTLESHIPS *****
50 REM *****
60 REM ***** AUTHOR      : STEVEN HALL *****
70 REM *****

```



# CPCs - GAME

```
570 PEN 2
580 LOCATE 2,8:PRINT "TORPS:"
590 REM
600 REM ***** PRINT GRID No.'s *****
***
610 REM
620 PEN 1
630 x=0
640 FOR N=22 TO 38 STEP 2
650 X=X+1
660 LOCATE N,21:PRINT X
670 NEXT N
680 X=10
690 FOR N=3 TO 19 STEP 2
700 X=X-1
710 LOCATE 19,N:PRINT X
720 NEXT N
730 REM
740 REM ***** DRAW SHIPS *****
*
750 REM
760 PEN 3
770 LOCATE 6,12:PRINT CHR$(147);CHR$(146);CHR$(145)
780 LOCATE 5,13:PRINT CHR$(135);CHR$(142);CHR$(143);CHR$(
144);CHR$(129)
790 LOCATE 6,15:PRINT CHR$(140);CHR$(141)
800 LOCATE 5,16:PRINT CHR$(135);CHR$(138);CHR$(139);CHR$(
129)
810 LOCATE 6,18:PRINT CHR$(136);CHR$(137);CHR$(129)
820 LOCATE 6,20:PRINT CHR$(130);CHR$(129)
830 LOCATE 6,22:PRINT CHR$(133);CHR$(134)
840 PEN 1
850 REM
860 REM ***** INPUT HANDLING *****
****
870 REM
880 LOCATE 21,23:PRINT"(T)orpedo or (B)omb"
890 IF J=0 THEN 930
900 JO=JOY(0):IF JO=4 THEN A$="T":GOTO 940
910 IF JO=8 THEN A$="B":GOTO 940
920 GOTO 900
930 LOCATE 26,24:A$=INKEY$:IF A$="" THEN 930
940 LOCATE 21,24:PRINT " " "":LOCATE 21,2
5:PRINT" "
950 A$=UPPER$(A$):IF A$<>"B" AND A$<>"T" THEN LOCATE 26,2
4:PRINT CHR$(7);:GOTO 880
960 REM
970 LOCATE 21,23:PRINT"Co-ordinates (x,y) "
980 IF J=0 THEN 1130
990 X=5:Y=5:FI=0
1000 LOCATE 26,24:PRINT "(";X;" ";Y;")"
1010 JO=JOY(0):IF JO=32 OR JO=16 THEN FI=FI+1:LOCATE 2,8:
PRINT CHR$(7):FOR n=1 TO 60:NEXT
1020 IF JO=1 AND FI=0 THEN X=X+1
1030 IF JO=2 AND FI=0 THEN X=X-1
1040 IF JO=1 AND FI=1 THEN Y=Y+1
1050 IF JO=2 AND FI=1 THEN Y=Y-1
1060 FOR n=1 TO 25:NEXT
1070 IF x>9 THEN x=1
1080 IF x<1 THEN x=9
1090 IF y<1 THEN y=9
1100 IF y>9 THEN y=1
1110 IF FI<2 THEN 1000
1120 PRINT CHR$(7):GOTO 1140
1130 LOCATE 26,24:INPUT x,y
1140 LOCATE 21,23:PRINT" " "
1150 LOCATE 26,24:PRINT " " "
1160 IF x>9 OR y>9 THEN GOTO 970
1170 IF bomb=0 AND torp=0 THEN GOTO 2460
1180 IF a$="T" THEN GOTO 1560
1190 IF a$="B" AND bomb=0 THEN LOCATE 21,24:PRINT "No Bom
bs Left.":GOTO 880
1200 h=1
1210 REM
1220 REM ***** HIT,MISSED,ALREADY HIT ROUTINES *****
*****
1230 REM
