

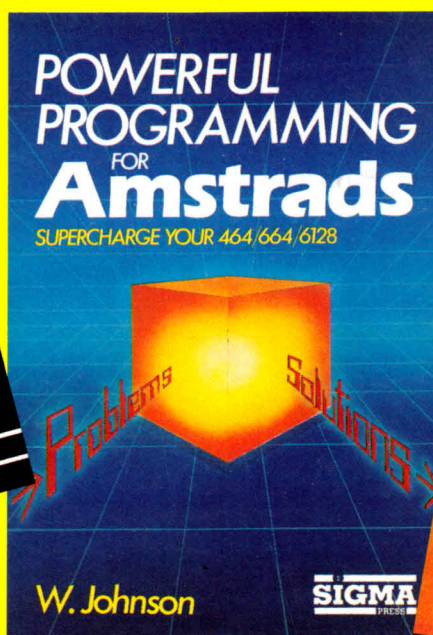
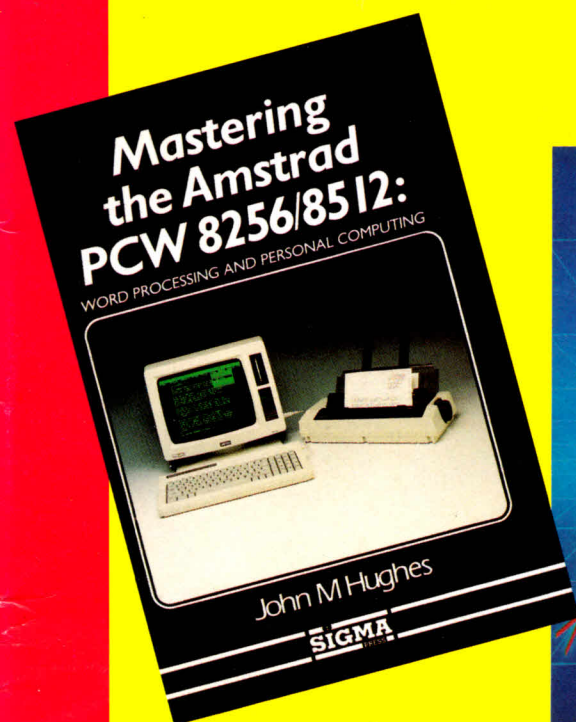
The Aussie Mag
for Amstrad owners

THE AMSTRAD USER

Issue No. 23

\$3.75

December 1986



- *First part of a major Software Guide for PCW owners plus plenty of tips and advice*
- *Reviews on the Maestro, Andrum and Music Master plus Mr Men software for CPC youngsters*
- *Cheat Mode, 50 User Groups and heaps more !!*

FOR THE NOVICE & EXPERIENCED USER

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BEST SELLING BOOK
AND 2 CASSETTES

Amstrad

CPC
Schneider



LORD OF THE RINGS

GAME ONE



LORD OF THE RINGS

GAME ONE

A very special offer for readers of The Amstrad User and from the team who brought you the incredible HOBBIT program comes LORD OF THE RINGS: GAME 1 - based on J.R.R. Tolkien's brilliant fantasy THE FELLOWSHIP OF THE RING.

Live out your wildest fantasies in the mysterious and enchanted world of Middle Earth - a world of boundless imagination where nothing is certain and anything is possible.

THE LORD OF THE RINGS ADVENTURE GAME FEATURES

- ★ **ENGLISH INPUT:** Now you can say virtually anything you want. With ENGLISH the computer can recognise intelligent sentences up to 128 characters long.
- ★ Interact and communicate with the other characters in the game. Now you can tell the other creatures what you want them to do and answer their questions.
- ★ Just like in real life, all the creatures in this game have lives and wills of their own. Their independence means that nothing is predictable and no game is ever the same twice.
- ★ **800 WORD VOCABULARY:** The largest choice of words ever offered in any home computer game.
- ★ Over 200 locations with major locations illustrated.
- ★ **FIRST EVER MULTI-PLAYER CHOICE:** Enjoy this adventure by yourself or solve it with your friends. Take on any of the roles of Frodo, Sam, Pippin and Merry, or you can play as many of the characters yourself as you wish.
- ★ Available for the CPC 464, 664 or 6128 and the PCW 8256 and 8512. The tape version for the CPC machines comes in two cassettes with a paperback copy of J.R.R. Tolkien's "FELLOWSHIP OF THE RING" - the ultimate Hint Book. A book is not supplied with the disc version, but all versions contain a detailed user guide.
- ★ The normal price for this classic adventure is \$44.95, but as a pre-Christmas special, it can be purchased through The Amstrad User for just \$36.95 including postage. Order early to avoid disappointment as any orders received after 1st December 1986 may not be delivered to you before Christmas. You may order by Bankcard, Mastercard or Visa on (03) 233 9661, or to the address below. Please state on which machine the game will be run.

THE AMSTRAD USER
Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150.

THE AMSTRAD USER

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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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\$37.50 for 12 issues of the magazine only, or \$80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu please add \$21 airmail. Other overseas prices available upon application.

Please note that whilst every effort is made to ensure the accuracy of all features and listings herein, we cannot accept any liability whatsoever for any mistakes or misprints.

Contributions are welcome from readers or other interested parties. In most

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

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.

THE AMSTRAD USER

G'day,

It may have passed your notice, albeit not many of you judging by the kind comments that keep arriving in the mail, that last month's issue was our biggest, both in terms of pages and print run. This month is no exception with another 64 pages to keep you busily reading in the run-up to the Christmas break.

One of the problems with this issue was finding room for everything we had earmarked. We had to cut down on the listings for hackers, (don't worry hackers, that will be put right next month!), cut some regulars like The Hall of Fame, and postpone an number of articles for a later date. You will also notice that we had to "squeeze" some articles.

So what's taking up the space? For a start there's four pages of hints and pokes in Cheat Mode and five pages of information on the midi and the latest music packages for the CPCs. And for PCW owners, there are seven and a half pages taken up with a software guide (with more to come next month) and three pages of tips. Then there are about eight pages of ads. This last point is comforting - it demonstrates that your software and hardware suppliers now know your magazine is clearly the leader in the field, reaching almost 7000 Amstrad users every month. We thank them for their support and ask you to respond by availing yourself of their services.

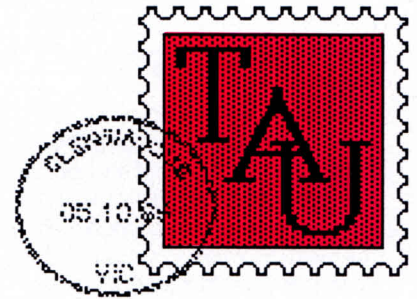
It's a little difficult to get into the Christmas mood at the end of October (when this Editorial is being written), but when it does arrive you can be assured that the staff at The Amstrad User will wish all our readers a most enjoyable and happy Christmas.

See you next month,

Ed.

P.S. We are all taking a well earned break from 16th December 1986 to 12th January 1987. If you need anything, make sure it's not during this period!

Letters



The program PETRCALC by Mike Perry (October - Issue 21) does not cater for those of us with older cars that have mileage meters. So, here is a modification to allow the use of both miles or kilo-metres.

```
41  MODE 1:PRINT:PRINT"
    <PRESS> (M) IF USING
    MILES OR (K) IF USING
    KILOMETRES
42  a$=INKEYS$:a$=LOWER$(a$)
43  IF a$="m" THEN GOTO 46
44  IF a$="k" THEN GOTO 47
45  GOTO 42
46  z$="MILE": z=1.609: GOTO
    50
47  z$=" KMS": z=1
50  LOCATE 1,17:PRINT" Press
    <ENTER> for 100 entries
    or enter number
    required.":LOCATE 5,12:
    INPUT" How many entries
    do you wish to have
    available";e: IF e=0 THEN
    e=100
1090IF y$(a)="Y" AND y$(a-
    1)="Y" THEN Lk(a)=(100*
    (L(a)/k(a)))/z:m9(a)=
    (2.8248929*(k(a)/L(a)))*z
1120IF y$(a)="Y" AND y$(a-
    1)="N" THEN Lk(a)=(100*
    (L(a)+Lb(a-1))/(k(a)+kb
    (a-1)))/z:m9(a)=
    (2.8248928*(k(a)+kb(a-
    1))/(L(a)+Lb(a-1)))*z
1410PRINT#ci,"No DATE
    PLACE METER "z$"
    FULL C/L L $
    1/100km M/G"
2700PRINT#ci,"No DATE
    PLACE METER "z$"
    FULL C/L L $
    1/100km M/G"
```

Phill Perry, Arncliffe, NSW

We've not put the correct spaces in the print lines - you'll have to work that out to get a cleaner layout.

I read with great concern in the October issue of TAU a letter from P.J. Schmidt of Loxton, SA, offering to "COPY" protected programs.

The Computer Software Industry is in a relatively "SAFE" position against pirates when compared to the Music Industry. At least software writers have the advantage of being able to key in "LOCKS" to their programs preventing duplication (for a short while at least) of their creative and hard work.

The music industry however is at an all time low. The technology that should have benefited the music industry has done the exact opposite. Consider DUAL CASSETTE decks, combination systems with turntable and CD players linked direct to a cassette deck at the touch of a button. None of us is so naive as to believe that people actually adhere to the copyright laws printed on records, cassettes, videos, CDs and recently, television programs - we do after all have the legally paid for equipment sitting in our loungerooms to "dub" off a copy of this and that for a mate.

Unfortunately, those who cared for the music industry when "RECORD" functions were set into cassette decks and VCRs didn't have the time or resources to insist that "ENCODER" and "DECODER" scramble devices were installed with the "RECORD" function to help protect the income of their performers. I suspect it's too late to implement such devices now, besides, the cost of this exercise would be too great and the

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

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

We regret that we cannot enter into any personal correspondence.

manufacturers of home entertainment equipment wouldn't wear it.

But surely, the Personal Computer Industry have the expertise and foresight to prevent a good deal of pirating that has almost sent record companies to the wall. Similarly, when will people realise that by doing "favours" for mates and copying software is cheating the software house and programmer out of income . . . no income . . . and they fold . . . it's as simple as that.

So, Mr. Schmidt and others like you, keep your fingers OFF the red buttons . . . I APPRECIATE my software and want my favourite software houses to keep growing.

Scott Storer, Wanniansa, ACT

And so say all of us!

I have only recently bought a PCW8256 to help in my one man business which is in the process of being renamed. I must admit to some initial scepticism about the utility of the machine, but after only 6 weeks I would not be without it.

Apart from being extremely useful at dreaded tax-time, I found that with a little bit of basic organising all my accounts, reports, genreal correspondence and literature surveys are now all neatly filed away with instant access. All this and I have only used one side of one disc.

I can only say "I'm really impressed!" with what can be done on this little helper.

Now I come to the point of my letter. My work requires a considerable amount of report writing and, as I have yet to type in other than binary, I found that long spells in front of the monitor gave me a pain in the optic fibres. The answer to this problem - wear sunglasses! I have found the most effective colour to be brown/yellow: this pair were free with a carton of Peter Jackson cigarettes. I believe there are

special glasses on the market to reduce VDU flicker but the price is high.

Thank you for your informative magazine and keep up the good work.

Dr. S. Baxter, Allambie Ht, NSW

Recently I purchased a copy of Oddjob by Pride Utilities. I find this program to be of excellent value, however, there is one annoying problem.

The tape to disc transfer program will only accept commands in upper case. This problem can be overcome as follows:

1. Insert disc and RUN"ODDJOB"
2. Select option 7
3. Load "ODDJOB.BAS"
4. Type EDIT 70
5. Modify line 70 by adding POKE 46642,255 to the start of the line
6. Save the program by typing SAVE "DISC".P

The poke added to line 70 will force CAPS LOCK mode when using the TAPEDISC program. The program can now be run by typing RUN"DISC" instead of RUN"ODDJOB".

R. Rayner, Cambridge Park, NSW

In my article regarding ASCII files in the October issue, I must confess that there are two error which have recently come to light. First, I incorrectly stated that LocoScript saves blocks as a standard ASCII file. This is not correct. Also, the facility to convert LocoScript documents to ASCII files is only available in Version 1.2 and greater. My PCW is a fairly early one and was provided with Version 1.2. I have since found out that machines ordered well after mine were only provided the earlier version. Perhaps the fact that mine was a dealer's demonstration model may have some bearing on this! I apologise profusely to everyone who has tried my tips and failed miserably due to these errors, but

it has been a hard slog for me coming to grips with my computer in a country town away from the help of established user groups. If you have the earlier version, it may be worth your while contacting your state AWA branch to see if you can arrange an update. Alternatively, you may wish to wait a while, as Locomotive Software in the UK has just announced that it will soon have available a new version of LocoScript with your choice of either a spelling checker or mail merge facility for £39.95. Hopefully this upgrade will find its way to Australia.

For those of you who would like to feed continuous A4 paper through your printer, but have difficulty in finding a supplier, write to: Swiftforms Print and Compter Supplies, GPO Box 811, Brisbane, QLD 4001.

They can provide white 70gsm bond paper (order code 12505) at the following prices: 500 sheets - \$14.50 plus \$4.00 postage; 1000 sheets - \$25.00 plus \$5.00 postage or 2000 sheet - \$48.00 plus \$5.00 postage.

