

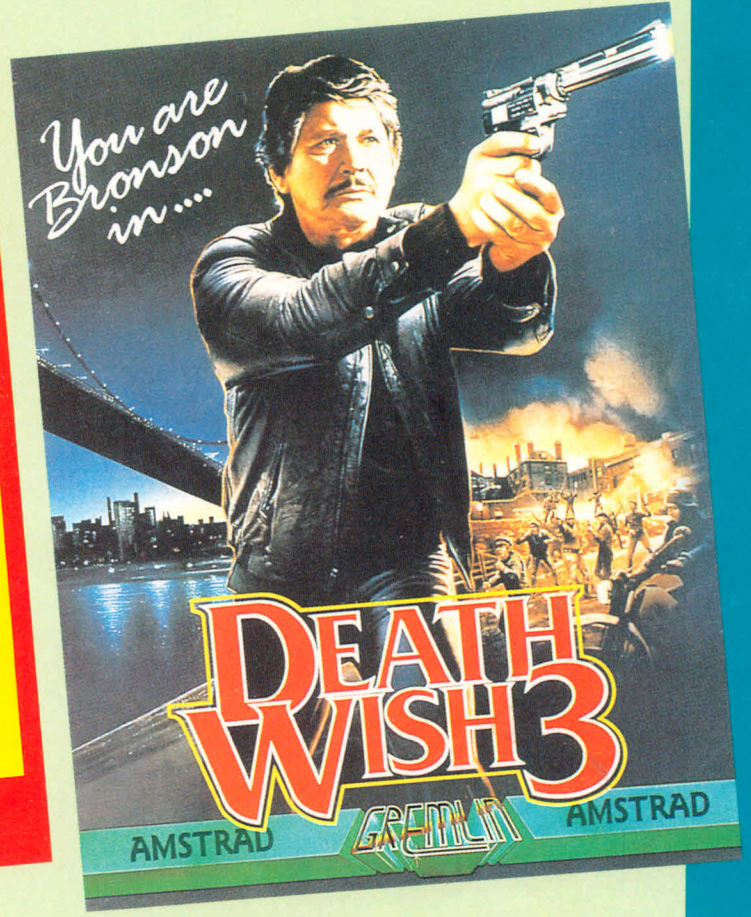
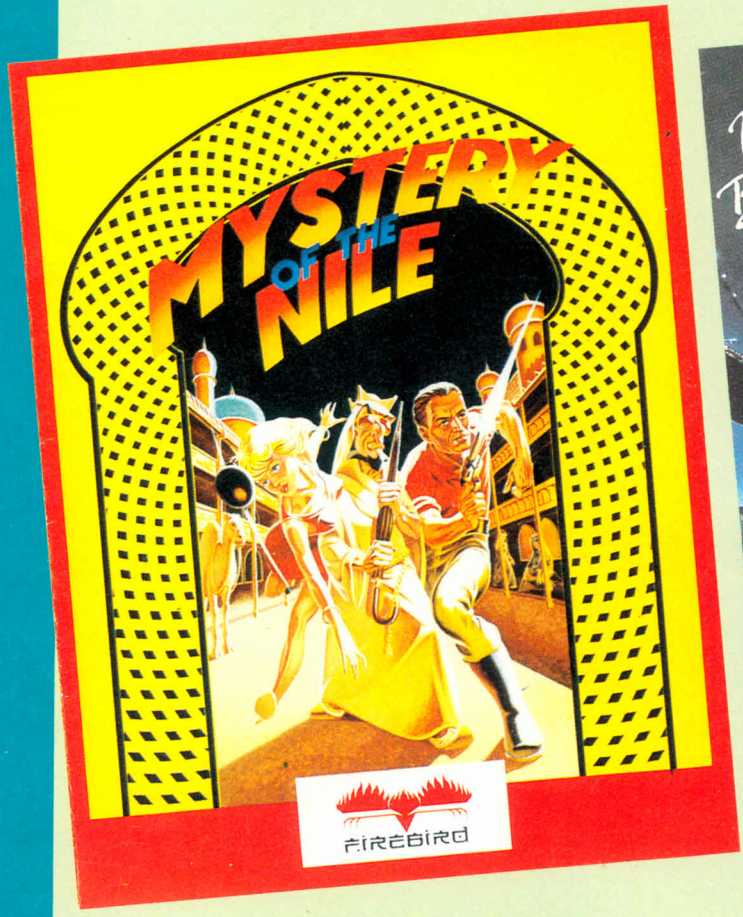
The Aussie Mag  
for Amstrad owners

# THE AMSTRAD USER

FREE  
1988  
CALENDAR  
INSIDE

Issue No. 35 \$4.25

December 1987



- *CPC Archiving program + more on CP/M and LOGO + a new adventure type-in*
- *Converting to LocoScript2 + handling disc problems + a database tutorial type-in*
- *Compatibles Corner + PC Tips and Traps*

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# THE AMSTRAD USER

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Side 1:	MISER	- 10	BHPSCROL	- 72	RALLY	- 87
	REACT	- 104	RNDXMAS	- 119		
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All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150, Australia. Urgent matters can be phoned through on (03) 233 9661.

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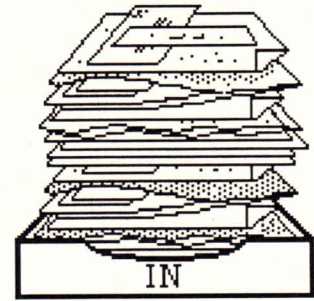
The subscription rate (for Australia) is \$42.50 for 12 issues of the magazine only, or \$80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or 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: Cartoons \$10.00 and a rate of \$15.00 per page for programs, articles etc. unless otherwise previously agreed. Contributions will not be returned unless specifically requested coupled with a suitable stamped and return addressed padded bag (for tapes or discs).

The Amstrad User is an independent Australian magazine and is not affiliated in any way with Amstrad or their Australian distributors Mitsubishi Electric AWA Pty Ltd., or any other dealer in either software or hardware.



# Letters



I've enclosed a small program which will help children practise the necessary operations involved with simple fractions. My 13 year old son (who helped me design and test it) has few problems with the "Very Hard" option.

I hope you can use it in your excellent magazine. The program was run on my CPC6128.

Keep up the good work.

```
10 `Fractions Tester by Jeff and
Gary Heron 3 May 1987
20 ` Menu
30 MODE 2: PRINT TAB(32) "FRAC-
TIONS TESTER"
40 PRINT TAB(32) "=====
=="
50 PRINT: PRINT TAB(32) "1) EASY"
60 PRINT: PRINT TAB(32) "2) HARD"
70 PRINT: PRINT TAB(32) "3) VERY
HARD"
80 PRINT: PRINT TAB(32) "4) END"
90 PRINT: PRINT TAB(32) "ENTER
OPTION"
100 LOCATE 32,14: INPUT z: ON z
GOSUB 200,260,320,370
110 GOTO 130
120 `Questions
```

```
130 PRINT "What is "a"/"b"of"c"/
"d
140 PRINT: INPUT "Type your
answer x/y as x,y"; e,f
150 IF ROUND (e/f,8) <> ROUND
(a/b*c/d,8) THEN PRINT: PRINT
"WRONG": PRINT: GOTO 130 ELSE
MODE 0: LOCATE 4,12: PRINT "C O
R R E C T" : LOCATE 6,25: PRINT
"ANOTHER ?"
160 q$=INKEY$
170 IF q$="" THEN 160
180 IF q$="Y" OR q$="y" GOTO 30
ELSE MODE 1: END
190 `Easy
200 a=INT(RND*4)+1
210 b=INT(RND*9)+1
220 c=INT(RND*4)+1
230 d=INT(RND*9)+1
240 RETURN
250 `Hard
260 a=INT(RND*7)+1
270 b=INT(RND*15)+1
280 c=INT(RND*7)+1
290 d=INT(RND*15)+1
300 RETURN
310 `Very Hard
320 a=INT(RND*19)+1
330 b=INT(RND*19)+1
340 c=INT(RND*19)+1
350 d=INT(RND*19)+1
360 RETURN
370 CLS:END
```

Jeff Heron, Modbury Heights, SA.

I'm only using OPENIN-CLOSEIN, OPENOUT-CLOSEOUT commands which appear to be explained no differently in the manuals of each machine, nothing fancy. The program seems to wait at an OPENIN or OPENOUT command for an average of 30 seconds before performing that command. The machine seems dormant and the drive is off - then suddenly, it will work. In another program, one patient operator reported waiting 10 minutes before regaining control after the loading of a 17k file.

After breaking out of the program the delay still appears to be in force. A simple CATALOGUE may take anywhere between 5 and 15 seconds to come up after hitting the ENTER key. The machine regains its normal speed after being reset.

Anthony Trost, Gracemere, Qld.

Classifieds and other comments.

1. Don't be too upset at the poor response to your requests for opinions (on a classified ads section). Over the years, I have found most of us (especially in laid-back Queensland) only write or respond when we need something badly and are sure no one else is going to get it for us!

YES, OF COURSE TAU SHOULD HAVE "CLASSIES".



We're off to sunnier climes on our one and only annual holiday from 14th December 1987 to 8th January 1988 inclusive.

Any orders received after Monday 7th December 1987 may not be delivered in time for Christmas.

Any received after the 11th certainly won't!

I'm wondering if any of your readers could help me with a problem.

Over the past few months I've been writing some programs on my 6128 for groups of people who mainly possess 464s with a single disc drive attached. When these programs which maintain and access disc files are operated on the 464s, time seems to stand still. The disc operation slows down considerably.

All letter for the Mailbag section should be addressed to:

The Editor  
The Amstrad User  
1/245 Springvale Road  
Glen Waverley, Vic 3150

We regret that we cannot enter into any personal correspondence.



If you knew the sheer hell my family suffered while I was chasing a good second-hand word processor. Once you build up your reputation as the medium for selling and buying good used hardware, I think many more readers will want TAU. (In the end I got my PCW from a short 'Wanted' ad in the local classies).

As for software: I believe it deserves some more thinking. Of course you do not wish to encourage the pirates. However, I would like to have some reputable place where I could offer a genuine piece of superseded software for sale complete with manual or even offer to swap. Perhaps it would be well to exclude distributors and make them advertise in your display, or in a 'Trade Directory' section.

2. Any chance you might introduce a 'Year Disc' for PCWs?
3. I bought my PCW for word-processing - it does a great job at that - but when oh when is Amstrad/AWA going to realise that they are only scratching the surface of its potential sales through almost total lack of support? At this moment, there are no discs for the 8256

(CF-2) in Queensland. The main distributors, Chandlers, do not carry LocoSpell and do carry very little else. The Brisbane HO do not want to know about any problems - even TAU offers little software in comparison with other Amstrads.

4. Will we ever see the day when we can translate all your great write-in programs over to the PCW.

Owen Dibbs, Sunshine Beach, Qld.

1. The decision we published in the October 87 TAU not to introduce a Classified Ads section had more impact than our original request for comments! Ok, we will give it a go - starting with the February 1988 issue, we'll include some "Classies". You can place an ad of up to 30 words (telephone numbers count as one word) for just \$7.50. So you could use it to sell a printer or launch a user group or publicize a piece of software you have written. One thing you can't advertise is the sale or swap of software you have purchased - such ads can be misused by software pirates. Naturally, we reserve the right to refuse any ad. To be sure of getting in the February issue you

will need to send your ad to us, typed if possible, by 5th January plus \$7.50. (For issues after February, by the 1st of the month prior to that of publication).

2. Yes, we are considering a PCW Year Disc in the same format as the CPC Year discs, ie. containing the programs which have been published in TAU plus some free Public Domain software.

3. There are less PCW users than CPC users so it follows that there will be less demand for software. This is reflected in the software held by dealers (although Amsnet/PC Network in Queensland have quite a big range).

4. Some of the simple CPC programs can be converted with a small amount of effort. The more complicated programs, especially those incorporating colours and graphics, are difficult to transfer. However, we will always look at any conversion sent in by readers plucky enough to attempt the task.

Martin Kimber's random access file "RANFILE" (TAU Oct 87) is a useful step in random access files for the Amstrad. I was not tempted into typing

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# MAILBAG

the 83 lines of identical code from line 2180.

I quickly wrote a short program to write the necessary code to disc so when it is loaded back into memory I had 83 lines of identical DATA statements.

This is the code:

```
10 INPUT "Name of file to save
to Disc/Tape";name$
20 startno=2160:endno=2990
30 DIM a$(endno)
40 OPENOUT name$
50 FOR i=startno TO endno STEP
10
60 a$(i)=STR$(i)+" data 00,00,
00,00,00,00,00,00,&e4"
70 PRINT #9,a$(i)
80 NEXT
90 CLOSEOUT
```

Of course, the start and end numbers in line 20 need to be changed for whatever program is being built as well as the data in line 60.

Some readers may not know that Basic programs, saved in ASCII can be loaded into a word processor. Programs can also be typed in with a word processor, saved, then debugged prior to running.

Rex Cox, Taree, NSW

In a letter in your November issue, Mr. Douglas Junor asked for suggestions for coping with his personal accounting at less than \$600. I offer two suggestions.

The first is that he master the programs in 'The Amstrad Companion' available from your office. Operating these programs themselves will not help him, because they demonstrate programming techniques rather than practical accounting ones. Nevertheless,

by extending, combining and adapting the modules and principles contained in the "Banker", "Accountant", "Cardindx" and "Budget" Basic type-ins (plus, if he wants graphic comparisons, the GSX examples given), he *could* tailor a system which will suit him down to the last detail. The monetary cost would be \$27.95 for the book, plus whatever he pays for the discs. BUT (repeat BUT) there would be a considerable investment of sweat, tears and time before his eventual result was fully operational.

The second approach is to abandon his Money Manager disc and acquire Money Manager Plus. This will give him the capability in a single file to cope with 300 entries per month for 12 months, as well as much flexibility in account dissections and statement presentations.

I hate to pontificate, but no two people will ever agree exactly on the information analyses they think are best for controlling their finances, or on the depth of detail of the summaries and statements they want churned out at what intervals. By definition, the design of a personal accounting system involves much personal choice. It is worth investing time, effort and experiment in considering and defining one's own needs before committing oneself to a final, operational system set-up by the entry of a mass of real data. After doing this with Money Manager Plus for just three weeks, I find that it has allowed me to set up both retrospective and forward formats of information and reports which suit my rather pernickety needs, preferences and whims as well. I think it could cater for other peoples idiosyncrasies, too.

John S. Talbot, Ashburton, Vic.

I am having some trouble how to make music on the computer. I own an Amstrad CPC464. Could you please send me some instructions for how to do it.

Adam Draper, Camperdown, Vic

*It's a pretty big subject and was covered in some detail by Peter Campbell in Issues 9 to 14 inclusive. You will also find that the book "Making Music on the 464/664" very useful.*

As a user of an Amstrad computer and as the Secretary of the Lismore District Amstrad Computer Club, I often have the desire to contact other user groups. After reading the Nationwide User Groups listing, I found that only 25 of the 63 entries have bothered to give postal addresses.

I know in this advanced age of computers that we have a device called the telephone, but its cost compared to a stamp is sometimes prohibitive. If these groups wish to open their doors, or should I say mail boxes, to the world, I am sure that the correspondence flow might improve. In this way, all users of Amstrad computers can only benefit from the information and friendship that would flow as a result.

Laurie Lewis, Casino, NSW.

Other readers might wonder, as I did, why Andrew Sharp's Hard Cat type-in on page 58 of issue 33 would not print out the catalogue. I found that the printer had to be switched on BEFORE booting CP/M. Pressing CONTROL P produced a beep if the printer was toggled ON and no sound if toggles OFF.

The printout would not work of the printer was switched OFF and ON after CP/M was loaded.

Arthur Pounsett, Norlane, Vic.

I would like to reply to S.A. Mah's letter (August 87). Dracula from CRL is available in Australia - I saw it at a local Chandlers store. It was available to persons over 15 years old (that disqualifies me!).

Forest at World's End by Interceptor Micros uses other words like rape and f\*\*\*. Who would think of putting words like that into a game which could be played by, say, a five year old?

If you are wondering how I found out about those words, I used a cheat program to print out the game's vocabulary.

Brett Hallen, Daisy Hill, Qld.

*Whilst it is unlikely that a five year old would be able to handle Forest at World's End, it is nevertheless disturbing that*

## DISPLAY ADVERTISING DEADLINES

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software producers find it necessary to incorporate bad language in their games. The reason for including such words in the vocabulary of adventure games is to recognise input from the player and respond accordingly. This supposedly makes the game 'more intelligent'. I was always taught that to use such language made me appear less intelligent as I wasn't capable of using the correct word.

Using formatted discs (1.20s) for my lengthy manuscripts, I still have not managed to conquer pagination.

I like my numbers on the top right hand side (as do many editors), nothing alternate, as I like to print out and shuffle around the printed word in my own way, so I want continuous numbering of pages. All I seem to get is >>>> and the number on the printout. The arrows just won't go away. Are there any short cuts? There are a few other Amstrad user writers in this predicament and even a friendly whizz at the retailers can't work it out - they

have no occasion to need it. Can anyone help?

Valmai Phillips, Chatswood, NSW.

As the newly elected Secretary of the PCW Australia Group, I am appealing for new members and a renewal of commitment from old members. We are a Sydney based club whose members are interested in Amstrad PCWs. It is not necessary to attend all our meetings - in fact we have a number of members with whom our only contact is by mail.

We have just completed our first turbulent year and held our first Annual General Meeting and with all the enthusiasm of newly elected officials declare that things "is gunna get better". We need our old members and new members, we need ideas and a will to achieve something.

I realise that some membership enquiries in the past have not been answered, if this has been your case, then I apologise and promise all will be attended to in the future, so please re-

apply.

Our meetings are held every second Tuesday of the month and our new meeting place is Burwood RSL Club. Our mail address is; PO Box 97, Annandale, NSW 2060. We can also be contacted through the Amstrad Bulletin Board 02 981 2966.

David Chamberlain, Secretary PCWAG, Annandale, NSW.

I'm writing to see if any other freaks of the great game 'Batman' have the same problem as me. You see, I can't seem to be able to get through the game and get all parts to the Batmobile without being destroyed.

So I was wondering if by any chance someone out there would have a cheat mode to the game, and also have a map to get through it.

If you have, I'm very desperate to get it, so could you please send it into the great Amstrad User or write to me at 14 Eyre Ave., Whyalla Norrie, SA 5608.

K. Evans.

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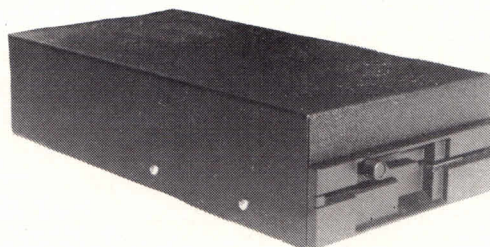
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## USER GROUP INFORMATION

# Nationwide User Groups

Regular readers will notice a change to the layout in this section making room for new groups and the return of the Contact list.

We take this opportunity to wish all the officials and regular members of the listed groups a fun-filled Christmas and a successful New Year.

### WESTERN AUSTRALIA

#### ALBANY AMSTRAD USER GROUP

President: Gerry Barr (098 41 6884)  
Secretary: Steven Hands (098 44 7807)  
Treasurer: Gavin Grose  
Venue: Priess Street Centre, 14 Priess Street, Albany on the first and third Mondays of each month at 7.00 pm.  
Mail: 20 Anuaka Road, Albany, WA 6330

#### AMSWEST (Perth)

President: Carl Hindle (09 419 1411)  
Vice Pres: John Lansdown (09 342 3154)  
Secretary: Saskia Quinn (09 444 8147)  
Treasurer: Mario Ioppolo (09 444 7691)  
Venue: Royal Institute for the Blind, cnr. Whately Cres. and Guildford Road, Maylands on the first and third Tuesdays of each month starting at 7.30.

#### AMSWEST (Blackwood) USERS GROUP

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

#### ROCKINGHAM-KWINANA AMSTRAD USER GROUP

President: Bob Harwood  
Vice-Pres: Keith Saw  
Treasurer: Rob MacIroy  
Secretary: Ben Hille (095 27 5246)  
Venue: Coolesongup Primary School, Westerly Way, Coolesongup (Rockingham), every second Wednesday at 7.30 pm.  
Mail: 29 Milgrove Ave., Coolesongup, WA 6167

#### SOUTHSIDE AMSTRAD USER CLUB

President: W. Van Der Kooi (09 271 1085)  
Secretary: Steve King (09 354 2068)  
Treasurer: Eric Tytherleigh (09 390 8865)  
Venue: Wandarrah Hall, Edgeware Street, Lynwood every 2nd and 4th Wednesday of each month from 7.00 pm.  
Mail: The Sec., Southside Amstrad Users Club, 61 Keslake Way, Parkwood, WA 6110.

#### AMSTRAD COMPUTER CLUB TOM PRICE

President: Colin Smith (091 89 2074)  
Secretary: John Elliot (091 98 1735)  
Treasurers: P. & C. Montgomery (091 89 2398)  
Venue: Primary School every 2nd Wednesday night. Contact the above for more details.

### SOUTH AUSTRALIA

#### AMSOUTH AMSTRAD USER'S GROUP

President: Draw Ames (085 371 0151)  
Treasurer: Bob Bleachmore (085 56 2048)  
Secretary: Ross Kennewell (08 366 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

#### AMSNORTH AMSTRAD USER'S GROUP

Organisers: J.T. Clarkin (08 262 6342)  
R. Britton (08 258 7861)

Venue: Lacrosse Hall, Terama Street, Gepps Cross every Wednesday at 7.00 p.m.

#### AMSTRAD COMPUTER CLUB INC. (SA)

President: Frank Matzka (08 382 2101)  
Vice Pres: Andrew McDade (08 79 5414)  
Treasurer: Les Jamieson (08 356 9612)  
Secretary: Ross Barker  
Venue: Church Hall, 15 Clayton Ave, Plympton between 6.30 and 9.00 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 (08 250 2377)  
Venue: Salisbury North Primary School, cnr. Bagster & Woodyates Rds every Wednesday from 7.00.  
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 8.00pm. 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 Ctr., 370 The Terrace, Port Pirie every 2nd and 4th Monday from 7.30 pm.  
Mail: The Pt. Pirie Amstrad User Group, c/o D.T. Green, 207 Senate Rd., Pt. Pirie, SA 5540.

#### SOUTH EAST AMSTRAD USER GROUP (SA)

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

### NORTHERN TERRITORY

#### DARWIN AMSTRAD USER GROUP

President: Kevin Bateman (089 32 1463)  
Treasurer: Jeff Powis (089 27 5557)  
Secretary: Kiem Le (089 32 1828)  
Venue: Meetings are held twice monthly. Contact any of the above for more details.  
Mail: 45 Priest Circuit, Gray, Palmerston, NT 5787

### 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: Craig Tooke (03 359 3736)  
Venue: Corner of Church and Somerset Sts, Richmond on the first Sunday of each month commencing at 1.00 and generally twelve days later on a Friday evening at 7.00.

#### EASTERN AMSTRAD USER GROUP Inc.

President: J.L. Elkhorne  
Secretary: Bob MacDonald (03 878 7783)

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: R.D. MacDonald, 6 Ashwood Drive, Nunawading, Vic 3131

#### 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 Ctr., 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 (051 345 711)  
Venue: Morwell Neighbourhood House, 17 Symons Crs., Morwell on the first Thursday of each month at 7.30pm.  
Mail: PO Box 947, Morwell, Vic 3840

#### MARYBOROUGH AMSTRAD USER CLUB

President: Chad Banfield (054 68 1351)  
Treasurer: Brendan Severino (054 61 3191)  
Secretary: J. Fothergill (054 75 2667)  
Venue: Maryborough CCC each week on Tuesday from 12.10 p.m. to 12.45 p.m.

#### MOUNTAIN DISTRICT AMSTRAD USER GROUP

President: Ian Poli (03 758 5282)  
Treasurer: Lindsay Bell (03 758 9921)  
Venue: Country Womens Association Hall, 4 Sundew Avenue, Boronia from 7.00 pm. every second Monday of the month.  
Mail: PO Box 132, The Basin, Vic 3154

#### NORTHERN AMSTRAD USER GROUP

Contact: Brian Ellis (03 469 4425 A/H)  
Venue: Every three weeks in Brunswick West for CPC owners with a sincere interest beyond games.

#### SOUTHERN AMSTRAD USER GROUP INC.

President: Noel Sheard (03 786 5469)  
Secretary: Bob Patterson (03 786 6976)  
Treasurer: Christine Donaghey  
Venue: Senior Campus at John Paul College, Frankston every third Tuesday from 7.30pm.  
Mail: The Sec., PO Box 100, Seaford, Vic 3198.

#### SUNBURY MELTON AMSTRAD USER GROUP

Contacts: Wayne Urmston (03 744 2719)  
Norma McEntee (03 743 7104)  
Venue: Contact above for more details.

#### WENDOUREE AMSTRAD USER GROUP

Contact: Brad Maisy (053 44 8356)  
Venue: Cnr. Charles and Appleby Drive, Cardigan Village on the first Sunday of the 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: Paul Kirby (062 86 5460)  
Secretary: Michael Hickey (062 58 5719)  
Treasurer: Rod MacKenzie (062 54 7551)  
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 4th Wednesday of each month at 8.00pm.

#### 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 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 Wed. from 7.00.

#### HAWKESBURY AMSTRAD USER GROUP

Contact: Terry Webb (045 76 5291)  
Venue: Richmond Swimming Ctr., East Market St., Richmond every third Tuesday at 7.30 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: Laurie Lewis (066 62 4542)  
Venue: Goonellabah Public School, Ballina St. on the last Tuesday of each month from 6.30.  
Mail: 20 Johnston Street, Casino, NSW 2470

#### S & W MILLER AMSTRAD USER'S CLUB

President: Wal Sellers (049 33 5459)  
Secretary: Nikki Lee (049 33 5459)  
Treasurer: Georgina Todd (049 66 2788)  
Venue: Maitland Park Bowling Club, Maitland on the second Tuesday of each month at 7.30pm.

#### 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  
Treasurer: Erica Harwood  
Secretary: Janet Bowen  
Venue: Kotara Public School, Park Avenue, Kotara on the first Tuesday of each month. Contact the above for meeting times.  
Mail: PO Box 18, Charlestown, NSW 2290

#### PCW AUSTRALIA GROUP

President: David Springett (02 660 4515)  
Secretary: David Chamberlain (047 77 4396)  
Venue: Burwood RSL Club, 96 Shaftsbury Road, Burwood every second Tuesday of the month at 7.30 pm.  
Mail: PO Box 97, Annandale, NSW 2060.

#### PORT MACQUARIE AMSTRAD USERS GROUP

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



# USER GROUP INFORMATION

**SYDNEY AMSTRAD COMPUTER CLUB**  
 President: Bob Knowles (02 810 7373)  
 Secretary: Reed Walters (02 560 9487)  
 Treasurer: Jim Chriss (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 the Secretary or Treasurer between 6.00 p.m. and 9 p.m.

**SYDNEY PC1512 USER GROUP**  
 Contact: Geoff Craine (02 76 6467) A/H (02 412 9213) B/H  
 Venue: To be arranged; meeting initially on the third Tuesday of each month at 7.00 pm.

## QUEENSLAND

**BRISBANE AMSTRAD COMPUTER CLUB**  
 President: John O'Connor (07 271 3350)  
 Vice Pres: John Digby  
 Secretary: Bob Ashe (07 355 5699)  
 Treasurer: Ivan Dowling (07 269 8795)  
 Tech. Editor: Franz Hendrickx (07 356 0633)  
 Tech. Lib.: John Wotton  
 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 St., Wynnum Central on the first Saturday of each month at 1.00p.m. The coordinator 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 coordinator is Cherry Shrier (07 351 6179).

**BUNDEBERG AMSTRAD USER'S GROUP**  
 President: Ray Babbidge (071 72 1223)  
 Secretary: Clive Barrett (071 71 3668)  
 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**  
 President: Graeme Annabell (079 27 4915)  
 Sec/Treas: Anthony Trost (079 33 1951)  
 Venue: Waraburra State School, Johnson Road, Gracemere on the first Friday of each month at 7.00 pm.  
 Mail: 4 Sunrise Crescent, Gracemere, 4702

**COMPUTER USER GROUPS OF AUSTRALIA Pittsworth Branch**  
 President: David Siebuhr  
 Contact: Ron Langton (076 931 690)  
 Venue: Every first Tuesday of every month from 5 pm. at the St. Peter Lutheran Church Hall, Grand Street, Pittsworth.  
 Mail: CUGA, PO Box 166, Pittsworth, 4356

**GOLD COAST AMSTRAD USER GROUP**  
 President: Mark Abbott (075 31 2114)  
 Treasurer: Pam Scott  
 Secretary: Mary Maclaren  
 Venue: Benowa State High School, Mediterranean Drive, Benowa on the first Saturday of each month at 2.00 pm.  
 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: The first Thursday of each month at 7.00 alternating between the Hervey Bay Senior College and Maryborough TAFE College. Contact the above for more details.

Mail: Les Patford, PO Box 24, Torquay, Q 4657

**IPSWICH AMSTRAD USER GROUP**  
 Contact: Peter Wighton (07 288 4571)  
 Venue: Every second Wednesday from 7.15 p.m. at Bremer High School, Blackstone Rd, Raceview

**MACKAY AMSTRAD USER GROUP**  
 Contact: Des Mulrealey (551 409)  
 Ron Coates (547 222)  
 Venue: Meet every second Sunday morning. Contact the above for location and time.

**PENINSULA AMSTRAD CLUB (amalgamated with BACC)**  
 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: Mick Howe (07 209 1839)  
 Treasurer: Wayne Stephens (07 287 2459)  
 Librarian: Carol Watts (07 287 2882)  
 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.  
 Mail: 10 Carramar St, Loganlea, 4204

**TOOWOOMBA AMSTRAD USERS GROUP**  
 President: Stephen Gale (076 35 5001)  
 Vice-Pres: Priscilla Thompson (076 35 5092)  
 Secretary: Adrian Dunsmore (076 91 1561)  
 Treasurer: Edwin Gerlach (076 33 1054)  
 Venue: Toowoomba Education Centre, Baker Street, Toowoomba on the 4th Monday of each month starting at 7.30 pm.

**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: Mrs. D. Christensen  
 Secretary: John Wode (076 61 5176)  
 Treasurer: Neville Christensen  
 Venue: Warwick Education Centre on the first 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  
 Publ. Off: Danny Britain (002 47 7070)  
 Venue: Elizabeth Matriculation College on the first Wednesday of each month from 7.30 pm.

**NORTHERN TASMANIA AMSTRAD COMPUTER CLUB**  
 President: Russell Lockett (003 44 8972)  
 Treasurer: Keith Chapple (003 26 4338)  
 Secretary: Shane Crack (003 97 3298)  
 Publicity: Michael Watts (003 31 1944)  
 Librarian: Patrick Salter (003 97 3379)  
 Junior Del: Bobby Lockett (003 44 8972)  
 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: Rick Ferguson (004 31 6280)  
 Treasurer: Robert Simpson  
 Secretary: Karen Stevenson  
 Venue: Burnie Technical College, Mooreville Road, Burnie on the third Friday of each month at 6.30 p.m.

## NEW ZEALAND

**THE AMSTRAD COMPUTER CLUB OF CANTERBURY**  
 Contact: Christine Linfoot 897 413  
 Ian Orchard 524 064  
 Venue: Four Avenues School, cnr. Madras Street and Edgeware Road, Christchurch 1 on the fourth Wednesday of each month.  
 Mail: Box 23.082 Bishopdale, Christchurch, NZ.

**WELLINGTON AMSTRAD USER GROUP**  
 Contact: Tony Tebbs 791 072 (evgs)  
 Venue: Cafeteria, NZ Fisheries Research Division, Greta Point, on the first Monday of each month from 7.30 pm.  
 Mail: PO Box 2575, Wellington, New Zealand.

## User Group Contact List

Please note that the following names are listed as contacts for new user groups and should NOT be viewed as a problem solving service.

### NSW

Nick Rogers	Bogan Gate	(068) 64 1170
Chris Craven	Canowindra	(063) 44 1150
Trevor Farrell	Coolah/Mudgee area	(063) 77 1374
David Higgins	Inverell	(067) 22 1867
Paul Wilson	Moruya	(044) 74 3160
Frank Humphreys	Mummulgun	(066) 64 7290
Reuben Carlsen	North Sydney	(02) 957 2505
Stephen Gribben	Singleton	(065) 72 2732
Ken Needs	St. Ives	(02) 449 5416
Chas Fletcher	Toongabbie	(02) 631 5037
Nick Bruin Snr.	Tweed Valley	(066) 79 3280

### VIC

Brian Russell	Ballarat	(053) 31 2058
C. van de Winckel	Ballarat	(053) 313 983
Rod Anderson	Camperdown	(055) 93 2262
Paul Walker	Heathmont	(03) 729 8657
Terry Dovey	Horsham	(053) 82 3353
Andrew Portbury	Leongatha	(056) 62 3694
Sue Kelly	Manangatang	(050) 35 1402
R. Kernebone	Miildura	(050) 23 3708
Angela Evans	Mt. Evelyn	(03) 736 1852
Keith McFadden	Numurkah	(058) 62 2069
Maureen Morgan	Warnambool	(055) 67 1140

### QLD

Beryl Schramm	Boyne Island	(079) 73 8035
Steven Doyle	Caloundra	(071) 91 3147
Neville Eriksen	Gladstone	(079) 78 2418
Kylie Telford	Goondiwindi	(076) 76 1746
D.F. Read	Ingham	(077) 77 8576

### SA

Lindsay Allen	Murray Bridge	(085) 32 2340
Michael Spurrier	Murray Bridge	(085) 32 6984
Mrs. S. Engler	Penola	(087) 36 6029

### WA

Graeme Worth	Scarborough	(09) 341 5211
P.M. Nuyens	Waroona	(095) 33 1179

### TAS

Conal McClure	Scottsdale	(003) 52 2514
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### NT

G.P. Heron	Tiwi	(089) 27 8814
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This revised list is based on information collected over the last four months. If your name appears and it shouldn't, please let us know. For new readers: if you want to start a group in your area just drop us a line with the relevant details and we will add you to the list.