1240 IF g(x,y)=10 THEN LOCATE 21,24:PRINT "Those Co-ordin
ates":LOCATE 21,25:PRINT"Already Destroyed":GOTO 880
1250 ENT 1,100,2,2:SOUND 1,284,150,7,0,1
1260 FOR n=1 TO 500:NEXT n
1270 IF g(x,y)=0 OR g(x,y)=10 THEN LOCATE 27,25:PRINT "Mi
ssed":ch=252:GOTO 1410
1280 SOUND 128,0:FOR n=1 TO 10:SOUND 1,584/n,10,15,0,0,1+
n:NEXT n:ch=238:n=g(x,y):a(n)=a(n)-1:LOCATE 21,25:PRINT "
Hit":IF a(n)=0 THEN LOCATE 22,25:PRINT " & Destroyed":des
t=dest+1
1290 REM
1300 REM ***** ERASE SHIP ROUTINE *****
1310 REM
1320 IF a(5)=0 THEN LOCATE 6,12:PRINT " " "":LOCATE 5,13:
PRINT " " "
1330 IF a(4)=0 THEN LOCATE 6,15:PRINT " " "":LOCATE 5,16:P
RINT " " "
1340 IF a(3)=0 THEN LOCATE 6,18:PRINT " " "
1350 IF a(2)=0 THEN LOCATE 6,20:PRINT " " "
1360 IF a(1)=0 THEN LOCATE 6,22:PRINT " " "
1370 PEN 3
1380 REM
1390 REM ***** PRINT RESULTS ON GRID *****
1400 REM
1410 FOR d1=0 TO 1:FOR d2=0 TO 1:LOCATE 2*x+21-d1,21-2*y-
d2:PRINT CHR$(22);CHR$(1);CHR$(ch);CHR$(22);CHR$(0):NEXT
d2:NEXT d1:g(x,y)=10
1420 PEN 1
1430 IF ch=238 THEN BORDER 6:INK 0,6:FOR n=1 TO 10:NEXT n
: BORDER 14:INK 0,14
1440 IF LP=3 THEN PEN 3:GOTO 2530
```



```

1450 IF dest=5 THEN GOTO 2620
1460 IF a$="T" THEN GOTO 1520
1470 REM
1480 REM ***** ERASE USED BOMB *****
1490 REM
1500 IF INT(bomb/10)=bomb/10 THEN LOCATE 7+(bomb-(INT((bomb-1)/10)*10)),INT((bomb-1)/10)+2:PRINT " ":bomb=bomb-1:ELSE LOCATE 7+(bomb-(INT(bomb/10)*10)),INT(bomb/10)+2:PRINT " ":bomb=bomb-1
1510 IF bomb=0 AND torp=0 THEN GOTO 2460
1520 ON h GOTO 880,1680,1750
1530 REM
1540 REM ***** ERASE USED TORPS. *****
*
1550 REM
1560 IF torp=0 THEN LOCATE 26,24:PRINT "No Torps. Left":GOTO 880
1570 IF torp=4 THEN LOCATE 15,8:PRINT " ":LOCATE 15,9:PRINT " "
1580 IF torp=3 THEN LOCATE 13,8:PRINT " ":LOCATE 13,9:PRINT " "
1590 IF torp=2 THEN LOCATE 11,8:PRINT " ":LOCATE 11,9:PRINT " "
1600 IF torp=1 THEN LOCATE 9,8:PRINT " ":LOCATE 9,9:PRINT " "
1610 torp=torp-1
1620 IF y=1 THEN 1700
1630 x=0
1640 REM
1650 REM ***** HORIZONTAL TORP. ROUTINE *****
*****
1660 REM
1670 x=x+1:SOUND 1,90,30,5,0,0,7:IF g(x,y)<>0 AND g(x,y)<>10 THEN h=1:PEN 3:GOTO 1280:ELSE h=2:GOTO 1270