I received my order just a week after posting off the order form, which is nothing short of amazing for a mail order request.

R. Webster, Fig Tree Pocket, QLD

TYPNIG ERRORS

Most unusual we know, but it was a case of more haste, less speed.

The first relates to the October GILTRONIC advertisement on Page 34. The price quoted for the 5.25", 40 track, double sided drive was incorrectly printed as \$249.00. The correct price is \$399.00. We apologise to Giltronic and readers for any inconvenience this error may have caused.

The second relates to the game CAPTURE in November, in particular lines 2515, 2411, 2490 and 2640 on the CPC464 only. If you are keying in the program ignore "GRAPHICS PEN 1". Otherwise LOAD "CAPTURE" from the tape (don't RUN), type 2490 and enter. Type 2640 and enter. Then SAVE "CAPTURE". This version should now run correctly. Sorry!

NATIONWIDE USER GROUPS

Well done! Your combined efforts have now taken the number of established Amstrad groups listed to FIFTY.

Another milestone is the establishment of **The Northern Territory Amstrad User Group**, being the first to set up in that area. We also welcome the **PCW Australia Group** in North Sydney, the **Namoi Amstrad Users Group** in Narrabri and the **North West Coast Amstrad Computer User's Club** covering that particular area of Tasmania. Any other groups not listed are welcome to drop us a line.

WESTERN AUSTRALIA

ALBANY AMSTRAD USER GROUP

President: Gerry Barr (098 41 6884)
Secretary: Steven Hands (098 41 5183)
Treasurer: Gavern Grose

Regular meetings are held on the first and third Mondays of each month at Priess Street Centre, 14 Priess Street, Albany from 7.00 p.m., and are conducted in a friendly atmosphere with families welcome. An emphasis is placed upon educating and assisting users with their problems. Discounts have been obtained for financial members from certain dealers in the area.

AMSWEST (Perth)

President: Tony Clitheroe (09 275 1257)
Vice President: Steve Cushnahan (09 445 2062)
Secretary: Mrs. P.T. Ardron (09 361 8975)
Treasurer: John Firth

Regular meetings take place at a venue in Shenton Park on the first and third Tuesdays of each month starting at 7.30p.m.

AMSWEST (Blackwood) USERS GROUP

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

ROCKINGHAM-KWINANA AMSTRAD USER GROUP

President: Bob Harwood
Vice-President: Keith Gaisford
Treasurer: Rob MacIroy
Secretary: Keith Saw (095 27 6519)

This group meets at 7.30 p.m. at the Cooloongup Primary School, Westerly Way, Cooloongup (Rockingham), every second Wednesday. Further details can be obtained from Keith Saw on the above number or by writing to 29 Millgrove Avenue, Cooloongup, WA 6168.

SOUTHSIDE AMSTRAD USER CLUB

President: John Marshall (09 390 7335)
Secretary: Pauline Waghorn (09 459 8702)
Treasurer: Eric Tytherleigh (09 390 8865)
Librarian: Tom Bird (09 457 5614)
Junior Rep: Gary Mottaboy (09 457 8086)

SAUC meets from 7.00 p.m. every 2nd and 4th Wednesday of each month at Gosnells Scout Hall on the corner of Verna and Corfield Streets, Gosnells. All meetings are socially oriented with a minimum of business matters and can include software and hardware demonstrations, discussions or lectures which all prove to be helpful for beginners or advanced users alike. The club has an extensive library of tapes, discs, magazines etc. and discounts have been obtained from most local dealers and are available to financial members. The club also owns its own Bulletin Board which is of great benefit to all. Contact can be made with any of the above officers or by writing to The Secretary, Southside Amstrad Users Club, PO Box 324, Gosnells, WA 6110.

SOUTHSIDE AMSTRAD USERS CLUB - North West Branch (Tom Price)

President: Peter Hoffman (091 89 1608)
Secretary: Colin Smith

Treasurer: Mark Hedley-Smith

This recently formed branch of SAUC already has 25 members. It has its own library and meets every second Wednesday night at the Primary School. Contact can be made with the President at any time. The branch is run along the same lines as the parent group and visitors are always welcome.

SOUTH AUSTRALIA

AMSOUTH AMSTRAD USERS GROUP

President: Geoff Martin
Treasurer: Bob Bleachmore (085 56 2048)
Secretary: Ross Kennewell (08 386 2737)

As the name suggests, this group has been established to cater for Amstrad users living south of Adelaide with the emphasis on family involvement. They meet every second Wednesday of each month at Christies Beach High School, Western Section, Beach Road, Christies Downs (adjacent to Staff Car Park). Meetings commence at 7.30 pm.

AMSTRAD COMPUTER CLUB INC. (SA)

President: Chris Sowden (08 295 5923)
Vice Pres: Frank Matzka (08 382 2101)
Treasurer: Les Jamieson (08 356 9612)

The group now meets each Tuesday at the Church Hall, 15 Clayton Avenue, Plympton between 6.30 p.m. and 9.00 p.m. Any of the above officers can be contacted for further details and correspondence can be addressed to PO Box 210, Parkholme, 5043.

NORTHERN COMPUTING SOCIETY INC.

President: Reg Pye (08 265 5272)
Treasurer: Maurice van der Hoeven (08 258 1722)
Secretary: Mike Taylor (08 264 5715)

This group has been in existence for several months and has a steady stream of new members. They meet in the Scout Hall, Bagster Road, Salisbury North every Wednesday from 7.00 p.m. For further details contact any of the above officers.

PORT LINCOLN AMSTRAD USERS GROUP

Contact: Rita Bascombe (086 82 1633)

This new group currently meets at Rita Bascombe's house on the third Tuesday of each month from 8.00 p.m. until more suitable premises are found. All interested parties should contact Rita on the above number.

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)

The group meets at 7.30 p.m. every second and fourth Monday of each month at the Education Centre, 370 The Terrace, Port Pirie. Meetings are well attended with members from Pt. Broughton, Pt. Pirie, Crystals Brook and Laura Primary School. For further details contact Rick Cable who will advise on the benefits of belonging to this group. Further details can be obtained from any of the above officers or by writing to The Port Pirie Amstrad User Group, c/o D.T. Green, 207 Senate Rd., Port Pirie, SA 5540.

SOUTH EAST AMSTRAD USER GROUP (SA)

Co-ordinator: Neil Taylor (087 25 8068)

Meetings are held on the third Sunday of the month in Mount Gambier from 1.00p.m. to 4.00p.m. The group has sessions on programming and information sharing, with free time for games, business applications or problem solving.

NORTHERN TERRITORY

NORTHERN TERRITORY AMSTRAD USER GROUP

President: Kevin Bateman (089 32 1463)
Treasurer: Greg Heron (089 27 8814)
Secretary: Colin Gorton (089 84 4655)

This is the first established user group in the Northern Territory and meets every 2nd and 4th Monday of each month at Casuarina Library, Darwin at 8.00 p.m. There is a cover charge of \$2.00 to pay for the hire of the room. Activities include tutorials in Basic and CP/M, help for adventurers and demonstrations of software. Discounts for members have been obtained from the local dealer. A Newsletter is issued and a Club Library will be started soon.

VICTORIA

CENTRAL AMSTRAD USER SOCIETY

President: Fred Gillen (03 580 9839)
Vice-Pres: Dennis Whelan (03 367 6614)
Treasurer: David King (03 546 3992)

Secretary: John Holmes (03 434 1607)
Meetings are held twice a month in the Hall at the corner of Church and Somerset Streets, Richmond on the first Sunday of each month commencing at 1.00 p.m. and generally twelve days later on a Friday evening starting at 7.00 p.m. All meetings are conducted in a friendly atmosphere - families are welcome.

EASTERN AMSTRAD USER GROUP

President: Tony Blakemore (03 878 6212)
Secretary: Barry Fredrickson (03 846 1340)
Treasurer: Ron Dunn (03 277 7868)

Regular meetings are held on the first Sunday of every month at St. Ninian's Church Hall, cnr. McCracken Avenue and Orchard Grove, South Blackburn. The group organises tutorials in Basic and CP/M for beginners as well as lectures and demonstrations. PCW courses are being planned. Proceedings commence at 2.00 p.m. Their postal address is PO Box 279, Heidelberg, Vic 3084.

GEELONG AMSTRAD USER CLUB

President: Ron Butterfield (052 50 2251)
Vice-President: Arthur Pounsett (052 78 2160)
Secretary: Ross Bennett (052 44 1556)

This club now meets at South Barwon Community Services Centre, 33 Mount Pleasant Road, Belmont on the first Wednesday of every month, starting at 7.30 p.m.

GOULBURN VALLEY AMSTRAD USERS CLUB

President: Shad Aitken (058 52 1001)
Secretary and Bill Brown (058 22 1011) B/H
Treasurer: (058 21 7569) A/H

This group aims "to explore and enjoy all aspects of the Amstrad computers" and meets on the third Wednesday of each month from 7.30p.m. at 98 Nixon Street, Shepparton on the first floor.

LATROBE VALLEY AMSTRAD USER GROUP

Contacts: M. G. Donaldson (051 34 5711)
F. Baxter (051 92 4246)

This newly established group meets informally once a month from on a Thursday evening. Their aims are to foster knowledge and a better understanding of the Amstrad computer. Any Amstrad user is welcome to come to the meetings. For more details of dates and venue contact the above.

MACEDON RANGES AMSTRAD USER GROUP

Contacts: Wayne Urnston (03 744 2719)
Ken McMaster (054 22 2620)

Covering the Gisborne, Sunbury, Kyneton and Woodend areas, this group meets in the Admin. Building of Flexdrive Industries on the second Wednesday of each month from 7.30 p.m.

MARYBOROUGH AMSTRAD USER CLUB

President: Chad Banfield (054 68 1351)
Treasurer: Brendan Severino (054 61 3191)
Secretary: Paul Clark (054 61 2135)

This group consists of a number of students and teachers from Maryborough CCC. Meeting take place each Friday from 12.10 p.m. to 12.45 p.m.

NORTHERN AMSTRAD USER GROUP

Contact: Brian Ellis (03 469 4425)

Meetings are held every second Sunday in Preston. The group has a twofold structure and the alternate meetings are devoted to novice training and systems development. Games are discouraged.

SALE AMSTRAD GROUP

The Group meets informally every Thursday night from 7.00p.m. at the Sale Neighbourhood House in Leslie Street. In addition, small group tutorials are held twice a month.

SOUTHERN AMSTRAD USER GROUP INC.

President: Peter Bradley (03 786 3953)
Secretary: Bob Patterson
Treasurer: Vickie Finlayson (059 98 8328)

Meetings are held on the third Tuesday of every month (except December when it is the first Tuesday) from 7.30 p.m. to 10.30 p.m. The venue is the Senior Campus at John Paul College, Frankston. Further details can be obtained from any of the above officers or by writing to the Secretary, PO Box 100, Seaford, Vic 3198.

WESTERN COMPUTER CLUB

The meetings are held on alternate Tuesdays, from 6.30 p.m. to 9.30 p.m., and Sundays from 1.30 p.m. to 4.00 p.m. (to allow for shift workers) at the Fairburn Kindergarten, Fairburn Road, Sunshine. For further information write to PO Box 161, Laverton 3028.

ACT

CANBERRA AMSTRAD USER'S GROUP

Convenor: Neale Yardley
Secretary: Steven Walker (062 58 2323)
Treasurer: Roger McLennan (062 82 3064)

The group meets at 7.30 p.m. on the first Wednesday of each month in the Large Lecture Theatre, Canberra TAFE College, Constitution Avenue, Ried. Correspondence should be addressed to the Secretary, PO Box 1789, Canberra, ACT 2601.

NEW SOUTH WALES

AM-USER's (North Ryde)

Contact: Lawrence Walters (02 888 1898)

The primary objective of the group is to enhance member's knowledge on both hardware and software available and on the Amstrad computers themselves. Meetings are held in the Meeting Room at 2 Leisure Close, North Ryde from 7.30 p.m. on the first Tuesday of each month. Discounts for members have been established at several stores in the area.

BLUE MOUNTAINS AMSTRAD USERS

President: Bob Chapman (047 39 1093)
Vice President: Dennis Shanahan (047 39 4568)
Treasurer: Peter Traish (047 53 6203)
Secretary: Christine Preston (047 51 4391)

Meetings are on the fourth Wednesday of each month at the Springwood Neighbourhood Centre, Macquarie Road, Springwood and start at 8.00 p.m. Activities include interaction of users with exchange of information and resources, a newsletter and tutorial sessions.

CENTRAL COAST AMSTRAD USERS CLUB

President: Lloyd Mitchell (043 88 2950)
Secretary: Ray Thompson (043 32 9095)

Established in March 1986, this club meets on every second Monday of the month at The Entrance Aquatic Club, Salt Water Reserve, Long Jetty. Proceedings start at 7.30 p.m. sharp. Anybody wishing to attend the meetings is welcome, and further information can be obtained from the above officers.

FAIRFIELD MICRO USER GROUP

Contact: Arthur Pittard (02 72 2881)

The group meets every third Wednesday of the month from 7.00p.m. in Room 65, Canley Vale High School, Prospect Road, Canley Vale. For more details contact Arthur on the above number.