# Gossip from the UK

Things have been a little quiet over here during the past few months, but as the festive season quickly approaches, the software houses move in to top gear. I make no apology for the fact that most of my news covers games. Presumably, that is where the money is at this time of year.

## In the US Gold pipeline

You've seen it on the TV; soon you have the chance of playing it on the computer. The famous Road Runner cartoon is due to appear on your CPC. Programming is under way and from the excitement shown by Richard Tidsall of US Gold, the game promises much.

Road Runner will follow the drift of the cartoons: Runner must outwit Wile E Coyote. Scenes include chases and dodging coyote traps. Beep-beep!

Other future Gold titles include Killed until Dead, Survivor and Temple of Doom. Killed until Dead is a graphical adventure-type game. You, in the guise of Hercule Holmes, must solve the murders that took place at the Gargoyle Hotel. As for the other two games, I'm in the dark. Presumably Temple of Doom will closely follow the film.

## F-15 Plus one

Digital Integration's answer to MicroProse's F-15 Strike Eagle simulation is F-16 Combat Pilot. You control the F-16: a highly manoeuvrable, multirole fighter aircraft. Your task is to locate - using a mass of instrumentation - enemy targets and eliminate them. A myriad of weapons is always at hand. Ilya Girson at Digital had this to say:

"F-16 should appear in October although anytime between then and Christmas is just as likely." Helpful!

Further releases from Digital Integration include ATF, Advanced Tactical Fighter and Bob Sleigh.

## Write Word

Junior Wordpro has been updated. All the disagreeable aspects of this word processor for kids from Ramasoft have been removed and new features incorporated. Gone are the garish colours, the cursor is much more sedate, key auto-repeat is set to default, and getting to the end of a document no longer takes an age. New functions include: line insert, line delete and simple justification. The enhanced version looks better and performs much more satisfactorily. *(For interested persons, a small number of copies can be found in our Glen Waverley office - Ed.)*

## King Formula

November is the release month for Martech's Nigel Mansell's Grand Prix racing game. The game will feature much of the instrumentation of modern day cars. Included is a communications link to the pit enabling the rest of the team to pass vital information. Various levels of play are to be programmed into the game - the beginner level allowing you to career round the track without having to worry about fuel consumption or tyre wear.

Martech has the licence to Slaine, the popular 2000AD hero and hope to have him hopping on your screen soon. The game, Slaine the King, is an adventure with arcade elements. You take over Slaine's mind and must decide what to do when taxing situations occur. Slaine is controlled using a new movement technique, Reflex. According to Martech, this technique is unique and far simpler than conventional methods.

## They've done it again

CRL has managed to get an "over-15" certificate stuck to its version of Frankenstein - like its Dracula some months ago. Perhaps it was the price tag that shocked the board of censors: £10 on tape and £15 on disc. *(That could make it over \$50 for the disc version in Australia - Ed.)*

# New Write Hand Man for PCWs

There are now two versions of Write Hand Man for Amstrads. The original 'vanilla' or universal version running under CP/M Plus has been available for some time for the 6128s and PCWs, along with a CP/M 2.2 version for 464s. Both 'vanilla' versions originated from Poor Person Software in California.

A new specialised CP/M Plus version for PCWs, this time from HiSoft (the UK company, not the Australian), is now available in Australia. It takes advantage of the graphics capabilities of the PCW to display and run Write Hand Man's 'pop-down' accessory programs, such as the calculator or phone book. Greater use is also made of the Amstrad keyboard, especially function keys which the standard version doesn't take into consideration.

*For more details contact Glyphic Software, PO Box 391, Pennant Hills, NSW 2120 or phone (02) 484 3827 after hours.*

# PC1640 arrives

*The latest addition to the IBM compatible Amstrad PC range is now available in Australia. There are three versions: the PC1640HD - with 20mb of hard disc, the PC1640D - with two floppy disc drives and the PC1640S with a single floppy drive. All three machines come with a PC-ECD high resolution colour monitor. A similar mono-chrome monitor will be available later. The PC1640 is seen as enhancing the successful PC range alongside the high selling PC1512.*

*The price for the 'HD' version will be around \$3700, for the 'D' version around \$3000 and for the 'S' around \$2500.*



# Help is on its way

Amstrad Support is the name of a small company in Baulkham Hills, NSW which provides specific help to private and business Amstrad users. It is run by Julie Pomery who has been associated with Amstrad computers since the first CPC464 reached these shores in 1984. Over the last three years, the Amstrad range has expanded to include the PCWs and PCs. As sales increased, so too the number

of first-time users who were having difficulty in getting to grips with their new computers - this is when Amstrad Support was born.

The range of support varies, as does the cost, between solving problems over the phone to personal training sessions. Interestingly, over 60% of all clients are in the senior citizen category. Julie's advice to any person who thinks they are too old to learn about computers is "have a go - you don't know what you are missing!". At the other end of the age scale, children are also among Julie's clients. Perhaps Mum or Dad can't give on-the-spot help, in which case they provide financial help by purchasing a

"Hot-Line" support. Amstrad Support currently provides assistance to the CYSS (Community Youth Support Scheme) in Fairfield in training the youths on the five on-site PCWs.

The services of the company extend to advice on software, the purchase of hardware or software for clients, demonstrations where possible, installation of complete systems, consultancy and training sessions. The latter typically take 3 hours to complete, but can be longer if a complete business package is involved. The timing is arranged to suit the client. For more details write to Amstrad Support, 5 Murrills Crescent, Baulkham Hills, NSW 2153 or ring (02) 686 2216.

## Bonzo Extra

If you have a 5.25" disc drive on your CPC and thought that the Bonzo Doo Dah package (reviewed TAU Issue 31, August '87) wouldn't be much use on your extra drive - think again! Pipeline Computer Accessories persuaded the developers, Nemesis, to include an extra file in the package called COP-YBA. This will allow 5.25" users to use the stand alone routine for file copying to and from the large formats.

More details can be obtained from Pipeline Computer Accessories, PO Box 288, Morisset, NSW 2264 or on (049) 732754.

## Sales Generator Plus for PCs

Personal Computer Software have released "Sales Generator Plus" which is a powerful new sales and marketing management program for IBM PCs or close compatibles.

It is designed to manage an extensive database of contacts in an organised and systematic way. Sales Generator Plus not only mailmerges names and addresses for bulk mailing, but each letter is automatically and individually personalised according to the user's sales strategy and requirements.

The package remembers what action to take with whom, whether it be a letter, phone call or visit. It not only reminds the sales person who to call, but it puts the contact information record on the screen, dials the phone and tells him/her what to say.

Sales Generator Plus costs \$299.00.

For more details contact PCS, 68 Alfred Street, Milsons Point, NSW 2061 or ring (02) 923 2899.

Items for this monthly news section should be sent direct to:  
The Editor, The Amstrad User,  
1/245 Springavele Road,  
Glen Waverley, Victoria 3150

## Top Disks moves into games

If you have been searching for the golf game Leaderboard or the bowling game Tenth Frame, you'll find Top Disks has them. They also have some classic disc games at just \$12. (See page 11).



The Amstrad User offices will be closed from 14th December 1987 to 8th January 1988 inclusive.

# 50 AMSTRAD PROGRAMS \$18.50

50 newly released Amstrad CPC programs ON DISK, 25 per side with reviews and instructions - all menu driven.

A private research byproduct, these programs were recently placed on the public domain by being sent to magazines so they are not copy protected.

The mass of utilities, games and hobby applications are fun, educational and useful, not junk. The package especially suits schools.

\$18.50 inc. tax/postage from:

### PUBLIC PACKAGE

c/o M. Kostecki & P. Vermeer  
PO Box 409, Elizabeth, SA 5112

## WRITE-HAND-MAN HiSoft (UK) Version

WRITE-HAND-MAN is THE Amstrad CP/M users's 'pop-down' program. The specialised HiSoft version includes all accessory programs, like Notepad, Phonebook, Diary, Disk Directory, Text file scan, Calculators (decimal and hex), Key Macros (8), ASCII Table, Cut and Paste . . . . . and more! . . . PLUS the HiSoft adaptations of PCW graphics and function keys . . . . . \$56.00

Vanilla CP/M 3.0 or 2.2 WHM versions also available for CPC6128 and 664 . . \$49.00

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# Firing-up CP/M - 3

In Part 3 of this series Matt Nicholson looks at how you use CP/M to create files and move files around within Arnold. Part 3 also says goodbye to the PCW and concentrates on CPC models exclusively.

So far in this series we have looked at plenty of ways of examining the state of your Arnold. Part One looked at the DIRectory command, for finding out all there is to know about the contents of your discs; while Part Two looked at STATUS, DEVICE and SHOW, for finding out all about the state of Arnold himself. What we have not done is used CP/M to create files or move files around within Arnold. This is where the PIP command comes in.

The letters 'PIP' stand for 'Peripheral Interchange Program', and the name tells us quite a lot about the command itself. First of all the word 'program', PIP is a self-contained program within the CP/M environment, and is to be found as the file PIP.COM on your CP/M2.2 or CP/M PLUS system disc. Boot up CP/M, using the back-up copy we created using DISCKIT2 or 3 in Part Two of this series, and not the original system disc. Now enter PIP on the A-prompt, and you will be presented with this on screen:

```
A>pip
CP/M 3 PIP VERSION 3.0
*
```

The first line simply tells you what version of the PIP program you have run, and is not present if you are using CP/M 2.2. The '\*' is the PIP program's prompt, in the same way that 'A>' is CP/M's prompt. To get out of the PIP program just hit Return, and the A-prompt reappears.

The remainder of the program's title, 'Peripheral Interchange', tells us what PIP does: it is a program for moving files from one peripheral to another. These peripherals include the disc drive, or drives if you have a second connected; and also include the keyboard, the screen, the printer and

serial interface - if you have one that is.

The basic format for a PIP command is straightforward, though at first sight illogical as it requires the destination first, and then the source. If you are running CP/M PLUS, try entering PIP CON:=A:PROFILE.ENG on the A-prompt. Your screen should look something like this:

```
A>pip con:=a:profile.eng
setkeys keys.ccp
language 3
```

```
A>
```

Before you reel back in horror at the result, let's look at what we have asked Arnold to do. First of all we have called up the PIP program by typing 'PIP'. We have then asked the program to transfer the file 'PROFILE.ENG' on disc A to the destination CON:. Looking back at Part three of this series reveals that CON: stands for 'console', meaning Arnold's screen. So what we see in the last two lines on the screen is the contents of the file called 'PROFILE.ENG'. At this stage in the series the contents of the file are probably totally meaningless, but don't worry about that now!

If you are running CP/M 2.2 you won't have a file called PROFILE.ENG on your system disc, however you can get a similar result by entering PIP CON:=A:LOGO2.SUB, which displays on screen the contents of the file LOGO2.SUB. It may seem strange to have to put the destination first in PIP commands, but if you think of this command as 'setting (the console) to equal (the contents of the file LOGO2.SUB)' it makes a bit more sense.

### Creating your own file

What we have done here is to ask for the contents of a file to be displayed on

screen. However we could do this the other way round, and send the input from the Console to become the contents of a file. This may not make much sense until you realise that the 'console' means the keyboard as well as the screen to CP/M. So, try entering PIP A:MYFILE=CON: at the A-prompt. What this does is 'set the file called MYFILE to equal the input from the keyboard'. After you hit Return the cursor moves to the start of the next line, waiting for your input. Type Hello, followed by Control Z (hold the control key down and hit the 'Z' key). 'Control Z' is a special character that means 'this is the end of the file'. The disc drive should whirr for a second, and then the A-prompt reappears.

At the A-prompt enter DIR to list the files stored on the disc. If you look carefully at the list you will see a file called MYFILE, which is the file you have just created. You can examine the contents of this file by entering PIP CON:=A:MYFILE, in the same way as we did above. The word 'Hello' appears on screen which, as we know, is the contents of the file called MYFILE.

So, we have created a file called MYFILE which contains the word 'Hello'; we have created it using PIP, and examined its contents using PIP. What else can we do with it? Using PIP we can transfer it wherever we want. Again looking back at Part Two of this series, we see that LST: is the printer. If you have a printer connected to your Arnold, try entering PIP LST:=A:MYFILE. Out of your printer should come the word 'Hello', as you have just asked for the contents of the file called MYFILE to be sent to the printer. If you were to try this without a printer connected the words LPT not ready - Retry, Ignore or Cancel? will scroll across the bottom of your screen. Hit 'C'



to cancel this instruction and the error message disappears to be replaced by the A-prompt.

**Copying from disc to disc**

One of the most important applications of the PIP program is the copying of files from one disc to another. The ability to copy files from disc to disc means that you can create discs with just the files you need for any given task. It also means you can optimise on

**Using the PIP command**

The Peripheral Interchange Program, contained in the file PIP.COM on your CP/M system disc, is used for copying files from one disc to another, or to and from peripheral devices. The basic format is:

```
PIP Destination=Source
or
PIP
*Destination=Source
```

If the destination and source are disc files they should be specified Drive:filename.filetype, where the Drive is either A or B. The Drive letter can be omitted if the file is on the active drive. The wild cards ? and \* can be used as required, and the filename and type of the destination can be omitted altogether if you don't wish to change the name of the file you are copying. So B:=A:\*.\* copies all the files on drive A to drive B. Either the destination or the source of the PIP command can be peripheral devices, so the following can be used as required:

- CON: As the destination means the screen; as the source means the keyboard.
- LST: Can only be used as the destination, when it results in the source being directed to the printer.
- TTY: As the destination means the source will be output through the serial port; as the source means the destination will take information from the serial port.

disc space, and keep back-up files of important data in case anything goes wrong. For this reason the PIP command is probably the one you will find yourself using most often.

If you are one of those people fortunate enough to own a second disc drive, copying files from one disc to another is easy. First of all you will need a freshly formatted disc, created using DISCKIT2 if you are running CP/M 2.2, or DISCKIT3 if you have CP/M PLUS. Put your fresh disc in the second disc drive, and your back-up copy of the CP/M system disc - the one containing your newly created MYFILE - into the built-in disc drive. CP/M calls the built-in drive 'Drive A', and the second drive 'Drive B'; so to copy MYFILE from drive A to drive B you enter PIP B:=A:MYFILE on the A-prompt. In fact PIP B:=MYFILE would have done just as well, as CP/M assumes that MYFILE is on drive A unless you tell it otherwise, as A is the Active Drive.

Both drives will whirr for a short time, leaving you with the A-prompt on screen. Now enter DIR B: at the A-prompt, to give you a directory of the disc in drive B. The screen will simply display the name MYFILE as being the only file on drive B. You can enter PIP CON:=B:MYFILE to prove to yourself that this file does indeed contain the word 'Hello'. Now enter DIR by itself, to get a list of the files on the disc in drive A. Once again you will see the file MYFILE listed there; and you have succeeded in making a back-up of the file you created earlier.

But what about us? I hear all you single disc drive owners ask. If you are running CP/M PLUS then you are OK, because CP/M PLUS has a trick up its sleeve for pretending that your built-in drive is actually two separate drives - drive A and drive B. If you reset your machine (by pressing the Shift, Control and Esc keys at the same time) and reboot CP/M PLUS, you will notice the words Drive is A: down at the bottom right-hand corner of the screen. Now enter B: at the A-prompt. Arnold will let out a little beep and scroll the message Please put the disc for B: into the drive and then press any key, across the bottom of the screen. Put a clean, formatted disc into the drive and press any key, just as the message asks.

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TOP DISKS



Arnold whirrs for a moment, and then displays B> in place of the usual A>. Note the bottom right-hand corner of the screen - it now reads Drive is B:

So CP/M PLUS owners can pretend they have a second disc drive, even though they only have one - though it can involve a considerable amount of disc-swapping. CP/M PLUS is fairly intelligent when it comes to keeping track of which disc is which, and always prompts you in this manner when you have to change discs; but it can be fooled. If you were to put in the B disc when it was asking for disc A it would blindly continue - Arnold trusts you to remember which disc is which.

So, to copy MYFILE onto a new disc with a single-drive CP/M PLUS system, proceed as though you had two disc drives but follow the on-screen prompts as to when to change discs. I am afraid that CP/M 2.2 does not have this flexibility: you can only use PIP to copy files from one disc to another if you actually have two disc drives connected. One more reason for using CP/M PLUS rather than the older CP/M 2.2!

### Losing a day's work

Having created a file, examined it and copied it onto another disc, let's round off by learning how to delete it! This is done very simply using the ERASE command. As you might imagine this command is to all intents and purposes irreversible, unless you own a suitable Disc Doctor-type program, so care is needed in its use. We can get rid of our little MYFILE quite easily, by entering ERA MYFILE at the A-prompt, but a safer way of doing this in CP/M PLUS is to enter ERA MYFILE [C], which requires the file ERASE.COM on your system disc. This asks for confirmation first, before committing the final act. Simply hit the 'Y' key and your file is gone forever.

*Next month we will look further at the use of the PIP command, before looking at some of the other programs supplied on your CP/M discs - so see you then.*

# Cheat Mode

**This month's Cheat Mode is the work of S.A. Mah (Willetton, WA). A couple look familiar, nevertheless it is a fine effort. You can follow this example by sending your cheats to:**

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

Here is a collection of pokes and tips for inclusion in your column. Many of the pokes have been designed for the DISC-BASED version of the particular game though I have managed to make many exceptions. These exceptions will be noted under each poke listing as an alteration to the original listing. All the pokes are hand-written and thus, I can only hope that my handwriting is legible.

The pokes can be entered as follows:

1. Type in the listing and check for errors.
2. Save it onto the game disc as "CHEAT".
3. To run the game with the poke, insert the game disc with the saved cheat into the drive and type RUN "CHEAT" and press the 'ENTER' key.

To tape users, use Method 1 (see October '87, page 21) to run the cheat. Right-o, now feast your eyes on the following pokes.

### TURBO ESPRIT (Disc version)

In Issue 21 (October 1986), there was a poke listing providing infinite lives for the TAPE version of Durrell's Turbo Esprit. Here is a poke listing for the DISC version of the game.

```
10 MEMORY 6000: LOAD
"TECODE, BIN", 6048
20 DATA &21, &A0, &17, &11, 0, 8, 1,
&A0, &84, &ED, &B0, 201
```

```
30 FOR A=0 TO 11: READ P: POKE
&9C40+A, P: NEXT A
40 FOR B=0 TO 3: INK B, 0: NEXT B
50 LOAD "GDATA.BIN", 49152
60 CLEAR: MEMORY &7FF: CALL
&9C40: POKE &800, 254
70 POKE &8669, 0: CALL &1955
```

### FAIRLIGHT - (Disc and Tape)

This poke gives infinite LIFE POINTS for this "Edge" classic arcade adventure. Now all you need to complete the game is a map!!

```
10 OPENOUT "D": MEMORY &27C: MODE
1: INK 0, 0: INK 1, 2: INK 2, 25: INK
3, 6: BORDER 0: LOAD "PIC", &C000
20 LOAD "FCD"
30 POKE &7D2F, 0
40 CALL &9380
```

### \*ALTERATIONS FOR TAPE VERSION

```
Line 20: LOAD "!FCD"
Line 10: OPENOUT "D": MEMORY
&27C: MODE 1: INK 0, 0: INK 1, 2: INK
2, 25: INK 3, 6: BORDER 0: LOAD
"!PIC", &C000
```

### GHOSTS 'N GOBLINS (Disc and Tape)

This poke listing provides infinite lives, invulnerability, super speed and a choice of the three levels for this Elite arcade conversion. What more could you want!

```
10 OPENOUT "D"
20 MEMORY &12FF: MODE 1
30 LOAD "CODE.BIN", &1800
40 FOR F=&57F5 TO &57F8
50 POKE F, 0: NEXT F
60 POKE &509B, 0: POKE &509C, 0:
POKE &509D, 0
70 POKE &823A, 1
80 INPUT "ENTER LEVEL (1 TO
3)"; LEVEL
90 POKE &50AC, LEVEL-2
100 POKE &50B0, LEVEL-1
110 CALL &5000
```

### \*ALTERATIONS FOR TAPE VERSION

```
Line 30: LOAD "!CODE.BIN", &1800
```

### KNIGHTLORE (Disc and Tape)

This poke gives infinite lives for this 3D arcade adventure.

```
10 MEMORY &1999: LOAD "0", &2000
20 FOR T=&A000 TO &A00E: READ A:
POKE T, A: NEXT T
30 DATA 243, 33, 0, 32, 17, 0, 0, 1, 0,
128, 237, 176, 195, 0, 0
40 POKE &49C9, 0
```



50 MODE 1: CALL &A000

\*ALTERATIONS FOR TAPE VERSION  
Line 10: MEMORY &1999: LOAD "!0",  
&2000

### IKARI WARRIORS (Disc and Tape)

Coming up to Elite's two-player arcade conversion, this poke gives infinite lives, ammunition and grenades.

```
10 MODE 0:BORDER 2:MEMORY 4799
20 FOR IKARI = 0 TO 15: READ X:
INK IKARI,X: NEXT IKARI
30 LOAD "SCREEN.BIN"
40 LOAD "WARRIORS"
50 FOR N = 1 TO 3: READ A
60 POKE A,0:POKE A+1,0:POKE
A+2,0
70 NEXT N
80 CALL &FFD0
90 DATA 13,6,3,15,16,0,1,2,14,
26,24,9,12,21,22,19
100 DATA 26900,27546,27426
```

\*ALTERATIONS FOR TAPE VERSION  
Line 30 : LOAD "!SCREEN.BIN"  
Line 40 : LOAD "!WARRIORS"

### DRUID (Disc version)

Infinite LIFE - ESSENCE is yours to aid in the obliteration of the Demon Princes of Acamantor's dungeons.

```
10 MEMORY &1E3D
20 LOAD "DRUID.PRG", &1E3E
30 POKE &4551, &C9
40 CALL &1E3E
```

### YIE AR KUNG-FU (Disc and Tape)

Not exactly a poke but a listing that confuses the Amstrad's graphic chip to produce enlarged, arcade-like sequences for this bash-em-up from Imagine. Most suitable for CTM640 owners. GT64 owners need to adjust the V-HOLD for a better picture.

```
10 REM ** YIE AR KUNG-FU **
20 REM ** ARCADE SEQUENCE **
30 OUT &BC00,0
40 OUT &BD00,127
50 RUN "KUNGFU.SBF"
```

\*ALTERATIONS FOR TAPE VERSION  
Line 50: RUN ""

### SWEEVO'S WORLD from Gargoyle Games

Here's your chance to give the Tyrant a headache. With these tips, his downfall is assured. Play on...

1. You will need a teddy bear to kill the horrible little girl. Firstly, wander around until you have uncovered the teddy. Then enter the horrible girl's room. Climb up the blocks until you are safely above her. Drop the teddy as she passes below. One bump on her head and out she goes!

2. You will need a boot to kill the dictator. Find the boot, enter the dictator's room, climb the blocks and drop the boot on his head. Exit, one nasty dictator!

3. To kill the Wijur, just chase it into the rising finger.

4. To kill the goose, you will need to accomplish two tasks. First, collect the BOO. Then creep up behind the goose and say BOO to the goose. Then find a weight, enter the goose's chamber, climb the blocks and drop the weight on its head. Exit, one notorious cackler!

### MARSPORT from Gargoyle Games

Join John Kepler Marsh on the destruction of Marsport with the following tips that should aid many an ardent arcade adventurer through this Gargoyle classic.

#### GENERAL TIPS

1. Upon entering a sector that is overrun with Sept warriors, walk up and down the passage until one appears. Blast the vile critter away and quickly move to another passage. Continue doing this until you are out of that sector.

2. Do not approach a Sept warlord lest you be stung to death.

3. Some sectors are guarded by robot wardens. If you happen into such a sector, stay where you are until the warden appears. Blast it quickly, for unlike Sept warriors, it needs to be hit at least twice before expiring. Once this has been accomplished, take the same evasive action as you would with Sept warriors. But beware! Wardens can appear at the least expected time.

4. Some objects need to be assembled in factor units before use. These objects are usually composed of related items eg. flour, water and a baking tin inserted into a factor unit will form a cake.

5. The key-item of a key unit is usually found in the same level. Some key units require assembled objects.

6. Always read the vidtex in an infomat carefully for vital instructions.

7. Charge your power gun only when you are relatively safe from potential danger. Do not charge the power gun in Sept warrior infested sectors or warden patrolled sectors.

#### DETAILED TIPS

1. To get the power gun: go to sector G ELIS level. There, pick up the gun permit from the locker. Go to the UP TUBE to sector G DALY level. Walk to sector D of the same level. There, you will see a key unit and a locker unit. Insert the gun permit into the key unit and the power gun will be yours. Go back to sector G and charge the power gun there.

2. Upon entering the DANGER passage in sector C ELIS level, quickly pick up the dust bomb from the supply unit and drop it into the refuse unit. This will deactivate the bomb. Remember that you have 20 seconds to complete this task.

3. To enter the BAKERY in sector F DALY level, get the baking tin from the supply unit in sector A, flour from the supply unit in sector C and water from the supply unit in sector D. Go to the factor unit outside the bakery and insert all three items into it. The factor unit will then assemble you a cake. Take the cake and insert it into the key unit next to the bakery. This unlocks the bakery door.

4. The DANGER passage that joins sector C and A IAXA level has been rigged with a gas bomb. To go through this passage, you will need to assemble a gas mask. Firstly, get charcoal from the supply unit in sector G DALY level and gauze from the supply unit in sector H JOLY level. Go to the factor unit outside the DANGER passage in sector C IAXA level and insert both items into the factor unit. A gas mask will be assembled and you must use this upon entering the DANGER passage.

5. To enter the MUSIC ROOM in sector A FARR level, insert a cornet from the supply unit in the ICE-CREAM room in sector A IAXA level into the key unit outside the MUSIC ROOM.

6. The first key to M-CENTRAL is in the DIRECTOR room in sector D ALBA level. You need two keys to gain access to M-CENTRAL.

S.A.Mah



# The Disc Miser

## A Disc to Tape Archive Program

from Ted Krapkat

Have you ever wished you could safely and cheaply store away the contents of those little used discs in order to make room for new programs? Would you like to have a cheap form of backup for all your disc based programs?

If the answer to either of these two questions is 'YES', then read on because here is the answer to your prayers. It's called "The Disc Miser" and it will archive an exact copy of your discs onto cassette tape.

Before I describe the workings of the program in any detail, here are a few of the programs main points:

1. The disc format is saved as well as the data contained on every track.
2. Two (2) whole discs can be stored on one C60 cassette tape.
3. When the data is retrieved, the program automatically reformats the target disc to the archive disc format and regenerates an exact copy.
4. Either drive, A: or B:, may be used.

After the screams of "PIRACY!" die down, let me assure you that the program is designed to make archive tapes of Data, System and IBM format discs which have the normal 40 tracks. That is, it will archive only those discs which could be discopied using the DISCKIT program as supplied with your computer (or disc drive).

The program is NOT designed as a way to get around disc protection and of course the archived tape files will not run unless transferred back to another disc using the 'retrieve' option of the program.

Although the program is written in BASIC, some machine code is necessary to access the AMSDOS BIOS commands which allow us to format disc tracks as well as to read and write disc sectors.

The required machine code is stored in data lines 340-400 and 1405-1440 and POKEd into memory when the program is initially run. All data lines are checksummed and if, by the remotest chance, you happen to type any data incorrectly, a message will be displayed upon running the program which will tell you the line at fault.

This user-friendly approach is evident throughout the entire program since virtually every step of the operation is documented on the screen with prompts and progress messages.

The main menu (lines 710-835) provides four options:

1. Archive DISC to TAPE
2. Retrieve DISC from TAPE
3. Catalogue DISC
4. Terminate program

When Option 1 is chosen, the user is firstly asked which drive is to be used and then prompted to enter a filename, (which may be up to 16 characters long). The format of the source disc is then checked (lines 520-620). If it is recognised as a standard format, the user is prompted to insert the archive tape. Press REC and

PLAY and then any key. A file containing the format information is then saved to tape (lines 635-665).

If the format of any track is not recognised as one of the three standard AMSTRAD formats, the program is terminated and a message to that effect is displayed (lines 1450-1485).

The next step is to read the data from each track (lines 140-220) and save it to tape (lines 205-250). These tape files are headerless in order to save tape space and each is labelled with its respective track number (line 210). The tape speed is 2500 baud set by line 105.

After all tracks have been saved to tape, the program reverts to the main menu. Option 2 will allow you to retrieve your disc at a later date. (After one of the kids has spilt orange cordial all over your database disc.) Here the program reads back the disc format from tape (lines 1050-1105) and then, after prompting you for destination disc, proceeds to format each track (line 1145), read the track data from tape (lines 1150-1160) and write the data to disc (lines 1175-1230).

As a safety feature, to protect against possible tape read errors, the previously stored track number for each block of data is matched against the track number currently being written (line 1165). If they don't match, the message "Read Error! Rewind Tape & Press any Key" is displayed and loading is stopped pending a key press (lines 1315-1325). If you rewind too far, the message "Found Track XX", is displayed (line 1320) and the program continues until the correct track is found. This means that a track is not saved to disc until the correct data is detected.

After all the tracks have been transferred, the program again returns to the main menu where either option 3 (a disc catalogue) or Option 4 (terminate program) can be chosen.

The Disc Miser should be a very useful addition to your range of utilities. So, if you don't receive the monthly tape with your magazine, limber up those typing fingers and go to it.

```

10 '*****
15 '*                                     *
20 '*           DISC MISER               *
25 '*                                     *
30 '* A Disc to Tape Archive Program *
35 '*                                     *
40 '*           By Ted Krapkat          *
45 '*                                     *
50 '* The Amstrad User - December 1987*
55 '*                                     *
60 '*****
65 '
70 MODE 1 : CLEAR : !DISC : MEMORY &6FFF
75 DIM NS(40),format$(40),n(10),f(40,10)

```



```

80 RESTORE 340
85 ' Poke in machine code if necessary
90 IF PEEK(&9000)<>195 THEN GOSUB 265
95 '
100 POKE 46642,255:REM CAPS LOCK on
105 CALL 42432,4:REM Tape speed 2500 baud
110 INK 0,13:INK 1,26:INK 2,0:INK 3,24: BORDER 13
115 CALL &BBBA : CLOSEIN : CLOSEOUT
120 !DISC
125 GOTO 715: '*** Go to main menu ***
130 '
135 '*** Read Disc Sectors ***
140 POKE &A64E,drive:POKE &A646,&84
145 FOR track=0 TO 39
150 POKE &A64F,track
155 FOR sector=0 TO nS(track)
160 POKE &A651,f(track,sector)
165 add=&70*256+sector*512
170 add$=HEX$(add,4):hiadd$=LEFT$(add$,2)
175 lowadd$=RIGHT$(add$,2)
180 hiadd=VAL("&"hiadd$)
185 lowadd=VAL("&"lowadd$)
190 POKE &A64B,lowadd:POKE &A64C,hiadd
195 CALL &A636
200 NEXT
205 name$=discname$+"."+RIGHT$(STR$(track),LEN(STR$(track)
)-1)
210 POKE 33280,track: '*** Save track No.***
215 a$="Saving "+discname$+" Track"+STR$(track)+" to Tape"
220 x=1:y=20:GOSUB 925
225 '
230 ' *** Save track to tape ***
235 CALL 42528,&7000,4609,33
240 NEXT
245 PRINT CHR$(7);CHR$(7)
250 GOTO 110
255 '
260 'Poke the 1st part of the machine code
265 total=0
270 FOR lin=0 TO 12
275 FOR col=0 TO 19
280 READ byte$
285 add=lin*20+col+36864:byte=VAL("&"byte$)
290 total=total+byte
295 POKE add,byte
300 NEXT
305 READ checksum$
310 checksum=VAL("&"checksum$)
315 IF checksum<>total THEN PRINT "Data Error in Line";340
+lin*5:POKE &9000,0:END
320 total=0
325 NEXT
330 GOSUB 1340
335 RETURN

```

```

340 DATA C3,21,90,C3,A6,90,C3,5E,90,C3,B4,90,00,C1,C6,C2,C
7,C3,C8,C4,0C84
345 DATA C9,C5,C1,C6,C2,C7,C3,C8,C4,C9,C5,11,FF,11,FF,01,C
D,49,90,1E,0C60
350 DATA 00,DD,56,00,DF,5B,90,21,0D,90,E5,DF,52,90,E1,30,0
A,3A,51,BE,08C5
355 DATA 77,23,7D,D6,21,20,EF,32,0C,90,11,00,0A,7B,DF,55,9
0,7A,DF,58,07F6
360 DATA 90,C9,6C,C5,07,72,CA,07,03,C6,07,63,C7,07,CD,C2,9
0,F5,01,18,0902
365 DATA 00,DD,E5,E1,09,47,DD,21,CC,90,7E,DD,72,00,DD,77,0
2,DD,23,DD,0A4D
370 DATA 23,DD,23,DD,23,2B,2B,10,ED,F1,F5,FE,09,30,04,3E,0
1,18,02,3E,072E
375 DATA C1,D5,DF,F4,90,D1,F1,FE,0A,38,08,32,A0,A8,3E,3A,3
2,A2,AB,21,0A92
380 DATA CC,90,DF,F7,90,C9,CD,C2,90,4B,6F,DD,66,05,1E,00,D
F,FA,90,C9,0BF6
385 DATA CD,C2,90,4F,DD,6E,06,DD,66,07,DF,FD,90,C9,DD,56,0
0,DD,5E,02,0AAE
390 DATA DD,7E,04,C9,00,00,C1,02,00,00,C6,02,00,00,C2,02,0
0,00,C7,02,0540
395 DATA 00,00,C3,02,00,00,C8,02,00,00,C4,02,00,00,C9,02,0
0,00,C5,02,03E7
400 DATA 00,00,CA,02,81,C5,07,52,C6,07,66,C6,07,4E,C6,07,0
0,00,00,00,0586
405 '
410 ' *** Save Disc to Tape ***
415 MODE 1:INK 3,26:INK 2,0
420 a$="Which Drive (A/B)?:X=1:Y=1:GOSUB 925
425 a$=INKEY$:IF a$="" THEN 425
430 IF a$="a" OR a$="A" THEN drive=0:drive$="A":GOTO 445
435 IF a$="b" OR a$="B" THEN drive=1:drive$="B":GOTO 445
440 GOSUB 680:GOTO 425
445 A$=drive$:X=20:Y=1:GOSUB 925
450 A$="Name of Disc to Save ?"
455 X=1:Y=3:GOSUB 925:PEN 2
460 LOCATE 24,3:INPUT",discname$
465 GOSUB 695
470 IF badname=1 THEN badname=0:LOCATE 24,3:PRINT SPC(15):
GOTO 460
475 TAPENAME$="!"+DISCNAME$:PEN 1
480 a$="Insert Source Disc in Drive "+drive$
485 x=1:y=5:GOSUB 925
490 a$="Press any key when ready.....":X=1:Y=7
495 GOSUB 925:WHILE INKEY$="" :WEND
500 OPENOUT TAPENAME$
505 POKE &9028,drive
510 '
515 ' *** Read disc sector format ***
520 a$="Mapping Track":x=1:y=10:GOSUB 925
525 FOR g=0 TO 5
530 FOR t=0 TO 6
535 track=g*7+t:go=1