1680 LOCATE 27,25:PRINT " ":IF x=9 THEN x=0:GOTO 880
1690 GOTO 1670
1700 y=0
1710 REM
1720 REM ***** VERTICAL TORP. ROUTINE *****
*****
1730 REM
1740 y=y+1:SOUND 1,90,30,5,0,0,7:IF g(x,y)<>0 AND g(x,y)<>10 THEN h=1:GOTO 1280:ELSE h=3:GOTO 1270
1750 LOCATE 27,25:PRINT " ":IF y=9 THEN y=0:GOTO 880
1760 GOTO 1740
1770 REM
1780 REM ***** HIDE SHIPS *****
*****
1790 REM
1800 FOR x=1 TO 9
1810 FOR y=1 TO 9
1820 g(x,y)=0

```

```

1830 NEXT y
1840 NEXT x
1850 FOR p=0 TO 5
1860 f(p)=0
1870 NEXT p
1880 FOR s=5 TO 1 STEP -1
1890 r=INT(RND*2)+1:d(s)=r:IF s=1 THEN LET b=1 ELSE LET b=s-1
1900 IF r=2 THEN 1940
1910 x=INT(RND*8)+1:IF x+b>9 THEN 1910
1920 y=INT(RND*8)+1:FOR l=x TO x+b:IF g(l,y)<>0 THEN 1910:REM next*1 420
1930 NEXT l:FOR l=x TO x+b:g(l,y)=s:NEXT l:GOTO 1970
1940 y=INT(RND*8)+1:IF y+b>9 THEN 1940
1950 x=INT(RND*8)+1:FOR l=y TO y+b:IF g(x,l)<>0 THEN 1860:REM next*1370
1960 NEXT l:FOR l=y TO y+b:g(x,l)=s:NEXT l
1970 h(s)=x:v(s)=y:NEXT s
1980 MODE 1:GOTO 360
1990 RUN
2000 REM
2010 REM ***** INITIALISE *****
***
2020 REM
2030 SYMBOL AFTER 129
2040 SYMBOL 129,0,0,0,7,255,87,254,252
2050 SYMBOL 130,4,4,30,147,255,245,255,127
2060 SYMBOL 131,0,56,16,56,56,56,56,56
2070 SYMBOL 132,56,56,56,56,56,56,56,16
2080 SYMBOL 133,0,1,1,3,191,255,191,0
2090 SYMBOL 134,128,192,192,192,254,255,254,0
2100 SYMBOL 135,0,0,0,0,255,127,63,31
2110 SYMBOL 136,31,63,31,31,255,117,63,31
2120 SYMBOL 137,4,142,4,4,255,85,255,255
2130 SYMBOL 138,58,59,255,255,255,171,255,255
2140 SYMBOL 139,168,249,254,254,255,85,255,255
2150 SYMBOL 140,0,1,3,1,0,1,128,71
2160 SYMBOL 141,116,40,244,249,226,252,172,252
2170 SYMBOL 142,135,71,63,61,255,255,255,255
2180 SYMBOL 143,250,251,250,171,254,255,255,255
2190 SYMBOL 144,185,186,188,188,255,255,255,255
2200 SYMBOL 145,0,0,0,48,49,162,164,184
2210 SYMBOL 146,3,231,101,241,241,243,250,171
2220 SYMBOL 147,1,0,0,7,39,17,9,7
2230 RETURN
2240 REM
2250 REM ***** INSTRUCTIONS *****
*
2260 REM
2270 MODE 1:PRINT " In Battleships you are firing at a grid where the enemy have hidden their ships. The enemy has hidden five vessels which are shown on the right hand side of the screen."