ILLAWARRA AMSTRAD USERS CLUB

President: Paul Simpson (042 27 1574)
Secretary: Ken Waegele (042 56 6105)
Publicity Officer: Steve Parsons (042 96 3658)

The Club meets on the third Saturday of the month at the AGA Gremania Club, Berkeley at 2.00p.m. Discounts for members have been arranged at major Amstrad stockists in the area. A Club library is currently being stocked.

JUBOL AMSTRAD USER GROUP of COFFS

HARBOUR and DISTRICT

Contacts: Bruce Jones (066 52 8334)
Jim Owen (066 55 6190)

The "JUBOL" User Group is currently a small group covering the Coffs Harbour area. They meet informally on the first Friday of each month. Some members attend external DP courses and it is hoped that the group as a whole will shortly be embarking upon internal machine code tutorials.

NAMOI AMSTRAD USERS GROUP

Contact: Martin P. Clift, JP (067 92 1333) B/H
(067 92 3077) A/H

Meetings are held at the Narrabri Technical College, Barwan Street, Narrabri on the first Saturday of each month at 2.00 p.m. Discounts for members are being arranged with the local retailer who has provided much assistance in establishing the group.

For further details contact Martin Clift on either of the above numbers.

NEWCASTLE AMSTRAD USER GROUP

President: John Harwood (049 48 5337)
Treasurer: Erica Harwood
Secretary: Chris Holländer (049 67 5864)

Meetings take place on the first Tuesday of each month at Kotara Public School, Park Avenue, Kotara. A Newsletter is produced each month for members. Interested parties should contact John, Erica or Chris on the above numbers.

PCW AUSTRALIA GROUP

Contact: Reuben E. Carlsen

An inaugural meeting was held recently at which the majority of persons attending owned either a PCW8256 or 8512. However, membership is not restricted to just these machine owners. Interests range from word processing or business applications to program development. Regular meetings are planned for the second Tuesday of each month at 7.30 p.m. at a permanent venue to be arranged shortly. Other plans include a PCW User Newsletter. For more details contact Reuben Carlsen at PO Box 1879, North Sydney, NSW 2060.

PORT MACQUARIE AMSTRAD USERS GROUP

This group hopes to produce professional quality hardware add-ons for the Amstrad. The group can be contacted through Craig Tollis, PO Box 584, Port Macquarie, 2444.

SYDNEY AMSTRAD COMPUTER CLUB

President: Raja Vijayenthiran (02 88 3143)
Secretary: Reed Walters (02 560 9487)
Treasurer: Jim Chryst (02 327 7872)
Junior Rep: Daniel Story

This club now meets in a community hall in the Newtown area, on the first Saturday of every month for a normal club meeting and on the third Saturday of each month for the purposes of programming tutorials only. Both meetings commence at 2.00 p.m. Prospective members should contact either the Secretary or Treasurer between 6.00 p.m. and 9 p.m. on the phone numbers above for the exact location.

QUEENSLAND

BRISBANE AMSTRAD COMPUTER CLUB

President: Paul Witsen (07 393 4555)
Secretary: John Roberts (07 283 3349)
Treasurer: John O'Connor (07 271 3350)
Tech. Librarian: Peter Gollidge (07 376 1651)

Three meetings are held each month. The main meeting is held on the first Tuesday of each month at Junction Park State School, Waldheim St., Annerley starting at 7.30p.m. in Room 15a.

The second is held at Wynnum Central State School, Florence Street, Wynnum Central on the first Saturday of each month at 1.00p.m. The group co-ordinator is Warren Kennedy (07 351 4232).

The third is held at Newmarket State School, Banks St., Newmarket on the second Saturday of each month at 1.30p.m. This group's co-ordinator is Cherry Shrier (07 351 6179). Tutorials on Basic and Machine Code are given and a rapidly growing public domain library is available to all members.

BUNDABERG AMSTRAD USER'S GROUP

President: Ray Babbidge (071 72 1223)
Secretary: Ron Simkin
Treasurer: Sheila Cole (071 72 8884)

Established in May 1986, this group already has over 30 members. They meet on the third Tuesday of the month. For more details contact the above or write to Ron Simkin, PO Box 865, Bundaberg, QLD 4670.

MACKAY AMSTRAD USER GROUP

Are newly formed small mixed group with meetings held every second Sunday morning. For further details contact either Des Mulrealley on 551409 or Ron Coates on 547222.

PENINSULA AMSTRAD CLUB

President: Ivan Dowling (07 269 8795)
Treasurer: Keith Johnston (07 203 2339)
Secretary: Tracie Payne (07 267 6645)

The aims and objectives of this new club are to "further the knowledge, understanding and enjoyment of the Amstrad computer in its entirety". Meetings are held every third Tuesday of each month at 7.30 p.m. in the Kippa-Ring State School Library, Elizabeth Avenue.

SOUTHSIDE AMSTRAD USER GROUP (QLD)

President: Michael Toussaint (07 200 5414)
Vice-President: Peter Incoll (07 208 2332)
Secretary: Ken Henry (07 208 8730)
Treasurer: Tony Reynolds (07 841 4823)

Meetings take place every third Saturday of the month at the Loganlea State High School (in the Communications Room) starting at 2.00 p.m. The group was formed to service the southern outskirts of Brisbane and membership consists of beginners to advanced programmers.

Demonstrations of various hardware and software packages are given at meetings and the formation of smaller instruction groups for personal attention is under way. A BASIC programming instruction course is held fortnightly.

TOWNSVILLE AMSTRAD USER GROUP

President: Allan Maddison (077 79 2607)
Vice President: Brett Kettle (077 78 6915)
Treasurer: Shirley Paull (077 78 2318)
Secretary: Alister Buckingham (077 73 3955)

The club meets at 7.30 p.m. on the first and third (only) Tuesdays in each month in the Science Block of the Kirwan High School in Thuringowa Drive. Activities include Basic programming and CP/M sessions, new product reviews, problem solving, competitions and social outings. Club members also receive discounts on software and stationery from selected stores.

THE WARWICK AMSTRAD USER GROUP

President: Adrian Christensen
Secretary: John Wode (076 61 5176)
Treasurer: Neville Christensen

Meetings take place at the Warwick Education Centre on the first and third Saturday of each month from 3.00 p.m. Funds are currently being raised to purchase a printer for all to use. PCW owners also welcome. Discounts for members have been obtained from two local dealers.

WEIPA AMSTRAD USERS CLUB

President: Andrew Seaborn
Vice-President: Dave Wootton
Treasurer: Frances Casey
Secretary: Gary Chippendale (070 69 7448)

This new group has already had a few meetings at Noola Court in Weipa. Prospective members should contact Gary on the above telephone number or write to 15 Noola Court, Weipa, 4874.

WESTERN SUBURBS AMSTRAD USERS GROUP

President: Peter Wighton (07 288 4571)
Secretary: Jimmy James (07 376 1137)
Contact: Keith Jarrot (07 376 3385)

At the moment informal monthly meetings are held at Western District Office Supplies, 500 Seventeen Mile Rocks Road, Jindalee at 9.30 a.m. on the first Saturday in each month. All age groups from 9 to 90 are welcome. Prospective members may contact any of the above or write to Jimmy James, 36 Penong Street, Westlake, Brisbane 4074.

TASMANIA

SOUTHERN TASMANIAN AMSTRAD USER CLUB

President: Frank Self (002 49 5499)
Secretary: Peter Campbell
Treasurer: Cindy Campbell
Publicity Officer: Danny Brittain (002 47 7070)

Meetings take place on the first Wednesday of each month, commencing at 7.30 p.m. at the Elizabeth Matriculation College. Tutorials and Workshops are held at the Lady Rowallan School at times and dates to suit participants. Emphasis is on the CPC range with meetings kept as informal as possible.

NORTHERN TASMANIA AMSTRAD COMPUTER CLUB

President: Paul Gerard (003 93 1687)
Treasurer: Russell Lockett
Secretary: Andrew Blazely (003 34 0441)

Previously called the Launceston Amstrad User Group, this group meets on the first Saturday of each month in the Launceston Community College at 5.00 p.m. Proceedings are kept as informal as possible and cover tutorials and question and answer sessions. A large range of public domain software is available to members along with a reasonable range of games and utilities. Family membership is \$30.00, Adult \$20 and Student (under 16) \$15.00.

NORTH WEST COAST AMSTRAD COMPUTER USER'S CLUB

President: John Wilson (004 31 7162)
Treasurer: Peter Cocker
Publicity: Noel Davies (004 31 8490)

Recently established, this group meets at the Burnie Technical College, Mooreville Road, Burnie on the third Saturday of each month at 1.00 p.m. Tutorials and workshops are held with an emphasis on instructing beginners.

NEW ZEALAND

AMSTRAD CANTERBURY

Contact: Christine Linfoot 459 132
Ian Orchard 524 064

The club meets on the fourth Wednesday of each month at Four Avenues School, cnr. Madras Street and Edgeware Road, Christchurch 1. They are currently running tutorials in Basic for beginners, machine code and general purpose debugging, with ad hoc discussion groups on the working

utilities such as Tasword, Masterfile etc. The postal address of the group is: PO Box 23.079 Templeton, Christchurch, NZ.

WELLINGTON AMSTRAD USER GROUP

Contact: Tony Tebbs 791 072 (evgs)
This group meets at 7.30 p.m. on the last Wednesday of each month. The normal venue is Room 718, Kirk Block, Victoria University. The postal address is PO Box 2575, Wellington, New Zealand.

User Group Contact List

As we are short on space this month, please refer to last month's list to which can be added the following:

Charles van de Winckel - Ballarat - (053) 313 983
Graeme Annabell - Rockhampton - (079) 274 915

If you are interested in starting a group in your area, just send us your name, address and telephone number. We will put it in the Contact List. Hopefully, other like-minded people will contact you, and between you all you can arrange your first meeting.

Complete Disc Cataloguer and Amstrad Magazine Database

Both on one disc for \$15 (incl. postage)
Suitable for all CPCs with disc drives

Complete Disc Cataloguer: a sophisticated and comprehensive program to enable you to quickly locate any program in your library. Its use is certain to save you time and disc space.

Amstrad Magazine Database: consists of the main program plus data containing an index of articles/programs etc. which have appeared in The Amstrad User and the Amstrad Computer User from Issues 1 to October 1986. The data file can be increased with future issues.

LEEWAY SOFTWARE
RMB 4336, MORWELL
VICTORIA 3840

Telephone (051) 221 295

BUNYIP SOFTWARE

Announces the release of an Australian designed set of programs for Amstrad CPC computers. (Disc only)

SCREEN GRAPHICS PACKAGE 6

The package is made up of:

A Drawing Generator program using Modes 0 and 1

A Character Editor and Graphics string variable producer

A Shaded Epson compatible Screen to printer dump program

Also on the disc, Character set loader, Disc directory editor, Drawing program demonstration, Library of mergeable pictures and character sets.

The Drawing generator has among its many features the ability to save an area or whole screen in a compressed format and then merge them with another picture. A free Public Domain program allows these pictures to be loaded or merged by other programs in ALL screen modes.

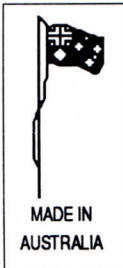
Other features include, Fill, Textured Fill, Mirror function, copy area of screen, Enlarge or Shrink, use flashing inks, Find and Replace an Ink. 6128 owners can use an enhanced version of the Drawing program. The Character Editor has the ability to combine a series of characters into a string variable and save the U.D.Char's and string variables as a Basic program.

Only available on disc at \$42.50 + \$2.50 Post and Packing.
Bankcard or Visa accepted.

BUNYIP SOFTWARE, PO Box 591, MURRAY BRIDGE, SA 5253

Aussie Made

Where we do our bit to support Australian made products



You could call this our "cover" story, but it's no joke when someone tips a coffee or beer over Arnold or Joyce (or whatever you call your Amstrad). A cover would help guard against that sort of

accident, as well as general grime and abrasive dust which in some circumstances can cause electrical problems and mechanical wear.

Of course, there wouldn't have been this sort of problem in 1947, the year David Everdell was born. This was the same year that his late father established a family business manufacturing and selling as its main products an item called a beach head rest, (that looked like a small collapsible chair) and a matching mirror based draw string purse for the beach called a "dilly bag". They ended up being sold world-wide.

Somewhere along the line, David's uncle, the manager, picked up on manufacturing bags, shower caps and every now and then - typewriter dust covers.

The company, 30 years later and by then called "Tremaynes" after an old family middle name, overstepped itself by failing to handle the huge wage increases of the Whitlam era and the flood of Taiwanese imports. It collapsed just before David's father died.

He had the choice of closing the company altogether and getting a 9 to 5 job, or trying to salvage the company's good name. Having not long before completed a three and

a half year solo hitch-hike from the South Polar region to the North Polar region and back, the idea of a "9-5, yes sir, no sir" job was not appealing.

He wasn't much in love with the pink, blue, yellow and red matching this and that, of the shower-cap and bag side of the business either, but had always liked the idea of expanding the more straight forward typewriter-cover manufacture.