```



```

540 IF track<40 THEN PEN 2:LOCATE 14,10:PRINT track:PEN 1
545 IF track>39 THEN 635
550 CALL &9000,track:IF PEEK(&900C)<>0 THEN go=go+1:IF go<
>5 THEN 550 ELSE n(t)=0:GOTO 580
555 mi=256:y=&900D:yy=y
560 p=PEEK(y):IF p=mi THEN 575
565 IF p<mi THEN mi=p:yy=y
570 y=y+1:GOTO 560
575 n(t)=y-yy:IF (n(t)<8 OR n(t)>9) AND n(t)<>0 THEN n(t)=
10:nS(track)=9
580 nS(track)=n(t)-1:fm=PEEK(yy)
585 IF fm=&C1 OR fm=&41 OR fm=1 THEN 590
587 GOTO 1455
590 PRINT #9,nS(track)
595 FOR s=0 TO n(t)-1
600 f(track,s)=PEEK(s+yy)
605 IF track<40 THEN PRINT #9,HEX$(f(track,s),2)
610 NEXT s
615 NEXT t
620 NEXT g
625 '
630 '*** Save Disc Sector Map to Tape ***
635 A$="Insert Destination Tape"
640 y=13:GOSUB 925
645 a$="Press REC and PLAY then any key....."
650 Y=15:GOSUB 925:WHILE INKEY$="" :WEND
655 a$="Saving Sector Map to Tape"
660 y=18:GOSUB 925:CLOSEOUT
665 GOTO 140
670 '
675 '*** Ops! Sound an error ***
680 SOUND 1,1200,20,15:RETURN
685 '
690 '*** Check for illegal filename ***
695 IF discname$="" OR LEN(discname$)>16 THEN GOSUB 680:ba
dname=1:RETURN
700 RETURN
705 '
710 ' **** Main menu ****
715 MODE 1
720 INK 1,26:INK 2,0:INK 3,24:PEN 2
725 A$="DISC TO TAPE ARCHIVE PROGRAM"
730 X=7:Y=2:GOSUB 850
735 A$="By Ted Krapkat Oct.1987"
740 x=9:y=4::GOSUB 850
745 MOVE 80,395:DRAWR 475,0,2
750 DRAWR 0,-68:DRAWR -475,0:DRAWR 0,68
755 PEN 1:A$="1....ARCHIVE DISC TO TAPE"
760 x=9:y=9:GOSUB 925
765 A$="2....RETRIEVE DISC FROM TAPE"
770 x=9:y=12:GOSUB 925
775 A$="3....CATALOGUE DISC"
777 x=9:y=15:GOSUB 925
780 A$="4....TERMINATE PROGRAM"

```

```

785 x=9:y=18::GOSUB 925
790 A$="Press number of desired option"
795 x=6:y=23:GOSUB 850
800 INK 0,13 : INK 1,26 : INK 2,0 : INK 3,24
805 BORDER 13
810 a$=INKEY$:IF a$="" THEN 810
815 IF a$="1" THEN !TAPE.OUT:GOTO 415
820 IF a$="2" THEN !TAPE.IN:GOTO 975
825 IF a$="3" THEN 1250
830 IF a$="4" THEN CALL 0
835 GOTO 810
840 '
845 '*** Outlined Text Sub-routine ***
850 xgraph=x*16-16:ygraph=414-(y*16)
855 PRINT CHR$(23)+CHR$(3);
860 MOVE xgraph+2,ygraph
865 TAG:PRINT a$;
870 MOVE xgraph-2,ygraph
875 PRINT a$;
880 MOVE xgraph,ygraph+2
885 PRINT a$;
890 MOVE xgraph,ygraph-2
895 PRINT a$;:TAGOFF
900 PRINT CHR$(22)+CHR$(1)+CHR$(23)+CHR$(0);
905 LOCATE x,y:PRINT a$
910 RETURN
915 '
920 '*** Shaded Text Sub-routine ***
925 LOCATE x,y:PRINT a$
930 INK 1,26
935 PRINT CHR$(23)+CHR$(3);
940 xgraph=x*16-16:ygraph=412-(y*16)
945 MOVE xgraph+2,ygraph
950 TAG:PRINT a$;:TAGOFF
955 PRINT CHR$(23)+CHR$(0);
960 RETURN
965 '
970 '*** Retrieve Disc From Tape ***
975 MODE 1:INK 3,26:INK 2,0
980 WINDOW #1,1,39,21,23
985 A$="Which Drive (A/B)?"
990 X=1:Y=1:GOSUB 925
995 a$=INKEY$:IF a$="" THEN 995
1000 IF a$="a" OR a$="A" THEN drive=0:drive$="A":GOTO 10
15
1005 IF a$="b" OR a$="B" THEN drive=1:drive$="B":GOTO 10
15
1010 GOSUB 680:GOTO 995
1015 A$=drive$:X=20:Y=1:GOSUB 925
1020 A$="Name of Disc to Retrieve?"
1025 X=1:Y=3:GOSUB 925:PEN 2
1030 LOCATE 28,3:INPUT",discname$:GOSUB 695
1035 IF badname=1 THEN badname=0:LOCATE 28,3:PRINT SPC(11)
:GOTO 1030

```



```

1040 TAPENAME$="!" + DISCNAME$ : INK 1,26 : PEN 1
1045 name$ = discname$ + "." + RIGHT$(STR$(track), LEN(STR$(track)) - 1)
1050 A$ = "Insert Archive Tape"
1055 x = 1 : y = 5 : GOSUB 925
1060 a$ = "Press PLAY then any key....."
1065 X = 1 : Y = 7 : GOSUB 925 : WHILE INKEY$ = "" : WEND
1070 a$ = "Loading Disc Sector Map from Tape"
1075 x = 1 : y = 10 : GOSUB 925
1080 OPENIN TAPENAME$
1085 FOR track = 0 TO 39
1090 INPUT #9, nS(track)
1095 FOR sector = 0 TO nS(track)
1100 INPUT #9, a$: f(track, sector) = VAL("&" + a$)
1105 NEXT sector : NEXT track
1110 POKE &A64E, drive : POKE &A646, &85
1115 A$ = "Insert Target Disc in Drive " + drive$
1120 x = 1 : y = 13 : GOSUB 925
1125 a$ = "Press any key when ready....."
1130 X = 1 : Y = 15 : GOSUB 925 : WHILE INKEY$ = "" : WEND
1135 FOR track = 0 TO 39
1140 IF f(track, 0) = 0 AND f(track, 1) = 0 THEN 1150
1145 CALL &9006, f(track, 0), f(track, 1), f(track, 2), f(track, 3),
f(track, 4), f(track, 5), f(track, 6), f(track, 7), f(track, 8), 0,
nS(track) + 1, drive, track
1150 A$ = "Loading " + discname$ + " Track" + STR$(track) + " from T
ape"
1155 x = 1 : y = 19 : GOSUB 925
1160 CALL 42506, &7000, 4609, 33
1165 IF PEEK(33280) <> track THEN GOTO 1315
1170 IF f(track, 0) = 0 AND f(track, 1) = 0 THEN 1230
1175 CLS #1 : POKE &A64F, track
1180 FOR sector = 0 TO NS(TRACK)
1185 POKE &A651, f(track, sector)
1190 add = &70 * 256 + sector * 512
1195 add$ = HEX$(add, 4) : hiadd$ = LEFT$(add$, 2)
1200 lowadd$ = RIGHT$(add$, 2)
1205 hiadd = VAL("&" + hiadd$)
1210 lowadd = VAL("&" + lowadd$)
1215 POKE &A64B, lowadd : POKE &A64C, hiadd
1220 CALL &A636
1225 NEXT sector
1230 NEXT track
1235 PRINT CHR$(7); CHR$(7) : GOTO 110
1240 '
1245 ' *** Catalogue Disc ***
1250 CLS
1255 a$ = "CATALOGUE DISC IN WHICH DRIVE (A OR B)?"
1260 X = 1 : Y = 12 : GOSUB 925
1265 A$ = INKEY$ : IF A$ = "" THEN 1265
1270 IF A$ = "A" OR A$ = "a" THEN !A : GOTO 1285
1275 IF A$ = "B" OR A$ = "b" THEN !B : GOTO 1285
1280 GOSUB 680 : GOTO 1265
1285 PEN 2 : CLS : CAT : PEN 1

```

```

1290 A$ = "      Press any key to continue..."
1295 X = 1 : Y = 24 : GOSUB 925 : CALL &BB18
1300 GOTO 110
1305 '
1310 '*** Tape Read Error Found ***
1315 IF PEEK(33280) > track THEN CLS #1 : a$ = "Read Error! Rewi
nd Tape & Press any Key" : x = 1 : y = 21 : GOSUB 925 : CALL &BB18 : GOT
O 1150
1320 IF PEEK(33280) < track THEN CLS #1 : a$ = "Found " + DISCNAME
$ + " Track" + STR$(PEEK(33280)) : x = 1 : y = 21 : GOSUB 925 : GOTO 1150
1325 GOTO 1170
1330 '
1335 '*** Poke 2nd part of machine code ***
1340 total = 0
1345 FOR lin = 0 TO 7
1350 FOR col = 0 TO 19
1355 READ byte$
1360 add = lin * 20 + col + 42432 : byte = VAL("&" + byte$)
1365 total = total + byte
1370 POKE add, byte
1375 NEXT
1380 READ checksum$ : checksum = VAL("&" + checksum$)
1385 IF checksum <> total THEN PRINT "Data Error in Line"; 14
05 + lin * 5 : POKE &9000, 0 : END
1390 total = 0
1395 NEXT
1400 RETURN
1405 DATA FE, 01, C0, DD, 7E, 00, FE, 01, 20, 07, 21, 4D, 01, 3E, 19, 18,
34, FE, 02, 20, 0672
1410 DATA 07, 21, DD, 00, 3E, 23, 18, 29, FE, 03, 20, 07, 21, A7, 00, 3E,
32, 18, 1E, FE, 053B
1415 DATA 04, 20, 07, 21, 85, 00, 3E, 37, 18, 13, FE, 05, 20, 07, 21, 6F,
00, 3E, 3C, 18, 03BD
1420 DATA 08, FE, 06, C0, 21, 5F, 00, 3E, 3C, CD, 67, BC, C9, 00, FE, 03,
C0, DD, 66, 05, 0888
1425 DATA DD, 6E, 04, DD, 5E, 02, DD, 56, 03, DD, 7E, 00, CD, A1, BC, C9,
FE, 03, C0, DD, 0AAE
1430 DATA 66, 05, DD, 6E, 04, DD, 5E, 02, DD, 56, 03, DD, 7E, 00, CD, 9E,
BC, C9, 21, 46, 08DF
1435 DATA A6, CD, D4, BC, 22, 47, A6, 79, 32, 49, A6, C3, 4A, A6, 84, 3C,
C0, 07, 21, 70, 0977
1440 DATA 94, 11, 00, 01, 0E, C1, DF, 47, A6, C9, 00, 00, 00, 00, 00, 00,
00, 00, 00, 040A
1445 '
1450 '*** Non-standard format ***
1455 CLS
1460 a$ = "Sorry! Non-Standard Format"
1465 x = 7 : y = 12 : GOSUB 925
1470 a$ = "Press any key to continue..."
1475 x = 6 : y = 23 : GOSUB 925
1480 GOSUB 680 : GOSUB 680
1485 CALL &BB18 : RUN

```



# Child Processing

An updated version of Junior Wordpro hits our shores.

There are not many educational or child-based programs. There are even fewer word processors aimed specifically at children. In fact, the only word-processor along these lines is Logotron's Pendown which did not have much success in Australia. Ramasoft added another, Junior-Wordpro, which has gone through some changes since being released some six months ago, changes I may add, for the better.

Don't expect much in the way of packaging or documentation: a standard cassette or disc box and small eight page booklet are the sum total. However, packaging only increases cost and documentation is not always necessary. The instruction sheet claims Junior-Wordpro is a gentle introduction to word-processing as well as practical experience. The rest tells you how to load and start using Wordpro with a summary of commands usefully placed on the front cover.

Since the original version was released, the colours have been toned down for colour monitor users and now present no problems to the eyes. Similarly, the cursor (in the shape of a diamond) used to flash furiously but now at a slower speed is less irritating. Still, utility programs have never been noted for their beauty (except of course, Bonzo Doo Dah).

The screen, in 40 columns, consists of a couple of lines at the top and bottom telling you what effects certain key combinations have. The space in between is for the written word.

## Moving the cursor

Once the cursor flicks into view you can start hitting keys. Everything you type will appear on screen. If you hold down a key a character will appear and keep on appearing until you release the key -

this is standard auto-repeat. The problem of the delay before auto-repeat starts being too short has been fixed. For children, who tend to deliberate over keystrokes, this was disconcerting. They now have more time to remove their fingers.

Touching Control and the up-arrow key takes you to the top of your text or document. A similar key combination moves you to the bottom: Control down-arrow. The speed at which the program moves to the bottom of the text has been speeded up. It takes, on average, about 3 seconds to get to the bottom of the text (it used to take anything around 20 seconds)

When you reach the end of a line, the computer beeps at you, and if the current word is too long moves it to the next line, and moves the cursor down. This is "word-wrap". Great, but after a while if the continual beeps drive you insane - turn the sound off.

Junior-Wordpro uses double line-spacing: there's a blank line after each line of text. This is a nice feature that makes easy reading for the kids. If you carry on scribbling to several screenfuls, you'll eventually meet an inverse line. This is a page-break - where the new sheet of paper will start when the printer does its job. Function keys perform operations on your text or take you to other menus:

**f1** takes you to the choices menu. From here you can choose to write, print, load or save text.

**f4** centres text. Place the cursor anywhere on the line you wish to centre and press the function key. Centering is rapid - unlike certain full-blown word-processors (namely Mini Office).

**f8** lets you insert characters.

**f9** enables you to erase the complete document.

Wordpro works in "overwrite" mode. This means that anything you type remains intact until you write over it. If you backspace over a word and try to insert a letter somewhere, the character that was there before will be replaced by the new one. This is not always desirable, which accounts for the "insert" function - it makes room for new characters.

## Readable print

It is always thrilling to see your work in print. Pressing function key 1 gets you to the choices menu. From here you can elect to print out your document. The text is placed in the middle of the paper and is emphasised to make it as readable as possible. What you see on screen appears on paper.

## Summary

Wordpro is not a game - it is a real word processor. It naturally lacks some of the features found in its bigger brothers, but with them it would have made things too complicated for the young mind to handle. Adults are recommended to assist initially, and perhaps go through the tutorial files with the child.

Junior Wordpro is an excellent introduction to word processing, something no doubt used in later life (albeit more complex). As a by-product, it will also teach them the importance of communicating the typed word and the basics of saving and loading their work.

*Junior Wordpro is available for the CPC range only on Disc at \$34.95 or Tape at \$29.95 and can be purchased from The Amstrad User. (Limited stocks are held).*

## Wordpro versus Pendown

Pendown looks as though many months were spent on its design - it's eye-catching and has bags of options. Wordpro is basic, short of frills, but ideal for the first time user. It also costs half as much as its closest rival. I place Wordpro in the easy-reading-to-12-years range and Pendown's upper limit higher.



# Gallimaufry VII

A mirrored scroll, a rally drive and a program to test you the morning after.

## Scroll Demo

Yes, another one, but with a difference. It incorporates Nick "Cribbage" Herrick's extra special bi-directional horizontal pseudo-scroll (BHP for short).

*Line 20* - interrupt and sound effects.

*Line 30* - selects correct address for SYMBOL 32 when downloading from ROM (this varies according to machine).

*Line 50* - Downloads ASCII characters from ROM to RAM.

*Lines 90 to 150* - creates mirror images of CHR\$(32) to CHR\$(127) at 132-227 ASCII, by peeking each bit and producing reversed binary number which is used for symbol definition. *Line 160* - creates "starry sky" background.

*Line 170* - clears input and starts loop which will continue demo until a key is pressed.

*Lines 180 to 230* - reads DATA message, adds spaces, prints 20 left characters and prints to left half of screen. Also creates a string of reversed characters and prints to the right half of the screen, then every five cycles scrolls the background vertically.

*Lines 240 to 250* - scrolls top and bottom halves of the screen, adding extra "stars" in the centre.

*Line 260* - background sound effects.

*Lines 270 to end* - message in data statements. You can have any length of string data statements up to about 200 characters long, as long as the last line is "\$\$\$\$" (without the inverted commas).

Nick apologises that some lines are long and multi-statement, but this is to get it to run at a reasonable speed from Basic.

```

10 ' Scroll demo by Nick Herrick
11 ' The Amstrad User
12 ' December 1987
20 RANDOMIZE TIME:EVERY 50,1 GOSUB 260
30 SYMBOL AFTER 240:a=HIMEM:IF a>43000 THEN addr=&A500 ELS
E addr=&9FFC
40 GOSUB 50:GOSUB 160:GOSUB 170:END
50 DEFINT b-z:SYMBOL AFTER 32
60 MODE 1:INK 0,0:INK 1,18:INK 2,2:INK 3,0:PAPER 0:BORDER
0:CLS
70 WINDOW#1,1,40,1,12:WINDOW#2,1,40,14,25:PAPER#1,0:PAPER
#2,0
80 PEN 2:LOCATE 10,5:PRINT"SCROLL DEMONSTRATION":PEN 1:LOC
ATE 1,13:PRINT"Please wait 1.25 minutes to initialise"
90 FOR n=32 TO 127:a=addr+8*(n-32)
100 FOR z=0 TO 7:a$="":FOR x=0 TO 7
110 c=PEEK(a+z) AND 2^x
120 IF c=0 THEN a$=a$+"0" ELSE a$=a$+"1"
130 NEXT x:k(z)=VAL("&X"+a$):NEXT z

```

```

140 SYMBOL n+100,k(0),k(1),k(2),k(3),k(4),k(5),k(6),k(7)
150 NEXT n:RETURN
160 CLS:CLS#1:CLS#2:PLOT 10,10,3:FOR z=1 TO 100:x=INT(RND*
638):y=INT(RND*398):PLOT x,y:NEXT z:INK 3,26:RETURN
170 a$=INKEY$:WHILE a$<>"":a$=INKEY$:WEND:r$="":f=20:WHILE
INKEY$=""
180 RESTORE 270:READ a$:a$=SPACE$(f)+a$:f=2:WHILE a$<>"$$$
$"
190 r$=r$+a$+SPACE$(10):w$="":FOR z=20 TO 1 STEP-1:t=ASC(M
ID$(r$,z,1)):w$=w$+CHR$(t+100):NEXT z:WHILE LEN(r$)>20
200 LOCATE 1,13:PEN 1:PRINT LEFT$(r$,20)::PEN 2:PRINT w$:
210 r$=RIGHT$(r$,LEN(r$)-1):t=ASC(MID$(r$,20,1)):w$=LEFT$(
w$,19):w$=CHR$(t+100)+w$
220 q=q+1:IF q=5 THEN q=0:GOSUB 240
230 WEND:READ a$:WEND:WEND:RETURN
240 PRINT#2," ":LOCATE#2,1,1:PRINT#2,CHR$(11)::LOCATE#1,1,
12:PRINT#1," ":PRINT#1
250 FOR z=1 TO 4:x=INT(RND*638):x1=INT(RND*638):y=INT(RND*
16)+208:y1=INT(RND*16)+176:PLOT x,y:PLOT x1,y1:NEXT z:RETR
RN
260 SOUND 1,900,100,6:SOUND 2,1100,100,4:FOR r=1 TO 4:p=IN
T(RND*1000):SOUND 4,p,25,6:NEXT r:RETURN
270 DATA "Scroll reflection demonstration"
280 DATA "Press any key when fed up and demo will cease at
end of current run"
290 DATA "$$$$"

```



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## Rally

The Akinlawon brothers have clubbed together to produce this simple but addictive racing-car game. Straight from the horse's mouth: "You are on the home straight. All you have to do is stay on the road, but it is not easy! The road twists and turns: negotiate the bends or crash."

Use the left or right arrow keys to control the car. At the start of the program you are given a start-on-which-track option.

```

1 'Rally
2 'by Fredrick & Jensen Akinlawon
3 'The Amstrad User Dec 87
50 SYMBOL 255,24,219,219,24,60,165,231,189
60 ' **COLOUR**
70 MODE 1
80 INK 1,9:INK 2,12:INK 3,18:BORDER 18:PAPER 3:CLS:INK 0,6
:roadx=10:carx=12
90 ' * ARROW POINTING UPWARDS=CTRL+K*
100 A$="↑↑"
110 REM **MILEAGE**
120 PEN 1:PRINT "You Drove ";miles;" Miles"
130 PRINT:PEN 0:PRINT"On Track";track
140 miles=0
150 ' * MAIN PROGRAM *
160 LOCATE 1,10:PEN 2:INPUT"TRACK 1 OR 2";track
170 IF track=1 THEN CLS:choice=1:SYMBOL 254,28,62,127,62,2
55,127,154,255:ELSE 180
180 IF track=2 THEN CLS:choice=2:SYMBOL 254,255,129,191,19
1,191,191,191,255:ELSE 190
190 IF track>2 OR track<1 THEN GOTO 160
200 IF choice=1 THEN INK 2,12:INK 1,9:INK 3,18:BORDER 18:I
NK 0,6:SYMBOL 254,28,62,127,62,255,127,154,255
210 FOR n=1 TO 40:PEN 1:LOCATE n,1:PRINT CHR$(254);:NEXT
220 IF choice=2 THEN INK 2,10:INK 1,3:INK 3,15:INK 0,0:BO
RDER 15:SYMBOL 254,255,129,191,191,191,191,191,255
230 IF choice=1 THEN LOCATE roadx,1:PEN 1:PRINT CHR$(254)+
CHR$(254);:PEN 2:PRINT CHR$(143)+CHR$(143)+CHR$(143);:PEN
1:PRINT CHR$(254)+CHR$(254)
240 IF choice=2 THEN LOCATE roadx,1:PEN 1:PRINT CHR$(254)+
CHR$(254);:PEN 2:PRINT CHR$(143)+CHR$(143)+CHR$(143)+CHR$(
143);:PEN 1:PRINT CHR$(254)+CHR$(254)
250 LOCATE 1,2:PRINT A$:LOCATE carx-1,25:PEN 2:PRINT CHR$(
143)+CHR$(143)+CHR$(143)
260 d=INT(RND*3)+1
270 IF d=1 THEN roadx=roadx
280 IF d=2 THEN roadx=roadx-1
290 IF d=3 THEN roadx=roadx+1
300 LOCATE carx,24:PEN 0:PRINT CHR$(255)
310 IF roadx=1 THEN roadx=2
320 IF roadx=25 THEN roadx=24
330 IF INKEY(1)=0 THEN carx=carx+1
340 IF INKEY(8)=0 THEN carx=carx-1
350 miles=miles+1
360 '**COLLISION DETECTION**

```

```

370 IF miles=1000 THEN GOTO 460
380 aa=carx*16-8:bb=400-(24*16-17)
390 IF choice=2 AND miles=500 THEN choice=1:GOTO 200
400 t=TEST(aa,bb)
410 IF t=1 THEN 440
420 SOUND 129,3000,200,5:SOUND 132,3000+20,200,5
430 GOTO 230
440 '** CRASH **
450 SOUND 129,so,35,5:SOUND 132,so+20,35,5:SOUND 130,3,50,
7,0,0,7:FOR N=1 TO 100:NEXT:CLS:GOTO 110
460 CLS:LOCATE 1,1:PEN 1:PRINT"congratulations"
470 LOCATE 1,5:PEN 2:PRINT"You have one the race"
480 FOR n=1 TO 100:LOCATE 1,20:PEN 3:PRINT n;:NEXT:GOTO 50

```

## Reaction Tester

Ever wanted to know how fast you are at slinging a gun (especially after slinging some gin!)? Here's your chance with a program from Kevin Stafferton which tests your reaction speeds.

The program will display one of the four directional arrows. You must move the joystick or press the cursor key corresponding to this arrow. The computer times you and prints your speed with sarcastic remarks.

As the program stands, it uses the cursor keys. To use a joystick, remove line 40 and de-REM ( take out the starting apostrophe [ ' ] ) from line 45. The key numbers are held in line 40. If you wish to use other key combinations, look at the back of the user guide or on the 6128's case; it contains all the key numbers. Line 40 contains c(1)=0. This means the key to move left is the key number 0, which happens to be the left arrow character. If you wish this to be Z then replace it with c(1)=71. The same applies for the other keys.

By the way - a hot tip: note the way Kevin forces a new line in a Print statement - like line 130 - by typing two quotemarks in a row.

```

1 'Reaction Tester
2 'by Kevin Stafferton
3 'The Amstrad User Dec 87
10 'Set-up
20 ON BREAK GOSUB 370
30 MODE 0: BORDER 0: INK 0,0: INK 1,24: INK 2,20: INK 3,6:
INK 4,26
40 DIM c(4): c(1)=0: c(2)=2: c(3)=8: c(4)=1
45 'DIM c(4): c(1)=72: c(2)=73: c(3)=74: c(4)=75
50 LOCATE 6,2: PEN 1: PRINT "KEYBOARD"
60 LOCATE 6,4: PEN 2: PRINT "REACTION"
70 LOCATE 6,6: PEN 3: PRINT "TESTER"
80 FOR n=1 TO 2000: NEXT n
90 CLS: LOCATE 2,2: PEN 1: PRINT "Watch this space"
100 WINDOW #1,9,11,5,7: PAPER #1,4: PEN #1,0: CLS #1
110 WINDOW 1,20,10,25
120 'Instructions
130 PEN 2: PRINT " An arrow will""appear in the space""ab
ove. You have to""push the appropriate""direction key as""

```



```

quickly as you can."
140 PEN 3: PRINT: PRINT TAB(4);"Press any key"
150 PRINT TAB(7);"to start"
160 CALL &BB03: i$="": WHILE i$="": i$=INKEY$: WEND
170 ' Main program
180 CLS: PEN 1: PRINT TAB(6);"GET READY!"
190 d=0: FOR n=1 TO RND*500+500
200 IF INKEY$<>" " AND d=0 THEN PEN 2: PRINT "Wow. You must
  have""read my mind! Pity""I'm not allowing""that.": d=1
210 NEXT n: IF d=1 THEN 330
220 a=INT(RND*4)+1
230 LOCATE #1,2,2: PRINT #1,CHR$(239+a);
240 t=TIME
250 WHILE INKEY(c(a))<0 AND TIME-t<3000: WEND
260 t=(TIME-t)/300
270 PEN 2: PRINT
280 IF t>=10 THEN PRINT "Who forgot to press""the right ke
y?": GOTO 330
290 PRINT "Time taken is ";USING "#.##s";t
300 IF t<0.25 THEN PRINT "What reflexes!"
310 IF t>0.25 AND t<0.4 THEN PRINT "Passable."
320 IF t>0.4 THEN PRINT "You'd be dead now!"
330 PEN 3: PRINT: PRINT TAB(4);"Press any key"
340 PRINT TAB(5);"to try again"
350 CALL &BB03: WHILE INKEY$="": WEND
360 CLS #1: GOTO 180
370 MODE 1: PEN 1

```

### Revolving Message

Do you remember the type-in which printed a message across the screen in the shape of a sine wave? Rafe Aldridge has adapted this in such a way that it makes it look as though it is moving around in a circle.

If you break the program and change one of the inks (0) you can see how he does it.

It is probably better to keep the text to be moved to just seven characters. Our seasonal message is ten characters long and tends to distort the circle somewhat - but you can still read it.

```

1 'Revolving message
2 ' Rafe Aldridge
3 'The Amstrad User Dec 87
10 MODE 1: DEG: TAG: ORIGIN 200,200
20 INK 0,0: INK 1,0: INK 2,0: INK 3,0: PAPER 0: BORDER 0
30 FOR Lp=1 TO 360 STEP 10: col=col+1: IF col>3 THEN col=1
40 MOVE 100*COS(Lp),100*SIN(Lp),col
50 PRINT "HAPPY XMAS";: NEXT Lp
60 INK 1,26: INK 1,0: INK 2,26: INK 2,0
70 INK 3,26: INK 3,0: GOTO 60

```

Your type-ins, on disc or tape, will be welcomed with open arms at:

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

## LOW PRICED SOFTWARE ON OFFER FOR DECEMBER 1987 ONLY

### Serious Software

TITLE	Normally	Our Price	404	6128	PCW
Accounting One	\$695.00	\$575.00	N	N	Y
Camssoft Invoicing	\$142.00	\$112.00	N	N	Y
Catalog	\$50.50	\$39.95	Y	Y	Y
C Basic Compiler	\$149.00	\$115.00	N	Y	Y
Typing Crash Course	\$79.50	\$62.95	N	Y	Y
Devpac 80	\$125.00	\$97.00	Y	Y	Y
The Knife	\$50.50	\$39.95	Y	Y	Y
Mallard Basic	\$249.00	\$195.00	N	Y	-
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Tasprint 8000	\$52.00	\$44.95	N	N	Y
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Sorcery Plus	\$39.50	\$24.95	Disc
Beach Head *see below	\$39.50	\$24.95	Disc
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Golden Path	\$39.50	\$24.95	Disc
Strangeloop	\$39.50	\$24.95	Disc
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Hardball	\$28.50	\$19.50	Tape
Shape and Sound	\$39.50	\$24.95	Disc

### For Primary School Children

Educational Pack: consisting of a copy of the book "Child's Guide to the Amstrad Micro" (worth \$12.95) plus a pre-packed random selection of any five of the following titles (on tape only) - Animal, Vegetable and Mineral; Time Man 1; Time Man 2; Word Hang; Xanagrams; Cubit; World Wise or Map Rally. Sorry, you can't choose which titles but at just \$35.95 for five tapes and a book it's a bargain!

### For PCW owners

Cyrus Chess \$44.50 \$29.95 PCW only

\*Buy any two games from those listed above and you can have "Beach Head" on disc for just \$10.00 !!

ORDER NOW ON (03) 233 9661

## OFFER CLOSES 31/12/87



# Therapy - an adventure game with a difference

(Part Two will appear in the January 1988 issue)

by David Rich

Therapy casts you in the role of a patient in a psychiatric ward. The object of the game is to recover your mental health and be discharged. Unfortunately, the chances of you losing whatever equilibrium you have are higher than your chances of cure!

Hardened adventurers have gone crazy trying to find their way out, yet there are no unfair traps or unsolvable puzzles. The clues scattered around the various rooms and the objects placed at random throughout the psychiatric unit are quite sufficient for anybody to succeed - provided they think like me! My ten year old son has made it through, but still plays the game, trying to better his mental health rating (points) and to give more of the therapists nervous breakdowns.

The program was developed using Tim Hartnell's adventure framework (much modified) as published in Your Computer in June 1986.

As you explore the hospital, you will find various objects which you can collect or use. Some will be helpful, others valuable, and some will prove a real hindrance to you.

You will also meet a number of therapists. Some will spontaneously interact with you, but you may choose to "encounter", "argue", "fight" them etc. even if they do not. If you are successful in these meetings, various aspects of your personality will be strengthened. If not, you will be weakened. These qualities are displayed on the screen throughout the game: if any quality falls to zero you have failed and the game is over.

The program has been used in the actual psychiatric unit on which it is modelled. The original version has been vastly expanded to take into account the responses of staff and patients playing the game. It has become so lifelike that many people have difficulty distinguishing between the game and the reality.