2280 PRINT:PRINT "The ships take a certain amount of

```

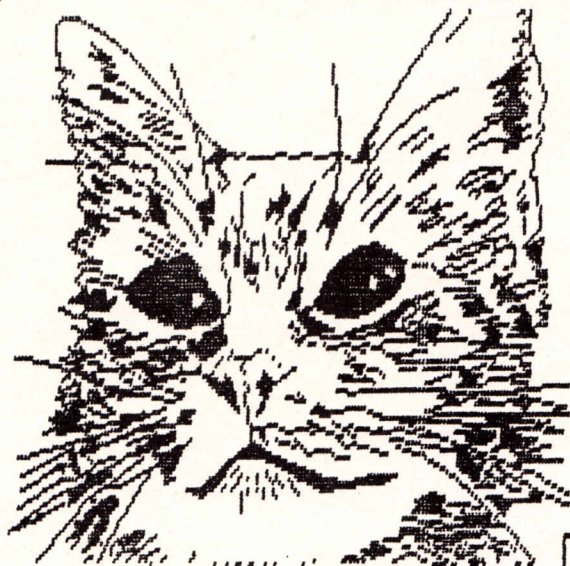


# CPCs - GAME

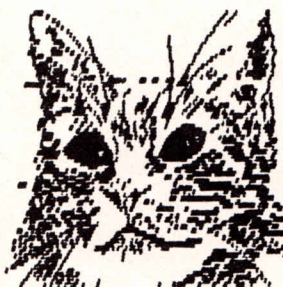
```
direct hits to sink them.
      Cruiser.....5
      Destroyer.
.....4
2290 PRINT "
port.....3
      Landing Craft.....2
      Submarine.....
.....2"
2300 GOSUB 2420
2310 CLS:PRINT " To fire a shell you select (B)omb and E
nter the co-ordinates,a bomb will destroy one square
of the grid and the results will be reported accordingl
y"
2320 PRINT " A torpedo is fired similarly except that
one of the co-ordinates needs to bea one,The torpedo will
fire perpendicular to the axis the
co-ordinate is close to.";
2330 PRINT "A torpedo continues along a line until it hi
ts a vessel."
2340 GOSUB 2420
2350 CLS:PRINT "When you have destroyed a ship it will d
isappear on the left hand side. You have 30 bombs
to destroy the enemy and 2 or 4 torpedoes depending on t
he difficulty level."
2360 PRINT " If you choose joystick operation you push
left or right to select bomb or torpedo.
      To choose the co-ordinates you push up
or down on the joystick and fire to set."
2370 GOSUB 2420
2380 GOTO 210
2390 REM
2400 REM ***** INST. CONT. ROUTINE *****
****
2410 REM
2420 PRINT:PRINT:PRINT:PRINT " (Any Key To C
ontinue.)"
2430 a$=INKEY$:IF a$="" THEN 2430
2440 RETURN
2450 REM
2460 REM ***** LOSE ROUTINE *****
*****
2470 REM
2480 RESTORE 2960
2490 PEN 3
2500 FOR X=1 TO 9
2510 FOR Y=1 TO 9
2520 IF G(X,Y)<>10 AND G(X,Y)<>0 THEN CH=206:LP=3:GOTO 14
10
2530 NEXT Y
2540 NEXT X
2550 GOSUB 2890
2560 LOCATE 21,23:PRINT "<SPACE> / FIRE To Cont.
```