With the micro-computer explosion some six or so years ago, the time seemed right, but there wasn't quite enough instant business and so while studying Accountancy at night college, David used a trade he had learnt in younger days at his father's factory. He started making awnings and covers for yachts and power boats, which expanded into covers for everything from trailers to aeroplanes, and from industrial machine covers to horse rugs. (He also ended up photographing Polo horses in action, for magazines all over the world.) David still rides and trains endurance and pleasure horses now, rather than cover them!

During this time he continued building up the number of patterns for computer and typewriter dust covers, as he believed that covers should be individually styled. It's been some three or four years since he has stopped making the larger, more cumbersome covers for boats and planes and the company has doubled in size.

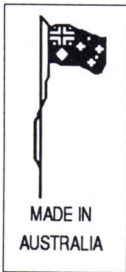
Currently, The Everdell Cover

Company manufactures the largest range (over 1000 would you believe) of individually tailored to suit, throw-over style computer and typewriter dust covers in Australia, including, of course, one each for most of the computers in the Amstrad range. The covers are made of durable PVC plastic with cotton bound edging. They are available in Beige, Black, Grey or frosted Clear. The prices are around \$22 retail, and quantity discounts are available (on 10 or more) which may interest User Groups.

What you can cover

CPC464 Keyboard Unit only
CTM644 Colour monitor
CPC464 Keyboard + 644 monitor
CPC464 + 644 monitor + 2 DDI-1's
GT865 Green screen monitor
CPC6128 Screen and keyboard
DMP2000 Printer
PCW8512/8256 - screen and keyboard
PCW8512/8256 - as above with glare visor
PCW8512/8256 Printer with paper support uprights
PCW8512/8256 Printer with paper supports no uprights

Further details can be obtained by writing to The Everdell Cover Company, 2 William Street, Brookvale, NSW 2100 or phoning (02) 93 5720.



Screen Graphics Package 6

Bunyip Software is new to the scene as a commercial software developer, and has no doubt been burning much midnight oil in Murray Bridge, SA to complete its first

offering "Screen Graphics Package 6" for the 464/664 and 6128 Amstrads.

The package consists of a Screen Drawing (designer) program, a character editor and utility, a utility to load redefined character sets, a disc editing utility, a program to dump screens to an Epson compatible printer, a demonstration and a library of pictures and character sets. With the disc comes twentyone pages of instructions including a dire warning on the front that certain routines have been included to prevent copying. There is also a couple of "Public Domain" programs at the end of the instructions to reload saved copy areas or character sets. Although suitable for all CPC machines (better if they have colour monitors), 6128 owners will appreciate having the extra 64k the program uses for storing

pictures.

Screen Drawing program

This operates in Mode 0 or 1, and shapes are achieved by moving a non-destructive cursor pixel with the aid of a joystick or through the numeric keypad. As the cursor moves a bleep is issued, and to get from one side of the screen to the other a little faster, the fire button (or shift) can be held down. Simply pressing "L" will start the continuous line drawing and if the fire button (or shift) is pressed at the same time, a dotted line is drawn. The style of line can be varied from standard to heavy, small rectangles or textured (in Mode 1). A useful feature is a "flash" in the border of the screen to indicate that the instruction you have just issued has been carried out.

Colours can be changed quite easily, even to the point of alternating between two colours if desired. You'll also find a "zoom" style facility to accurately locate the cursor and an adjustable width air-brush. With the latter, 6128 owners have the advantage of being able to spray with 2 colours.

Naturally all the standard squares, circles, ovals and so on can be drawn and filled using a variety of key press commands

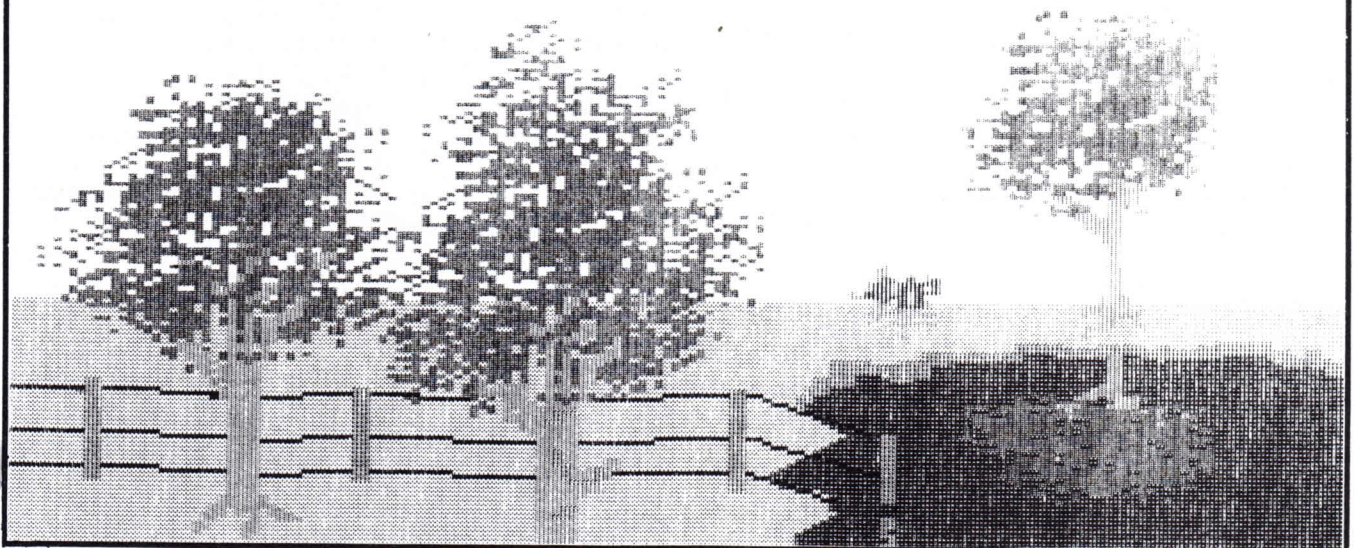
which become easier to use (and remember) as the program is used more.

One of the main features is a "cut and paste" facility. This is achieved by moving a rectangle to a position on the screen and adjusting the size if necessary. Pressing "X" copies that area, and pressing "Z" sets up the target area (where you want to put the copy) which can be moved to the desired position. Press CLR and whammo - the copy is transferred. Again, various keys provide the facility to double the copy area or shrink it including horizontally or vertically. It is also possible to save the selected copy area onto disc or tape as a separate file to include in another picture at a later date. This is actually saved in two files - an ASCII file with the size and description and another file with the data.

If that's not enough, there is a mirror option that copies the area to the right or below (upside down) and with the choice of making it "rippled" - as though it were a reflection.

Loading and saving pictures is simple, and in most cases is carried out with a minimum of key depressions. You have the choice of either saving just the screen (in

A sample section of a screen dump on a DMP-2000



which case no record is made of the colours) or the whole work of art using the "auto-run" facility. For 6128 owners, pressing a particular key will save the main screen to the 2nd RAM bank.

Character Designer

There are many versions around, all achieving almost the same results. The presentation in this version is clear with some helpful features. At the time the module is loaded, you are requested to enter the symbol character from which you will start. This activates a display of that number plus the next 19, with the ability to "scroll" further down the range if required. The obligatory large matrix is also displayed to enable the new character to be defined.

Once defined and saved, the new character is placed in the display line in a different colour for easy identification.

A facility is also provided to create small pictures with a number of selected characters, a string variable filled with CHR\$(xx) values to be precise. The output can be saved in Basic format to be merged with another program. Control codes 1 to 31 may be included in the string.

Other facilities include the option to run a mini version of the main Drawing program which

provides the "cut and paste" facility and the ability to copy then rotate or invert any of the characters from 32 to 255.

Load Character Sets

This utility allows character sets previously produced and saved by the Character Designer program to be reloaded as data files. You are able to load them in their normal position or specify a start position within the character range of 48 to 254.

Disc Editing Utility

This is a fairly standard utility, but with so many files containing pictures and redefined characters which are bound to occur after using the package for a while, it's useful to have this utility handy. It provides three simple functions - CATalogues, I ERase and I RENAME.

Screen Dump to Printer

After slaving over a hot keyboard for hours, this utility will produce the hard copy on your printer, assuming it's has 960 dots per line bit image mode like the DMP2000 which is Epson compatible. Naturally you won't get the colours, but the dump utilises 16 shades of grey. You have a choice to print a full screen with the added advantage of being able to crop the picture and select a particular section, enlarge

or shrink it, then print. In addition, if you find that the density of the printed dots it not to your liking, you can use the "find and replace ink" option to change the colour and in consequence the dot pattern.

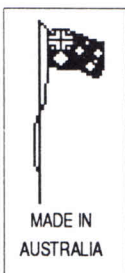
Demonstration

With the picture files on Side 2 of the disc, a demonstration of what can be achieved with the Drawing program is presented. 6128 owners who have not experimented with the extra 64k will be pleasantly surprised to see how fast three pictures can be loaded, one after the other.

Summary

Clearly a great deal of work has gone into producing this package (although the documentation needs tidying up - I believe this is happening before the official release), and after an initial slow start caused only by my inability to remember all the key depression necessary, within just a few hours I had created a pretty colourful representation of my own house. Regrettably, I had just 48 hours to look at the package so I look forward to having a more comprehensive look at a later stage.

*Available on disc only at \$42.50 plus \$2.50 for post and packing.
Enquiries: Bunyip Software, PO Box 591, Murray Bridge, SA 5253*



Taking a Gamble

A Sydney journalist and Amstrad user has launched an Australian first - an electronic magazine for gamblers. Take a good idea for a magazine, add frustration over

soaring costs and the hassles of dealing with financiers, advertisers, printers and distributors and what do you get? Hopefully, a breakthrough.

For Barry Tucker, a journalist with a background in magazines and newspaper production, the breakthrough came when he invested in an Amstrad PCW 8256.

He had been collecting

information about various gambling systems and games, casinos, stories about new legislation and laws, the people involved in gambling, therapies for compulsive gamblers and so on, with a view to producing a monthly magazine on the subject.

"There's no doubt that gambling is a giant industry in Australia," Tucker says, "In N.S.W. alone it's expected that punters will invest or re-invest some \$10 billion (repeat: billion) in gambling this financial year, apart from what they will gamble on the stock market. That's more than the NSW Government will spend on education".

"People gamble because they like to win, or they like the idea

of winning. They don't like to lose, yet most of them lose most of the time. But the magazine is designed to make the gambler better prepared to play the game - whatever the game is. It gives them a better chance of coming out winners by developing skills rather than relying on luck."

The magazine is called, quite simply, *The Gambler*. It has been in production as a newsletter, with limited circulation, pending development into the original concept of a monthly magazine. That plan was being held up by the difficulty of finding suitable financial backing.

"The problem there is that printing a monthly magazine is an expensive business," Tucker says,

"Finding a suitable backer means finding someone who will pay the bills but keep out of the editorial side. I've hesitated over taking that path because I will not compromise editorial control".

"I first had the idea for a digital magazine several years ago. That was to be a news-oriented product, virtually a Cardbox or some other brand of filing system. The reader, or operator-viewer, could call up the index, pick the news story that interested them, and delve into it by picking out one filing card after another, each card dealing with a different aspect of the story. A good idea, but the software didn't even exist then, to my knowledge".

"In a way, it was a videotex product, except that videotex didn't exist either. The project was shelved because I felt the technology wasn't ready for it".

"The thing that appeals to me about such a magazine is that it's a quick, clean and inexpensive operation with low overheads and it doesn't consume valuable resources, unlike the print media. Its medium, the cassette or floppy disc, is reusable. Because its overheads are low, it doesn't need to be financed by advertising, which irritates a lot of readers".

"Of course, you need the hardware to generate it, but the hardware is multi-functional, unlike a printing press. For a one-man operation, the personal computer is the receptionist, the secretary/typist, the accounts department, the mailing department, the creative department, the public relations department, the managerial/planning department and so on. One micro and a handful of programs can do it all."

Tucker bought this Amstrad only a few months ago, and since then a lot of projects that would have required laborious work on a typewriter have been initiated and completed, including the manuscript for a book, *THE GAMBLER* was the first project to emerge. It came out as a newsletter which he sold to people he knew, but expanding its circulation

presented problems.

The people who will handle magazine circulation for you will also take the bulk of your sale price, and the newsagent or whatever usually wants a third of what's left," Tucker says, "If I handled distribution myself, that would hardly leave time to churn out copies on the dot matrix printer and hold down a full-time job at the same time".

"I was wondering how I could justify the cost of a laser printer and a graphics program when it suddenly occurred to me that I was just trying to make my task even more complicated. I would be adding to costs and production time and I would still have to pay a traditional printer to get multiple copies".

"Then I thought: the magazine looks great on screen and it's easy to produce multiple copies on disc with what I already have. That's really the moment in which the video magazine was born".

For now the magazine is virtually an electronic newsletter, but if the idea takes off it will not stay that way for long.

"I don't see why it shouldn't take off," Tucker says, "The information I have about NSW Lotto, for example, is unique. One system I have developed regularly pulls in strings of prizes, It's described in the first issue of *THE GAMBLER*".

"For the moment the subscriber will get a text-only magazine, along with tables, codes, formulas or other information that will help the viewer understand the game or the system being discussed".