Adventures are absorbing. This one is addictive and it has a sense of humour.

```

10 'THERAPY
20 'by David Rich
30 'The Amstrad User
40 'Dec/Jan 1987/8
50 GOSUB 6370
60 GOSUB 6470
70 'GOSUB 4890: ' INITIALISE
80 'ADVENTURE FRAMEWORK by TIM HARTNELL
90 ' INTERFACE PUBLICATIONS
100 GOSUB 4930: ' INITIALISE
110 '

```

```

120 ' REPORT TO PLAYER
130 'FOR Z=1 TO 500:NEXT Z
140 CLS
150 IF RO= 16 THEN QU=1:GOTO 3920
160 '*****
170 GOSUB 4020: ' **ROOM DESCRIPTIONS**
180 ' NEXT LINE ACTIVATED IF OBJECT IN ROOM
190 IF A(RO,5)<>0 OR A(RO,6)<>0 OR A(RO,7)<>0 THEN GOSUB 4
830: 'OBJECTS
200 IF A(RO,8)=0 THEN 250: ' NO THERAPIST IN ROOM
210 PRINT:PRINT TAB(9);"LOOK OUT!";PRINT:PRINT"HERE IS AN
";M$(A(RO,8));" HERE!!"
220 IF RND(1)>0.7 THEN PRINT M$(A(RO,8));" CONFRONTS!";KW=
1:GOSUB 2420:GOTO 120
230 ' *****
240 ' NEXT LINE DECREASES ATRIBUTES
250 IF RND(1)>0.94 THEN ST=ST-1
260 IF ST<0 THEN ST=0
270 IF RND(1)>0.94 THEN CH=CH-1
280 IF CH<0 THEN CH=0
290 IF RND(1)>0.94 THEN DE=DE-1
300 IF DE<0 THEN DE=0
310 IF RND(1)>0.94 THEN WI=WI-1
320 IF WI<0 THEN WI=0
330 IF RND(1)>0.94 THEN CO=CO-1
340 IF CO<0 THEN CO=0
350 ' NEXT LINE RPORTS ATTRIBUTES TO PLAYER
360 PRINT:PRINT" Your strengths are:"
370 PRINT TAB(4);"Mood : ";ST;:PRINT TAB(21);"Empathy :
";CH
380 PRINT TAB(4);"Insight: ";DE;:PRINT TAB(21);"Intelligen
ce: ";IT
390 PRINT TAB(4);"Wisdom : ";WI;:PRINT TAB(21);"Confidence
";CO
400 ' NEXT LINE CHECKS IF ATTRIBUTE ZERO
410 IF ST=0 THEN GON$="MOOD"
420 IF CH=0 THEN GON$="EMPATHY"
430 IF DE=0 THEN GON$="INSIGHT"
440 IF WI=0 THEN GON$="WISDOM"
450 IF CO=0 THEN GON$="CONFIDENCE"
460 IF IT=0 THEN GON$="INTELLIGENCE"
470 IF GON$="" THEN 650 ELSE PRINT" YOUR ";GON$;" IS EX
HAUSTED.":PRINT

```



```

480 PRINT" YOU WILL THEREFORE BE MADE A PERMANENT
      PATIENT.":QU=2:GOTO 3950
490 ' *****
500 ' NEXT LINE CHECKS TO SEE IF PLAYER CARRYING ANYTHING
510 GOTO 650
520 FLAG=0
530 FOR j=1 TO 5
540 IF P(j)<>0 THEN FLAG=1
550 NEXT j
560 CARRY$=""
570 IF FLAG=0 THEN CARRY$="nothing."
580 CASH=0
590 PRINT:PRINT"You are carrying: ";CARRY$
600 FOR j=1 TO 5
610 IF P(j)<>0 THEN PRINT TAB(4);Q$(P(j)):CASH=CASH+V(P(j)
)
620 NEXT j
630 IF CASH>0 THEN PRINT TAB(8);"Total Value - $";STR$(CAS
H)
640 PRINT:RETURN
650 ' *****
660 ' NEXT LINE ACCEPTS PLAYER INPUT
670 KW=0: ' KEY WORD* =1 IF UNDERSTOOD
680 FOR Z=1 TO 50:NEXT Z
690 INPUT "What do you want to do ";a$:A$=UPPER$(a$):PRINT
700 'NEXT LINE ADDS SPACES IF LESS THAN 7 LONG
710 IF A$="" THEN 690
720 AS=ASC(A$)
730 M=LEN(A$):IF M<7 THEN A$=A$+" ":GOTO 730
740 '*****
750 'GET 1ST 3 CHARACTERS;CHECK ONE WORD VOCABULARY
760 B$=LEFT$(A$,3)
770 IF RO<>8 OR PIL>0 THEN 800
780 IF B$="TAK" OR B$="SWA" THEN 790 ELSE PRINT"YOU CAN'T
GO ON THIS WAY...":GOTO 1420
790 PIL=PIL+1
800 IF B$="HEL" AND RO=3 THEN PRINT "THAT'S WHY WE ARE HER
E." ELSE IF B$="HEL" THEN PRINT" YOU MUST LEARN TO HELP YO
URSELF!":GOTO 1420
810 IF B$="INV" THEN GOSUB 520:GOTO 1420
820 IF AUT=0 AND(B$="REL"OR B$="LAY"OR B$="JOI") AND RO=15
THEN PRINT "YOUR INNER STRENGTH IS INCREASED":AUT=1:ST=S
T+2:GOTO 1420
830 IF RO=15 AND B$="REL" OR B$="LAY"OR B$="JOI" THEN PRIN
T "YOU'VE ALREADY HAD YOUR SESSION.":GOTO 1420
840 IF RO=9 AND (B$="EXA" OR B$="LOO") THEN PRINT"THERE IS
A TV SET ON A SHELF":GOTO 1420
850 IF RO=10 AND (B$="EXA" OR B$="LOO") THEN PRINT"THE ROO
M IS DUSTY AND LOOKS UNTIDY":GOTO 1420
860 IF RO=7 AND(B$="EXA" OR B$="LOO") THEN PRINT"THERE IS
A $100 BILL UNDER THE SHEETS":GOTO 1420
870 IF (B$="SWI"OR B$="TUR"OR B$="WAT") AND RO=9 THEN PRIN
T"YOU BELIEVE THEY ARE TALKING ABOUT YOU":PRINT"YOUR MEDIC
ATION WILL BE INCREASED !":ST=ST-4:WI=WI-4:GOTO 1420

```

```

880 IF (B$="EXA" OR B$="LOO" ) AND RO=4 THEN PRINT"THERE I
S MORE HERE THAN MEETS THE EYE":PRINT"INCLUDING A SMALL CA
BINET":GOTO 1420
890 IF B$="OPE" AND RO=10 THEN PRINT"IT CONTAINS YOUR CLOT
HES":CLOTHES=1:GOTO 1420
900 IF B$="OPE" AND RO=4 THEN PRINT"IT IS LOCKED.":GOTO 14
20
910 IF B$="UNL" AND (RO=4 AND KE<>0) THEN PRINT"YOU USE YO
UR KEY... ":PRINT"IT CONTAINS A PHALLIC SYMBOL,":PRINT"A D
IRTY POSTCARD":PRINT"AND A SCRAP OF PAPER":FOR Z=1 TO 1500
:NEXT:GOTO 1420
920 IF B$="BRE" OR B$="SMA" THEN PRINT"VIOLENCE IS FUTILE"
:RO=9:CLOTHES=0:IF PYJ$=" your clothes." THEN PYJ$=" BACK
IN PYJAMAS":GOTO 1420
930 IF B$="UNL" AND (RO=4 AND KE=0) THEN PRINT"YOU HAVE NO
KEY":GOTO 1420
940 IF B$="EXA" OR B$="LOO" THEN PRINT"THERE IS NOTHING EL
SE OF INTEREST":GOTO 1420
950 IF B$="RES" OR B$="SLE"THEN PRINT "AN OBVIOUS SIGN OF
INSTITUTIONAL NEUROSIS":DE=DE-2:GOTO 1420
960 IF B$="REA" AND RO=14 THEN PRINT"IT SAYS * THE D.T. D
EMANDS YOU FINISH WHAT YOU BEGIN *":GOTO 1420
970 IF B$="FIN" AND RO=14 THEN PRINT" YOU MAY LEAVE NOW":C
ANE=0:GOTO 1420
980 IF RO=5 AND B$="LEA" OR B$="DO "THEN RO=6:GOTO 1420
990 IF B$="REL" THEN PRINT"THIS IS NOT THE TIME!":GOTO 142
0
1000 IF B$="QUI" THEN QU=4:GOTO 3860
1010 IF B$="SPE"OR B$="TAL" OR B$="SHA" OR B$="JOI" OR B$=
"SIT" AND RO=2 THEN 3650
1020 ' *****
1030 'NOW BREAK DOWN PLAYER INPUT
1040 N=1
1050 IF MID$(A$,N,1)<>" " THEN 1080
1060 C$=MID$(A$,N+1,3):IF LEFT$(C$,1)<>" " THEN 1150
1070 IF LEFT$(C$,1)=" " THEN 1110
1080 IF N<M THEN N=N+1:GOTO 1050
1090 '*****
1100 'GETS HERE ONLY IF ONE WORD SELECTED BY PLAYER,CHOOSE
S REPLY
1110 IF RND(1)>0.5 THEN 1130
1120 PRINT TAB(6);"By itself,":A$:PRINT TAB(6);"can't be a
cted upon.":GOTO 690
1130 PRINT A$;" is just one word,":PRINT TAB(4);"I need tw
o.":GOTO 690
1140 ' *****
1150 ' NEXT LINES UNDERSTAND INPUT
1160 IF B$="REA" THEN GOSUB 3550:GOTO 1420
1170 ' THIS UNDERSTANDS FIGHT / KILL
1180 IF B$="ATT" OR B$="FIG" OR B$="KIL"OR B$="ENC"OR B$="
ARG"OR B$="DIS"OR B$="TAL"OR B$="CUR"OR B$="TRE" THEN KW=1
:GOSUB 2420
1190 ' UNDERSTANDS GO /MOVE /RUN
1200 IF B$="MOV" OR B$="RUN" OR B$="GO " THEN KW=1:GOSUB 1

```



```

450
1210 ' UNDERSTANDS GET /TAKE /LIFT
1220 IF B$="GET" OR B$="TAK" OR B$="LIF" THEN KW=1:GOSUB 1
660
1230 ' UNDERSTANDS DROP /PUT /LEAVE
1240 IF B$="DRO" OR B$="PUT" OR B$="LEA" THEN KW=1:GOSUB 2
150
1250 IF B$="ASK" THEN KW=1:GOSUB 3490
1260 IF B$="PRO" THEN KW=1:GOSUB 3770
1270 IF B$="EAT" THEN KW=1:GOSUB 3620
1280 IF RO=3 AND (B$="DO " OR B$="DOI" OR B$="YOU" OR B$="
AN "OR B$="THE" OR B$="THE") THEN KW=1:GOSUB 1660
1290 IF B$="HAV"OR B$="BAT"OR B$="WAS" THEN KW=1:GOSUB 369
0
1300 IF (B$="A " OR B$="AN "OR B$="YOU") THEN KW=1:GOSUB
3760
1310 IF B$="DRI"OR B$="SWA" THEN KW=1:GOSUB 3730
1320 IF B$="BEI" THEN KW=1:GOSUB 3760
1330 IF B$="PUS"OR B$="SHO"OR B$="PUL" THEN KW=1:GOSUB 379
0
1340 IF B$="BRI"OR B$="FAM" THEN KW=1:GOSUB 3820
1350 IF KW=1 THEN 1420
1360 ' *****
1370 ' NOT UNDERSTOOD MESSAGES
1380 R=INT(RND(1)*3)
1390 IF R=0 THEN PRINT"IT WOULD NOT BE WISE TO ";A$
1400 IF R=1 THEN PRINT A$;" ? ONLY A FOOL WOULD DO THAT!"
1410 IF R=2 THEN PRINT"I DO NOT UNDERSTAND ";A$
1420 FOR Z=1 TO 4500:NEXT Z
1430 IF DIS=1 THEN RETURN ELSE 120
1440 ' *****
1450 ' MOVEMENT
1460 C$=LEFT$(C$,1)
1470 IF RO=1 AND (RES<>0 AND C$<>"S") THEN BORDER 26,6:PRI
NT"YOU FEEL SHOCKING!!":RES=0:FOR Z=1 TO 2000:NEXT:RO=9:BO
RDER 1:PYJ$=" pyjamas.":CLOTHES=0:GOTO 1360
1480 IF C$<>"N" AND C$<>"S" AND C$<>"E" AND C$<>"W" THEN P
RINT"CERTAINLY-WHICH DIRECTION IS THAT IN?":GOTO 1420
1490 IF C$="E" AND (RO=4 AND CASE=0) THEN PRINT"I SEE NO D
OOR THERE":RETURN
1500 IF C$="E" AND RO=2 AND LEAVE=0 THEN PRINT"YOU HAVE TO
EARN THAT RIGHT":RETURN
1510 IF CANE<>0 THEN PRINT"NO! (you were warned.)":RETURN
1520 IF DIRT<>0 THEN PRINT"NOT TILL YOU DO WHAT YOU WERE":
PRINT"SENT HERE FOR!":RETURN
1530 IF CARDS<>0 THEN PRINT"YOU CAN'T LEAVE HERE YET.":RET
URN
1540 IF C$="S" AND CLOTHES=0 THEN PRINT" WHAT! DRESSED LIK
E THAT?":RETURN
1550 IF C$="N" AND A(RO,1)=0 THEN PRINT"You cannot go that
way..":RETURN
1560 IF C$="S" AND A(RO,2)=0 THEN PRINT"There is no exit S
outh...":RETURN
1570 IF C$="E" AND A(RO,3)=0 THEN PRINT"I can see nowhere

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```

to the East you can go":RETURN
1580 IF C$="W" AND A(RO,4)=0 THEN PRINT"Do you think you'r
e a ghost or something?":RETURN
1590 IF C$="N" THEN RO=A(RO,1)
1600 IF C$="S" THEN RO=A(RO,2)
1610 IF C$="E" THEN RO=A(RO,3)
1620 IF C$="W" THEN RO=A(RO,4)
1630 IF RO<>8 THEN PIL=0
1640 RETURN
1650 ' *****
1660 ' GET OBJECTS ROUTINE
1670 IF C$="MED" OR C$="TAB" OR C$="PIL"OR C$="DRU" THEN 3
530
1680 IF C$="VOL" THEN ST=ST+4:IT=IT+3:WI=WI+2
1690 IF C$="WAR" THEN DE=DE+2
1700 IF C$="DRI"OR C$="COF"OR C$="CUP"THEN GOTO 3730
1710 IF C$="PAC" THEN CH=CH-4
1720 IF C$="KEY" THEN WI=WI+1:KE=1
1730 IF C$="REL" THEN ST=ST+2:CO=CO+4
1740 IF TEZT<>0 AND C$="TES" OR C$="A T"OR C$="DIS" OR C$=
"AN " OR C$="EXA" AND RO=3 THEN 6360
1750 IF C$="TES" OR C$="A T"OR C$="DIS" OR C$="AN " OR C$=
"EXA" AND RO=3 AND TEZT=0 THEN 5850
1760 IF (C$="DRE" OR C$="CLO") AND (RO=10 AND CLOTHES<>0)
THEN PRINT"THAT'S BETTER":PYJ$=" your clothes.":RETURN
1770 IF C$="BED" OR C$="CHA" OR C$="SHE"THEN PRINT "I CAN'
T BUDGE IT":RETURN
1780 IF C$="PHA"THEN PRINT"YOU ARE OVER-EXCITED;GO TO THE
CLINIC":FOR Z=1 TO 500:NEXT:RO=8:RETURN
1790 IF C$="SCR"OR C$="PAP"THEN PRINT"DON'T YOU WANT TO RE
AD IT?":RETURN
1800 IF C$="DIR" OR C$="POS"THEN PRINT"NOW YOU'LL NEED TO
GET CLEAN":DIRT=1:RO=13:RETURN
1810 IF C$="PEO" OR C$="NUR" OR C$="STA" OR C$="HEL" OR C$
="DR." OR C$="DR " OR C$="DOC" THEN PRINT"SORRY - WE ARE S
HORT STAFFED":RETURN
1820 IF C$="SOA" OR C$="TOW" OR C$="SHO" THEN PRINT"YOU WI
LL HAVE TO MANAGE WITHOUT THAT":RETURN
1830 IF RO=7 AND C$="IRO" OR C$="LAU" OR C$="BAS" THEN PRI
NT"THE SIGN SAYS <DO NOT REMOVE>":RETURN
1840 IF RO=7 AND C$="MON" OR C$="$10" OR C$="CAS" OR C$="B
IL" THEN PRINT" YOU ARE A KLEPTOMANIAC":PRINT"YOU NEED E.C
.T":RO=1:RETURN
1850 IF RO=11 AND C$="SPO" OR C$="KNI" OR C$="FLA" OR C$="
FOR" OR C$="TAB" THEN PRINT"THAT MUSN'T LEAVE THE ROOM,YOU
KNOW":PLATE=1:RETURN
1860 IF RO=4 AND C$="BOO" THEN PRINT"THEY ARE FAKE!THEY DO
N'T MOVE":RETURN
1870 IF RO=4 AND C$="DES" THEN PRINT"TOO HEAVY":RETURN
1880 IF RO=1 THEN PRINT"EVERYTHING IS NAILED DOWN":RETURN
1890 IF C$="PAC" OR C$="CAR" OR C$="PLA" AND RO=14 THEN PR
INT"YOU CAN PASS THE TIME PLAYING PATIENCE":PRINT"BUT YOU
WILL HAVE TO LEAVE THE CARDS":PRINT"IF YOU EVER WANT TO GE
T OUT":CARDS=1:RETURN

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```

1900 IF C$="CAN" OR C$="CLA" OR C$="POT" OR C$="RAF" OR C$
="HAL" OR C$="BAS" AND RO=6 THEN CANE=1:PRINT"SHE WON'T LE
T YOU TAKE THAT ANYWHERE...":RETURN
1910 FLAG=0
1920 FOR j=1 TO 5
1930 IF P(j)<>0 THEN FLAG=FLAG+1
1940 NEXT j
1950 IF FLAG=5 THEN PRINT"You are already carrying 5 objec
ts.":RETURN
1960 'CHECK THAT THERE IS SOMETHING TO BE PICKED UP
1970 IF A(RO,5)<>0 OR A(RO,6)<>0 OR A(RO,7)<>0 THEN 2000
1980 PRINT"I can not see anything I can pick up!":RETURN
1990 'PICK IT UP
2000 D$="";E$="";F$=""
2010 D$=LEFT$(D$(A(RO,5)),3)
2020 E$=LEFT$(D$(A(RO,6)),3)
2030 F$=LEFT$(D$(A(RO,7)),3)
2040 IF C$=D$ THEN N=A(RO,5):A(RO,5)=0:GOTO 2080
2050 IF C$=E$ THEN N=A(RO,6):A(RO,6)=0:GOTO 2080
2060 IF C$=F$ THEN N=A(RO,7):A(RO,7)=0
2070 PRINT"I CAN NOT SEE THAT IN THIS ROOM":RETURN
2080 j=1
2090 IF P(j)=0 THEN P(j)=N:GOTO 2110
2100 IF j<5 THEN j=j+1:GOTO 2090
2110 PRINT TAB(3);">-> YOU NOW HAVE THE ";D$(N)
2120 IF C$="VOL" THEN PRINT"you are now a voluntary patien
t":VLNTRY=1
2130 IF C$="DOL" THEN PRINT"That might be handy if you eve
r get out!":ch=ch+3
2140 RETURN
2150 ' DROP ROUTINE
2160 IF C$="PAC" OR C$="CAR" OR C$="PLA" AND RO=14 THEN CA
RDS=0:RETURN
2170 IF C$="SPO" OR C$="KNI" OR C$="PLA" OR C$="FOR" OR C$
="TAB" AND RO=11 THEN PLATE=0
2180 IF C$="CAN" OR C$="CLA" OR C$="POT" OR C$="RAF" OR C$
="HAL" OR C$="BAS" OR C$="PAI" THEN CANE=0
2190 IF C$="VOL" THEN VLNTRY=0:PRINT"You have given up you
r voluntary status.":IT=IT-5
2200 FLAG=0
2210 FOR j=1 TO 5
2220 IF P(j)<>0 THEN FLAG=1
2230 NEXT j
2240 IF FLAG=0 THEN PRINT"You are not carrying anything ":
RETURN
2250 IF A(RO,5)=0 OR A(RO,6)=0 OR A(RO,7)=0 THEN 2270
2260 PRINT"THIS ROOM CANNOT HOLD ANY MORE OBJECTS."
2270 D$="";D=0
2280 FOR j=1 TO 8
2290 IF LEFT$(D$(j),3)=C$ THEN D$=D$(j):D=j
2300 NEXT j
2310 IF D$<>"" THEN 2330
2320 PRINT"How can you when you're not holding it?":RETURN
2330 FOR j=1 TO 5

```

## Over and over again

**Turtle-fancier John Connell continues his Dr. Logo series with a look at the black arts of iteration and recursion.**

A computer is good at doing things over and over again. It never tires. It never gets bored. Dr. Logo allows you to take advantage of this in a number of ways: the example listings in last month's article covered several of these techniques in a fairly rapid overview, but the time has now come to take a more methodical approach.

The simplest method of repeating a series of instructions is to use the command (or 'primitive') repeat, as used last month in the procedures 'square' and 'house'. This primitive tells your PCW to carry out precisely the same set of instructions a specified number of times. Type in this example:

```

to polygon :number :side
repeat :number [fd :side rt (360/:number)]

```

This procedure will draw a regular polygon with the number of sides and the length of each side chosen by you. Clear the screen and type in polygon 3 50 (followed, of course, by [RETURN]). Dr. Logo will draw an equilateral triangle for you with sides of 50 units each. If you now try polygon 6 50, your equilateral triangle will be surrounded by a regular hexagon. Experiment with a few inputs of your own.

```

to manypoly :number :side :times
if :number = (:times + 1) [stop]
polygon :number :side
manypoly :number + 1 :side :times
end

to polygon :number :side
repeat :number [fd :side rt (360 / :number)]
end

```

Listing One

The repeat command in 'polygon' uses the value you give to the variable "number (see the box for a summary of how Logo deals with variables) to repeat the instruction-list within the square brackets the specified number of times. In other words, when you drew a triangle, it repeated the instructions three times; when you drew a hexagon, it repeated them six times. The length of each side is specified by the value you give to the variable "side. And, since the outer angles of any polygon always add up to 360 degrees, the angle turned by the turtle after drawing each side is computed by the expression 360/:number.

The chief point to remember about repeat, however, is that the list of instructions repeated by it remains constant each time it is carried out. What do you do if you want to alter the instructions in some way each time they are invoked? Dr.



Logo kindly prescribes two methods for achieving this.

The more powerful method offered by Logo is known as recursion. You have, in fact, already made use of recursion in the 'waterflea' procedure that you typed in from last month's article. Glance back at the listing for 'waterflea' and you will see that the last line of the main procedure seems to tell the computer to go back to the beginning of the procedure and start all over again. This is not quite the whole truth of how recursion works, but it will do to be going on with.

"Waterflea" made a slightly redundant use of recursion in that, like repeat, it simply carried out the same instructions over and over again (although because it uses the random command the same instructions have a somewhat different effect each time they are invoked).

To show you just how flexible recursion can be, type in the procedure 'manypoly' shown in Listing One.

The intention of 'manypoly' is to use the already defined 'polygon' procedure to draw a series of polygons, with each succeeding shape having one more side than the previous one. If you start with a triangle, this will be followed by a square, a pentagon, a hexagon, and so on, until it draws a final shape with the number of sides you choose to end at.

Check the 'manypoly' listing, clear the screen, and type manypoly 3 50 8. This will draw a triangle surrounded by a square surrounded by a pentagon and so on, until it reaches completion by drawing an octagon (the 'stopping point' is specified by the value given to the variable "times, which is 8 in this case).

As in waterflea, manypoly 'calls itself' in the last line. However, with each time through (or pass), the value of "number is incremented by one so that each succeeding shape has one more side than the last. The if line tells manypoly when to stop. If this was deleted from the procedure, manypoly would simply keep going until the [STOP] key was pressed. Again, play around with different inputs to manypoly and with the definition of the procedure itself

There are many ways of using recursion, of which this is only a very simple one. It is a complex concept which we'll come back to later in the series.

## Go to work

The other method prescribed by Dr. Logo for repeating a set of instructions which are slightly different with each 'pass' is to make use of the primitives go and label.

These allow you to switch the flow of control within a procedure to a different point in the program altogether by just jumping from one place to another. This, as you will see later, has a wider use than simply to set up a 'loop' in a procedure. But, for the moment, type in the 'spiral' procedure - Listing Two.

Again, check the listing, type

```
spiral 100 20 5 45
```

and sit back.

In 'spiral' each time the program reaches the line with go in it it jumps to the line with the relevant label. So the line label "here tells Logo that whenever it is told to jump to "here, this is where to go. The flow of control in the program is switched

from go to label each time it reaches the last line. Since the label is set up before the go command occurs we have, in effect, set up a loop.

```
to spiral :number :side :increment :angle
  fs cs ht
  label "overhere
  fd :side
  rt :angle
  make "side (:side + :increment)
  make "number (:number - 1)
  if :number = 0 [stop]
  go "overhere
end
```

Listing Two

Within the loop a number of things happen. First a line is drawn and the turtle is turned through the number of degrees specified by the value given to "angle. "side is then increased by the value given to "increment. and "number is reduced by one. The if line again tells Logo when to stop (when "number has been reduced to 0 it means that the number of lines you asked for has been drawn). When go switches flow of control back to "here, the process starts again, but this time with the length of the line to be drawn increased.

fs (which stands for full screen) in the first line simply gives over the whole screen to turtle graphics, although whenever you use fs, you have to follow it, as happens in 'spiral', with cs before that full screen can come into play. ht stands for hide turtle, and that is precisely what it does - it has the added benefit of speeding up anything you draw on screen (the opposite of ht is st, standing for show turtle).

Now try spiral 100 20 5 60. If you go through the above explanation with these numbers you will see that, to take each input one at a time, the procedure draws a spiral which has 100 separate lines, the first line is 20 units long, but this increases by 5 units successively, and the angle of turning between each line drawn is 60 degrees.

This fairly simply procedure can achieve some quite superb effects. Try the following inputs:

```
spiral 50 10 10 90
spiral 100 5 5 91
spiral 30 20 10 270
```

Now try a few of your own!

Spiral, incidentally, could be much more efficiently programmed by using recursion, but I have used the less efficient method (in this case!) for illustrative purposes.

You might like to try your hand at re-programming spiral to use recursion.

## Whimsical examples

To finish this month, if you type in the listing for 'whimsy' (Listing Three), and then type whimsy 10 100 120, you will be assailed by a quite useless program which, nevertheless, demonstrates all three methods of repeating instructions which you have looked at. 'Recur' draws a spiral-like pattern which, unlike 'spiral', draws lines which decrease in length.



When this is complete, 'golabel' splatters a silly message randomly across the screen a number of times (specified by you in the variable "number).

```
to whimsy :number :side :angle
repeat :number [fs cs ht recur :number :side
:angle golabel :number]

ts ct pr [That's all folks!!]
end

to recur :number :side :angle
if :number = 0 [stop]
fd :side
rt :angle
recur :number - 1 :side - 5 :angle
end

to golabel :number
ts label "here
make "number (:number - 1)
if :number = 0 [stop]
setcursor (list random 70 random 30)
type "boo!
go "here
end
```

Listing Three

These three procedures also contain a number of interesting points to ponder. The value of "number in 'recur' decreases to zero; yet when 'golabel' is called later on, the original value of "number is restored. This is because operations on "number inside 'recur' don't affect the value of "number as seen by 'whimsy' - they are separate variables which happen to have the same name.

Just as you should follow fs with cs, you usually follow ts (standing for full text screen) with ct (standing for clear text). The command setcursor, which allows you to print anywhere on the text screen, is normally followed by a list containing a pair of text co-ordinates - for instance, setcursor [10 20] moves the cursor to the 10th column and 20th row, so that any following print commands will start printing text there.

In 'golabel', the setcursor command is used in a special way: because the values are worked out by random only when the program is run, you can't put them in square brackets like setcursor [10 20]. The [10 20] is a 'list', and you need the special Logo command list to make a list out of unknown variables at run time so that setcursor can understand it. So, as used in 'golabel', supposing random 70 produces 45, and random 30 produces 25, then

```
setcursor (list random 70 random 30)
```

really means

```
setcursor [45 25]
```

type acts just like pr by printing text on the screen but without a following carriage return; in other words, the cursor stays on the same line ready for the next type command.

## What are variables?

Using variables in a program allows you to vary the effects of the program simply by changing the value of the variables. Logo deals with variables in a very precise way which is worth taking time to understand. In simple terms, Logo differentiates between the name of a variable and the value allocated to that variable. If you put a quotation mark (") in front of a variable, this means you are referring to the name of the variable, while a colon(:) in front means you want the value of a variable.

To demonstrate the difference, type these lines, each followed by [RETURN]:

```
make "var1 10
make "var2 "Hello
make "var3 [How do you do?]
```

This use of make is called direct assignment of variables. The method used in 'polygon', where you assign values by setting up the variables in a procedure with values on the calling command line is known as indirect assignment. Now try:

```
pr :var1
pr :var2
pr :var3
```

In the first three statements, you directly assigned values to the three variable names. The next three statements printed out their values.

If you type:

```
pr "var2
```

all that happens is that the word 'var2' is printed out. Note that the value assigned to a variable-name can be a number or a word or a list.

Variables in Logo can be global, when they can be used by all the procedures currently in the workspace, or local, when they can only be used by the procedure in which they are assigned or in any further procedures called by that first procedure.

Using the primitive make, as in make "var1 10, creates a global variable. Indirect assignment, made implicitly by calling a procedure with values as in 'polygon', creates local variables. You can, in fact, use the same variable-name in more than one procedure when you use local variables. Generally, local variables make for faster and more efficient programs than global variables.

*Next month, John Connell goes further into recursion and reveals some tricks of the trade for Logo fans.*



# Quick Quadruplex

## Four short programs

### PRINT STYLE SETTER

by Richard Hamblen

Hands up everyone who knows the escape code for setting the printer to print Elite text (12 characters per inch). OK. Who knows how to set up the printer in continuous paper in BASIC? Anyone who does know these obscure codes by heart can ignore this program but anyone who doesn't may well think it worth while investing the time typing in this listing.

Escape codes are those weird messages like CHR\$(27) + "R" + CHR\$(0) that you send to the printer to tell it to do something unusual like change from the UK character set to the US character in the example given. If you don't know what this does it is for those people who get annoyed at the way a # on the screen in BASIC comes out as a £ when you print it out.

The next time you want to change the printer settings you just run this program and choose the settings you require. Choice number 8 "Set as default" makes the current set of printer commands the 'default' - this means that when you do a printer reset, after a paper jam or something, the machine will revert to these new settings rather than the usual 10 pitch draft mode. When you leave the program, by pressing option 9, the printer stays set for the new settings until you run the program again or switch off.

If you don't like the choice of settings provided why not adjust to your own needs by changing one or more of the escape codes in lines 10130 to 10260. You will find these starting at page 130 of the CP/M manual. If it says ESC p1, for instance, ESC is CHR\$(27), the letter is written in quotes, "p", and the number would be CHR\$(1). So this example (to set proportional text) would be LPRINT CHR\$(27) + "p" + CHR\$(1). You would also need to change the reference in the directory in lines 10010 to 10090. The program is deliberately numbered starting at 10000 just in case you want to tag it on to the end of one of your own programs.

```

1 'Print Style Setter
2 'The Amstrad User
3 'December 1987
10000 PRINT CHR$(27)+"E"+CHR$(27)+"H"
10010 PRINT TAB(15)"US CHARACTER SET (for £ on pri
ntout).....1"
10020 PRINT TAB(15)"UK CHARACTER SET (for £ on pri
ntout).....2"
10030 PRINT TAB(15)"SET UP ELITE (12cpi).....
.....3"
10040 PRINT TAB(15)"SET UP PICA (Return to 10 cpi)

```

```

.....4"
10050 PRINT TAB(15)"SET UP CONTINUOUS PAPER MODE..
.....5"
10060 PRINT TAB(15)"SET UP SINGLE SHEET PAPER MODE
.....6"
10070 PRINT TAB(15)"SET UP PAPER LENGTH:.....
.....7"
10080 PRINT TAB(15)"SET AS DEFAULT.....
.....8"
10090 PRINT TAB(15)"END PROGRAM.....
.....9"
10100 INPUT " Type in your option ple
ase ",A
10110 ON A GOTO 10130,10140,10150,10160,10170,1018
0,10190,10260,10120
10120 END
10130 LPRINT CHR$(27)+"R"+CHR$(0):GOTO 10000
10140 LPRINT CHR$(27)+"R"+CHR$(3):GOTO 10000
10150 LPRINT CHR$(27)+"M":GOTO 10000
10160 LPRINT CHR$(27)+"P":GOTO 10000
10170 LPRINT CHR$(27)+"c":GOTO 10000
10180 LPRINT CHR$(27)+"s":GOTO 10000
10190 INPUT " PAPER LENGTH IN INCHES O
R LINES (I/L) ";L$:PRINT
10200 IF UPPER$(L$)="I" THEN 10220
10210 IF UPPER$(L$)="L" THEN 10240 ELSE 10190
10220 INPUT " TYPE IN PAPER LENGTH IN
INCHES ";I
10230 LPRINT CHR$(27)+"C"+CHR$(0)+CHR$(I):GOTO 100
00
10240 INPUT " TYPE IN PAPER LENGTH IN
LINES ";L
10250 LPRINT CHR$(27)+"C"+CHR$(L):GOTO 10000
10260 LPRINT CHR$(27)+"d":GOTO 10000

```

### BASIC PIP

by S. Huggins

For all those people wanting to move files around from disc to disc without leaving BASIC here is a simple but effective program to do just that. This is a simple copying program like PIP which allows you to copy a file in the same drive or to copy a file to a different drive - all in only nine lines of BASIC.

It is actually a good deal easier than PIP to use though. Run the program and at the prompt enter the name of the file to be moved or copied. If it is in a drive other than the one you are currently logged onto then put in the drive letter first followed by a colon (eg M:WOMBAT.DOS).

Next think up a new name for when you are asked - if you are moving the file to a different disc, you can reuse the same file name but remember to put the new drive and a colon in front. Should something go wrong it will tell you that there has been an error and will even tell you an error number.

If you want to find out what any particular error is you will have to lay your hands on the Amstrad BASIC manual (long term owners who got theirs free now feel smug) and turn to page 353 where they are all listed. When you press a key the program will loop back to the beginning because even if you don't know what the error message means it is usually worthwhile having another try.



```

1 'Basic PIP
2 'The Amstrad User
3 'December 1987
10 ON ERROR GOTO 80: INPUT"Enter file to be copied
: ",A$
20 IF FIND$(A$)="" THEN PRINT CHR$(7);"Filename no
t found": GOTO 10
30 INPUT "Enter new name for file: ",B$
40 PRINT"Copying..."
50 OPEN "R",#1,A$,128:OPEN "R",#2,B$,128:FIELD 1,1
28 AS C$:FIELD 2,128 AS D$:Z=1
60 WHILE NOT EOF(1) OR Z<=LOF(1):GET 1:LSET d$=C$:
PUT 2:Z=Z+1: WEND: CLOSE
70 PRINT "copied...":END
80 PRINT:PRINT "Error";ERR;"found... Try again"
90 WHILE INKEY$="": WEND: CLOSE: RESUME 10

```

## FILE CODER

by Chris Mitchell

Calling all spies and paranoids. Due to the success of our recent listing to provide 'one time pads' for writing your own coded letters we have been inundated with programs to encrypt your files into everything from morse code to hieroglyphics. This one from Chris Mitchell can't promise any of that but it will scramble your vital communique ruthlessly.

When you run the program it asks you for the name of the file you want coded or decoded, and then you have to give a name for the output file (the file that has been coded or decoded). You then are asked to choose a password - a number between 1 and 255.

If you were to try to read or print out that encoded file directly, it produces a load of scrambled nonsense, virtually indistinguishable from the average TAU article. That is fun but probably more interesting is to get it back to a state where it can be read again. You just repeat the process this time quoting your encoded file name as the input file and repeating the correct number. The output file should then come out perfect.