```
2570 a$=INKEY$:IF a$="" THEN PEN 1:PAPER 0:RUN
2580 jo=0
2590 jo=JOY(0):IF jo=16 OR jo=32 THEN PAPER 0:PEN 1:RUN
2600 GOTO 2560
2610 REM
2620 REM ***** WIN ROUTINE *****
*****
2630 REM
2640 RESTORE 2810
2650 PEN 3
2660 LOCATE 5,13:PRINT "YOU"
2670 LOCATE 5,15:PRINT "HAVE"
2680 LOCATE 5,17:PRINT "WON"
2690 LOCATE 3,19:PRINT "CONGRATULATIONS"
2700 LOCATE 21,23:PRINT "<SPACE> / FIRE To Cont.
"
2710 READ a,b:IF a=0 THEN 2810
2720 a$=INKEY$:IF a$="" THEN PAPER 0:PEN 1:RUN
2730 j=0
2740 jo=JOY(0):IF jo=16 OR jo=32 THEN PEN 1:paper0:RUN
2750 SOUND 1,a,b,15
2760 SOUND 1,0,1
2770 GOTO 2710
2780 REM
2790 REM ***** WIN TUNE DATA *****
*****
2800 REM
2810 DATA 159,50,159,25,159,25,142,50,159,25,179,25,159,5
0,190,25,213,25,239,50,190,25,159,75,159,25,142,50,159,25
,179,25
2820 DATA 159,50,159,50,190,25,179,25,159,50,159,25,159,2
5,142,50,159,25,179,25,159,50,190,25,213,25,239,75,190,25
,159,75,190,25,179,50,179,25,190,25,213,50,213,50,190,25,
179,25,159,50,159,25,159,25,142,50,159,25,179,25
2830 DATA 159,25,159,25,190,25,213,25,239,50,190,25,159,5
0,159,25,159,25,142,50,159,25,179,25,159,50,159,75,190,25
,179,50,179,25,190,25,213,75,213,25,190,20,190,60,190,25,
213,25,239,75,190,25,179,50,179,25,190,25,213,20,213,30,2
39,25,250,50,239,100
2840 DATA 0000,0
2850 RUN
2860 REM
2870 REM ***** LOSE TUNE ROUTINE *****
*****
2880 REM
2890 READ a,b:IF a=55555 THEN RETURN
2900 SOUND 1,a,b,15
2910 SOUND 1,0,5
2920 GOTO 2890
2930 REM
2940 REM ***** LOSE TUNE DATA *****
*****
2950 REM
2960 DATA 300,100,290,100,300,20,300,100,250,110,270,110,
250,40,260,20,300,150
2970 DATA 55555,0
```

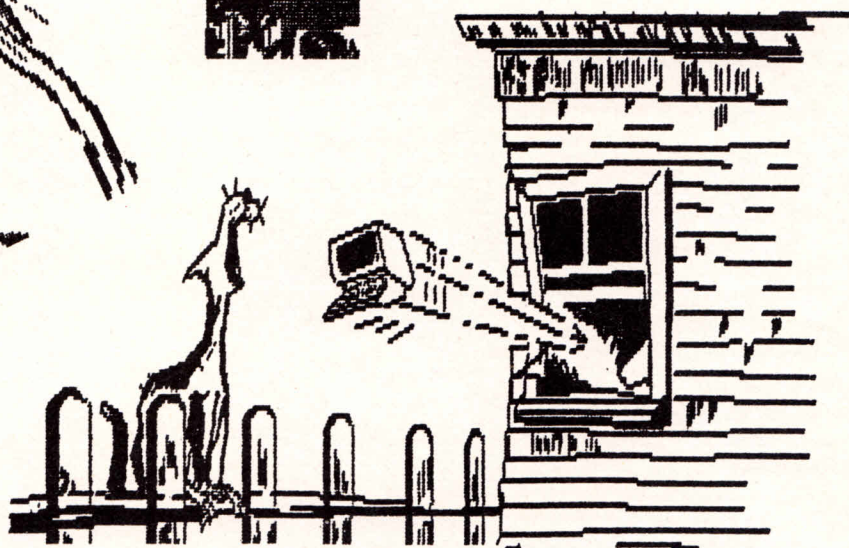
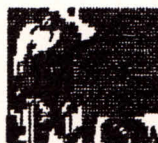




**FINE ART** transferred from  
**SCREEN**  
**DESIGNER**  
 to **AMX PAGERMAKER**



*pussycat pussycat  
 where have you been?*



As the heading describes, the above pictures were drawn with Screen Designer, transferred to Pagemaker and then printed in draft mode on a CPB80. It took about 27 minutes to complete the printing. Notice the 'cropped' ear of the cat - this occurs because the Pagemaker screen is smaller than the Screen Designer screen.

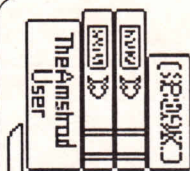
All the pictures are in Mode 1 except the 'cat on the fence' which is Mode 2. They are supplied by Tony Blakemore and Carlos Pereira of the Eastern Amstrad User Group Inc. A demonstration of Pagemaker is planned for their next meeting on Sunday, 3rd May.



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