"I'm providing hard information, not pretty pictures on glossy pages. Pretty pictures might look impressive as they are being drawn on screen but they won't help the gambler do what he wants to do most".

"In the near future there will be graphic displays like windows, tables and forms that the viewer can interact with by punching in their own data, or selections, or by

updating information, for example, the first of these - and it's an exciting and original concept - is ready to go now".

THE GAMBLER will also buy stories about gambling, providing they have been thoroughly researched and can be verified, at the market rate of \$300 for 1,000 words. It will also do something that is unusual - it will pay for story ideas, providing they have merit.

Tucker is also planning to licence individuals or companies who have the facilities to copy *THE GAMBLER* and any other titles he produces for use on other systems. Agreements will be drawn up so that the licensee is left with a healthy operating margin, most of which will be profit.

While all this is going on, Tucker is also working on plans to produce the news feature magazine which he conceived originally.

Subscribers can either send their address and payment to *THE GAMBLER* and receive the magazine on a brand new disc by return mail or they can send a blank disc, with payment, and the magazine will be copied to it and the disc returned. Subsequent issues will be copied to these discs, leaving the first issue intact, and the viewer will get back their own disc. There will be no open exchange system because of the risk of someone sending in a damaged disc. Magazine discs will not be write protected so they can be used for other purposes.

*For further details write to:
The Gambler Magazine,
410/3 Greenknowe Avenue,
Potts Point, NSW 2011*

If you have an all Australian product, or are aware of one, please drop a line to the Editor with a view to featuring in the "Aussie Made" Column.

CHEAT MODE

Some more Tips,
Pokes and Game
busting ploys to
improve your scores.
Don't be shy - send
yours in to share with
all of us.

POKE METHODS

This is the section where we explain how to input the majority of *Cheat Mode* pokes. There are two different methods - the instructions for each poke tell you which one to use. If you have a 664 or 6128, you'll have to type 1 tape before using either.

Method 1: Make sure that you've rewound the game tape to the beginning. Now type in the poke listing then type RUN and press the 'Enter' key. (Don't use the key marked 'CTRL' or 'CONTROL', that will stop the poke from working.) Press the PLAY key on the cassette deck, and hit any key on the main keyboard - the space bar will do nicely. The tape should now start to play through in the normal way.

Method 2: For this method, you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type CAT, and press the 'Enter' key. Start the tape by pressing PLAY and hitting a key, and then watch the screen.

After a little while you'll get the message "Found SOMETHING block 1". It doesn't matter what the SOMETHING actually is - this will vary from one game to another. If the instructions with the poke just tell you to skip the first block you should stop the tape here. If the instructions tell you to skip several things, stop the tape when the "Found" message comes up for the last thing you're trying to skip.

Once you've stopped the tape press the ESC key, type RUN, and press the 'Enter' key. Now press PLAY on the tape deck, and hit a key on the keyboard to start the tape running.

CAULDRON

||

Everything you want to know about
this bewitching game.

The best place to start is in the throne room. This is because it is in the middle of the castle and gives easy access to three of the collectable items, which you should get in this order:

Shield - Go into the roof above the shield and drop through the hole onto it, bouncing straight back into the room so that the gargoyle doesn't tip you off into thin air. Be careful not to land on the gargoyle's head when you come through or you're in big trouble.

Crown - Bounce onto the second step then bounce again and you will get the crown. Go left two screens and bounce at full onto the gargoyle and back gain. Then bounce back onto the gargoyle and hold the joystick left until the bounce has calmed down, then bounce right.

Goblet - Bounce into the roof and go down and down again. Bounce left, dropping from a window and then bounce right. Go through the skeleton and bounce high and right until you can get the goblet. Bounce back immediately and retrace backwards off the ledge to the left.

Axe - Keep going left and pick up the axe. Keep going left until you drop and then jump out of the window onto the roof.

Scissors - Bounce left and out of the far left roof hole (avoiding gargoyle's head), collecting the magic and falling to pick up the scissors.

Now the hard bit. Go through the castle to the roof above where the shield was and go right. Go up the platforms to the top of the roof. Go right to where the spider is and with one big jump get onto the platform above him, and out of the top right. Up the next screen to enter the witch's bedroom.

The witch's magic won't move, allowing you to get a lock of her hair, but it still kills if touched. Now just get to the top of the building to get the spellbook and then down to the cauldron.

ELITE

A great tip for all owners of the Firebird game on disc.

It does some very weird things. Here's what you do:

1. Start game and go to the load/save game screen.
2. Select the option 'load new commander'.
3. Input commander's name as "Elite" and press Enter.
4. The message 'disc loading error' will appear.
5. Press '4' to exit the screen.
6. Press Space to begin game and you are in for a big surprise.

Apart from giving you all sorts of things you don't normally have, this also seems to introduce some interesting bugs into the game. So play around with it and see what happens.

TURBO ESPRIT

Some quickee tips on drug-ring busting.

1. Avoid chasing the red cars (armoured cars) near the end of the game, because they lead you on a little mystery tour through all the back streets and barge you into signs, people and lampposts.
2. Never shoot anything. You get many more points for ramming into the back of a car - up to 2,000 sometimes.
3. Never choose different towns when you start playing. After using the same town a few times you become used to it and eventually know it by heart.

ZOIDS

THE BATTLE BEGINS

Tips for the mechanical dinosaurs.

1. Every red Zoid you destroy has spare power cells if you scan where it was before you destroyed it - not just Slitherzoids.
2. City domes, mines and beacons all leave power cells when destroyed.
3. If having difficulty destroying domes, move your sights to the very edge of a dome and the mountains will be less difficult to get past.
4. Nearly all parts of Zoidzilla are found in domes near or next to the power station.
5. If a city network has only a couple of Zoids in it then the chances are there is no piece of Zoidzilla. All pieces are heavily guarded generally with Spinebacks.
6. In one network there are two Hellrunners going around together. Try to avoid these because if you destroy one the other will become a Spineback.

COMMANDO

Here's help for frustrated owners of the disc version of the game. The poke for the tape game has been altered to work with the disc version. Just type in the listing, save it onto the game disc and run it to load the game with 255 lives.

```
10 MEMORY &5BFF:LOAD"com1",
&5C00
20 FOR a=&9000 TO &9012:READ
b:POKE a,b:NEXT
30 POKE &5C33,&C3:POKE &5C34,
&0:POKE &5C35,&90
40 CALL &5C00
50 DATA 205,122,188,175,50,
15,78,6,6,33,59,7,119,35,
16,252,195,54,92
```

BIGGLES

Tips for the Helicopter simulation.

The secret code for the helicopter section is WREN. At the start of the game you are flying forwards at 45 degrees. Pull down on the joystick so you fly backwards at 45 degrees. Move the stick to the right till it gets to bearing 000 degrees. Fly to the map numbered 11. Look along the white line on the detailed map and you should see a red square. Land here and get the machine gun.

Take off and go to any other red squares on the map, getting all the equipment. There are two people on this map; get Bertie. Fly at bearing 180 until you get to map 10. Collect equipment from the red squares. Fly at bearing 270 to the allied camp on map 10. Land on the red rectangle and you'll be told the location of the convent.

Pick up Mary and fly to any red squares on this sector, stocking up on fuel found around the camp. Now fly to the convent. You'll probably be attacked by two planes. Shoot one down and you'll probably be left with one on your tail. Slow down and fly backwards and you should find it in your sights. On the same map as the convent is Smithy; pick him up and drop Mary. Once at the convent you'll be told the location of the sound weapon.

Fuel - is shown as red dots and when picked up will go either straight into the fuel tank or into the equipment list. You need to land to top up the tank with fuel you're carrying.

Machine gun - to use the gun you need ammo and Bertie.

Repairs - you need Smithy aboard to repair damage. He can do this only on the ground at the main locations.

TAU CETI

This is a comprehensive playing guide to the CRL space game. It will be of most use to somebody just starting out with the game but even experienced players may pick up a hint or two.

STARTING UP: The first thing to do is define the keys you want. Remember that the controls are not saved when you save a game, so every time you load up you must redefine the keys. It's a good idea to fly around for a bit getting used to the controls and to familiarize yourself with the display panel. The one thing to ignore here is height, which is of no importance.

The first thing to do at Reema, your starting point, is to find the library and reactor substation. You start near the town but the automatic direction finder will guide you back to the centre if you stray. The substation will contain one or more control rods and the library a timevault.

DOCKING: This is very simple and nowhere near as hard as in *Elite*. There are six kinds of building you can dock with: two types of reactor, two types of supply station, libraries and the lander. Head towards the building, gradually slowing. A blue rectangle should appear and start to fill the viewscreen. Continue to slow to just faster than minimum speed and you'll soon dock. It's important to remember that if you hit a building with lasers or a missile you won't be allowed to dock with it unless you reload a saved game or start again.

SUPPLY CENTRES: There are two types, military and civilian. All towns have one of each and once docked with you can access the Equip function to use them. A menu with six options will appear. The refuel, repair and install-flares options can be used at either centre, while the missiles and anti-missile missiles can be installed only at the military centre. The repair system will recharge the shields and repair any systems damaged in combat.

LIBRARIES: You'll find one of these in every town, usually near both the centre and a reactor substation. They look like a civilian supply centre with a diamond on top. Once docked the command 'LI.' will take you to a menu screen. The data banks allow you access to information under many headings (experiment to see which ones), but much of it isn't very relevant.

The city map allows you to examine detailed maps of the city you are in, its outpost and the neighbouring cities. These show the positions of buildings and enemies but is not updated when they

are destroyed. The main map gives information about the defence levels of different towns and their jump pads to other towns. The identification chart shows what the buildings and ships look like on screen and gives information on their defences and weapons.

TIMEVAULTS: These are found in libraries and provide useful equipment. You're told on docking whether there is one present and can access it by typing 'timevault'. Eight rectangles in a circle will appear with another rectangle in the middle. Put the cursor over the centre one and press fire. A pattern will form in the outer rectangles. Put the cursor over one rectangle, remembering where it is, and press fire. If you've chosen correctly a rectangle at the top of the screen will light up; if not the pattern will disappear and you'll have to start all over again. If you get the right rectangle the pattern will reappear and you must hit the same one as before in relation to the others.

There are six objects to be found in the vaults, each one serving a purpose. A radiation suit slows the rate at which the radiation affects you in the main reactor. Reserve shields come into operation when normal shield strength reaches zero. Experimental missiles destroy everything in a city except jump pads and buildings you can dock with. A single jump unit allows you to jump to a city's outpost. All of these have substations but not supply centres, and they're often heavily guarded. The energy recharge unit speeds up the recharging of the shield. Durium crystals can explode when launching, destroying or damaging the ship.

REACTORS: You must dock with all of these to see if they contain control rods. These come in two halves which have to be fitted together on a screen accessed by using the 'rod' command. This section is very similar to the puzzle-solving in *Impossible Mission* and you should have no problem with the controls.

In the main reactor you have to take the whole rods you have formed and drop them into the circles in the reactor core, which will light up. This has to be done quickly because of the dangerous radiation and heat levels.

COMBAT: This is fairly straightforward but there are some general tips. Use missiles when possible since your lasers overheat easily. Change views rather than turning the ship to get at enemies who attack you when not in sight. Destroy radar towers to stop them sending more ships after you. When fighting at night don't use infra-red while shooting a moving object but put up a flare so you can target on it more easily.

S♦T♦O♦R♦M

These two pokes provides joystick control on the Mastertronic dual-player game. The first allows you directional joystick control in a one-player game and activates the armour that didn't work in the original game. The second allows single- or dual-joystick control, although the second joystick may not work exactly as planned with all dual-joystick connectors. If the second player would prefer the original keys or you don't have a second joystick then just delete lines 110-140 before using the poke. Both pokes are entered using Method 1.

First Poke:

```
10 DATA 00,3a,a5,57,fe,05,20,84,cd,03,0d
20 DATA c9,3a,50,00,b7,c4,5a,0d,af,32,50
30 DATA 00,21,1e,0d,e5,36,c9,cd,0c,0d,e1
40 DATA 36,3a,cd,24,bb,f5,cb,67,c4,e6,0d
50 DATA f1,47,3e,00,cb,40,20,10,cb,58,20
60 DATA 0b,cb,48,28,86,cb,50,20,01,c9,3c
70 DATA 3c,3c,eb,03,32,41,57,3c,32,50,00
80 DATA c9,06,00,11,70,01,cd,77,bc,21,70
90 DATA 01,cd,83,bc,cd,7a,bc,21,51,00,22
100 DATA dc,0c,21,be,00,22,aa,1c,c3,70,01
110 Data cd,04,20,cd,05,22,cd,60,ic,c9
120 y=0:MEMORY &3000
130 FOR x=&50 TO &C7:READ a$
140 a=VAL("&"a$):POKE x,a
150 y=y+a:NEXT
160 IF y()&2C53 THEN PRINT "Data error!":END
170 LOAD"des",&35C0
180 LOAD"!",&7d74:LOAD"!",&5500
190 CALL &9E
```

Second Poke:

```
10 DATA 21,8c,b8,11,48,00,3e,2c
20 DATA cd, a1,bc,2a,6f,aa,ed,5b
30 DATA 9f,b8,3e,16,cd,a1,bc,2a
40 DATA 6f,aa,01,00,08,89,22,6f
50 DATA aa,3a,9d,b8,fe,ff,20,d8
60 DATA 21,fe,0f,3e,2f,77,01,04
70 DATA 08,09,3e,4c,77,01,04,00
80 DATA 09,3e,48,77,01,84,00,89
90 DATA 3e,4a,77,01,04,00,09,3e
100 DATA 4b,77,01,04,00,09,3e,15,77
110 DATA 21,57,10,3e,34,77,01
120 DATA 04,00,09,3e,30,77,01,04
130 DATA 08,09,3e,32,77,01,04,00
140 DATA 09,3e,33,77
150 DATA c3,70,01,end
160 MEMORY &14FF
170 FOR a%=&AA00 to &AA6E:READ B$
    IF b$="end"THEN190
180 POKE a%,VAL("&"b$) :NEXT
190 POKE &AA6F,&70:POKE &AA70,1
200 LOAD "! des",&35C0
210 LOAD "!",&7D74
220 LOAD "!",&5500
230 CALL &AA00
```

BEACH HEAD

Here's another poke for the ageing US Gold game that gives infinite ships on the air and sea stages of the game. It means that as long as you don't take the secret passage you'll always have a full complement of tanks. It's entered using Method 1.