It certainly does work a great deal more effectively than setting a password on a file in CP/M (which can be circumvented very easily - for instance by using LocoScript to read the files which ignores the passwords) but of course we don't take any responsibility if you can't decode your valuable shopping list and you might be wise to take unencrypted back up copies of any file that you code in case you forget the password!

```

1 'File Coder
2 'The Amstrad User
3 'December 1987
10 INPUT "name of file to be coded/decoded: ",f1$
20 INPUT "name of output file: ",f2$
30 OPEN "r",1,f1$,1
40 OPEN "r",2,f2$,1
50 FIELD 1,1 AS incodes$
60 FIELD 2,1 AS outcodes$
70 INPUT "password: ",pass
80 IF pass>255 THEN 70

```

```

90 GET 1
100 WHILE NOT EOF(1)
110     a$=incodes$:byte=ASC(a$):byte=byte XOR pass
120     LSET outcodes$=CHR$(byte):PUT 2
130     GET 1
140 WEND
150 CLOSE 1
160 CLOSE 2
170 END

```

## DISC LABELLER

by B. James

The problem with printing out a directory of all the files on a disc for ready reference is that you always lose the paper. So here is an answer to this problem once and for all - the ultimate disc labeller.

The advantage of this one is that it prints out all the file names in a form that can be cut and stuck inside your clear plastic disc holder. Run the program and then put in the disc you want labelled. When asked for the "title" you give it a name that will be printed down the spine so that you can find the right disc in the twinkling of an eye. It will then ask which drive the disc is in.

If you give this program a LocoScript disc to chew over you will see that the different groups are marked too. The first file of each group has the group number in reverse video to its left, and the rest of the files in the group follow it, left to right across the label.

```

1 'Disc Labeller
2 'The Amstrad User
3 'December 1987
10 INPUT "TITLE ";T$:T$=LEFT$(T$+SPACE$(16),16)
20 INPUT "DRIVE ";D$
30 E$=CHR$(27):S$=SPACE$(12):K=0:U=0
40 PRINT E$+"E";E$+"H";CHR$(134);STRING$(3,138);
50 PRINT CHR$(142);STRING$(55,138);CHR$(140)
60 FOR I=1 TO 16
70 PRINT CHR$(133);" ";MID$(T$,I,1);" ";CHR$(133);
80 FOR J=1 TO 4
90 IF U<16 THEN K=K+1:A$=STRIP$(FIND$(D$+"*. *",K)
)
100 IF A$="" THEN K=0:U=U+1: IF U<16 THEN OPTION F
ILES STR$(U):GOTO 90 ELSE A$=S$
110 IF K=1 THEN PRINT E$+"p";HEX$(U);E$+"q";A$;ELS
E PRINT " ";A$;
120 IF J=4 THEN PRINT CHR$(133) ELSE PRINT " ";
130 NEXT J
140 NEXT I
150 PRINT CHR$(131);STRING$(3,138);CHR$(139);STRIN
G$(55,138);CHR$(137)
160 PRINT E$+"f";E$+"0"
170 WHILE INKEY$="": WEND:PRINT E$+"e";E$+"1"
180 OPTION FILES "0"

```

*While you have nothing to do over the break - why not put together a type-in for all to share? Send it to:*

*The Editor, The Amstrad User, 1/245 Springvale Rd, Glen Waverley, Vic 3150*



# 1 into 2 will go!

Just bought LocoScript 2? Thinking of buying? Ben Taylor explains how easy it is to convert your existing documents to the new order.

If you're a LocoScript user and you've just invested in the new version, LocoScript 2, the first thing you have to do is convert all your templates and working documents from the old LocoScript format into the new format.

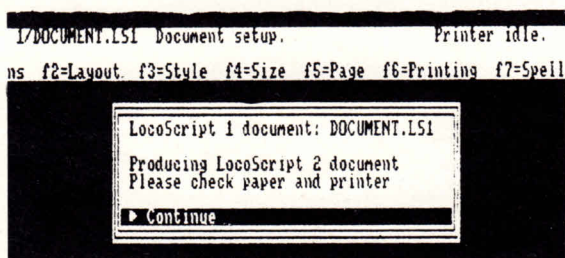
This is because improvements made to LocoScript in version 2 have made it necessary to alter the way text is stored in disc documents.

You don't really have to know how to do this conversion, since it is all done automatically when you try to use a document. However, if you know what is going on you might be less puzzled by a few oddities that ensue. Problems should arise only if you have documents with elaborate headers and footers set up on a peculiar page size.

LocoScript 2 will quite happily read documents created in LocoScript 1 (although the reverse is not true). All you have to do is start up your PCW with the LocoScript 2 start of day disc, and then put your old disc with all the LocoScript 1 documents into the disc drive. Use the 'Change Disc' command (now [f7], not [f1] of the Disc Management screen remember) and you will see your old disc contents listed out.

You can store LocoScript 2 and LocoScript 1 documents on the same disc so you don't need to buy any extra discs to keep new files on.

The three main things that you want to do from the Disc management screen are to Create a new file, or to Edit or Print an existing one. LocoScript 2 has been designed so that you should be able to take old files and carry on using them without making any modifications. When you Edit a file created with LocoScript 1, you will see a message box appear on the screen:



This is self-explanatory. Press [ENTER] when you see this box, and LocoScript will convert the old document into the new format. This only happens the first time you open the

file. After you have saved it, it is a kosher LocoScript 2 file, and won't need converting again.

After the processing is finished, you are left in the header and footer editing screen rather than the normal text editing screen. This is because - as is revealed later - LocoScript 2 treats headers and footers in a different way to LocoScript 1, and the conversion process may translate them incorrectly leaving you to make a few manual corrections. If you haven't got any headers or footers defined, it doesn't matter so just press [EXIT] and [ENTER]. Now you are in the familiar editing mode, and if you have no changes to the text you can exit to save the modified document.

In summary, to convert a LocoScript 1 document to LocoScript 2, just Edit it and save it again. You will need to do this before you can print the document, but copy, move, erase, rename and so on will all work on unconverted files.

You should convert all your TEMPLATE.STD files as the first thing, otherwise you will get the 'converting document' message whenever you create a new file.

The page size menu for a typical document in LocoScript 1, and the same file after conversion to LocoScript 2. The top and bottom gaps have to be 6 and 3 lines each, so the header zone in Loco 2 is 9 (you defined it in the Loco 1 file) minus 6 (the top gap), and the footer zone 7 minus 3. This leaves the page body the same.

Printer idle. Using B:M:	
f6=breaks	f7=Page size
Page size:	
Page length	70
Header zone position	9
Page body	54
Footer zone position	7

group 1/DOCUMENT.LS2 Document setup.		Printer idle. Using B:M:
ript 1: 0 P112 L51 CR+0 IP6		Page ---- lin
=Actions f2=Layout f3=Style f4=Size f5=Page f6=Printing f7=Spell f8=Option		
(Centre)	Page layout	
(Centre)	Top gap	6
end of header 1: used for only the	Header zone	3
(Centre)	Page body	54
end of header 2: used for all pages	Footer zone	4
(Centre)	Fixed footer zone	<input checked="" type="checkbox"/>
(Centre)	Floating footer zone	<input type="checkbox"/>
end of footer 2: used for all pages	Bottom gap	3
	Paper length	70

### Page sizes

One of the major changes that you will have to get to grips with is how LocoScript 2 attacks the problem of page sizes.

In the old days, back with LocoScript 1, you had to define how many lines per page there were, how many of those

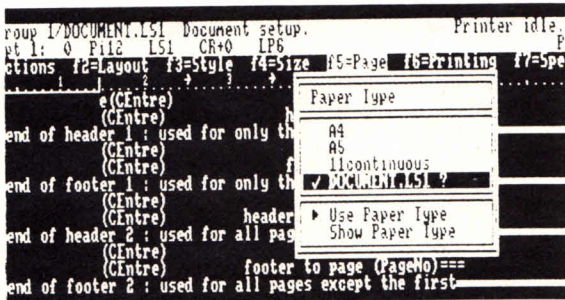
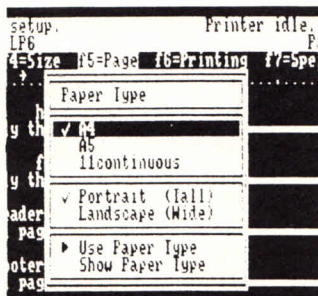


were for header and footer, and where the header and footer text was to start within the allocated zones, for each template you used. Also, when you came to print the page out, you had to re-specify all the page dimensions to the printer and tell it how many lines to leave between pages. All this added up to a large bottle of aspirin.

Experience has suggested to the program designers that all these options were confusing. What happens now is that you set up in advance a variety of 'paper types'. A4, A5 and 11" continuous paper come predefined with LocoScript, but if you regularly use labels which take exactly 17 lines each you can define your own 'label' type. All this is done from the [f6] 'Settings' menu on the Disc Manager screen.

The upshot of all this is that when you convert a document from LocoScript 1 to LocoScript 2, the page setup menus may look strange. LocoScript will do its level best to work out what paper to use in its new system and if you were originally using normal sizes like A4 or 11" you should find the conversion has been done correctly.

The paper menu after converting two different documents. If the Loco 1 document had a standard size, a standard paper size is chosen (like A4), otherwise a special one named after the document is created.



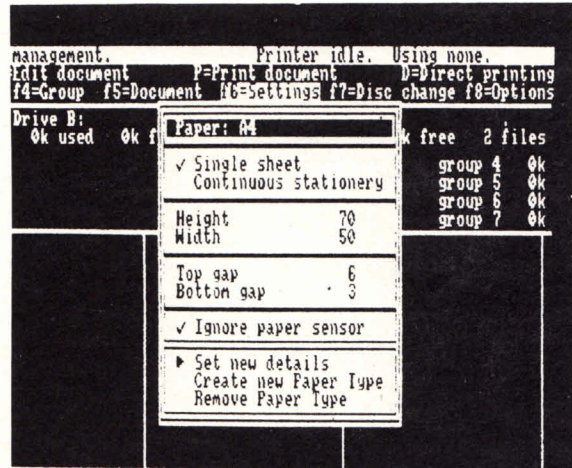
From the header and footer text screen press [f5] 'Page' key and you will see the menu controlling the page structure drop down. Choose the 'Paper Types' option and you will see that one paper type has been ticked. If you are on A4 length paper, you'll be on the 'A4' type. If you're on some hybrid page size for your personal goatskin parchment stationery then you will see a paper type corresponding to the document name, meaning that LocoScript 2 couldn't match the LocoScript 1 page dimensions into one of its standard sizes so it has created a custom size.

### Gaping holes

The 'top gap' and 'bottom gap' are the parts of the page you can't print on, simply because the printer physically can't grip the extremes of the paper. On single sheet paper you can't use the top six lines or the bottom three, but on continuous paper you can use the whole sheet and set the gaps to zero.

Get back to the previous menu, and go into the 'Page Layout' option. This is the new version of that old menu where you sorted out the page lengths. Now, however, because you have chosen the paper type and it is this which determines the page length you will find that you cannot alter the page length, top gap or bottom gap on the page. They are shown for information only. You can alter how much space to leave for the header and footer zones.

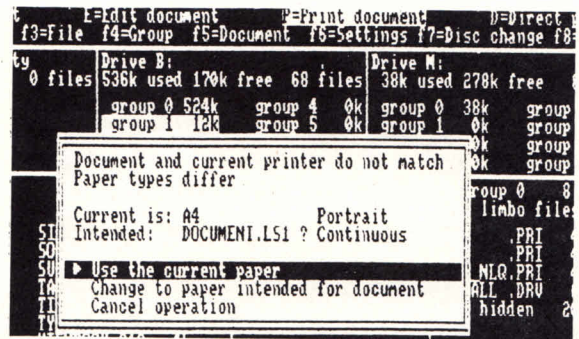
This is the major area where you will find a LocoScript 1 document may not be properly converted. The problem is that the concept of 'header position' and 'footer position' has been abolished. In the old version of LocoScript you defined a header zone (maybe 4 lines), some header text and a 'header position'. The idea was that you might not want the text to actually go on the first line of the header zone, so if you said that the header position was 3 then LocoScript would print the header text on line 3 of the page, leaving the top two blank.



Modifying the paper type back in from the Disc Manager screen

LocoScript 2, on the other hand, assumes that the header text always starts on the first line of the header zone - if you want to leave some blank lines you have to physically put blank lines into the header text itself, say by pressing [RETURN] twice before the text begins.

As a result, if you used the header and footer positions to leave gaps on your page in LocoScript 1, the gaps will come out wrong in LocoScript 2. The two menus shown are the



If your document's paper type doesn't match what the printer expects, don't worry - you will be given a choice.



before and after stages in the conversion process. To make the printed results match, you will have to insert one blank line at the start of the header text, and two at the start of the footer text. Other than that, all the setup for even/odd pages, first/last pages and so on is maintained.

**And you're off...**

That's about it really. After LocoScript 2 has finished converting your file you may need to tweak the headers and footers a little as described but if you intend to carry on using the standard PCW printer there is nothing else to do. You can carry on editing normally. There are of course many differences in the way the two versions of LocoScript work which you will have many months of pleasure in discovering - in particular the way you define and change layouts has been altered, but the conversion process safely takes care of all that. Have fun!

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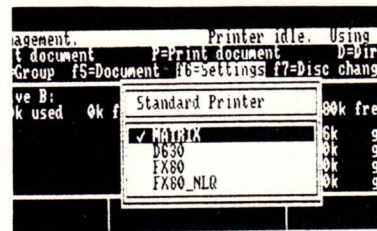
## Printers

If you've just splashed out several thousand dollars on a laser printer to use with LocoScript 2 - or even a couple of hundred on a humble daisywheel - you'll want to know the quickest way to get a file printed out to it rather than the standard dot matrix printer.

Look at the files on your LocoScript 2 start of day disc: you will see four files called D630.PRI, FX80.PRI, FX80\_NLQ.PRI and INSTALL.DRV. When you start up normally, the only printer that the PCW knows anything about is the standard one. The first thing to do is to decide whether your printer is an 'Epson FX80' printer or a 'D630' printer. In general, all dot matrix printers are Epson types, and all daisywheels are D630s.

On your start of day disc, move INSTALL.DRV from their usual group to group 0 of side A. If you are using a daisywheel printer, move D630.PRI across. For dot matrix printers, move FX80.PRI and FX80\_NLQ.PRI instead. Now restart LocoScript ([SHIFT]+[EXTRA]+[EXIT]) and because these new files are in group 0 it will realise you have a new printer hooked up.

You still have a couple of things to do. Use the [f6]'Settings' menu from the Disc Manager screen and press [ENTER] on the 'Standard Printer' option. You will see a menu of all the printer types LocoScript knows about, and press [+] beside the one which you want to be your standard printer. You can still use the others - say for doing a dot matrix draft of a document before the final daisywheel version - by changing the current printer setting on the [f5] 'Printer' menu of the printer menu line which you get to by pressing [PTR].



Finally, if a document is primarily intended for a certain printer you ought to go into its Document Setup mode (via the [f1] menu while editing it) and change the printer type with the [f6] 'Printer' menu. Setting it up right saves being asked extra questions as LocoScript sorts out what printer you really want.

## The right type

The industry standard dot matrix printer is called an Epson FX80, and the standard daisywheel is a Diablo 630. This is why LocoScript refers to printers other than the PCW printer as FX80 or D630 - you don't have to use the exact correct type, but only a printer which behaves in the standard way, as most do.



# Data Basics

Last month's article described how to choose a Database - here are some to pick from

## FIRST BASE - Minerva

If you find all this database business a bit daunting you may well be drawn to this package specifically aimed at the first-time user who wants a gentle, easy system to work with which will nevertheless produce good quality results. The initial menu offers three simple choices: create or use a database, or exit. Creating a database is extremely simple - you move your cursor around and write in headings where you like, specifying the length and position of each record by filling in a block of characters as required. You don't have to worry about specifying how many letters so-and-so field is, or decide in advance how many fields you want; the computer works all that out for you on the basis of the card format you map out. After nominating the key field and filling in your data entries you can search for individual records, browse through or select groups and individual records by hand for output. The file can be listed in order by the key field and you can change the key field later if you want.

```

row:22 col:46
Name: #####
Address: #####
Books ordered:
#####
Total orders: #####
Amount received: #####
Balance owing: #####
Last payment: #####
STOP to return to Main Menu COPY to set fields

```

All these functions are called up by control codes, ie. [ALT]-N displays the next record in the file, [ALT]-D deletes a record and so on. There's a help menu you can call up any time if you forget what the codes are, but the formulae are easily picked up.

### Brahms and list

Printing out your records is easy - you can print out lists of one-line selections from the fields (eg. Name, Address, Telephone number) and insert headings wherever required. You can even produce totals of figures at the bottom of the program, very useful for producing reports. Unfortunately to

get more complex printouts you have to use LocoScript to create a template, which can be awkward. In general though, if you want more than simple lists from your data you'll be disappointed.

There are a few restrictions on such a simple program, for example all fields are treated as character strings, so that numbers may be indexed in a strange way (\$9 would come after \$8,917,744.03 for example). Names have to be entered surname first, as there's no other way to specify the surname as key, unless you record given names and surnames in separate fields.

Name:MacDonald,Ronald	Balanceowing:\$595.77	Last payment:4/6/87
Name:MacEwan,Eric	Balanceowing:\$ 24.63	Last payment:5/7/87
Name:Makarios,Andreas	Balanceowing:\$ 53.66	Last payment:21/12/86
Name:Michaels,Geoffrey	Balanceowing:\$ 0.00	Last payment:13/4/87
Name:Miller,John	Balanceowing:\$302.00	Last payment:11/6/87
Name:Miller,David	Balanceowing:\$ 0.00	Last payment:6/10/87

Because you use LocoScript to create report layout templates you can do simple mailmerging directly from the database without needing to buy a mailmerger program. Import and export facilities are supplied, so you can swop data around between your files and other programs and save all your information in case you decide to upgrade to a more powerful package later on.

### How friendly?

The manual is rather disappointing. The 'learner friendliness' of First Base lies not so much in presentation as in essential simplicity of the program - if all you want from your database is a hi-tech address-book or computerised catalogue, with the ability to select and print certain records, and possibly use the information in mailshots, this will be perfectly adequate. There might be less justification for buying it as an introduction to databases with a view to upgrading later, however, as many of the more powerful packages (Masterfile 8000, Cardbox) are still quite friendly or better documented, and others are more versatile for the same price. Nevertheless, this particular product could be just the thing for reluctant club secretaries who need to organise fairly simple and standardised (but lengthy) data without having to plough through more involved programs against their will.



## CARDBOX - Caxton

As implied by the name the whole program is very much oriented to a cardbox format; when setting up a new document you need a format first and the number and lengths of each field are defined implicitly by the length and position of blocks you earmark on your screen. You can rule lines too, though not continuous ones, by various combinations of control keys. The fact that you can put the fields anywhere you like on the screen means you can design layouts exactly as you wish. The entire program is control-driven but there are plenty of on-screen prompts and although the logistics of getting from one place to another may seem a little odd if you're used to other packages it all works smoothly with a little practice.

There is a large example file which will repay time spent playing around there amply; it's the best way to get to know the structure of the package.

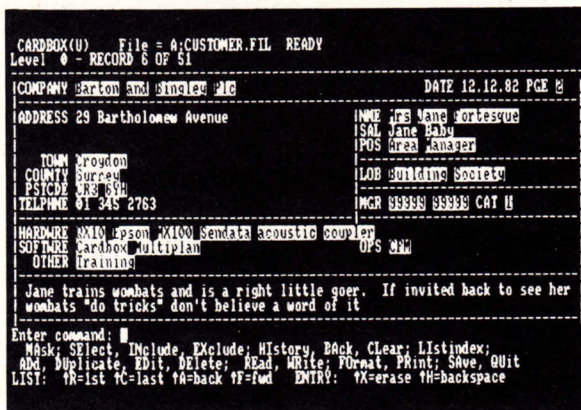
### The old order

The major drawback is that the cards are always stacked in the order they were entered; there's no sorting facility. Selection of cards is done one stage at a time in levels - if you want a list of all Victorian customers in Accounting, you first select the Victorian addresses (level 1) and then the Accountants among them (level 2). You can jump up and down levels easily and when you come back to a file it kicks off at the last level you left. They'll always come in the same order, though, so printed lists may not come out as efficiently laid out as you'd like. However, you can search or select for records by any criteria you like, including looking for individual words within a longer string.

Printing the records can be done according to any number of formats you want to define, and you have the usual ability to pick off any number of fields from the main card you require and print them out in various ways, one record to a line, or a page, with or without headings etc.

Your data can be exported in a variety of formats including ASCII and WordStar.

If your present database is a physical box of cards and you want the power simply to select, print (or mailmerge) entries very quickly without sorting - for example, writers keeping catalogues of reference books or character descriptions or club secretaries looking after membership records - this could well be suited to your needs.



## MASTERFILE 8000 - Campbell Systems

As a database, Masterfile 8000 is very hard to beat. The program comes supplied with abundant examples and you can spend your first couple of hours merrily playing around with them and getting a feel for the program - you only have to refer to the manual when you really need to. The program is menu-driven and is easier to use than many, though menus can get tedious after a while.

On defining a new file you follow on-screen prompts to enter the conventional things like number of fields, type and length of each one, and enter your data in the usual way. The fun part starts when you begin to define your 'formats'; Masterfile arranges your fields for you in a line-by-line order and calls this 'Format 0', but you can define up to nine more, and include in your format boxes, lines, panels, headings of different sizes, and arrange the data in virtually any way you like - the process is fiddly and time-consuming but worth it for the control you have over the finished article in layout. All the fields are stored in format 0, but you can select any number of them to include in your various formats, so use one for address labels, one for invoices, one for customer descriptions, etc, all taking different items of information, all different presentations of the same data. When displaying the records you can rotate through the formats used to show the data by pressing R.

### Friendly sort

Sorting can be done by any of the fields and is done very quickly. To print you just rotate to the format and sort order desired and press P. You can, of course, select records on a range of fields and criteria, simultaneously if you like (all those living in Parkmore who also owe you money, etc) then label and store these subsets for future use if you like.

Calculated fields can be included too - you set these up as part of your formats, though the values are not calculated automatically but are revalued whenever you select 'C' from the main menu. Full import/export features are also included.

In the data handling itself there are some very clever and useful features. The problem of name indexing is overcome by entering them as, for example, 'Wszczkwcz<Slobodan' which causes the name to be printed always as 'Slobodan Wszczkwcz' but indexed by the surname Wszczkwcz. Addresses can be entered as '16 Sandgate Crescent Heathmont Victoria', which will print out each of the items separated by a \_ on a new line if there's enough space, and by a space if not. Saves having to separate addresses out into different fields (street, suburb, state etc) which never suit everyone's address and cause a lot of wasted space.

### Good relations

There's also the extremely powerful ability to link files up relationally, so that information from one can be included in another automatically even if the included information has been updated since last using the main file. This can be one of the most effective facilities of the program if used efficiently.

All in all this is a splendid package which is difficult to



fault. It's simple enough to be used by novices to databases and yet powerful enough for virtually any use you could reasonably want from a database package. If you can afford the money, this is for you, whatever the application.

## Sorting v indexing

There is a lot of confusion over the terms 'sorting' and 'indexing' (sometimes called 'keying') in databases, which isn't helped by the fact that some manufacturers use the words interchangeably.

dBase II uses the words in their strict sense: when you use the SORT command, the datafile is physically shuffled round so that the records appear in a new order. This can take a long time. The INDEX command, on the other hand, doesn't touch the data file but makes a note in a different file of what order the records come in. This allows the program to find data much faster than if there wasn't an index, and isn't as slow as proper sorting.

In some databases (such as Database Manager/AtLast) indexing and sorting are the same thing - when you choose one field as an index all data is then presented in that order.

In Cardbox, indexing is an internal mechanism to make finding particular records faster - it doesn't actually affect the order that the cards appear in.

Finally, Condor (a kind of dBase lookalike from Caxton) can sort data, but can't index it for speed of access.

## dBASE II - First Software

dBase is not so much a database program as a database programming tool. On running the program disc a full stop appears on the left of the screen; this is the prompt and you create, manipulate and print out your data via various commands, which, just like BASIC or any other programming system, you can combine into programs and save for re-use.

For example, the command `.CREATE ZAP` will set up a file called ZAP, and cue in the usual prompt questions about number and size of fields. You can immediately start entering data if you wish, but to add to an existing file you would enter the command `.USE ZAP` and then `.APPEND`;

`.EDIT` will allow you to correct mistakes or update entries, though you have many advanced facilities which allow you to amend a batch of records by a single command instead of laboriously amending each one as in normal packages. Nice to be able to change "Windscale" to "Sellafield", for example, in 4,719 records at once instead of doing them all individually!

### At your command

Now suppose you want to send a catalogue of the 1988 titles coming out on Art and Architecture to members of your book club who might be interested enough to buy. You may decide to list out just the names and addresses, in name order, of all members of your book club who have spent over \$100 with you, live in Melbourne, and have ordered books on art. You can do this at a stroke by entering first `.USE BOOKS INDEX NAMEIND` and then `.LIST NAME, ADDRESS FOR ORDERS>100 .AND. "MELBOURNE"$ADDRESS .AND. "ART"$BOOKS .OR. "ARCHITECTURE"$BOOKS`. Although this seems longwinded, you can store it in a file (perhaps called

`MAILSHOT.CMD`) and repeat the mailshot at any time by typing `.DO MAILSHOT` - ie. re-run the commands stored in `MAILSHOT.CMD`.

Most databases can handle elementary calculations; dBase can do very sophisticated counting and totalling. You can sum over any field or part of a field of your records, store and re-use the information later. All this can be printed out, of course, with plenty of format control.

Amending the structure of a database (adding extra fields, changing the layout significantly etc) is something many large-scale users would have to do from time to time, and this can be done in seconds on dBase. On most cheaper packages it is virtually impossible. dBase is a relational database, and you can work with two database files open at the same time. This has many powerful applications as outlined previously.

The range of functions in dBase is unequalled by any conventional package. The ability to write your own programs means you can prepare powerful procedures which are easy enough to be used by complete novices (not all shop assistants are mad keen on taking course in using databases). The language is logical and simple - if you can write a BASIC listing to add two numbers together dBase will be easy - and the manual, if a little daunting, is pretty good. The only drawback, of course, is that you have to be prepared to put the time and effort in to develop your programming proficiency.

## WHAT IS A DATABASE?

As 'data' means 'information', so 'database' means 'a load of information'. A computer, looking at the Melbourne White pages thinks, "Ah, a telephone subscriber database, indexed by name, selection criteria being Melbourne addresses." Usually though a database means disc-stored information.

Obviously having your data on computer rather than scraps of paper could be saving you hours of tedious work manually sorting out cards from folders and getting parts of it laboriously copied out and typed up. This comes at a price: you have to decide a structure beforehand - how many letters to allow for each name and address, how many different items of information for each record, etc - and you have to stick to it rigorously, with every record containing exactly the same number of headings and types of information.

On the other hand, there are pluses to a filing cabinet; you can rest your coffee on top of it, and bang your head against it when you can't get your database to work.

### Etymology note

Arguments rage over whether the word 'data' should be singular or plural. As the nominative neuter plural of the perfect participle of the Latin word 'dare', to give, it should strictly be plural; however, as it means nothing more or less than 'information' in plain English (but seven letters shorter and infinitely more hi-tech) it feels better treating it as a singular 'mass' noun.



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# DIY Database

Why spend heaps on a package when you can write your own for next to nothing!

Last month we presented Bob Walsh's Telephone Directory program which demonstrated the use of Mallard Basic and Jetsam files. If you felt lazy or thought the task of keying in three pages of coding too daunting, then this shorter program, collecting names, addresses, telephone numbers and subscription details may spur you into action.

Mallard BASIC may not have all the fancy graphics to write real zap-em-up Space Invader-type games but it does have Jetsam, a remarkably sophisticated and efficient file handling system.

The first thing you'll note about references to Jetsam is that they casually mention that it is not particularly simple to understand. It is true that the Amstrad BASIC manual does seem to treat the intricacies of Jetsam a little like the inner secrets of a clandestine religion - shrouded in a veil of obscurity and confusion.

As with all these mystical concepts it is easier seeing them in action than having them explained over the phone - so perhaps the best idea is to take a simple but practical example of Jetsam to see how it goes about things. The listing is for a club membership database that stores details and lists an index of entries. Although you can amend entries in Jetsam, this example just allows for deleting entries that need amending and re-entering the details.

This is by no means a full, exhaustive sample of what Jetsam can do, but it does show how you go about starting to use Jetsam and gives the theory that can be used to add on other features as you get more confident. This program is also not the sophisticated tool you might want for this particular purpose

but we are sure all you clever Amstrad User readers will be able to modify it to suit.

## Let there be files..

The main thing you have to learn about Jetsam is its vocabulary (and that's not counting the swear words when it doesn't work). For a start you don't just OPEN files in Jetsam and find them miraculously there. You have to CREATE them.

Every time you start a database you have to create two files - an index file and a data file. The two file system is what gives it its speed and sophistication but it also can give you one or two headaches. For example you may find the information recorded on the two files gets out of step somewhere along

the line.

This works fine as long as nothing goes wrong with the program. But if it crashes before the files are CLOSED (as happens no more than three or four thousand times during an average program development) there might be information in one file and not the other. Now Jetsam, being extremely clever, knows when the two files are inconsistent and will not allow you to use the files while they are in this state. So it does prove handy to make sure the files are always closed at the end of a program.

But first to be creative. You only need to CREATE the files once for each disc you use it on. This program checks to see if the files are already created and only if they aren't it asks if you want to

```

1 'DIY Database
2 'The Amstrad User
3 'December 1987
10 MEMORY ,,256
20 BUFFERS 10
30 IF FIND$("club.dat") <> "" THEN 80
40 INPUT "No data file - Create a new file? (y/n)
";y$
50 IF UPPER$(LEFT$(y$,1)) <>"Y" THEN END
60 CREATE 1,"club.dat","club.ind",2,70
70 CLOSE 1
80 OPEN "K",1,"club.dat","club.ind",2,bf
90 FIELD 1,20 AS name$,20 AS add1$,15 AS add2$,11
AS tel$,2 AS fee$
100 PRINT "      A -  ADD A MEMBER":PRINT
110 PRINT "      E -  EXAMINE/DELETE MEMBER DETAI
LS":PRINT
120 PRINT "      I -  INDEX OF NAMES":PRINT
130 PRINT "      X -  EXIT":PRINT
140 PRINT:PRINT:
150 INPUT "ENTER OPTION - ";answer$:answer$=UPPER
$(answer$)
160 IF answer$ = "" THEN 210
170 answer = INSTR("AEIX",answer$):IF answer = 0 T
HEN 100
180 ON answer GOTO 1000,2000,3000,4000,

```

Create your files and set things up



create them.

There are a couple of things to note in the command used to CREATE. It starts with a number called the 'file' number. The main thing to remember is that you have to quote this number more often than any other. You can't OPEN or CLOSE the file without quoting the file number (eg. CLOSE 1). Virtually every major Jetsam command will expect the file number.

You then enter the names you have chosen for the two files (in this case CLUB.IND and CLUB.DAT) followed by the lock number, a kind of password vital in multi-user systems but quite unnecessary on the PCW. However it has to be there or it just won't work (the number recommended is 2). The next number is the one that needs some thought. It decides the total length of each entry so telling Jetsam where each new record begins. So when this figure is 70 as here it tells Jetsam that every 70 bytes there is a new record.

To work this out you have to decide the maximum size of each entry or field. You have to work out in advance the number of characters you need - say a maximum of 20 characters for a line of the address. You add up all the maximum numbers for each field and add two. The two extra bytes are important because this is where Jetsam keeps a note of where everything is. You cannot

store any information in these bytes.

It may not be tragic if you miss this figure out as it will default to 1238 bytes. The problem with this is that it could be too small for a complicated set-up or waste a lot of space for a small one.

With a whirr of the disc drive your files are created and you immediately close them again remembering to quote the famous file number (CLOSE 1) just to open it again in the program proper.

#### Open says me

Unless you need to CREATE the files the first thing that normally happens is that your files are OPENed (line 80). This uses the letter "K" for keyed file and the famous file number.

The next line (90) sets the number and the maximum length of the fields. For instance the first field (the first section of the entry) is for the name of each club member and is allowed a maximum of 20 characters. Then there are two address lines (one with 20 and one 15 characters), a field for the telephone number (maximum 11 characters) and a 2 digit entry to take the amount of fees paid.

Of course you can have more fields or adjust the length by changing line 90 as long as you remember to amend the maximum number of characters (end of line 60) if that is required.

#### The information goes in here...

Line 1000 starts the actual businesses of putting information on disc. After inputting data in the usual way (lines 1020 to 1050) we LSET everything. All this does is set the actual characters at the left end of the field and fill out the remainder with spaces, so if you have a field with a maximum of 20 spaces and an entry ten characters long, it will be padded out to fit.

The key in this case is the entry in the NAME field so this appears in both the index and the data file. Although it is not done here, you can make other field keys (with the use of ADDKEY) to make a really flexible database. For instance you could call up the entries that had paid a specific amount of fees.

The ADDREC command in line 1080 stands for Add Record and suitably enough is the only way of adding records. It is followed by the file number, the lock number and a new one - the rank number. Jetsam files can be divided into eight different sections (0 to 7) depending on what number goes here. This is most useful when you have a number of keys.

Then CONSOLIDATE (with the file number) actually puts the information on disc and makes the two files consistent.

#### ...and comes out here

We then have the slightly more complicated task of getting the information off the disc at some point. One problem with Jetsam is that it looks for an exact match for the key entry. Even an extra space will confuse it.

To help us we know that all entries are in the index file in alphabetical order. If we can list them out we have all the keys exactly as they are in the file so we can easily pick out the right one.

It also helps that even if Jetsam doesn't get a perfect match it will usually go to the place that it thinks is nearest, which is very often the right place anyway.