Note: 664 and 6128 tape users should change 07,b8 in line 40 to 1f,b1; in line 50, ea,b1 to e5,b7, and again in line 50 d9,b1 to d4,b7.

```
10 DATA 3e,c9,32,b2,99,
    c3,80,b2,21,81,22
20 DATA 36,09,23,36,b7,
    21,40,20,11,40,00
30 DATA 01,44,82,ed,b0,
    21,40,00,e5,21,00
40 DATA bb,e5,21,44,02,
    e5,21,07,b8,e5,21
50 DATA bb,02,e5,f1,21,
    ea,b1,11,d9,b1,f3
60 DATA c9
70 MEMORY &2000
80 LOAD""
90 CALL &3A6A
100 LOAD"!",&2040
110 FOR x=&BE00 TO &BE37
120 READ a$
130 POKE x,VL("&"a$)
140 NEXT
150 MODE 0
160 CALL &BE08
```

Send your "cheats" and tips to
Cheat Mode,
The Amstrad User, Suite 1,
245 Springvale Road,
Glen Waverley, Vic 3150.
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for every one published.

The Amstrad Cup

*Skipper your own Yacht
to victory over the Americans*

by Roy Lundquest

In this two player game, navigational skills and judgement of distance is important. It was originally written for the 6128 and contains a FILL command in line 500 which will have to be removed if you have a 464 and want to start playing straight away.

```
1 '*****
2 '*
3 '* THE AMSTRAD CUP
4 '*
5 '*****
6 '
10 MODE 1:ENV 1,15,-1,10
20 DEG:bearing$="n///nne/ne//ene/e///ese
/se///sse/s///ssw/sw//wsw/w///wnw/nw//nnw
/"
30 yacht1=20:yacht2=18
40 yacht$=CHR$(144):yt$(1)="AMSTRALIA":y
t$(2)="AMSMERICA"
50 sand=15:water=1
70 CLS:CLG:INK 0,sand:INK 1,water:INK 2,
yacht1:INK 3,yacht2
80 BORDER 1:PAPER 0:PEN 1
90 LOCATE 8,2:PRINT"*** THE AMSTRAD CUP
***":LOCATE 8,4:PRINT"(By Roy Lundquest
02/86)"
100 LOCATE 8,12:PRINT"<G>ame or <I>nstru
ctions"
110 choice$=INKEY$:IF choice$="" THEN 11
0
120 x=INSTR("gi",LOWER$(choice$))
130 ON x GOTO 140,1180:GOTO 100
140 CLS'***** outer boundary *****
*
150 DATA 60,100,100,180,70,230,70,300,80
,330,110,350,180,330,250,380,310,380,420
,350,500,390,580,320,580,240,550,170,570
,80
160 DATA 560,50,530,40,500,30,450,40,390
,70,330,60,280,30,200,20,130,50,60,100
170 DATA 999,0
180 READ x,y:MOVE x,y,1
190 READ x,y:IF x=999 THEN 220
200 DRAW x,y:GOTO 190
210 '***** inner boundary *****
*
220 DATA 130,110,160,160,160,190,150,230
,120,260,130,290,180,280,270,340,300,350
,420,300,490,340
230 DATA 540,290,530,250,500,200,530,130
,530,90,510,80,370,120,240,80,200,80,130
,110
240 DATA 999,0
250 READ x,y:MOVE x,y
260 READ x,y:IF x=999 THEN 290
270 DRAW x,y:GOTO 260
280 '***** eastern sandbar *****
290 DATA 550,240,550,220,540,200,530,180
,530,220,550,240,999,0
300 READ x,y:MOVE x,y
310 READ x,y:IF x=999 THEN 340
320 DRAW x,y:GOTO 310
330 '***** southern sandbar *****
340 DATA 330,80,350,90,360,90,390,80,370
,70,330,80,999,0
350 READ x,y:MOVE x,y
360 READ x,y:IF x=999 THEN 390
370 DRAW x,y:GOTO 360
380 '***** western sandbar *****
390 DATA 120,210,140,200,140,180,120,160
,120,210,999,0
400 READ x,y:MOVE x,y
410 READ x,y:IF x=999 THEN 440
420 DRAW x,y:GOTO 410
430 '***** north arrow *****
440 MOVE 30,180,1:DRAW 30,270:DRAW 20,26
0:MOVE 30,270:DRAW 40,260
450 MOVE 25,300:TAG:GRAPHICS PAPER 0:PRI
NT"N";
460 '***** scale line km *****
470 MOVE 20,30:DRAW 100,30:DRAW 100,35:M
OVE 20,30:DRAW 20,35:MOVE 15,50:PRINT"0"
;:MOVE 95,50:PRINT"1";
480 MOVE 50,20:PRINT"km";
490 '***** blue water *****
500 MOVE 300,360:FILL 1
510 MOVE 340,320:DRAW 340,380,0
520 '***** window *****
530 WINDOW#1,15,30,8,16:PAPER#1,1:CLS#1
540 LOCATE#1,4,2:PEN#1,2:PRINT#1,"*WELCO
ME*"
550 LOCATE#1,7,4:PRINT#1,"-to-"
560 LOCATE#1,1,6:PEN#1,3:PRINT#1,"THE AM
STRAD CUP"
570 PEN #1,2:GOSUB 1160
579 '***** input routine *****
580 CLS#1
```

```

590 turn=1:FOR start=1 TO 2
600 x2=345:y2=340+(start-1)*10:GRAPHICS
PEN start+1:GOSUB 1140
610 x(start)=x2:y(start)=y2:NEXT
620 CLS#1:PEN#1,turn+1:PRINT#1,yt$(turn)
:GRAPHICS PEN turn+1
630 htrav=0:vtrav=0
640 LOCATE#1,1,3:INPUT#1,"Direction";dir
$:dir$=LOWER$(dir$)
650 IF dir$="0" THEN degrees=0:GOTO 730
660 degrees=VAL(dir$)
670 IF degrees=0 THEN 690
680 IF degrees>0 AND degrees<=360 THEN 7
30 ELSE 640
690 IF LEN(dir$)<4 THEN dir$=dir$+ "/" :GO
TO 690
700 place=INSTR(bearing$,dir$)
710 IF place=0 THEN 640 ELSE place=(plac
e+3)/4
720 degrees=(place-1)*22.5
730 LOCATE#1,1,5:INPUT#1,"Distance";dist
$
740 dist=80*VAL(dist$):IF dist=0 THEN 90
0
750 IF COS(degrees)=0 THEN hdist=dist*SI
N(degrees):vdist=0:GOTO 780
760 IF SIN(degrees)=0 THEN hdist=0:vdist
=dist*COS(degrees):GOTO 780
770 hdist=dist*SIN(degrees):vdist=dist*C
OS(degrees)
780 IF ABS(hdist)>=ABS(vdist) THEN hstep
=SGN(hdist):vstep=ABS(vdist/hdist)*SGN(v
dist) ELSE vstep=SGN(vdist):hstep=ABS(hd
ist/vdist)*SGN(hdist)
790 xx=x(turn):yy=y(turn):oldx=xx:oldy=y
y
800 xx=xx+hstep:yy=yy+vstep
810 htrav=htrav+hstep:vtrav=vtrav+vstep
820 IF ABS(htrav)>ABS(hdist) OR ABS(vtra
v)>ABS(vdist) THEN GOSUB 1090:GOTO 900
830 t=TEST(xx+hstep,yy+vstep):IF t<>1 AN
D t<>turn+1 THEN 860
840 PLOT ROUND(xx),ROUND(yy):x(turn)=xx:
y(turn)=yy
850 GOTO 800
860 r= ROUND(xx+hstep):IF (r=340 OR r=34
1) AND yy<370 AND yy>330 THEN 950
870 xx=x(turn):yy=y(turn)
880 CLS#1:SOUND 1,200,150,15,1,,10:LOCAT
E#1,3,1:PRINT#1,yt$(turn):LOCATE#1,1,3:P
RINT#1,"Miss a turn":LOCATE#1,1,5:PRINT#
1,"for repair work"
890 GOSUB 1090:GOSUB 1160:miss=1:GOTO 93
0
900 IF miss=0 THEN 930:** miss a turn **
910 miss=miss+1:IF miss>2 THEN miss=0:GO
TO 930
920 GOTO 620
930 turn=turn+1:IF turn>2 THEN turn=1
940 GOTO 620
950 IF degrees>0 AND degrees<180 THEN 99
0
960 xx=x(turn):yy=y(turn)
970 CLS#1:LOCATE#1,3,4:PRINT#1,"WRONG WA
Y !!"

```

```

980 GOSUB 1090:miss=1:GOSUB 1160:GOTO 93
0
989 '***** we have a winner *****
990 GOSUB 1090:SOUND 1,1000,100,15:SOUND
1,1,30,1:SOUND 1,1000,100,15:MOVE 340,3
30,turn+1:DRAW 340,370 '***** sound fog
horn and redraw finish line ****
1000 CLS#1:PEN#1,turn+1:LOCATE#1,3,2:PRI
NT#1,yt$(turn):LOCATE#1,5,4:PRINT#1,"-wi
ns-"
1010 LOCATE#1,1,6:PRINT#1,"THE AMSTRAD C
UP";
1020 GOSUB 1160
1030 CLS#1:LOCATE#1,3,3:PRINT#1,"Another
"
1040 LOCATE#1,5,5:PRINT#1,"Race (y/n)"
1050 k$=LOWER$(INKEY$):IF k$="" THEN 105
0
1060 IF k$="y" THEN 580
1070 CLS:END
1080 '*** erase old boat and track ***
1090 x1=oldx:y1=oldy:x2=x(turn):y2=y(tur
n)
1100 GRAPHICS PEN 1
1110 FOR x=x1-1 TO x1+1:FOR y=y1-1 TO y1
+1:PLOT x,y:NEXT y,x
1120 FOR w=-1 TO 1:FOR z=-1 TO 1:MOVE x1
+w,y1+z:DRAW x2+w,y2+z:NEXT z,w
1130 GRAPHICS PEN turn+1
1139 '**** draw new boat position ***
1140 FOR x=x2-1 TO x2+1:FOR y=y2-1 TO y2
+1:PLOT x,y:NEXT y,x
1150 RETURN
1159 '***** key press routine *****
1160 LOCATE#1,1,9:PRINT#1,"Press any key
...";
1170 IF INKEY$="" THEN 1160 ELSE RETURN
1179 '***** instructions page *****
1180 CLS:LOCATE 10,2:PRINT"INSTRUCTIONS"
1190 LOCATE 10,3:PRINT"-----"
1200 PRINT:PRINT"THE AMSTRAD CUP is a ga
me for 2 people."
1210 PRINT"Each player sails a yacht aro
und a very"
1220 PRINT"treacherous course using eith
er map"
1230 PRINT"directions such as SSE or com
pass"
1240 PRINT"bearings such as 130 (degrees
)."
1250 PRINT:PRINT"Remember that North is
0 or 360,East is"
1260 PRINT"90, South is 180 and so on."
1270 PRINT:PRINT"Distance may be estimat
ed fairly "
1280 PRINT"accurately from the scale lin
e on the"
1290 PRINT"course map. You must travel a
round the"
1300 PRINT"course clockwise and any mish
aps will"
1310 PRINT"lose you a turn.":PRINT
1320 PRINT"GOOD LUCK TO BOTH OF YOU!!!"
1330 PRINT:PRINT"Press any key to play"
1340 IF INKEY$="" THEN 1340 ELSE 140

```

When the press use such words as 'Phenomenal', 'Outstanding', 'Ideal' and 'Worth Every Penny', they've obviously discovered something rather special.

But when that something special turns out to be a product in which they are already expert, then it must be something very special indeed.

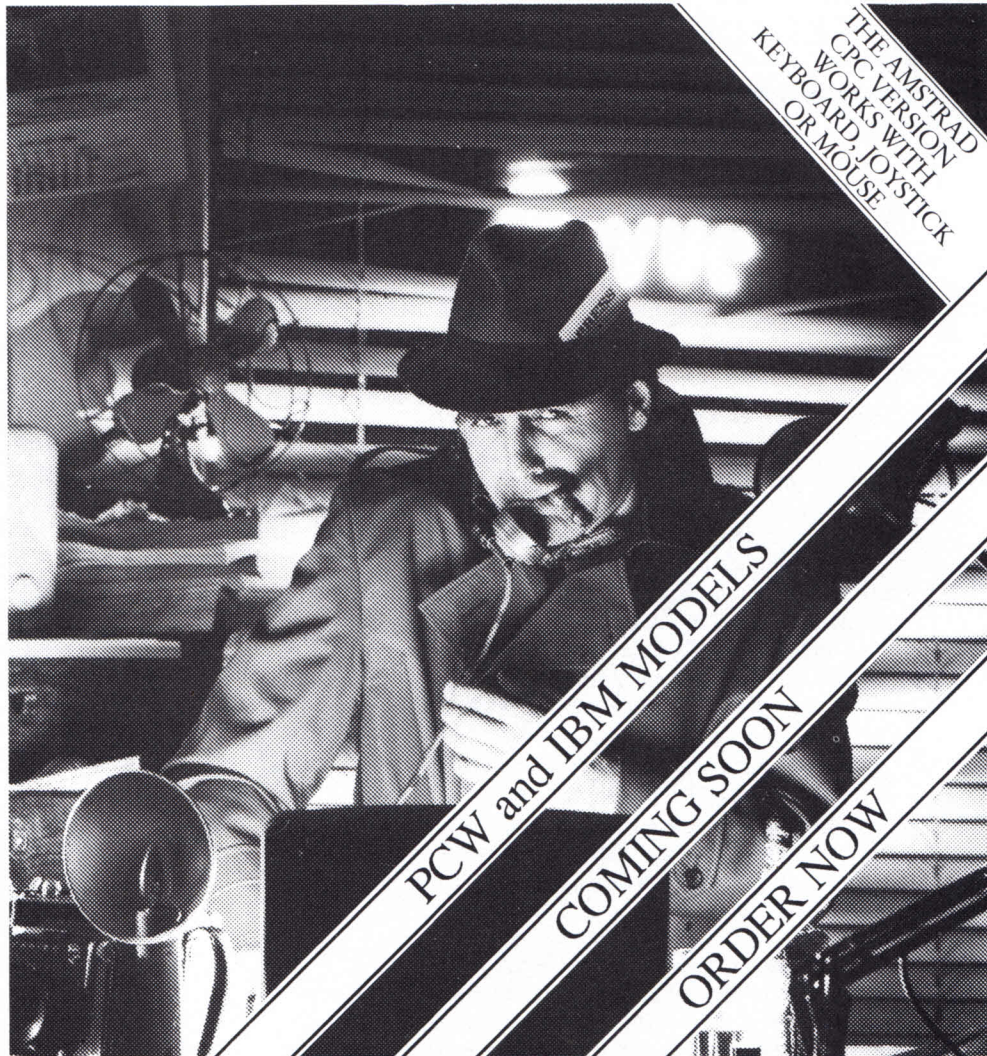
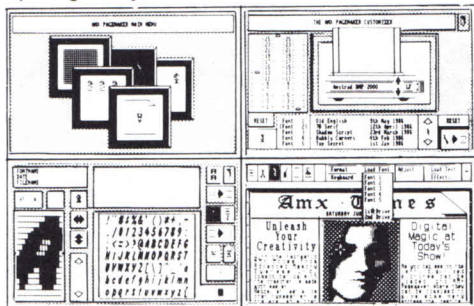
The object of their enthusiasm is AMX Pagemaker - a revolutionary software program that will produce newspapers, posters, leaflets, notices and hand-outs - in fact anything where text and graphics are required, to an extraordinary professional standard.

It's a complete graphics design system and word processor rolled into one. It has real time graphics with fast continuous scrolling up and down an A4 page and uses Mode 2, the highest graphics resolution on the Amstrad CPC computers.

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You can type directly onto the screen, with any of the 16 typefaces supplied or design your own, alternatively, you can load in any ASCII file or a word processor file, from programs such as Tasword, Amsword, Maxam, or Protext, with fully automatic on-screen text formatting during loading.

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The AMX Pagemaker requires: a) Amstrad CPC6128 or b) Amstrad CPC664+64K minimum add-on Ram or c) Amstrad CPC464+64K minimum add-on Ram + disc drive, DK'tronics Ram boards or compatible.

Let's leave the last word to the press.

**Pagemaker is phenomenal - it lends itself

to creating anything where text and graphics are involved - notices, posters, leaflets, hand-outs, news-sheets. Packages like this have been the province of 16-bit micros until now, this product is worth every cent of \$175*.

AMX MAGAZINE MAKER - WE THOUGHT IT WAS ABOUT TIME WE PUT YOU IN THE PICTURE.

A combination of AMX Pagemaker and the AMX video digitiser. Using any video that provides a composite signal and the digitiser, images from a camera or TV can be converted into a graphic screen on the Amstrad micro. They can then be used within AMX Pagemaker to illustrate magazines or Newsletters. The digitiser connects into the expansion port and scans a complete picture in only 5 seconds.

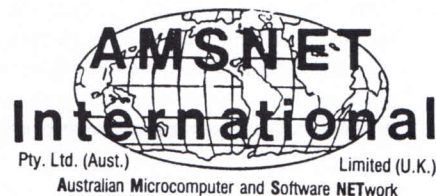
A special print dump routine is also included with the driver programs. This is specially designed to produce fast, correctly proportioned pictures, with reduced 'Contouring' resulting in a very accurate reproduction of the image.

- Features offered by this package include:
- Dot resolution 256 by 256
 - Standard 1 volt composite video input
 - 10 bit A/D convertor gives 32 grey scale output
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 - No external power unit required

These packages are your opportunity to join the desktop publishing revolution.

The AMX Pagemaker costs only \$175, software is supplied on 3" disc and a fully illustrated operating manual, AMX Digitiser only \$295 including software on 3" disc, and AMX Magazine Maker (including AMX Pagemaker and AMX Digitiser) at \$425.

These superb packages are available from all good computer dealers or direct from



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*'Educational Computing', January 1986

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PCW SOFTWARE GUIDE

These pages represent a comprehensive guide to software on the Amstrad PCW machines. We've set out to cover every piece of software we could lay our hands on and give you enough information on each one to enable you to decide which titles are likely to be suitable for what you need.

As well as a brief summary of the programs, we've listed their main Plus and Minus points.

The programs are divided into eight categories. And if you're thinking of buying one of the "big three" packages - word processor, spreadsheet or database - but have never actually used one, then you'll find the introductions to these sections essential reading. They tell you why you would want such software at all, and what are the vital features that you ought to be looking for.

Increasingly the boundaries between the package types are becoming fuzzy. If you think you want a database to hold your address list, you probably really want a word processor with a mail merger utility. If you think you want a spreadsheet to analyse your business costs, you may find a programmable database more useful. Read the descriptions below to see which suits you best... And have fun window-shopping...



merger" program. This is a way of doing bulk mailshots; you store your address list in a data file, and write a letter with labelled gaps where you want the names and addresses to go. Then, when you print, the letter comes out once for each address, with the information in its correct place.

One thing's for sure, whatever word processor you buy it will be totally different to operate from LocoScript. The PCW keyboard is custom built to run LocoScript, so if you change you will have to get used to some arcane choices of keys to do even simple operations. Also, you won't be able (very easily) to use all the printer styles that you can from LocoScript, although there will be enough to get by with.

WORD-PROCESSORS

The PCW already comes bundled with a free word processor, LocoScript, so you might not think of buying another one as a priority. In fact, whatever you may have read in magazines, LocoScript is a pretty good word processor and you won't find many editing and layout functions that it doesn't have. Its principal disadvantage is speed - to move around a document of more than a couple of pages is like running through quick-setting cement.

So the main argument for change is to make life easier if you are regularly editing long documents (5 pages and over). Once you've decided to take the plunge you will find there are other advantages to be had. For one, you often get a spelling checker thrown in free - look for one which allows its dictionary to be modified so you can include non-American spellings.

Many other word processors have a built in "mail

LocoScript
Bundled free with PCW machine

Locomotive Software
(Included for comparison)

This is the standard PCW word processor. It makes by far the best use of the hardware of any word processor, and can do true proportional spaced printing, so why should you buy anything else? Well, the menu system is a little obscure at first, and you will need to use the manual a lot. Painfully slow with large documents, but if all you will ever do is 1 or 2 page letters, you would be silly to buy another word processor.

PLUSES • MINUSES

- + It's free!
- + Uses the printer and keyboard very well
- + Copes well with most editing functions, including block moves
- + Plenty of powerful features such as templates and phrases
- Very slow with long (3 pages or more) documents
- Bad at creating non-document files (e.g. program text), and interacting with CP/M
- No mail merge, spell checker or word counter as standard
- Documentation needs better organising

Pocket WordStar

MicroPro/Davis Rubin Associates

To many business users, word processing means using WordStar. Almost every feature you could need in a text processor is here and despite the title this "Pocket" version has all the features of the original. It has also been customised to use the PCW's full screen width and some of the keypad keys. However the program can be difficult to learn and some of the margin and formatting commands are cumbersome. Efficient, and it has earned its colours in active combat, but it is now showing its age and there are alternatives unless you are committed to Wordstar already. For a bit extra you can buy a version which includes the spell checker SpellStar.

PLUSES • MINUSES

- + Probably the world's most widely used word-processor
- + Documentation is complex but well structured
- + Includes a mail merge utility
- + The keystroke commands are fully described on on-screen menus
- + You can save your own favourite customised version
- Doesn't make full use of the PCW keyboard and printer
- Page and margin formatting commands are awkward to use
- Complex and difficult to master thoroughly.

NewWord

New Star Software

NewWord sets out to exploit the WordStar market by doing just the same job but better. It uses much the same key commands as WordStar, and will even edit WordStar document files. It comes with a spelling checker. On-screen help is much better than WordStar, but the commands, being restricted by compatibility, are still as obscure.

PLUSES • MINUSES

- + Can do everything WordStar can, and even edit

WordStar files

- + Makes good use of the PCW screen - actually shows underlining and bold text.
- + Clearer help messages than WordStar and good tutorial manual.
- + Has full reformatting of text within its mail merge
- + Good spelling checker as part of the price
- + Can un-erase words and lines - useful for moving them rapidly
- Weak on use of the keypad and printer support
- Many of WordStar's disadvantages too, like formatting troubles and obscure commands.

Tasword 8000

Tasman Software

An established word processor that is well tried and tested on Amstrad's CPC machines. Tasword's strength is printer handling - it provides a host of customisation options for different printers, and a variety of print fonts too. But if you enjoy moving blocks of text around to see how they look in different places, Tasword will let you down for speed.

PLUSES • MINUSES

- + Clear, well structured on-screen help menus
- + A variety of printer controls and fonts available
- + Includes a reasonable mail merge program
- + Moving around big files is fast
- + You can easily create and save a customised version of the program
- Doesn't treat [RETURN] as a character - it can misunderstand where paragraph breaks are
- Reformatting text blocks is quirky
- Documentation is a bit brief
- The search and replace function is limited and very slow

SuperWriter

Sorcim/Software City

A very comprehensive package, with spell checker and mail merge included, and the ability to execute commands from stored files. Full range of commands and formats, and on-screen help can be obtained. It's very fast at block operations and moving around, and reformats paragraphs in a flash. Very good value, but not much effort has gone into adapting it for the PCW.

PLUSES • MINUSES

- + Very fast at searching and moving around files
- + Sophisticated mail merge includes conditional print options
- + Spell checker can be easily customised
- + Complex commands can be executed from files
- + Excellent documentation, including a quick reference card and on-screen help menus
- Can't edit files longer than 30K or so at once
- Some of the documentation is only applicable to

IBM PCs

- No proportional spacing, and configuring the printer is difficult

LocoMail

Locomotive Software/Amstrad

As a mailmerger for LocoScript documents, it's difficult to see how anything could be much better than this. It runs directly from LocoScript, so you never have to use CP/M, and can process any LocoScript commands. Has many advanced features, and is highly recommended for all LocoScript users.

PLUSES • MINUSES

- + You don't have to boot CP/M to run it
- + Can print any LocoScript text formatting commands
- + Can automatically rejustify paragraphs after insertion
- + Can insert numeric calculations into letters
- + Can conditionally include or omit chunks of text
- + Large, clear manual, with example files on disc
- No way to sort and filter addresses before a print run
- Can't be used with non-LocoScript files

Dataflow III and Mailflow III

Micro Power

Designed as an integrated mailmerge package, it is awkward to use although can achieve good quality results. You have to convert LocoScript files to ASCII, which is annoying. The database section is not easy to use. It's worth a look if you want to mailmerge non-LocoScript files, but not otherwise.

PLUSES • MINUSES

- + Can put bold, underlining etc. into non-LocoScript files
- + Can pre-sort and pre-select records for merging
- + Automatically rejustifies text paragraphs
- Doesn't read unconverted LocoScript documents
- For an "integrated" program, it runs in several different stages
- The database section is longwinded to use
- For the same money, you can buy LocoMail

Prospell

Arnor

This is a stand-alone spelling checker suitable for use with almost all word processors that run on the PCW machines. It can read LocoScript, WordStar and plain ASCII files. It flags up each wrong word as it finds it, and allows you to alter it directly, view the context, change the dictionary etc. Speed is not startling, but acceptable. Good overall.