First the list of entries. This is achieved through the command SEEKRANK in line 3020 which looks for the first entry in the index file. Here again you need the file number, after GET in 3030, the command which tells the computer to pick out the fields of the record you've just sought so that you can then print them out. Then all the rest of the entries

```

1000 REM *****Input member's name*****
1010 PRINT:LINE INPUT "MEMBER'S NAME (Surname first) - ";n$
1020 IF n$ = "" THEN 1010
1030 LINE INPUT "ADDRESS 1 - ";a1$: IF a1$ = "" THEN 1030
1040 LINE INPUT "ADDRESS 2 - ";a2$: IF a2$ = "" THEN 1040
1050 LINE INPUT "TELEPHONE NO - ";t$: IF t$ = "" THEN 1050
1060 LINE INPUT "FEES PAID - ";f$: IF f$ = "" THEN 1060
1070 LSET name$=n$: LSET add1$=a1$:LSET add2$ = a2$
1080 LSET tel$=t$:LSET fee$ = f$
1090 PRINT : PRINT "Entry is being added"
1100 result = ADDREC(1,2,1,name$)
1110 result = CONSOLIDATE (1)
1120 INPUT "Do you want to add another name";y$
1130 IF UPPER$(LEFT$(y$,1))<>"Y" GOTO 100: ELSE 1010

```

The information goes in here



```

2000 REM *****examine/delete entries*****
2010 LINE INPUT "MEMBER'S NAME (Surname first - ";
seek$
2020 result = SEEKKEY(1,2,1,seek$)
2030 IF result=103 THEN error$="NAME NOT FOUND":GO
TO 9000
2040 GET 1
2050 PRINT add1$
2060 PRINT add2$
2070 PRINT "Telephone no - ";tel$
2080 PRINT "Fees paid   ";fee$
2090 INPUT "Do you want to delete this file";y$
2100 IF UPPER$(LEFT$(y$,1)) <> "Y" GOTO 100
2110 PRINT:PRINT "Record is being deleted"
2120 result = DELKEY(1,0)
2130 IF result > 103 THEN error$ = "DELETE FAILURE
":GOTO 9000
2140 result = CONSOLIDATE (1)
2150 GOTO 2010

```

This section allows you to examine or delete entries

have all the entries.

Now you have the list of keys you can find a specific entry with the command SEEKKEY in line 2010. You must input the name in exactly the same way as in the list. While the result number should really be 0 the number 105 is also interesting. This means that it hasn't found an exact match but has gone to what it considers the correct place in the disc. As Jetsam always wants an exact match this can be very useful. If you add in the commands SEEKNEXT and SEEKPREV you would be able to move back and forward in the entries.

You print out the relevant details with lines 2040 to 2080 and are then asked if you want to delete the file. Should you want to change any details at present you just delete the whole entry and type in new details under the "ADD MEMBER" option.

## Random Access Files

The SAM in JETSAM stands for 'sequential access to memory' (no we don't know what the JET stands for). Imagine a name and address book where the entries come in no particular order. Finding specific items could be tedious and time-consuming. But if you keep an alphabetical index of surnames at the back with page numbers and have one record to a page you could find things quickly. JETSAM works in a similar way and keeps an index of all the keys and record numbers (in this example the key would be the surname and the record number the page number) in a separate file to the data, and because all the entries in the data files are kept to the same length (one to a page) it knows where to find things.

## Serial files

The information in "serial files" is all stored in one permanent order and there's no way of systematically finding a particular item. LogoScript documents and other text documents are examples of serial files - you can't pick out one particular paragraph or change even a single word without going through the business of reading in the entire file to the working memory, making any changes required, and then re-recording the entire file over the old one.

are got in turn using the SEEKNEXT in line 3110. If you are confused by the "result=" business that is because each of these actions generates a number - you hope for 0 which signifies that everything has gone right. If something has gone wrong you can find out why by looking up, in the manual, the type of error corresponding to the number generated.

For instance the number to say that Jetsam has found nothing remotely like what you are looking for is 103. So by telling it to stop when result equals more than 102 you know when you

We're looking for interesting demonstrations of Mallard Basic with or without using Jetsam. If you have anything worth sharing with other users, drop a line to the Editor.  
1/245 Springvale Road  
Glen Waverley, Vic 3150

```

3000 REM *****index of names*****
3010 line$ =SPACE$(70)
3020 s = 0
3030 result = SEEKRANK(1,0,0)
3040 GET 1
3050 s = s+1
3060 IF s= 1 THEN MID$(line$,3,20) = name$
3070 IF s= 2 THEN MID$(line$,28,20) = name$
3080 IF s= 3 THEN MID$(line$,53,20) = name$
3090 IF s = 3 THEN PRINT line$
3100 IF s = 3 THEN line$ = SPACE$(80)
3110 IF s = 3 THEN S = 0
3120 result = SEEKNEXT(1,2)
3130 IF result < 102 THEN 3040
3140 PRINT line$: PRINT
3150 PRINT TAB (18) "ENTER ANY KEY TO CONTINUE"
3160 IF INKEY$ = "" THEN 3160
3170 PRINT:GOTO 100
4000 REM *****Close file *****
4010 END
9000 PRINT TAB (18);error$
9020 PRINT TAB (18) "ENTER ANY KEY TO CONTINUE"
9030 IF INKEY$ = "" THEN 9030
9040 PRINT:GOTO 100

```

To list out the names



# Open Heart Surgery for Discs

The data on your discs could be worth more than your computer. Do you know what to do if something goes wrong?

As with other articles in *The Amstrad User* this is written specifically for the PCW, but CPC users can learn a lot too.

When you buy a program, or read a book on the PCW, the first advice you see is, "keep backups of your discs". Everybody knows this, but alarmingly few people actually do it. "Disc faults are so rare", they argue, "it'll never happen to me". In many ways the master discs of programs are the least of your worries. You can usually get a new disc from the supplier for a modest sum. The real problem is the data you have created.

Floppy discs are fairly reliable things but they can and do go wrong for no apparent reason. What would you do if, after spending several months working on your blockbuster novel, you discovered one day that *LocoScript* could not read your discs anymore?

The answer is usually to panic, scream, have a large drink and start retyping. After all, those fateful words on the bottom line of the screen 'A:track 0 sector 1 missing address mark - Retry, Ignore or Cancel?' usually set the death knell sounding.

But a corrupted disc isn't necessarily the end of all the data on it. In many ways floppy discs are like LP records; if you scratch a record, one particular track may be wrecked, but you can still play the others perfectly well. You can often copy surviving parts and use them even though the original is defunct. There are several utility programs around to help you do the same kind of thing with a damaged floppy disc. These range from unerasing accidentally ERASed files (very easy) to treating a neurotic disc (very hard).

Treating a disc means getting your hands dirty and using one of the more complex utilities to piece what you can back together. But don't be frightened - it is just like doing a

## Behind the scenes

If you've read ahead about how the disc directory is organised, you can see how the UNERA command works. Erasing a file merely changes the very first byte of a directory entry from 00 to E5, and unerasing undoes that change.

```
A>dir
A: UNERA      COM : VITAL      DAT
A>era vital.dat
A>dir
A: UNERA      COM
A>unera vital.dat
UNERA 1.1 (C) HiSoft 1987

A>dir
A: UNERA      COM : VITAL      DAT
A>
      Unerasing a file
```

jigsaw. In fact, it is easier than a jigsaw because there are clearly defined rules telling you which piece goes where.

## Unerasing files

CP/M's ERA command thoughtfully asks you 'if you are sure' when you ask to delete all the files on a disc with ERA \*.\*. The snag is that answering 'yes' to this prompt becomes an automatic reaction after a time, and many is the person who has gaily erased a whole disc by mistake.

Unerasing a file is a very simple operation. The *Knife* disc provides ordinary CP/M commands to unerase files without any specialist knowledge. Erasing a file doesn't actually do anything to the file's contents on disc - it merely sets an indicator saying to CP/M that it can re-use the space when it needs to. The command

```
UNERA FRED.COM
```

will undo the effect of

```
ERA FRED.COM
```

However, you must not write any new files to the disc after the ERA command, or you may find that CP/M has re-used the disc space and your 'unerased' file is full of another file's data.

*Disc Mate* can also unerase files, although it is a menu-driven program with a whole range of options rather than a simple one-off command.

## Pre-operative therapy

You need to know how a disc stores its files before you can get your scalpel out to tackle more complex faults. *LocoScript*





## DISC PROBLEMS

will put its contents on to blocks 1,2,3... in that order. When you erase a file, CP/M knows it can re-use the blocks that were freed up. So, as you fill a disc up and erase files, you get small pools of available blocks which are scattered over the disc. CP/M fills these as best it can. But that means that the contents of a file might not be in continuous blocks.

As an example, here is a typical part of a directory. This is in fact a description of the file SETDEF.COM on the CP/M master disc (an A-type disc):

```
00 53 45 54 44 45 46 20 20 43 4F 4D 00 00 00 20 .SETDEF COM...
90 91 92 93 00 00 00 00 00 00 00 00 00 00 00 00.....
```

Each file's directory entry takes up 32 bytes. The entries are all hexadecimal (see the box), with the text equivalent on the right. All low level computer operations such as this use hex numbering, since this is closer to how the computer itself thinks, than ordinary numbers are.

If the first byte is 00, the file is currently in use; E5 means it has been deleted. If you look at a LocoScript disc's directory (which uses exactly the same conventions as CP/M), you will also see values 01 to 0F in this first byte. 00 to 07 means the file is in groups 0 to 7 respectively, 08 to 0F means the file is a limbo file in groups 0 to 7 again.

Next comes the file name. This is 11 characters long, since a file name is eight characters followed by the three for the extension. The next three bytes will usually be zero, and the final byte is the file size divided by 128 - for SETDEF, the size of 20 (ie. 32 in decimal) means a file size of 4096 bytes, or 4k.

The bottom line is the list of block numbers that the file is stored in. SETDEF.COM uses block numbers 90, 91, 92 and 93 on this particular disc. For a B-type disc, the first line would be just the same, but blocks are handled differently. Since there are more than 255 blocks per disc, a block number needs two bytes. If you copied SETDEF to drive B, you might see a directory entry like

```
00 53 45 54 44 45 46 20 20 43 4F 4D 00 00 00 20 .SETDEF COM...
98 00 23 01 00 00 00 00 00 00 00 00 00 00 00 00.....
```

Being 4k long, it occupies two 2k blocks numbered 0098 and

documents and CP/M files are exactly the same things - all that follows applies to both. Think of how an LP record stores its 'data' - the music. A needle moves over a groove on which the sounds are stored. The record is arranged in tracks, some near the centre and some near the outside.

Floppy discs have tracks too. Discs used in the A-drive have 40 tracks each side arranged concentrically (unlike an LP's spiral) and numbered 0 to 39. B-discs have 160 tracks in total. The read/write head can be positioned at any of the tracks and when you hear the disc drive clunking away as you use it, what you are hearing is a motor moving the disc head from one track to the next.

Each track holds a fairly large amount of data, so to make things more manageable it is split into 9 sectors numbered 1 to 9. So you can describe a disc in terms of its tracks and sectors. It starts at track 0 sector 1, and ends at track 39 sector 9 (track 159 sector 9 for a B-disc). Each sector holds 512 bytes (half a k), so you can work out that an A-type disc with 40 tracks holds  $40 \times 9 \times 1/2 = 180k$  of data (B discs hold 720k).

180k? But A-discs only hold 173k, you might think. Well, this is because 7k is taken up storing system information that CP/M needs to use the disc. By far the most important part of this is the disc directory.

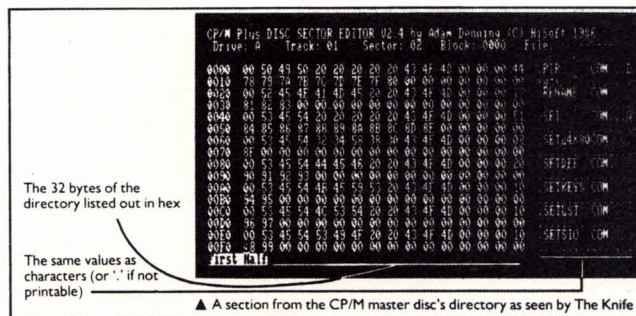
The whole of the first track (track zero) is reserved for system use. The first 9 bytes on track 0 sector 1 tell CP/M how the disc is to be read - effectively whether it is for an A-drive or a B-drive. The directory which starts on track 1 sector 1 is like the contents list of a book - it tells CP/M what each file is called and where to find it.

### Directory enquiries

Understanding how the directory controls what is on the disc is the key to finding parts of damaged files and repairing them.

Although the disc is split into tracks and sectors, CP/M stores files in blocks. On an A-disc, each block is 1k long, and CP/M thinks of the disc as being split into blocks numbered 1,2,3,4 and so on. Files must take up a whole number of blocks, which is why even the smallest files take up 1k on a disc. B-discs use 2k blocks.

If you have a totally blank disc, when you store a file CP/M



0123 - notice how these appear as 98, 00 and 23, 01 in the block list. CP/M likes to reverse the order of things like this for no apparent reason to keep you on your toes.

### Major operations

So what actually happens when something serious goes



# DISC PROBLEMS

wrong with a disc? Usually some dirt gets on to the recording surface or a stray magnetic field wipes part of the disc, which means that one or more sectors can't be read any more. When the drive head reaches such a sector, it will throw up an error message and refuse to go on. If you can get to the relevant area of the disc and convince the drive to ignore the bad sector, you will be able to read the rest of the file normally.

When your disc goes wrong, the PCW will tell you on which track and sector of the disc the fault lies. First of all, keep choosing the 'Retry' option that CP/M offers you. You may find that after a few attempts the drive can read the disc after all. In this case, immediately use PIP to copy all the files on the disc to a new one, since the error may reoccur on the old disc

If the disc won't recover itself type DIR and see if you can get a directory listing out. If you can, note down the names of all the files. Now use PIP to transfer all the files one by one to a fresh disc - don't use \*.\* to copy all files at once. One or more of the files may use the bad sectors on the disc to store their data and so won't copy, but the others should all copy normally. If the dud files are unimportant, forget them and go on working with the new disc.

However if the lost files were important, or worse you couldn't even get the PCW to do a directory of the disc, then you need a Disc Sector Editor. The simple utility programs mentioned before can't do anything for corrupted discs.

Do try everything possible before deciding to go on with a sector editor. Try typing [ALT]+C a few times in CP/M ([f1] for 'Disc Change' in LocoScript). Try turning the PCW off and back on again. Try leaving things overnight, shaking the disc, and finally prayer. Using a disc editor is not simple and is definitely a last resort - you could do more damage than good, so only attempt it if you have nothing to lose.

The first thing to do is to make sure the first ten bytes of track 0 sector 1 are correct. If these are wrong, the PCW will not be able to read the disc. For an A disc, the ten bytes should be

```
00 00 28 09 02 01 03 02 2A 52
```

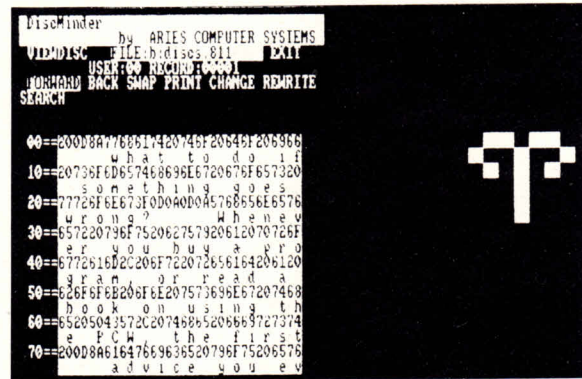
and for a B disc

```
03 81 50 09 02 01 04 04 2A 52
```

use the disc editor to correct these, and try DIR and PIP again on the disc. If there is still no joy, go back to the disc editor. Go to track 1 sector 1 and display it on the screen. This is the

## The full extent

The 13th byte in the directory listing isn't always zero. Since each directory entry lists at most 16 blocks, files longer than 16k need more than one directory entry. This byte in the directory is the extent number - 00 means the blocks listed are the first 16 of the file, 01 for the second 16, 02 for the third etc. For short files, you shouldn't need to worry about this.



The menu-driven version of The Knife looking at a file. See how the literal text appears below the lines of hex codes

directory area so you should recognise the list of filenames that you have. The Knife only shows half a sector on the screen at once, and you need to press [EXTRA]+A to switch between halves.

Here comes the hard work. What you need to do is find the directory entry for each file you want to resurrect. You can now see the list of blocks that the file uses. The Knife has a command to automatically find the first block of a file for you, and then skip through the subsequent blocks in the correct order. You must go to each block that the file uses and try to display it. Note down the numbers of the blocks you can and can't read.

Now go back to the directory and use the change command to alter the list of blocks the file uses. You must remove from the list all the bad blocks, and close up the gaps. So, supposing you were working on a file called WARPEACE.TXT whose directory entry was:

```
00 57 41 52 50 45 41 43 45 54 58 54 00 00 00 30 .WARPEACETXT...
90 91 92 93 A1 A2 00 00 00 00 00 00 00 00 00 00 .....
```

and you discovered that block 93 was unreadable. Then you would remove 93 from the block list, close up the gap and put zeros in at the end to make it like this:

## Hex numbering

If you get to grips with a disc editor, you will see all the bytes of a file listed out. Bytes can have any value between 0 and 255, but this is always expressed in hexadecimal since it is more compact.

Decimal has ten digits, 0 to 9, but hexadecimal uses sixteen, 0 to 9 and A to F, corresponding to 10 to 15 respectively. So to count in 'hex' you go 1,2,3...7,8,9,A,B,C,D,E,F,10,11,12...18,19,1A,1B....1E,1F,20,21 and so on. From 9F you go to A0, and finally you end up at FF.

The first digit of a hex number is the number of 16s in it, and the second the number of units. So 20 in hex is (2x16)+0=32. FF is (15\*16)+15=255. This means that all numbers in a byte can be written down using two hex digits rather than 3 decimal ones.



00 57 41 52 50 45 41 4345 54 58 54 00 00 00 30 .WARPEACETXT...  
90 91 92 A1 A2 00 00 00 00 00 00 00 00 00 00 00 00 00 00.....

This means that PIP won't try to look at the bad block, and so won't give an error when it copies it. You should leave the disc editor and copy the file to a fresh disc. Admittedly you will lose 1k of typing or around 150 words per block removed (twice that if the file is on a B-disc), but at least the rest will be safe and your retyping is minimised.

If the directory itself is corrupted, you are in trouble. You will have to scavenge the disc looking for familiar parts and piece together a new directory. To recover a text file, think of a unique word that you know is near the start of the file. There is a 'find text' command in sector editors that will scan the whole disc looking for the particular word, and you can now use this to find the first block in the file.

Once there, you hope the rest of the file follows in consecutive blocks. If not, re-use the 'find' command to get to each block. What you do now depends on which program you are using. With The Knife, all you can do is rebuild the directory by hand so that the name, length and block list is correct. Then copy the file to a new disc. DU is better at this. It allows you to read the sectors into memory as you come across them, and then writes them out in order to a fresh disc as a new file for you.

Either way, you repeat this process for each file to be recovered, writing the repaired version out to a new and 'safe' disc. If all this seems rather hard work - it is. You may recover most of your text files, but it's unlikely you will be able to do anything with .COM files. At least you'll know to keep backups in future!

If, after reading this article, you still don't understand what's happening - leave well alone! Persuade a more experienced user to give you a hand. Alternatively, experiment first with a disc you don't mind corrupting.

## LocoScript users

LocoScript is surprisingly sophisticated in many respects, one of which is how it handles erased files. If you accidentally erase a file, you can recover it by using [f8] and 'Show Limbo' files, then [f5] and 'Recover from Limbo' to unerase it.

If you edit a document and save it, only to realise that you want to get the old version back, you will find that version stored in Limbo under the same name - again, show the Limbo files and recover it. Don't erase the unwanted new file first of all, or that will become the Limbo file instead. Limbo files aren't really erased until all the space on the disc is used up and the Limbo space needs to be used.

If your LocoScript disc goes wrong and you lose a valuable document, you will need to use a disc sector editor to have any hope of recovering it. LocoScript stores its files in a strange way, so although you will see all the words in the document on the disc, there may be long gaps between them filled with weird characters.

## CP/M UTILITIES from The Amstrad User

### ① THE KNIFE - Aries/HiSoft

A full-feature disc sector editor and file patcher allowing you to alter individual bytes anywhere on a disc. The package contains two programs - one to patch an individual file and to learn how files are stored, the other for those who want to perform more radical alterations or do something quickly. Both programs perform the same function but the documentation provided approaches each one differently to cater for the beginner or the more experienced user.

Because CP/M Plus and CP/M 2.2 operating systems handle discs in slightly different ways and Amstrad firmware calls may not be made from CP/M Plus it is necessary to boot up CP/M 2.2 before using either program.

### ② THE TORCH - Aries/HiSoft

Designed to run under either CP/M 2.2 or CP/M Plus, The Torch is a tutorial program for disc based 464, 664, 6128 or PCWs which teaches the user how to handle CP/M. The package also includes 'The Wand Disc Menu System' which provides a comprehensive menu-driven disc management utility.

### ③ CATALOGUE - HiSoft

Catalogue brings file organisation to your discs, and allows you to locate files rapidly by maintaining an index to your disc library. It's useful when you know the file is there somewhere on your disc - but which? It also has the facility to tidy up your discs as you are adding them to the catalogue. Suitable for all disc based Amstrads including the PCWs.

The normal price for any one of the above is \$50.50 but to readers of The Amstrad User this has been cut to just \$39.95 each. Alternatively, you can save even more by purchasing all three for just \$99.99. All these prices include postage. Send your order without delay to:

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# TIP-OFFS

More tips than a packet of Gauloises..and much better for you Specialists now agree that a well-balanced diet should include at least three tip-offs a week. Send your juicy morsels and tasty tidbits to the Editor, The Amstrad User, 1/245 Springvale Road, Glen Waverley, Victoria 3150.

## Join the elite

One of the few quibbles with Protex is that the default size of text is pica (10 pt) rather than elite (12 pt) as in LocoScript.

Changing the program to use elite as the standard font is, however, quite straightforward.

First make sure you have the files CONFIG.COM, SETPRINT.COM and PCW.PTR. In Protex's command mode type SETPRINT after the a> prompt and select option 6 'Load Printer Driver'. You should see the filename PCW.PTR appear on the screen. Press [RETURN] to load this and return to the Setprint menu. Choose option 3 'Set Printer Control Codes'.

To get condensed, bold etc in a Protex file, you use embedded commands

consisting of [ALT]X and a letter - [ALT]XB sets bold, [ALT]XC condensed print, and so on. You use the same code to switch the effect off again. These codes give the printer a certain sequence of characters, listed on pages 130-5 of the CP/M manual. However in SETPRINT you can change the sequences that these letters return. You'll see the sign @ and letters a to z listed together with the codes they return. You can move vertically or horizontally to different letters with the cursor keys, and when on the required key pressing [RETURN] will allow you to edit the code for that letter. Press [STOP] when you are finished with that letter. The current codes for the letter you're on are shown on two lines at the bottom, for example if you

move the cursor on to 'i', the two lines read 'i on 27 4' and 'i off 27 5'. In other words [ALT]XI will send the message 27 4 to the printer, which makes it print italics, and 27 5, will make it return to normal.

The letters you want to edit are @,c and p. Change '@ on' from 27 64 to 27 64 27 77. 'c off' to 27 77; and then 'p off' to 27 112 0 27 77.

Press [STOP] to get back to the main menu and save the printer driver (option 7). When you get back to Protex (option 0) you will find your documents print out in elite text.

If you don't want to tamper with the PCW.PTR why not save this file as ELITE.PTR and have that loaded as default using CONFIG.COM and option 7 - Set Printer Driver Options.

## Fleeting glimpses

Fleet Street Editor has it's faults (what program hasn't?) but there are ways to get around some of the problems which may occur.

1. When printing on single A4 sheets the last lines of the page are consistently missed out. There are three ways round this. You can either select 'other' when the program asks you if you're using 'PCW or other printer' and then select number of lines (per inch) as somewhere between 20 and 23 - the result will fit on the page but may be a bit squashed.

Or you can prepare a page with a blank bottom inch or so - it'll still be necessary to feed in a second sheet to reset the printer, and don't use 'reset' on the printer controls or else you will crash with an 'LST off line' error message. The best solution is to get true A4 continuous stationery.

2. If you wish to box a graphic and a caption, you'll find that the box will go round the graphic or the caption, but not both. To overcome this, put the box in before the graphic and the caption are inserted.

3. When scaling a graphic it is difficult to keep the original aspect ratio. However, when the box is drawn round the graphic, if you hold a plastic ruler against the screen diagonally from corner to corner, and keep the corners on the ruler edge as the box is enlarged or reduced, the graphic comes out perfectly.

4. Because FSE files take up so much space in the M-drive, you have to erase all files there with era m:.\* before running or it'll crash.

5. When changing fonts or type sizes make sure the cursor is not above the text already on the page, or it will be affected by the change. If

```

Numeric Decimal
Set printer control codes

Reset printer @ on
Bold a on off
Condensed b on off
Double-strike c on off
Elite d on off
Font change 1 e on
Font change 2 f on
Italics i on off
Enlarged j on off
Normal (Pica) k on off
Proportional l on off
MLQ m on off
Subscript n on off
Superscript o on off
Underline p on off
q on off
r s on off
t u on off
v w x y z

on : 27 112 1
off : 27 112 0 27 77

```



you have tight limits around the original text and the type size increases, a lot of the text will disappear. The problem is that if you change back the text may still not fit in.

David Solomon.

### Forms of address

If you use some LocoScript 2 documents purely for reference, a name and address list for instance, you can put the 'Find Page' facility to very good use. Make page one of your list index, aligned to the left of the page so it won't be obscured by the drop down menu. You can then go direct to the page containing the required entry, which can be easily copied and pasted into your working document. It is convenient to have only one entry to a page.

If there are more than 99 entries on your index page (the maximum number of lines allowed in LocoScript) you can set line spacing to 0 by entering [+]*LSO*. This has no effect on the screen but if you tried to print out the index page it would print all the lines on top of each other

- so don't try. You can now cram on as many lines as you like, though you also need to put an end of page marker at the bottom as well.

N. Headley

### If boots not

Making an autostarting disc using PROFILE.SUB is a well-established technique, but some programs are so large (for example Cracker 2) that there isn't enough room on the disc for them and J14CPM3.EMS which starts up the machine.

However B-drive model owners can achieve autostart by utilising both drives. On the A drive disc, there should be J14CPM3.EMS, SUBMIT.COM, PROFILE.SUB, and CRACKER.OVR and CRACKER.HLP. Your PROFILE.SUB file should read:

```
PIP
<M:=A:cracker.ovr
<M:=A:cracker.hlp
<
B:
install
cracker
On the B disc there should be
```

INSTALL.COM and CRACKER.COM. Just make sure both discs are in place when starting up.

This has the additional advantage that since the main program is loaded from the B drive Cracker treats this as the default drive. So when it writes temporary files on to the default drive while plotting graphs it finds plenty of space available.

C.F. Coleman.

### Store it up

Protex's stored commands can be used to great effect, for example to write 'programs' which will carry out statistical analysis of data from a database. Invoicing programs can be written which automatically look up cost prices, calculate all figures and send the results of each invoice to a disc file while printing the invoice.

A stored command 'program' is created as a normal file. Start a file called given.adr, which will select a specified name and address from a data file (called addr) and prints it out.

>zm (zero all margins)

```
>sm (reset side margin to 20)
>pl (set page length to 15)
>iu (if 'find' not yet used)
>av "Enter name to find:"
find (ask for name to find)
>ei (end conditional if 'iu')
>df addr (data file to open and search)
>rv name
ad1,ad2,ad3,ad4,ad5,dummy (read variables)
>sk find notin name (find name not in dataname,next)
>av "Print for &name&?" yn (if found ask whether to print)
>sk "Y" notin yn (unless 'Y' is chosen go to next)
&name&
&ad1&
&ad2&
&ad3&
&ad4&
&ad5&
>if "Y" in yn (if printed, then)*
>cf (close file) *
>ei (end of 'if') *
>pa (force new page) *
If all occurrences are to be printed, remove the lines marked with an asterisk. Insert 'CP OFF' (continuous paper off) at start if you want to use single sheet paper. To use merely enter print given.adr, you'll be asked for
```

### Para shooting

As the practice of most writers of articles and stories is to indicate paragraphs by indenting the first line rather than by leaving an extra line space, users of LocoScript 2 might be perplexed to find that the [PARA] key swoops to the end of the document and that 'Widows' and 'Orphans' are not prevented if this setup is used.

It does this because LocoScript 2 only recognises a new paragraph if there is a line consisting only of a hard return or

an extra line spacing above it. So, to convince it that your new paragraph is a paragraph, store as a phrase [+]*LS* [RETURN] [RETURN] [+]*LS* 1[TAB] under a suitable letter (perhaps R) using the [COPY] facility.

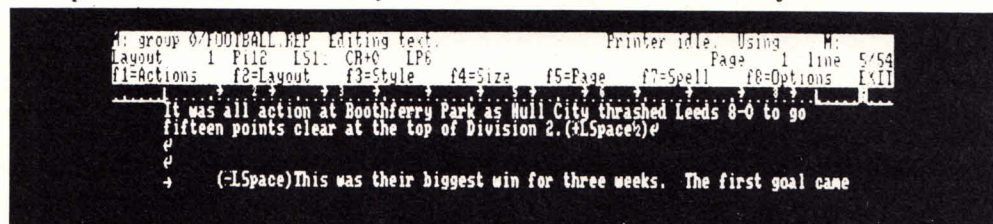
Then press [PASTE]R instead

of pressing [RETURN] when you start a new paragraph. This puts two returns on screen but prints out as just one. [PARA] will now work as expected, and Widows and Orphans will be prevented if required.

If you work in one-and-a-

half line spacing the above would have three returns and end with [+]*LS*1 [TAB]. In double spacing, the phrase would be *LS*1 [RETURN] [RETURN] [+]*LS*2 [TAB]

R. S. Taylor



It was all action at Boothferry Park as Hull City thrashed Leeds 8-0 to go fifteen points clear at the top of Division 2.

This was their biggest win for three weeks. The first goal came



References required

LOCOSCRIPT 2 CHARACTERS		[SHIFT]
[EXTRA]	1 2 3 4 5 6 7 8 9 0 - =	! " £ \$ % ' & * ( ) _ +
[ALT]	0 0 0 0 0 0 0 0 0 0 < >	0 0 0 0 0 0 0 0 0 0 < >
[ALT + f3]	f " „ F R ' № 0 - +	! " £ \$ % ' & * ( ) _ +
[ALT + f5]	1 2 3 4 5 6 7 8 9 0 г ь	! " № ? % ' « » ( ) Г ь
[ALT + f7]	1 2 3 4 5 6 7 8 9 0 н ъ	1 α ∇ ∂ ⊗ ⊙ * ∞ ~ %
[EXTRA]	q w e r t y u i o p [ ]	Q W E R T Y U I O P ( )
[ALT]	• " ' „ \ " ^ - ~ № №	• " ' „ \ " ^ - ~ № №
[ALT + f3]	• t i o p [ ]	• t i o p { }
[ALT + f5]	θ ω ε ρ τ ψ υ ι ο π [ ]	θ ω ε ρ τ ψ υ ι ο π ( )
[ALT + f7]	я ш е р т м у н о п ю щ	Я Ш Е Р Т Ы У Н О П Ю Щ
[EXTRA]	↑ ↓ ← → ∫ ∑ ∏ ∞ № №	↑ ↓ ← → ∫ ∑ ∏ ∞ № №
[EXTRA]	a s d f g h j k l ; #	A S D F G H J K L : < >
[ALT]	• v „ ' „ \ " ^ - ~ № №	• v „ ' „ \ " ^ - ~ № №
[ALT + f3]	æ β δ φ γ η φ x λ ; #	Æ Β Δ Φ Γ Η Φ Κ Λ : < >
[ALT + f5]	α σ δ φ γ η φ x λ ; #	Α Σ Δ Φ Γ Η Φ Κ Λ : < >
[ALT + f7]	а с д ф г ч й к л ь ж э	А С Д Ф Г Ч Й К Л Ь Ж Э
[EXTRA]	v ε с ε ο ^ λ   j	Э Э С Э У В Δ Γ   √ <>
[EXTRA]	z x c v b n m , . / №	Z X C V B N M , . ? @
[ALT]	+ x ... ∆ ∇ ∘ ∙ ∕ 1/	+ x ... ∆ ∇ ∘ ∙ ∕ 1/
[ALT + f3]	α β γ δ ε ζ η θ ι ∕ №	Α Β Γ Δ Ε Ζ Η Θ Ι ∕ №
[ALT + f5]	ζ ε χ ς β ν μ , . / №	Ζ Ξ Χ Ψ Β Ν Μ ; : I €
[ALT + f7]	э х ц в б н м , . i e	Э Х Ц В Б Н М ; : I €
[EXTRA]	o □ ▲ ◀ ◻ √ ∑ ∙ ∕ №	● ■ ▼ ▶ ♂ × ∏ ∙ ∕ №

Readers using LocoScript 2's awesome line-up of foreign characters and symbols may find this reference handy.  
Bertrand Whitehead

the name to find, and when found it will print the address out if required.  
David Foster  
(Author of Protex manual)

**Supersub**  
Those who often use footnote numbers or who work on scientific papers which involve chemical formulae may be disappointed to find that superscripts and subscripts cannot print out in high quality. However if they are printed in bold instead the result is virtually indistinguishable from NLQ.  
Helen Appleton.

**A load of Ψωλλπ.**  
One constant fixation with some readers is how to make their files totally incomprehensible. One idea is to Find/Exchange to swap all the letters in your file for one of the vague characters that you usually get by accident by pressing [EXTRA] instead of [SHIFT]. Protex users can do this through EXEC files. Create a file called, say, code, consisting of  
replace a +agc  
replace b a agc  
replace c 1/2 agc

and so on. Exotic symbols can be got by pressing [EXTRA] and various letters, though you can choose any symbol or letter to replace a letter so long as it isn't one which will be replaced further down the list. Now, with your top secret skuldgry.doc loaded, merely type exec and on the prompt enter code as the exec file to perform. You'll see Protex obligingly replace each letter, symbol or space you defined through the document, which will now be encoded. Save skuldgry.doc but before you do it's probably a good idea to have a decoding file

replace + a agc  
replace b a agc  
and so on, called decode, so you can translate them later.  
John Rowley

**Calling ALL PCW owners.**  
There has been a disappointing shortage of Tip-Offs over the last couple of months. To ensure the continuation of this popular column and to give the Editor a Happy Christmas please send your tips etc. to:  
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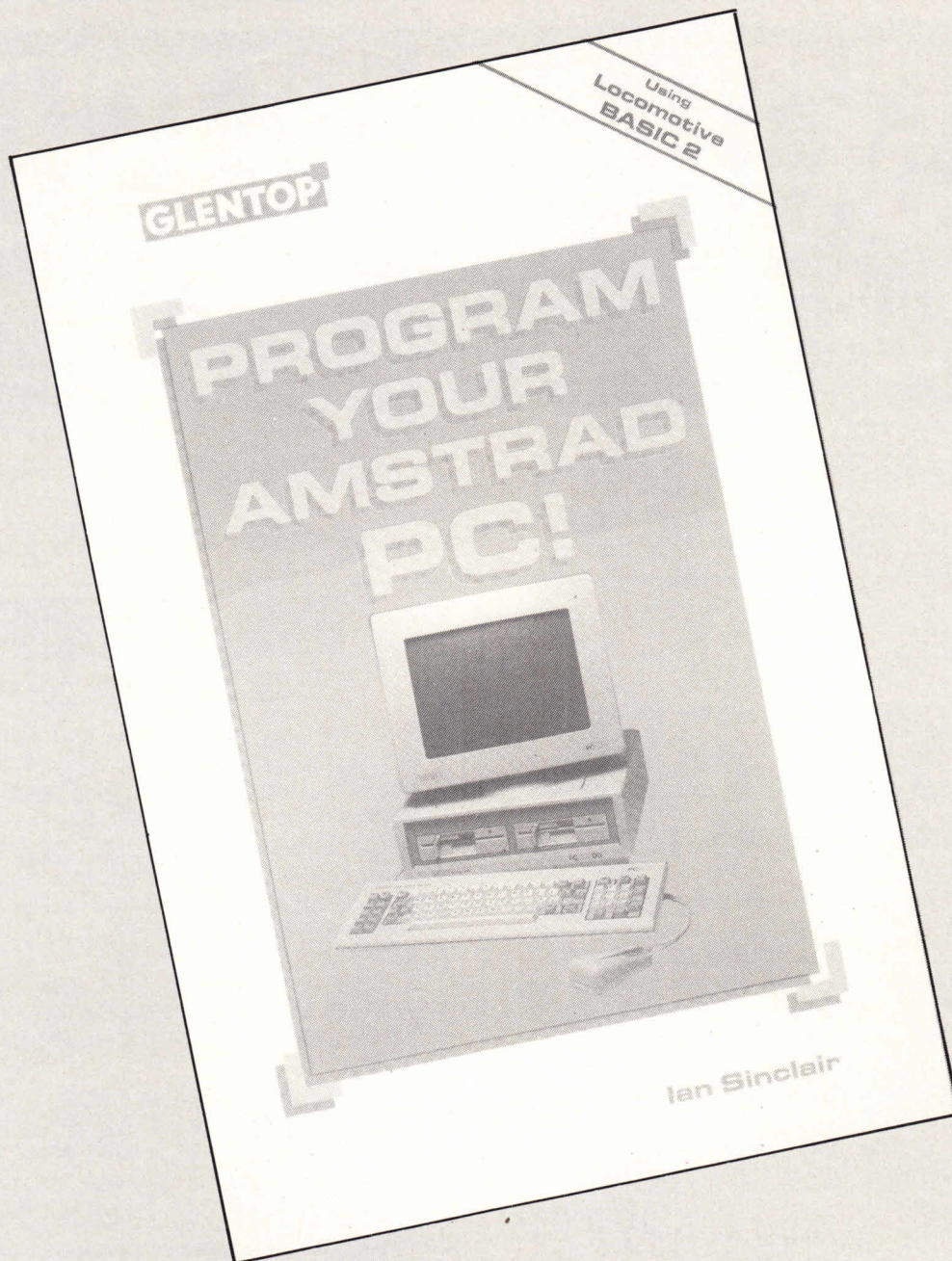
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# DOS Format, upgrades and a tutorial PD disc

from Chris Collins

Well, the time has come around once again to provide you with a column about your PC1512. This month we will be looking at the DOS FORMAT command and it's many nuances. We will also be looking at a program to help you learn how to use your PC1512.

The diskettes that are used with your PC1512 can be formatted in one of two basic ways. One is the DATA format diskette, and the second is the SYSTEM format diskette. The only difference between the two is that the second diskette is bootable on your computer, whereas with the data format diskette you must first boot DOS on your machine before using those diskettes. System diskettes are used for software distribution and storage of data files for programs.

The full command format for this command is as follows:

```
FORMAT (d:)(/s)(/v)(/1)(/8)(/b)
```

As with all DOS commands, the command line looks very confusing. However, broken down into it's component parts, the resulting command is very easy to understand. What you must remember is that all switches in the square brackets are only optional. Also not all of these options are available at the same time. Starting at the beginning of the command, the first switch [d:] is the drive specification. If no drive is specified, the default or current drive is assumed to be the drive to be formatted.

The next switch [/s] is to tell DOS to put the three DOS system files on the diskette. This will allow you to boot from the diskette. The three files that are copied to the new diskette are MSDOS.SYS, 10.SYS and COMMAND.COM. The first two are hidden files, and must occupy the

diskette as the first two physical files, otherwise DOS will not recognise them. Also, because these files are hidden, they do not show up in the directory.

The next switch [/v] is probably the only other switch that you will need to know about. This switch allows you to place a volume name on the diskette. When you give DOS a DIR command, you will notice that DOS will sometimes tell you the following:

```
Diskette in drive d: has no label.
```

The above switch is the one that lets you supply these labels. The only limit on these volume names is that they cannot be longer than 11 characters and must contain none of the illegal characters that also apply to filenames. If you wish to change the volume name at a later date, the DOS command LABEL will enable you to achieve the same effect.

The other three switches allow you to format single sided, 8 tracks per sector and 320k diskettes. You should not really have a need to use these. The DOSPLUS command DISK allows you to access to all of these options from the main menu if you feel that would be easier.

After formatting your diskettes, DOS will give you a summary of the condition of your diskette. The first line will tell you the maximum amount of space that is available on the diskette. Then DOS will also let you know how much space you will lose. This can be due to two basic reasons, DOS system files and bad sectors. If DOS senses any bad sectors as it is formatting, it will mark these as reserved, and will not use these for data. The remaining line will tell you how much space you actually have to use for your files and data.

When you are formatting diskettes, please remember that any data on the diskette will be erased by the formatting

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procedure, so be careful.

The program that we will look at this month is called TUTOR.COM. This is a tutorial program on the PC, and takes you from the absolute beginning to, I don't know where. At the start of TUTOR, you are asked whether you wish to operate in colour or monochrome. If you choose monochrome, you will then be asked to choose a single colour in which to run the tutorial. The only other colour used in monochrome is the highlighted first colour. After choosing colours, you are then asked if you want sound. Say yes if possible, the program gets monotonous without all the bells and whistles.

You will then be presented with the title page which will disappear after a few seconds and show you the main menu. From this menu every part of the program operates. You will also be returned here after finishing a tutorial. At this point, you will be asked to choose a topic on which you wish to be tutored. These include the history of computers, a rundown on computer hardware and software and some specific tutorials on the various parts of PC and MS-DOS.

The first tutorial talks about TUTOR.COM itself and basically explains the way the program works. At times, the program does ask that you type in responses to questions. Don't worry about this affecting your computer as the tutor is in complete control, and won't allow anything to go wrong. This first section does not need to be read, but it will give you an idea what you are in for later on. Have a look to be on the safe side.

The next tutorial explains the keyboard and the special options that are available. This part of the tutor program is based on the original IBM PC keyboard, and I have yet to meet any clone or compatible that still uses this keyboard. However, the Amstrad keyboard does come close. Tutor does very well here to explain the function keys as available to DOS. Even I learnt something reading this one.

Tutorial three is a short history on computers, and goes back to the virtual beginning of computing. Very good as a history lesson. Tutorials four and five deal with the computer system, and explain what all the terms mean and

how all the various parts go together. They explain what a BIOS is and what it does. It also mentions all the other parts of the computer as well. And it even manages to do this in a language a beginner can understand. Very good and very comprehensive.

The sixth part of Tutor deals with basic DOS commands. Although it mentions PC-DOS, the differences between the two (MS vs PC) are negligible. It explains how MS-DOS loads, which program is loaded and in what sequence. This tutorial explains the necessary commands format, erase, rename, diskcopy and three or four others that are basic to the use of your PC1512.

Section seven of the tutorial deals with subdirectories and the like. This is for the more advanced of you, and as you progress through Tutor, you will all eventually appear here. This is the section where I found the only major error in the program. When talking about making and changing directories, Tutor forces you to put a space after the commands CD, RD and MD. In the real world this is not necessary, as the commands will work without the space as well as with it.

Part eight of the Tutor leads you through all the idiosyncrasies of batch files. Tutor starts off by teaching you how to use the simple batch commands, and then progressively gets into the more difficult commands. If you can understand all of these commands, you are well on your way to becoming a computer power user.

That about covers all of the Tutor program. It is very useful for beginners to computing, but at the same time it even has some information in there that will interest those that have been using their computers for a while. Overall, I'd have to rate it a very good program. Tutor occupies one diskette and documentation is on the diskette should you need any. It is available from myself for \$10 including postage and handling. Please send any orders for this diskette, or any of the others that I've mentioned to the following address:

C.J. Collins  
c/o The Amstrad User  
1/245 Springvale Road  
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The other thing that I have to tell you about this month is two upgrades that are available for programs that I have already reviewed. The first is PC File+, this is an upgrade to PC File III and is much better. The biggest change is that PC File+ is now in only two files. PC File+ is now written in the C language, instead of compiled basic and this has the effect of speeding up the operation of the program to an amazing extent. Sorting of a database is now 2 to 5 times faster, searching is typically 10 times faster and printing to disc is approximately 2 times faster.

Not a lot of documentation was supplied with the copy of the program that I received, but this is not required now because all the help screens are on line at all times. If you still have your original diskette, and you wish to upgrade to the PC File+ please send the original diskette in an Australia Post disc mailer, and a cheque or money order for \$10 and I will forward the two program diskettes to you as soon as possible.

The program is now much easier to use, and also allows much more control over the layout of the database reports than PC File III ever allowed. This is one upgrade that is definitely well worthwhile.

The other upgrade that I wish to let you know about is the upgrading of PC Deskmates. The latest version that I have received is now called PC Deskteam and is listed as Version 1.03.

The biggest change to this program is a bonus for hard disc users. The program and data files can now be in their own directory, and they will be found at any time. Much neater and tidier.

If you still have your original diskette and you wish to upgrade to PC Deskteam, please send the original diskette in an Australia Post disc mailer, and a cheque or money order for \$5 and I will forward the new program diskette to you as soon as I can.

Lastly, by the time that you are reading this it will be the silly season of the year. Please be careful over the holiday season, enjoy yourselves and may I wish one and all a Merry Christmas and a Happy New Year. See you in the new year.

Happy Computing.



# PC HELP

*This month's column has been given over to Kevin Mclean of North Queensland. He has done the decent thing by writing to us to share his experiences for others to learn. Good onya Kevin!*

*The only excuse for others not writing is that you can't find our address. So here it is again, and while you've got a pen in your hand, jot down your discoveries and send them to:*

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

## Tips and Traps on the PC1512

The following experiences might save some readers some heartache when dealing with the PC1512. Most are my own but other users have let me know of similar problems. Before the PC1512 I had an Amstrad 6128 and before that a Dick Smith VZ200 and some problems are common to these, and in fact, any computer.

### Before you leave the shop

Depending on where you bought your machine it pays to make sure you have the Guarantee details in writing, perhaps on the sales docket. It is the salesmen's duty to show you the machine up and running if requested and believe me it pays to see your particular setup working before you leave the shop. If you have extra peripherals, printer, modem, etc. why not take them in and see if they work. I

have seen and heard many salesmen telling innocent purchasers absolute rubbish about their intended computer.

It's the old story.. let the buyer beware, but in the case of computers and peripherals the buyer often has little or no experience in computers at all, and a little honesty from dealers would go a long way.

### Setting up

When you get your new beaut computer home it might be a good idea to leave it in the box for a while unless you are familiar with MSDOS. The manual is reasonable without being too in depth. I was disappointed Amstrad UK did not have more detail on MSDOS and their own Locomotive Basic2. It appears they expect you to buy another manual for serious basic programming.

The PC1512 comes with 3 operating systems...DOSPLUS, MSDOS and GEM. My tip to any user who intends to run popular software eg. Lotus, Wordstar, Dbase etc. is to sidestep learning the



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intricacies of GEM. It may be handy for beginners to grasp the idea of directories and files but it is far too cumbersome for serious use.

Amstrad's implementation of the Gem operating system leaves a lot to be desired in my opinion. Gem was invented by Digital Research to make operating system's easy to use, and I think this has only partly been achieved on the PC1512. With Gem comes Gem Paint the only free commercial program with the machine.

Whether you have 1, 2 or 3 drives the manual is not that helpful in how to set these up. Probably because of the variety of different users I imagine, but a few lines in the manual about drives, hard discs, printers and modems would not have hurt. If you want to set up the drives to start efficiently it would pay to spend a little time getting acquainted with the following MSDOS features:

```
COMMAND.COM
CONFIG.SYS
AUTOEXEC.BAT
```

A quick explanation may be of help. As soon as the computer is switched on, instructions contained in ROM (chip inside processor box) tell the computer to check the drives for inserted discs. If you have a hard disc it will find it eventually. Having done that it now looks for a file called COMMAND.COM which is the heart of MSDOS and contains all the internal commands.

When COMMAND.COM is executed it tells the computer to load a list of setup lines. These concern the configuration of the computer to be used and as they get a little detailed, suffice to say, they reside in a file called CONFIG.SYS. After this, COMMAND.COM then looks for a file called AUTOEXEC.BAT file, which is a batch file that the computer now executes. (The nickname can be seen for this file as it (auto)matically (exec)utes upon start up).

The Amstrad has a very handy feature in the battery backed RAM, or to put it another way "continuous memory". All RAM bar this battery backed RAM is lost when the computer is switched off. A good tip is to keep two files handy. One is the NVR.EXE file and the other is a small file which I think most users will find invaluable called Roland Perry's Editor RPED.EXE. The NVR file will set up your battery backed ram

permanently and these can be loaded in your CONFIG.SYS file at start up by the string DEVICE=RAMDRIVE.SYS NVR.

Hard Disc Users might like to tell the computer to start up in a particular directory. E.g. a start or batch directory which might contain appropriate batch files to set paths and start up of a particular application. This directory of batch files becomes very handy when a 10 or 20 megabyte hard disc starts getting near full. Another method is to tell your AUTOEXEC.BAT file to start the computer in QDOS, XTREE, or some other hard disc organizer program.

Either way RPED can be used to edit the batch files concerned. CP/M users might remember setting up a profile.sub at start up or boot and batch files are MSDOS'S equivalent.

If a 1 drive system is to be used then all the setup files for automating your computer could be contained either on your application disc or on a separate "boot" disc. Directories are almost compulsory on a hard disc but for 1 or 2 drive systems I cannot see the point of creating a long list of directories and sub-directories. However each user will no doubt have their own preferences.

#### Running Applications

Most wordprocessors operate on the premise of a programmed disc in drive a: and data disc in drive b: for safety. For single drive machines a work disc is setup containing the bare bones of the program and the rest of the disc is used for storage.

Hard disc users should be able to run the application from the hard disc and use a floppy drive as their data drive. Hard disc crashes appear to be an event that most users will experience at some stage so, a data disc or daily backup is essential, I think. It is very tempting to store data files on the hard disc because of the rapid loading times but a slow disc is better than NO disc.

Speaking of applications I have been lucky enough to try out several different programs and have only found 2 out of 50 that won't run on the Amstrad. Compatibility was a problem that worried me at first but it seems the Amstrad is more than adequate for the job. The extra speed of the PC1512 is because of the 8086 chip and allows the PC1512 to run almost twice as fast as the IBM XT, depending on the application.

Speaking of wordprocessors having a standard printer or EPSON compatible

has paid dividends for me. I am still using the same printer I had for the 6128.

Spreadsheets on the PC1512 are very fast and the 512k RAM seems plenty, although some business users would probably upgrade to 640k anyway. The graphics of the Amstrad is comparable to most other units I have seen and also the colour is good barring the sickly yellow.

I have limited experience with Databases but the big IBM favourites appear to run ok. When setting up or installing programs I noticed something funny. The Amstrad manual says to consult the software manual and the software manual says to consult the computer manual....???? When installing the monitor it pays to remember the PC1512 comes with graphics in ROM for both colour and black and white monitors. The computer uses standard ports for incoming and outgoing data i.e. com1 for serial communications and parallel for printers.

Because the serial port is built in no interface is needed, as with the 6128.

#### Peripherals

Printers would be the main add-on and the Amstrad has standard parallel connection so there should be no problem with printers. The only problem may be the cable configuration. I found it easier to take the manual down to the local electronics shop and get them to make the adjustments in the cabling, rather than buy a new cable at an exorbitant price ..... \$80 from local dealer (for a cable worth \$25 at ROD IRVINGS ELECTRONICS Victoria).

It is possible to transfer ASCII files from the 8 bit 6128 to the 16 bit 1512 using a null modem cable. The 8 bit can send a file to the RS232 and the 1512 can receive a file from the RS232 using PIP in CP/M and PIP in DSOPLUS. The only snag is the Control Z's at the end of some files. Each file may have to be transmitted separately. Having a Communications program at either end of the transfer is a more preferable method. . . KERMIT or any XMODEM protocol program should do the trick. (I did mine with PIP as I had no comms program for the PC1512).

Getting a modem to run on the Amstrad may seem difficult at first but compared to other brands of computer it seems we are lucky. The problem lies not with the modem but the software. It



seems Amstrad in retaining compatibility with IBM also inherited some of their faults. In order to connect to Viatel the split baud rate of 1200/75 must be achieved. With the 6128 the interface and software handled that problem. There are two solutions with the PC1512. Either a modem with a bit rate converter or software that caters for the 1200/75 baud rate.

With the 6128 I had the Honeysoft communications program and found it very good compared to other programs. The only trouble was it was written in Locomotive Basic (I contacted the dealer in England and they did not have a PC1512 version at the time; May 1987) I have since found most popular comms programs will run including PRO-COMM, TELIX, XTALK and a separate XTALK to run VIATEL. There are several programs that run both VIATEL and ASCII such as SUPERCOM, MULTICOM, SOFTERM etc.

**Hard Discs**

Using a hard disc provided some unforeseen problems and these few ideas may help someone save several

wasted hours.

When you set up a hard disc don't partition it unless you have a special purpose. Just make it all MSDOS. The NEC drive appears very noisy compared to the Tandon but this is standard apparently and doesn't seem as loud as the fans on other IBM compatibles. The hard disc needs COMMAND.COM and the CONFIG.SYS (with associated .sys files) and the AUTOEXEC.BAT in the ROOT DIRECTORY in order to boot correctly.

If your clock has stopped working and the batteries are ok you probably pulled out the clock connection when fitting the hard disc.

Try to keep the root directory uncluttered with only the necessary boot files and <DIR> files. It will also pay to increase the buffer and file sizes in the CONFIG.SYS file. Default is 5, so 15 or 20 would be average for most applications.

Some programs may require some of their files to be stored in the root directory as well.... the videotext program GATEWAY is one.

**Conclusion**

Although the manual was wide ranging I believe MSDOS was not covered in enough detail. If anyone has stuck it out with GEM I wish them the best. They might write in and let us all know how to set up the correct directories and paths to run GEM effectively from a hard disc. DOSPLUS was meant to be an alternative to MSDOS and although most applications will run from DOSPLUS it seems to me the wise thing to do would be stick with the strength. There is also a wealth of perfectly good Public Domain MSDOS programs that will run on the PC1512. PCFILE is one some people swear by, and PCWRITE is another, as well as the very high standard communication programs.

Locomotive Basic2 is reported to be faster, easier and better than most basics available today but I cannot see why Amstrad had to run it exclusively from GEM. Hope this has been an answer to some of the questions about the PC1512.

*Kevin Mclean.*

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# Tasman Trio

## Three utilities from the Tasword stable checked through by Simon Anthony

### TAS-SPELL PC PC1512 - \$115.00

The first question confronting me when handed a copy of Tas-Spell was how on earth can I review a spell checker! After all, the important part, namely the dictionary itself, one must assume to be correct so there is no point in looking at that. Perhaps I should say though that it has been compiled from one supplied by Longmans which is a good enough pedigree for me.

As Tas-Spell PC goes hand in hand (or drive in drive) with Tasword PC, the obvious way to check the spell checker was to produce the copy for this review with Tasword and then run Tas-Spell.

#### Installation

This is pretty simple. The Tas-Spell disc has three files on it - two dictionary files and TASSPELL.EXE. The aim is to get TASSPELL.EXE onto your working Tasword disc and set-up a new disc to accommodate the other two files. Hard disc users should copy Tas-Spell and the dictionary files to the same directory as Tasword. Once installed, the master disc should be tucked away safely.

#### Loading

As Tas-Spell is now, to all intents and purposes, part of Tasword, it is the latter program which is loaded. The dictionary files are automatically loaded into memory. In the event of there being only 256k of RAM available a warning message is displayed and the dictionary disc has to be left in the drive. There is a facility, discussed later, to make the program always look for the files on disc.

#### Menus

My working version of Tasword is auto-booting. This means that when Tasword is first loaded it goes straight into a blank page. This is where I

started to put this review together. Pressing F10 takes the program back to the main menu where "O" is selected to move to the second menu. Now, for the first time, it is possible to select option "K" 0 check spelling. Another menu pops up giving yet more options.

F1 - check spelling and send output to printer. This checks the text file currently held in memory. Any "unrecognised" words are reported on the printer with line and column numbers as a positional reference. The check can be abandoned at any time by hitting the ESC key.

F2 - check spelling and send output to disc file. Similar to F1, except that the output is written to a file called TASSPELL.OUT.

F3 - single letter trapping option. When I first ran the check on this text, the default was ON. Consequently all the single letter "words" (such as K or O) were reported as errors. F3 will toggle to OFF and cause the single letter to be ignored.

F4 - number trapping option. Similar to single letter trapping with F4 toggling between on and off. When ON (the default), all numbers and words containing numbers are listed as unrecognised. On the text you are reading, all the function numbers (eg. F3) were rejected the first time through on the default.

F5 - load dictionary into memory before use. This is the default. Pressing F5 will change the load to disc, but to make it work it has to be saved using the "Save Customisations" option on the second menu of Tasword and the latter reloaded.

F6 - look for dictionary on another disc. If it is to look on another disc, the program will normally search for the dictionary files on a disc other than the one on which Tasword resides. This is the default. Pressing F6 will force the

program to search the current directory of the current disc, in other words, the same disc as Tasword. In practice, you will find that this option is only available to hard disc users as the size of the dictionary files plus Tasword are too large to fit on a single floppy disc.

The final option on this menu allows dual drive owners to "change drives". This means that the dictionary files can be resident on drive B rather than in memory, and could leave space for large documents. You have to remember to toggle F5 as well.

#### Space

With the PC1512 there should not be too much trouble in holding reasonably large quantities of text, even with the dictionary files loaded in memory. About 64k is available for text if you go this way. Quite frankly, that's the best place for them to be. The whole checking process is so much quicker using RAM than a hard disc, and certainly floppies. The PC1640 will obviously present even more space.

If you have a RAM drive of more than 20k (fitted to a PC1512) you will find that there is insufficient space for Tas-Spell to be used with the dictionary in memory. In this case you need to reduce the RAM drive size by running the NVR program.

When handling very large documents, I always split them into convenient sections. This habit will work well with Tas-Spell and the dictionaries in memory and I should not have any problems with 'bursting' the machine.

#### Help

Tasword is well known as a wordprocessor with useful help pages. Alas, Tas-Spell is devoid of this feature. All is not lost, however, as a method of including the Tas-Spell commands in the ALT section of the Tasword help pages is provided in the documentation supplied with Tas-Spell.

While on the subject of documentation, a twelve page manual is supplied with the floppy disc which adequately covers installation and commands. This may sound flimsy, but as I said before, there isn't a great deal you can say about a spell checking program.

#### Operation

Your piece of text has been input, you have set the correct options on the Tas-



Spell menu and on the same menu, you hit F1. The printer bursts into action spitting out all your typing mistakes. Well, they are not all mistakes, rather a list of words that it couldn't find in the dictionary files.

The other option is to check on screen as you enter the text. This way you can fix most of the errors before the final printed check and kid the computer into thinking you're a great typist. There are six commands to assist in this deception, all invoked by pressing ALT and a letter.

- U - checks the spelling of the word under the cursor
- X - will find the next unrecognised word
- Z - finds the last unrecognised word
- Y - lists the relevant section of the dictionary, ie. where the word is, or would be if it was valid.
- W - learn word (add it to the dictionary). It will take any IBM character set including apostrophes.
- V - delete word from dictionary

### Summary

After a few mis-hits customarily associated with using a package for the first time I found Tas-Spell very easy to use and understand. The 70,000 plus words in the dictionary contained most of the words I had typed. If you prefer the American style of spelling you may have to put up with a number of rejects or 'add to dictionary' quite a bit at first.

Tas-Spell is an excellent companion to Tasword and although the price at \$115.00 sounds expensive, it compares quite favourably with other spell checkers on the market.

**TAS-SIGN**  
6128 and PCWs - \$89.95

Tas-Sign runs under CP/M Plus (that's why it is not suitable for 464 owners). Its function is to produce a variety of styles and large sizes of letters on a dot matrix printer which together can be used to produce signs, banners or posters - all, of course, within the limits of the paper size you happen to be using.

### Installation

Tas-Sign is not protected so a working copy can be made simply and the master stored away safely. With the

copy in the disc drive, a program called TSCONFIG must be run first to identify the type of printer you are using. There is a list of over twenty from which to choose and seems to cover about 95% of the printers I know of (or ring a bell somewhere). Then there is a question concerning a 'carriage return and line feed at the end of a line' option.

All this configuring information is written to a file called TS.DAT which is referenced every time you use Tas-Sign from now on.

### Tutorial

Your working copy must remain in a drive all the time you are using the program as it needs to refer to the font files held on it. This point is made quite clearly at the beginning of the tutorial section of the manual. This section takes the user through a simple process of producing the word "hello" in a couple of font styles. It's helpful in becoming more familiar with the package, especially if you haven't used this kind of software before.

### Screen Display

The initial screen display is split into effectively three sections. The first, at the top of the screen, displays information about the font currently loaded, any special effects, position and borders. The second section consists of five horizontal bands which will contain the text for printing. The third section displays the current line and column number, whether you are in "insert" mode for text or not, and a couple of key reminders.

### A little deeper

Probably the best way of describing the features of Tas-Sign is to look more closely at the options in the first section of the screen display. By the way, the method of changing the options is very easy - just hit CTRL and O (or ALT and O if you have a PCW) then the cursor control keys until the option you want to change is highlighted.

**FONT** - the default is STANDARD when the program is first loaded. There are three others - WESTERN, CASUAL and BLOCK - all quite distinctly different.

**ORIENTATION** - there are two options here. If you want to do your printing across the page (the way it is normally done) then 'portrait orientation' should

be selected. If you want to print along the length of the paper (sideways for banners etc.) then the default 'landscape orientation' should be chosen.

**STRIKE** - can either be single or double. Naturally, the double option which makes the printer head pass twice over the paper width will be blacker. But it takes longer to produce and you may not like wearing out your ribbon twice as fast. Users who have a printer which is set up to do an automatic line feed when it receives a carriage return won't suffer this problem as they will not be able to invoke double strike.

**DENSITY** - single density will produce 480 dots across the screen. Double density will produce, you've guessed it, 960 dots giving a better definition and darker image but again, will take longer to print.

**MESHING** - this option takes the quality even higher because, if selected, will print dots between the dots. With double density switched on as well the results are very good - but the penalty is the time taken to produce it.

**ITALICS** - self explanatory

**SPACING** - you have one of three selections - proportional, kerned or constant. Constant is the sort of spacing you would expect from a standard typewriter, it is the same regardless of which letter is typed. Proportional spacing is spacing adjusted to approximately the same between any pair of letters taking the right and left edges of the two letters into consideration. Kerned (a term more familiar to desktop publishers perhaps) allows even finer adjustment to that produced by proportional spacing.

**UNDERLINING** - self explanatory

**REVERSE** - if turned on the letters will be printed as white on a black background.

**CENTERING** - will either centre all the text across a 'portrait' or centre on the longest line in a 'landscape'.

**HEIGHT** - the height of a character is specified in units of pins in the print-head. The maximum is typically 479 or 639. The minimum appears to be 60.

**GAP** - this specifies the gap between the lines of text. It is measured in the same way as the height of the text.

**BORDER** - entering a number here will give the size of a border around the text.



## The TAS-SIGN Fonts

# STANDARD

# WESTERN

# CASUAL

# BLOCK

Zero will not print a border.

**STRETCH** - a useful feature which allows characters to be either condensed or stretched.

**HATCHING** - another feature to embellish characters. It allows the user to select any one of eight patterns to drop into the character shape being printed.

### Embedded Commands

Of course, the options described above will have a global effect on the text you wish to print. Tasman have sensibly realised that a poster, for example, would not have much impact if it were printed in the same style and typeface throughout. So they have included what they call "Embedded Commands". These are individual instructions to vary a specific character or word within the text. These are simply

achieved by putting the relevant code between two back-slashes ahead of the item to be changed. For example, if the following line is entered

```
The Font is \I+\changed twice in
\U+\this example
```

will print as

```
The Font is changed twice in this example
```

Embedded commands allow the user to change the font, stretch, kerning, spacing, centering, aligning right and select hatching. You will also find that the character height and line gap can be adjusted using CTRL (or ALT) and keys H or G.

### Summary

I found that by printing a one-pass (single density) small version (using a character height of 90) of what I wanted gave me a pretty good idea of what the

final art-work would look like. It saves heaps of time doing it this way, especially if you make a few mistakes. Once I had made all the corrections, I then adjusted the density and height and ran the final copy. Very impressive, and I had managed to do all this without consuming too much of a nice new ribbon.

Once again, Tasman have come up with a thoughtfully produced program, clear documentation and a product which undoubtedly will get many idle dot-matrix printers performing important tasks.

**TAS-DIARY**  
464, 664 and 6128 - \$45.95

Tas-Diary is billed as a fast and efficient method of keeping an electronic Day to Day diary. It is disc based so if you have a 464 you will need an additional drive.

Once loaded you need to enter a password (given in the documentation), but this can be changed to your own later on to keep out prying eyes. For some unknown reason, at least to me, the password has to be entered in upper case. I spent 10 minutes trying to get it to open using the password specified but failed to read the next sentence - I had fallen into the usual trap of rushing to see what it can do without reading the manual properly.

The diary automatically opens at the last date that was accessed. Pressing "O" will let you specify where you want it to open. The date will accept either a numeric month or words. At this stage the diary is in "standby mode".

### Display

The screen is divided into four windows - the calendar; diary page; diary date and time; and the command window.

The calendar for the month accessed is displayed at the bottom right of the screen and will display any month from January 1753 to December 2100. Any Amstrad still running the program when the diary expires will probably be on show in a Science Museum.

You can move around the calendar using the four cursor keys. As you do so, the larger diary page displays any entries for that day. Likewise, the diary



date and time window reflects the change. The information in this last window has to be set up each time you use the program after the computer has been switched off.

The command window shows the command modes currently available - Open, Standby, Misc., Editor or Notepad and the contents change depending upon which mode you are current in.

### Modes

*Open mode* (when the program is first loaded) is the stepping point for selecting a date to look at or to switch to another mode. If a date is selected all the entries for that particular month are loaded into memory.

*Standby mode* will be entered after a date has been selected and allows the user to see the entries in the diary or move to another facility. At this point the command window changes to display a number of options - edit, find,

print, notes, misc. or shut. Edit (Editor) and Misc. (Miscellaneous) are selected by pressing E or M respectively. If 'notes' is selected, an additional 31 pages is made available. 'Print' will dump the current diary page to the printer.

*Editor mode* is where the actual text of the diary is entered. An interesting feature is that the first four characters of a line can be used as a sorting key. This means that if you started each line with a 24 clock time slot (eg. 0815 or 2130) all the entries will be in strict chronological order. Other special characters can be used to bring special notes or events to the top of the page.

*Miscellaneous Mode* produces another change to the command window. The display now reads: files, clock, date, security, memo or quit. This mode allows you to do a bit of housekeeping (files) like erasing certain files, doing a CAT on screen or making a back-up. You can also search a month for a

particular entry or reference (find) in which case the entry search criteria of up to 25 characters can be specified. 'Security' lets you change the password and 'memo' provides a temporary notepad which can be printed if required. It is not saved when the diary is shut.

### Summary

People who keep a diary do so for different reasons. Tasman suggest that it could be used to summarise business appointments, to keep a personal record of day to day events, hold lists of pre-planned menus rather like Hotels and Restaurant do or even keep a record of your finances.

If you feel happier keeping your information all in one place on disc, being able to amend it as and when required and printing the results as many times as you like, Tas-Diary would certainly fit the bill.

*Simon Anthony*

## Start computing on the Amstrad CPC6128

A Book by Judith Thamm  
Reviewed by Robin Nicholas

The title of this book indicates straight away that it is not meant for experts. "Real experts in computing often take the simplest things for granted" writes Judith, a self-confessed advanced beginner.

With the theory that even explanations need explanations if you are a beginner, the book attempts to cover as much of the basic groundwork to programming the 6128 as possible, without talking down to the reader. The first chapter talks about connecting up the machine and continues with an explanation of the position and function of the keys on the keyboard. It is then followed with some examples of performing calculations through the keyboard.

The second chapter moves briefly into the disc copying facility (DISCKIT3) of CP/M for the purposes of formatting new discs and making that all important back-up of the CP/M disc. It erroneously refers to CP/M as being a language (it is in fact an operating system) but the distinction at this basic level is not too important. This section

needs to be read carefully as it tends to switch back and forth between CP/M and Basic too easily. It would have been better to have treated each subject separately.

More Basic commands are discussed in the next few chapters with plenty of examples to key in. If you suffer with 'multi-finger and thumb syndrome' you will find the disc supplied with the book most useful. It contains all the programs that appear in the book.

Chapter Four covers menus and associated commands and Chapter Five extends this into merging and renumbering. Six and Seven talk about the graphics aspects (windows, borders, colours, plotting, fill, draw and so on).

The next chapter contains a few type-ins which push the beginner a little further in understanding the potential of the 6128. There's a function key defining program, a program to calculate the area of a rectangle (with pretty pictures) and an extension of that program demonstrating the use of PEN and INK and RND (with more pretty pictures). The latter two are comprehensively explained. Chapter Nine looks at writing one of the previous programs in a different way.

I am now about halfway through the book. Rather than continue to itemise each chapter, I can say that the rest of

almost everything a beginner would want to know is eventually covered in the last ten chapters - including loops, geometry and sound. There is also an answer page at the end to a few simple tests appearing in some chapters.

### Summary

The book is a genuine attempt by an Amstrad user to help other beginners over the hurdles of first-time computing. It consists of over 100 double-sided A4 sheets of text produced on a 6128 using Amsword and originally printed on a DMP-2000. It is ring-bound with a plastic cover.

You could easily argue that it is not professionally presented - but then Judith Thamm has not got the facilities of a major publisher behind her. You could also argue that it sometimes loses direction - but read on - it all links together. It is a personal effort to be applauded, and should help the struggling user either in the confines of his/her home or as the basis of courses run by user groups.

*Start Computing on the Amstrad 6128 plus disc costs just \$20 including postage.*

**User and Dealer enquiries to:**  
Judith Thamm, PO Box 269,  
Two Wells, SA 5501

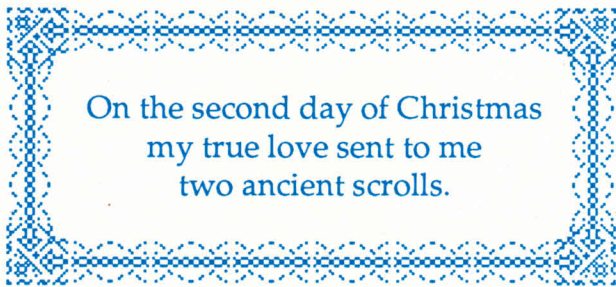


# Adventurer's Attic

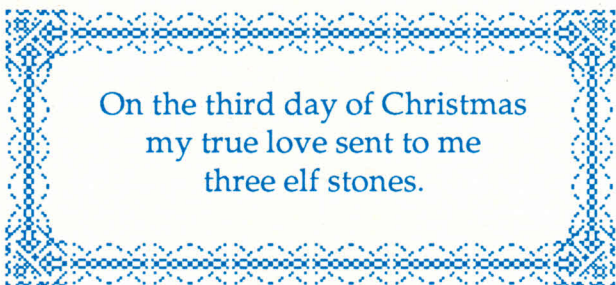
## Philip Riley's twelve days of Christmas



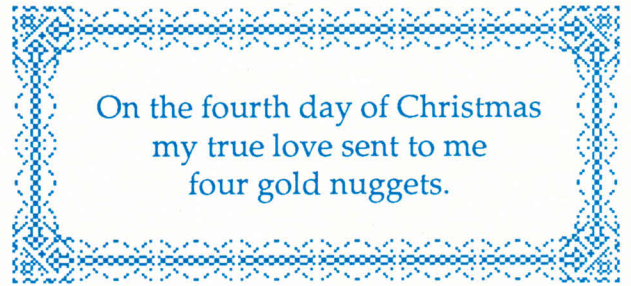
Unfortunately Australia Post don't deliver on Christmas day, so the gum tree died and the bellbird flew away, but I think I am the luckiest man alive to have a true love like you.



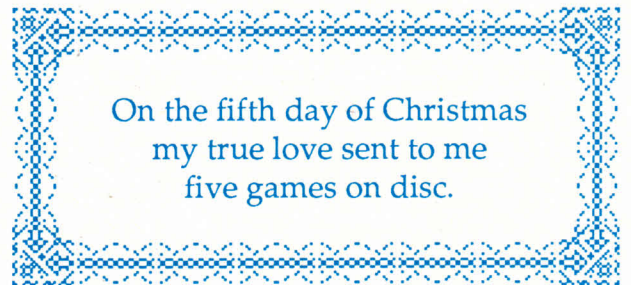
However the parcel was damaged in the post and the scrolls destroyed beyond recognition. My true love also sent me a gum tree, the bell bird had once again flown away. Never mind I am still fortunate to have one so caring as you.



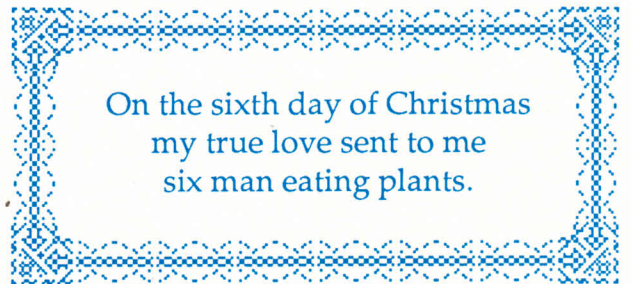
Rather a pity but they went missing believed stolen. You should not keep sending expensive gifts like this. My true love also sent me two Mills and Boon and a bell bird tied to a gum tree, although the bird had managed to peck the string away and fly off. Well they do say that things come in three's, thank you very much my dear.



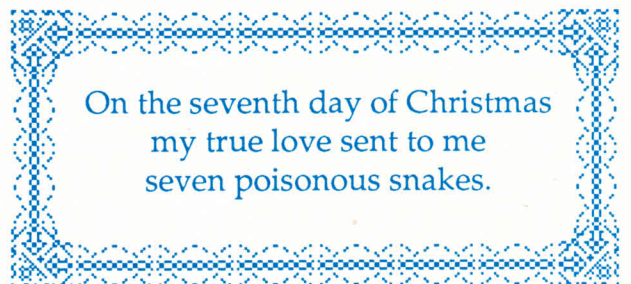
However I did not have a prospector's licence, so the gold nuggets were confiscated by the government. They also took three river pebbles, two Mills and Boon and a bell bird in a gum tree as payment of the fine. Thank you my love, it really is the thought that counts.



But they were put through an x-ray machine and were blank when they arrived. She also sent four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a bell bird glued to a gum tree, although the glue had become tacky in the heat and the bell bird had flown off. For some strange reason I feel a little edgy today.

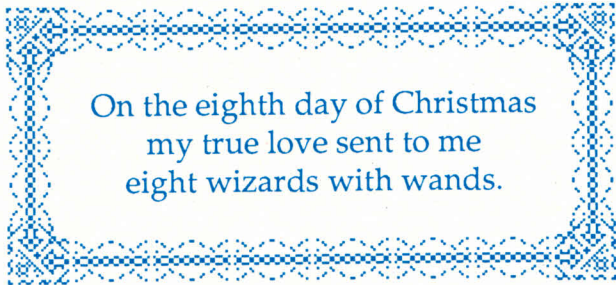


But they ate the postman and all his mail. I did get a letter from the Post Office saying that the plant had also eaten five blank discs, four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a bell bird in a gum tree. My nerves are now completely frayed and I am off to the psychiatrist.

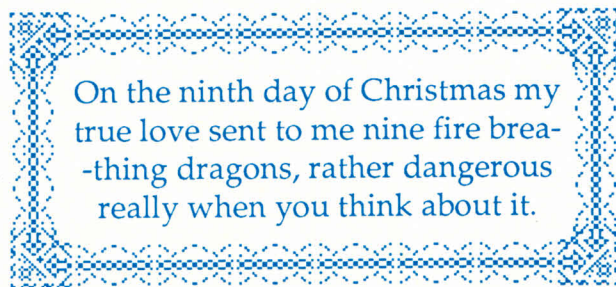




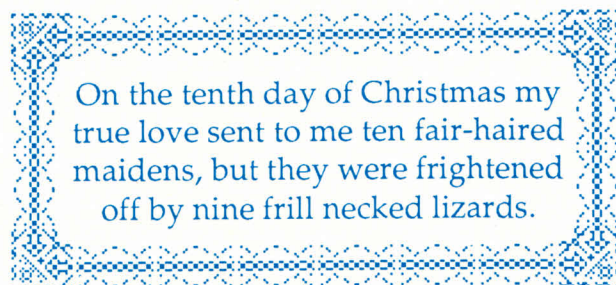
However the Post Office said they would not deliver them due to the risk and they were given to the zoo. They did however send me six half dead cacti, five blank discs, four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a bell bird nailed to a gum tree. The bird flew away after I had pulled out the nail with a hammer. My psychiatrist said that I should take it easy for a couple of days.



But the wizards had waved the wands in the dark and turned everything into a thick sticky goo. I could however just make out the remains of seven rubber snakes, six half dead cacti, five blank discs, four Kentucky nuggets (with sweet and sour sauce) three river pebbles, two Mills and Boon and a bell bird in a gum tree. I am not feeling too good today.

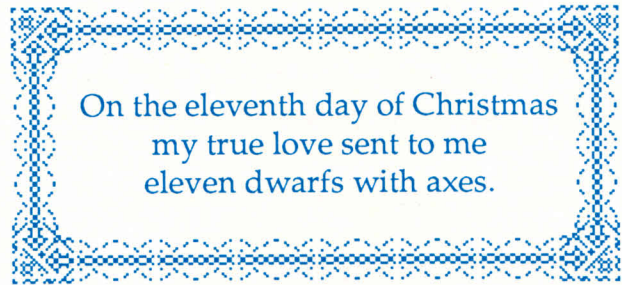


I was told that the firemen also found the charred remains of eight old men with walking sticks, seven rubber snakes, six half dead cacti, five blank discs, four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a bell bird in a gum tree. The bill for a new post office is being sent to me, the thought of this has made me positively ill.

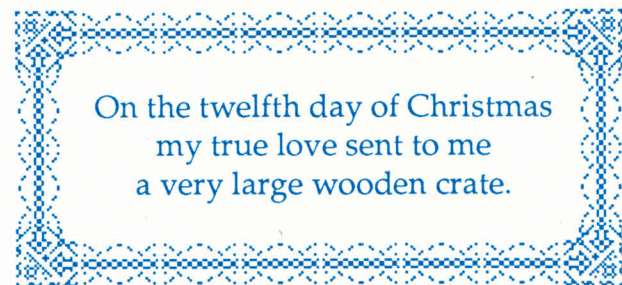


My true love also sent me eight old men with walking sticks, seven rubber snakes, six half dead cacti, five blank discs, four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a bell bird bound to a gum

tree by insulation tape. My doctor and my psychiatrist have told me to take it easy for a couple of weeks.



But they split open the crate that they were in and ran off taking with them ten cleaning ladies from Moonee Ponds, nine frill necked lizards, eight old men with walking sticks, seven rubber snakes, six half dead cacti, five blank discs, four Kentucky nuggets (with sweet and sour sauce), three river pebbles, two Mills and Boon and a very upset bell bird in a gum tree. The police have alerted all cars and are presently looking for the whole lot, of course the cost of all this will be passed on to me and all I wanted was a nice quiet Christmas.



I was suddenly filled with great joy and all my troubles left me, my true love had finally found a gift that could not go wrong. I eagerly opened the crate to find twelve gnomes with lanterns helping eleven dwarfs with axes defend ten Moonee Ponds cleaning ladies from nine frill necked lizards who had been upset by eight old men waving walking sticks at seven rubber snakes wrapped around six half dead cactii. The whole lot of them had stamped all over five blank discs and eaten four Kentucky nuggets (with sweet and sour sauce). By this time the dwarfs were throwing three river pebbles at everything that moved and the gnomes were reading two Mills and Boon and tearing out the pages. The bellbird unable to take any more had a nervous breakdown in a gum tree that was now being chopped down by the axe wielding dwarfs and I think I am going mad.





## QUESTIONS

Only a few questions for you to ponder this month, first up is a question from Matthew Quick who would like to know where the pirate can be located in Classic Adventure.

Now a trilogy of questions concerning Subsunk from Jason Mahoney. He would like to know what is on the shelf above the mattress and how do you get it down. Where is the second half of the map and finally how do you put the aerial into the torpedo tube.

And that brings us onto our regular fix of questions concerning The Never-ending Story from (yep, you guessed it) Karla Slack. This month she would like to know what use does the tin have and what does the piece of paper mean.

## ANSWERS

Well a few people will be having a happy Christmas after reading this section.

Firstly Matthew Quick has an answer for finding the pirates treasure in Classic Adventure. From the West end of the hall of mists (at the entrance to the second maze) go S,E,S,S,N,N,E and you should arrive at the orange column. Then go E,NW and you have found the pirates treasure. We could leave you there but considering that Matthew has given us more info, we may as well go on. Go back to the column and climb down it. Say "PLOVER" in the PLUGH room. Use the trident to open the clam. When you have opened it go down twice and collect the pearl.

Now for all those people who like myself are stuck in Mordens Quest. Bryan Roberts and Matthew Quick have some answers. To get past the octopus turn off the light in the face plate of the aqua lung. Say "POPULAR COMPUTING TOMORROW" to the robot in the tele-video room. The only purpose of the gold ingot is that it is a treasure, and finally say "FROG" to Tarzan.

Karla Slack now has an answer to her own question in LOR (that's Lord of the Rings to you lot). How do you get through the mines of Moria, Karla will

now reveal all. Light the candle with the match and go E,E,D,D,S,D,S,S,D,E,E. Put on the ring if you meet the Balrog. Go E,E until you are on the stair and then go E,E,E and you will be out of the mines and into Dimrill Dale. Go SE,SE,SE and you will meet Elf. Go E,E,E, ask Elf for help and when the rope is across go NE,Wait and the elf will take you to a bare hill. Go E,S. Eat and drink until all is finished and go W,N and from the Western edge go E (wait until the elf leaves and the gates open). Go E,E,U ask for help when asked by Galadriel and go D,W,W,W,S,S,S, and you should now be ready for tape two.

Now for another answer by Matthew, this one concerns Allan Mearns question on Necris Dome. To get to other levels you must first of all destroy some mandroids. In chamber three "PUSH MANDROID INTO CASKETS", in ten and eleven "HIT PIPE WITH AXE" and "PUT MANDROID INTO UNIT". After a mandroid has been destroyed "SEARCH MANDROID" and then "LOOK". You should find several coloured trans-rods. You will find that by carrying certain rods in certain rooms you will be teleported to other levels. Which rod teleports you from which room? We will leave that up to you to find out.

Karla has also partly answered one of her own questions concerning The Never-ending Story. She now knows how to get part way through Spook city and tells us all as follows. Get the glowglobe that is E of the main gate, the rope and eat the apple (this will protect you from spider bites). Remove the planks in the ruined building and go D,SE,W. Tie the rope to the hook and go

D,D. You should now find a pouch. Pick it up and a coin will drop from it. Leave the coin and the pouch here and go D,U,E,S. Take the knife and go E. Take the tin and go W,N,W,D,D and drop the tin. Go D,U,E,NW,U and from the ruined building go E,E to the graveyard where you will be pushed in. Go W,NW and then type "N AND TAKE KEY". You should now be in the dungeon guard area. Smork the wolf is now South of you. Unlock the cell door with the iron key and go E. Take all of the items that you have left there to the dungeon guard room. Now taking only the glowglobe and the coin go W. Drop the coin and go W. Take the golden key and go E,E to the dungeon guard area. If you pick up the pouch another coin will fall out. If you go to the east and eventually get up to the ground again, go to the hilltop and you will find Auryn. Blow the horn and Falkor will appear.

That finishes the answers for this month but we have one more piece of information from Karla concerning LOR. You may remember that she had been having trouble saving the finished position from tape 1 and reloading it into tape 2. Well she has cracked the problem. This is what you do. When finishing the game on tape 1 you will be told to save your position. The message "START TAPE THEN ANY KEY" will appear. Press play/record and press any key. Your position will be saved to tape. You will probably get another message, just ignore it. Turn your computer off then on again load tape 2 and type "y". Load your saved position, type in the characters you wish to play and off you go.

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# Hint Sheet

## BUGSY

Hint Sheet from  
Robert Gerard

### Part One

1. Hoods in Deviney's Bar are susceptible to a bunny's attack.
2. Louie and Muscles are on your side (providing you don't insult them). Something in Louie's pocket will help you protect the newsboys - he will sell it to you for the small change in your pocket.
3. A pistol (available from the gunsmith with the proceeds of protecting three newsboys) is necessary for any robberies you might be contemplating. In fact, the Tommy Gun (which you will be able to afford later) is needed for a bank job.
4. Don't go East of the Post Office, or anywhere by train without Muscles.
5. Some hoods in downtown Chicago may have just enough cash in their pockets to make the difference, along with all that the pawnbroker can afford.
6. Police uniforms come in handy down at the docks.
7. A successful bank robbery is what you should be aiming for.

### Part Two

1. You need to buy a car, even though at the start you can only afford a standard model. The armoured version will be needed before you can successfully hijack the beer truck. Be sure to get out of the car before entering places.
2. Go to the Tib Bar. Be especially nice to Black Shag Joe and you will get some important information.
3. Go up the main highway in your car. When the boys ask about hijacking the beer truck say 'no' (unless you already have a Siciliano) and just worry about finding an important business card.
4. Go to the little shop owned by the old deaf man. Protect him and get the valise - but don't open it or keep it too long.
5. At the Hilton Plaza, the business card and the valise will help dispose of a dangerous rival.
6. Go to the big Ritzy Casino, don't gamble, just protect the croupier. You will have to have disposed of a rival for this to work, but it will enable you to get a better car.
7. Go back to where you found the business card in your new car and say 'yes' to the boys. If you are successful you will become an instigator of Police corruption.

8. Make your way to Commissioner Moron while bribing greedy cops and do the same thing to him.
9. At this stage it is necessary to get a better hotel room.
10. A visit to the Tib Bar to listen to some music may produce interesting contacts.
11. Let George be your Agent so you can get number plates that don't encourage bombs.
12. At this stage, go to the main city in the car and find the Four Deuces. Blast the goons.
13. Something that you need is in the cellar.
14. Go and buy some overalls.
15. Go down the alley (without the car) and press the button.

*This is our third Hint Sheet and earns Robert a cheque for \$25. Now that you have seen the format the sheets should take, why not cash in on your experience and send your solutions (don't give the whole game away though) to:*

*The Editor (Hint Sheets),  
The Amstrad User,  
1/245 Springvale Road,  
Glen Waverley, Victoria 3150.*



# A BRIEF RUN-DOWN ON OUR SOFTWARE

## ACTIVATOR

"... must help us ... power fading ... unknown force ... please help ..." This was the final message from Federation Space Port Antari. Deep space probes have located a power source of unknown origin which can render life-forms and their associated equipment inactive. Your mission is to locate Antari and, using your remote Activator pod, enter and re-activate her. After years of neglect many strange and dangerous life-forms have infested Antari. You must avoid these beings and locate the fuel rods which are now scattered throughout the ship and return them to their correct location for re-activation.

## AIR COMBATEMULATOR

Your AWAT (All Weather - All Terrain) jet stands fully fuelled and fully armed. A vast invasion fleet is anchored just off your shores. Ground forces have come ashore and are advancing on your positions protected by massive air cover. You are the last fighter pilot. Your country turns to you and asks "Are you good enough to be called ACE?". Features tanks, helicopters, hills, trees, ships and a totally unique refuelling sequence. Also has optional twin flying mode where you can fly and fight with your friend as weapons man.

## ANIMATOR

A utility to transform simple lines into animated sequences. Create impressive animation without having to load the main program - this means you can incorporate your own demos into your Basic programs. Hours of fun for all, but also many opportunities for the serious minded programmer.

## BOMBSCARE

The planet is Neptune, the year is sometime in the future. An alien enemy has planted a huge time bomb at the centre of the planet's space station. The Base, as a result, has been evacuated and a bomb disposal robot (code named Arnold) has been sent in. You must control this robot and defuse the bomb. Certain tools will be required, which together with other useful objects are scattered around the deserted space station. The enemy alien will attempt to sabotage your mission with enemy absorbing devices which Arnold can destroy.

## BOOTY

Jim the Cabin Boy must make his way below decks to collect various items of booty (automatically picked up when he walks past them) strewn around the ship. When you have collected all the items from the Black Galleon's 20 holds, you are given 45 seconds to locate the bronze key to the next pile of booty. Clearing all the booty a second and third (impossible) time causes a search for the silver and gold keys, each increasing the game's speed and hazards.

## BRIAN BLOODAXE

A platform type strategy/arcade game with 127 screens. As Brian Bloodaxe, you are required to locate the Crown Jewels and finish the game on the Throne. It is not as easy as it sounds with many teasers throughout the game and, of course, heaps of 'nasties'.

## CORE

This is a problem solver's game which took over five years to develop. The theme is simple enough - recover all elements of a bio-memory unit and return these to the mothership for analysis - but to achieve this aim is a different ballgame altogether. For a start some of the

tools required are hidden, even buried! Core requires a great deal of thinking and strategy to be successful.

## CONTRAPTION

An attractive, sophisticated and very tough platform game, in which a crazy Professor feverishly searches for the golden apples to feed his zany Contraption. Encounter bouncing bombs, swooping spiders, diving dodos, jiving jellyfish in your quest to complete the game.

## DR WHO and the Mines of Terror

The Master is planning to use the Doctors brain in a modified TIRU (Time Instant Replay Unit) to produce a chaos weapon to control the future as well as the past. Heatonite, a time-warping mineral, is a critical component and is being manufactured on the 2nd Moon of the planet Rijar. As Dr. Who, you must halt the Heatonite production, disable TIRU and regain the plans contained in a 'memory capsule'.

## DRUID

Until now, the balance of power has been held and peace maintained throughout Belorn. But now, four demon princes have appeared though an inter-dimensional gateway in the dungeons of the evil Acamantor. The Task of destroying the princes and closing the gateway has fallen on you, last of the Great Druids. Survive the constant onslaught of the hell-spawned dimensional monsters and destroy the princes with your spells of formidable power. Succeed, and you may attain the ultimate level of light Master, greatest Druid of them all.

## DYNAMITE DAN II

The world is being mesmerised by subliminal, mind-destroying sound waves hidden on innocuous pop records. As Agent Dan, you must find seven records on different islands, play them in the juke box then search for the last island (the pressing plant), play the last record and plant a bomb in the lab. You've then got just three minutes to get out.

## ELECTRIC MUSIC UTILITY

EMU is a Music and Sound Effects generator, the results of which can be saved to use in your own Basic or Machine code programs independently of the main EMU program. It lets you experiment and hear the results immediately. You can generate music in 3-part harmony with different voices or with percussive effects and with a screen display in correct musical notation.

## FAMILY FUN PACK I

This is our own software package and has proved very popular over the last twelve months. It consists of two games for younger children - Spelling Bee (based on Hangman) where you have to guess one of 1500 words at three levels of difficulty and Copy Cat (based on Simon) which tests reactions and memory. It has an arcade style game called Laser Blast and a tricky text adventure entitled House of Dracula. Finally, there are eight brain-teasers to keep you puzzled.

## FUTURE KNIGHT

You are Randolph (a hero). Your quest is to rescue your beloved maiden from the evil clutches of Spegbott the Terrible. You receive an inter-dimensional distress call from the S.S. Rustbucket in which she is held captive, following its crash on the Planet 2749 of the Zragg system. After teleporting to the space ship you progress through 20 gruelling levels, fighting your way through the wreckage, defending yourself against the Berzerka Secu-

rity Droids to finally reach the planets surface. Here you must do battle against mystical creatures to ultimately reach Spegbott's castle and defeat him in mortal combat.

## GLASS

A ground-level alien strike simulator which takes you through a series of screens with 14 levels of excellence. Destroy the outer radar defences, smash the psuedo-conscious Metalliks, but keep your shields up. Fly the plains of Glass and reach the cities. Can you make Game Lord status?

## HIVE

As Agent Brabham, you are provided with a robot craft called Grasshopper to penetrate an enormous hive and destroy the queen. Hive is a very active game with a super-fast control system to avoid the continuous attacks from electronic insects and other equally fatal obstacles as you travel along the tunnels of the hive. It's a sophisticated game for the dedicated gamerster.

## LORD OF THE RINGS

Now becoming a classic in adventure games, Lord of the Rings Part I can recognise intelligent sentences up to 128 characters long using its 'English Input' system. It is based on the book The Fellowship of the Rings - one of the trilogy from J.R.R. Tolkien. Travel across the mysterious and enchanted world of Middle Earth but beware the Black Riders. (The tape version also contain a copy of the book "The Fellowship of the Rings").

## MAX HEADROOM

A 3-D arcade adventure featuring the irrepressible M-M-Max Headroom. You hunt through various floors to recover the Max Personality Module with the aid of the Max Hunter, and aim to get to the basement by 6.00. There are lots of codes to remember and break and a few robots to avoid.

## MINI OFFICE II - New low price

Turns your Amstrad Computer into a versatile business machine. In this package are six different modules including a word processor, a database, a spreadsheet, a graphics pack and a label printer. With these you can write letters, prepare reports, create computerised files, compile mailing lists, set up financial records, carry out complicated calculations, draw graphs, print out labels and much more. Can also be used with the AMX Mouse.

## NECRIS DOME

Necris Dome is a floating cemetery in space run by the Mandroids led by the Archmandroid. Over the years the Archmandroid has become a renegade and thinks for himself. He has become a threat to human life. As a member of the secret force, you have been assigned to investigate the situation aboard the Dome and destroy the Archmandroid at all costs, even if it means the destruction of the satellite to do it.

## NEVER ENDING STORY

Based on the film of the same name, NES is a graphic text adventure with illustrations of some locations, events and all objects. The game is in three parts (over 100k of code and data) and must be completed in the correct order. You take the part of Atreyu in your quest to find the saviour of "Fantasia" but beware the other characters - not all will help you.

## NEXUS

An arcade/adventure (joystick only) in which your mission is to locate your kid-

napped friend and release him then gather 128 pieces of scattered information and transmit the assembled messages to your newspaper. Alternatively, you can cause as much mayhem in the complex as possible in the hope that you put the drug ring out of action.

## QUESTOR

A fully animated arcade adventure which will test your mind as well as your reflexes. You are placed in a world which you must explore and map if you are to stand any chance of success. New dangers are waiting around every corner.

## SABOTEUR

You are a highly skilled mercenary trained in martial arts. You are employed to infiltrate a central security building and steal a disc that contains names of all the rebel leaders before its information is sent out to the outlying security stations. You enter the building from the sea and leave by helicopter from the roof - all the time working against the clock.

## SENTINEL

Beyond your wildest dreams, in a world where the only force is pure energy, stands the Sentinel. Battle against him through 10,000 lands, in the most original, compelling and addictive computer game ever devised. Yes, it really is different.

## SHADOW FIRE

Shadow Fire is an icon driven adventure. You have just one hour and forty minutes to complete a mission to a) locate and rescue Ambassador Kryxix, b) apprehend and capture General Zoff and c) capture or destroy the starship Zoff V. These tasks can be accomplished in any order.

## STAR WATCHER

A multi-program package which provides the amateur star watcher with an explanation of the principles of astronomical navigation and calculation along with self-assessment tests. In addition, it displays the sky at any given time with a unique "realtime" update mode to set the program to update the changes every minute.

## STORM

Corrine, beloved wife of Storm the warrior, is a helpless prisoner in Una Cum's laboratory lair. Una Cum has left his castle to search for a box called The Fear. Meanwhile Storm and his comrade the powerful wizard Agravian Undead must pit their wits against the foul traps Una Cum has left behind. A thrilling and highly addictive arcade adventure for 1 or 2 players.

## SUPER PIPELINE II

As Foreman Fred, you are responsible for maintaining the pipelines supplying water to fill a number of barrels. There is plenty of water at the start, but as leaks develop, the supply reduces. Your job is to get the leaks fixed by other workmen and at the same time defend the pipes from all sorts of evil insects and terrible "live" tools.

## TERRA COGNITA

Far into the future, on Krion, a remote barren planet orbiting a dying sun, three mining engineers discover the remains of a Warrior Robot, just its head. One curious engineer kicked the head, it began to speak and told a terrible tale of mankind's destruction of Krion... and then the ground beneath began to vibrate, the dust parted, revealing a smooth artificial surface. They saw that the robot's head was attached by thick cables to what they were standing on. Suddenly the head spoke again, this time of revenge!



## TORNADO LOW LEVEL

A classic game with very smooth scrolling. Seek and destroy enemy targets in the latest swing-wing fighter with 360° control. TTL provides review maps and status reports as required, plenty of practice at landing, refuelling, flying at low altitude or at supersonic speed at maximum altitude.

## TRAILBLAZERS

Thunder into the unknown at a break-neck speed, pushing your reflexes to their limits in this definitely exhilarating journey that's not for the faint hearted. Roll left, roll right avoiding endless chasms of doom that lay in and around the squares of mystery. Squares that will sometimes slow your progress, on occasion with fatal consequences and some-

times speed up unexpectedly or make you jump automatically. Keep a keen eye on the clock as the quicker you complete your task the higher will be your bonus. (This game proclaimed "Beaut fun" by Ed's children).

## TOMAHAWK

This is a real-time flight simulation based upon the US Army AH-64A Apache

Advanced Attack Helicopter - the meanest, deadliest combat helicopter ever to rule the skies! Its specialised jobs is to hunt tanks and destroy anything in its way. Flying a real helicopter is a demanding task requiring training and practice - particularly ground attack. Tomahawk gives you this challenge.

## WHAT'S NEW

### For CPCs

**JUNIOR WORDPRO** - a simple, no frills yet colourful Word processing package for children in the "easy reading" to 12 year old range. Double line spacing and single function key operation make it an easy introduction for youngsters. (See page 18) Available on tape at **\$29.95** or Disc at **\$34.95**.

**TOMAHAWK** is back. If you missed out last time, don't delay now. Disc only at **\$49.95**.

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Biggles	<b>SOLD OUT</b>	
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Family Fun Pack 1*		29.95
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Glass	49.95	29.95
Graphic Adventure Creator	<b>SOLD OUT</b>	
Heartland	<b>SOLD OUT</b>	
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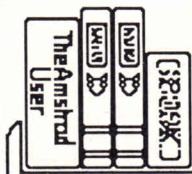
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Amstrad Games Book (Melb. House)		Out of Print	<b>PCW TITLES</b>		
Amstrad Pentacle Adventure Creator		Out of Print	Amstrad Companion	\$25.95	\$27.95
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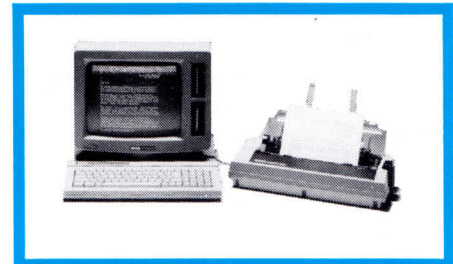
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# MASTERFILE 8000

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.

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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.

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Value to date : £31,455.00		

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12399	29 Aug 87	£38.00	02 Oct 87	--
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# 1988

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New Year's Day  
Australia Day  
Labour Day (WA)

01 Jan  
26 Jan  
07 Mar

07 Mar  
14 Mar  
21 Mar  
01 Apr  
03 Apr  
04 Apr

Eight Hours Day (Tas)  
Labour Day (Vic)  
Canberra Day (ACT)  
Good Friday  
Easter Sunday  
Easter Monday

05 Apr  
25 Apr  
02 May  
02 May  
16 May

06 Jun  
As decreed  
01 Jul  
08 Jul  
15 Jul  
22 Jul

Foundation Day (WA)  
Queen's Birthday  
Alice Springs Show Day (NT)  
Tennant Creek Show Day (NT)  
Katherine Show Day (NT)  
Darwin Show Day (NT)

01 Aug  
01 Aug  
22 Sep  
03 Oct  
10 Oct  
01 Nov

Bank Holiday (NSW & ACT)  
Picnic Day (NT)  
Melbourne Show Day  
Labour Day (NSW & ACT)  
Labour Day (SA)  
Melbourne Cup Day

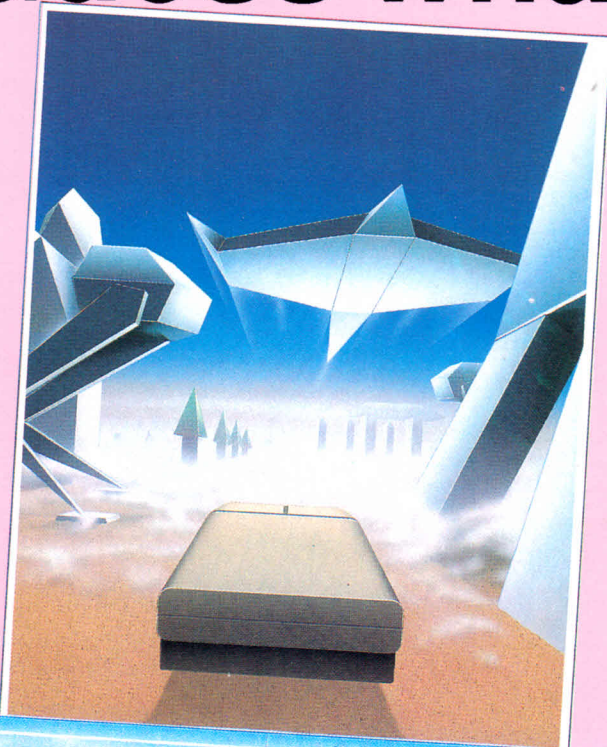
Recreation Day (N. Tas)  
Christmas Day  
Boxing Day (not SA)  
Proclamation Day (SA)

07 Nov  
25 Dec  
26 Dec  
28 Dec

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## STARGLIDER

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## A.C.E

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You are the last fighter pilot, responsible for an all weather all terrain jet (AWAT) in a bid to halt an invasion. The game features tanks, helicopters, hills, trees, ships and a totally unique refuelling sequence. The clever graphics have been carefully reproduced on the PCW screen and the game has lost none of its excitement.

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Turbo Joystick is for those who like to play hard and fast.

## THE PRICES

STARGLIDER Disc for the PCW 8256/8512	\$69.99
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STARGLIDER PCW PACK - consists of Starglider, Turbo Joystick and interface	T.B.A

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