PLUSES • MINUSES

- + Can check LocoScript and WordStar documents directly

- + Can display the context of a word to remind you what it should be
- + Can edit misspellings directly from Prospell
- + Can update the dictionary interactively
- + It has anagram and crossword solver utilities too
- It processes files of more than 15K or so in separate sections
- You can't copy the dictionary to the M: drive for speed

Brainstorm

Caxton Software

An "Ideas processor", BrainStorm is a computerised doodling pad. You can jot phrases down randomly, then organise them into a hierarchy, then expand each phrase into a finished idea, and finally print them out as a coherent document. If you find it easier to work at a keyboard than with a pencil and paper, this will really help you think.

PLUSES • MINUSES

- + No limit to the number of sub-levels of plan you can have
- + You can output the rough text for a wordprocessor to polish
- + Good documentation, including some neat ideas for applications
- + Provides a unique service, which should be useful to you
- Needs better graphics (like GEM?) to let you browse the structure easily
- The command keystrokes are unnatural - you can't use the cursor keys to move around the screen
- As a word processor, it is very primitive
- A notepad and a pencil would cost you much less

UTILITIES

SmartKey

Caxton Software

SmartKey is a utility to customise your keyboard for the applications that you regularly use. Keys can be defined to mean other keys, or whole paragraphs of text. These definitions can be used within other CP/M programs like wordprocessors, and even set up from within them.

PLUSES • MINUSES

- + Key definitions can be used and even set up within CP/M programs
- + Definitions can be saved and loaded later
- + Good manual makes it simple to use
- The control keys are badly chosen; e.g. "\ " doesn't appear on the normal PCW keyboard

- Can't correct typing errors with {DEL} while defining keys
- Seems vastly overpriced - you might find that the free CP/M SETKEYS utility does all you need

Pertmaster

Abtex Software/NewStar

Pertmaster is a project planning aid. You specify the events, sequencing and durations of the component tasks of a project, and Pertmaster will analyse the job by Critical Path Analysis. It can produce reports, crude graphical summaries, and detect errors.

PLUSES • MINUSES

- + PERT charts and Critical Path Analysis are established planning methods
- + Up to 500 activities may be considered at once
- + Plans can be altered to see "what if . . ." results
- The PCW isn't really powerful enough to do it justice; it certainly needs a PCW8512
- Screen graphics are very weak; you can't get a graphical overview of the whole network
- It doesn't have simple default settings for a rough-and-ready plan

Rotate

Proteus Computing/Trinity Business Systems

Rotate is a simple utility program to print out text files rotated through 90 degrees on the paper. This gives you more columns per page which will be needed for some programs, like large spreadsheets.

PLUSES • MINUSES

- + Simple menu-driven program does just what it says
- + Choice of four print fonts, which can be used to print unrotated files too
- The quality is nothing like NLQ (e.g. the ordinary "high quality" print option)
- Only prints plain text, no subscripts, underlining etc.
- No specific support for non-Amstrad printers

Landscape

Systembuild

This is a utility to print out ASCII files rotated on the printer page, so as to make full use of the extra page width. It provides page dimensions of up to 255x96 characters, in a fairly condensed typeface. Runs as a BASIC program.

PLUSES • MINUSES

- + Readable, condensed draft quality typeface
- + Simple and effective to use
- It's an undesirable hassle to have to run it from BASIC
- It's simple, but really needs more than its 200 words of documentation
- No choice of fonts or text quality

Disc Mate

Siren Software

Disc Mate is a set of CP/M utility programs which bring complex disc recovery operations within the scope of CP/M novices. Facilities include recovering erased files and making files "read only" (i.e. unerasable).

PLUSES • MINUSES

- + Simple on-screen instructions once you've got started
- + Allows easy recovery of accidentally erased files
- + "ZIPDISC" program speeds up disc access by 10 to 20%
- + Friendly file copying program in case you find CP/M's PIP incomprehensible
- Disc editor will not recognise double density discs
- The instruction sheet is very brief, so you'll need to understand CP/M basics

Oxstat

Medstat Ltd

This is a specialised statistical analysis package for the PCW. Functions from calculations of means to multiple linear regression are covered, and it can do some rudimentary graphics for results. For slightly less than the cost of this package, extra modules can be bought to allow you to read data from spreadsheets or external devices.

PLUSES • MINUSES

- + Comprehensive range of statistical functions implemented
- + Good screen editing facilities for entry of data
- + The speed seems acceptable, even though it is written in BASIC
- + Even complex analyses are easily entered by simple menus
- You cannot read data from ordinary text files (without paying a lot extra)
- Weak on graphical presentation of results
- Not very error proof - disc faults cause complete crashes

DATABASES

There are broadly two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want - all it does is store your address book for stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Adelaide. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of *records* - this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of *fields* - a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an *index*. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (e.g. someone's surname) is said to be a *key field*, and can be looked up very fast compared to "non-key" fields. A good database will allow *multiple keys*, meaning that it can look up data just as fast for a variety of types of information.

dBasell
Ashton Tate/First Software

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines, dBaseII is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

PLUSES • MINUSES

- + Powerful command language for customised programs
- + Indexing facility makes large databases fast to handle
- + Can handle very big databases
- + The data can be fairly easily altered after its entry
- Manual is daunting (but there are plenty of independent books on the market)
- Can't easily alter the screen record layout
- It's an expensive package
- You only get 32 fields per record
- Generally unfriendly unless you have some programming skills

Condor 1
Caxton Software Ltd

Condor is firmly pitched at the dBaseII market. Like dBase, it is not only a filing system but also a programming language that allows command procedures for complex data operations. It can handle very big records - 127 fields - handy for some things like questionnaire processing. The user interface is slightly ragged, and it lacks dBase's ability to index files for fast access.

PLUSES • MINUSES

- + Very flexible record structuring and searching
- + Better control than dBase over the screen format
- + Command language for creating data processing programs
- + Can handle big database - up to 127 fields per record
- + The manual is large, well written and understandable
- No provision for fast data access by indexes
- The on-screen prompting information is weak

Flexifile (Including Flexiwrite)
Saxon/NewStar

(Also marketed by Amsoft as Microfile/Microwrite)

Flexifile is a well implemented simple database, driven by plenty of menus and on-screen prompts. This is a good thing, since you certainly couldn't learn to use it by reading the manual. It's fast and has good screen control, although it has some size restrictions. Flexifile comes with a "free" word processor, Flexiwrite, which is adequate.

PLUSES • MINUSES

- + The price includes a competent word processor, which can run mail merging from Flexifile
- + Plenty of menus and on-screen prompting
- + Very flexible formatting for screen layout and printing
- + Numeric fields can be expressions to be calculated
- + Indexing is fast and can be on several fields
- Maximum number of fields per record is only 20
- The manual is badly organised and generally too brief
- Limited facilities for totalling up fields in a database

Cardbox
Caxton Software Limited

As the name suggests, this database sets out to be a straight replacement for a conventional card index system. It doesn't provide any facilities for totalling up fields in different records, but does allow very flexible ways of searching records. Very flexible screen layout, set up by a screen editor. The best value for money of the card index systems.

SO MANY POSSIBLE

SANDPIPER FILE MANAGER

APPLICATIONS

There are few low-cost Database Systems that offer anything more than simple data storage and retrieval facilities. Sandpiper has changed all this by producing a programmable file management system that offers more possible applications than ever before.

Typical choice of functions

- Personnel Records
- Ledgers
- Vehicle Records
- Financial Records
- Customer/Client Files
- Stock Records
- Work in Progress
- Mailing Lists
- Membership Records
- Patient Records
- Price Lists
- School Records
- Library Records
- Subscriptions
- Property Records
- Breeding Records
- Maintenance Records
- Bookings
- Case Records

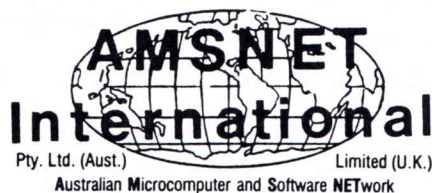
Applicable to such organisations as

- Employment Agencies
- Accountants/Bookkeepers
- Car Leasing Organisations
- Stockbrokers
- Dating Agencies
- Retailers
- Manufacturers
- Mail Order Companies
- Clubs
- Hospitals/Nursing Homes
- Wholesalers
- Educational Establishments
- Video/Book Libraries
- Magazines
- Estate Agents
- Farmers/Kennels/Vets
- Office Equipment Suppliers
- Hotels/Restaurants
- Solicitors/Social Workers
- Employees
- Small Business
- F.B.T.
- Solicitors
- Photographers
- Mechanics
- Sub Contractors
- Hire Companies
- Organisations
- Dentists/Doctors
- Retailers
- Sports
- Lending Libraries
- Football Clubs
- Investors
- Pigs/Cows/Horses
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- Motels
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- Antique Dealers
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- Golf Clubs

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VEHICLE MANAGEMENT		Maintenance:
Customer name: =====	=====	=====
Address: =====	=====	=====
	=====	Salesman: =====
	=====	Commission: =====
Vehicle type: =====	=====	Dept: =====
Vehicle reg: =====	=====	Date paid: =====
Date of purchase: =====	=====	Notes: =====
Payment method: =====	=====	=====
Amount: =====	=====	=====
Balance: =====	=====	=====

PATIENT RECORDS		
PATIENT	WARD	DOCTOR
Name: =====	Ward name: =====	Name: =====
Ref: =====	=====	Condition: =====
Address: =====	Date in: =====	=====
=====	Date out: =====	Exam date: =====
=====	Bed no: =====	=====
Notes: =====	Treatment: =====	
=====	=====	

ESTATE MANAGEMENT	
Customers name: =====	Detached/semi: =====
Address: =====	Age: ===== Beds: =====
	Recep: ===== B/r: =====
	Build: ===== Roof: =====
Property: =====	Lane: ===== outb: =====
	Garg: ===== c/h: =====
	Gas: ===== Elec: =====
	Oil: ===== Water: =====
Sale price: =====	Directions: =====
Specials: =====	=====
Date sold: =====	=====
Salesman: =====	=====

Technical Specifications

Char per record 4000+. Fields per record 250+.
Records per file 32000. Max field length 250. Look-up table up to 250 cross indexes. Data protection by encryption.
Cross calculations between files. +; -; *; /; (:); (); fully supported. Automatic calculation of dates and date differences.

As many menus as you wish. Search on any or all fields. Program created on one machine will run on another without modification. Runs under CPM, PCDOS, MSDOS. Please state type of computer, disc size and operating system when ordering.

Wait up to 28 days depending on your system.

PROBABLY THE ONLY DATABASE YOU'LL EVER NEED!

PLUSES • MINUSES

- + Very good control over the screen layout of each record (or "card")
- + The documentation makes Cardbox very simple to use
- + Wide range of data patterns that can be searched for
- + Good control of form layout for printing
- + Elaborate indexes can provide efficient access to data
- No control language or field totalling facility
- Slow to access unindexed data

Cardbox-Plus**Business Simulations Ltd**

Business Simulations are the company who actually wrote the successful Cardbox database, and they are the sole distributors of their enhanced version Cardbox-Plus. Disappointingly, still no field totalling facilities, but it does boast sorting, index listing, disc management and autosave feature as extras to Cardbox. The ultimate straight card index, if you have the money.

PLUSES • MINUSES

- + All the facilities of the very successful Cardbox
- + Cards can be sorted into order for browsing
- + "Autosave" will regularly store the data to disc in case of mishap
- + Files created by Cardbox can be read
- + Full and good manual, although the tutorial is at the end
- Still no way of performing numeric calculations
- A lot to pay for a few frills to the basic Cardbox

First Base**Minerva**

Billed as a simple database for the first time user, First Base is quite a competent cheap card index. However, the manual is rather unreadable, and sometimes inaccurate. It claims to have a "LocoScript mailmerger", but it isn't a good one. Consequently, getting printed output is a weakness.

PLUSES • MINUSES

- + Can alter the index field at any time
- + Simple to use screen editing make data entry easy
- + Good value as a simple card index lookup system
- Manual is badly laid out and generally difficult
- The promised LocoScript mailmerger is weak
- Producing printed output is awkward

CAMBASE**Camsoft**

Cambase is very strong on data security - you can define passwords to protect sensitive databases. It is driven by quite an intricate set of menus, and you'll

have to plan your application carefully since the database format can't be changed once set up. Generally good for writing applications with.

PLUSES • MINUSES

- + Sensitive data can be protected by a password system
- + Record structure can be conditional - e.g. "only have a 'spouse' field if status is 'married'"
- + "Processes" provide for some simple automatic calculations
- Over-protective user interface, which asks for confirmation of almost every command
- Database main attributes are fixed after initialisation and can't be changed.
- Poor screen editing of data records
- Manual needs an index, and is weak on explaining advanced topics
- The (single) key field has to be entered separately to the record data proper

DELTA**Comshare/NewStar**

Delta is another of the heavyweight, like dBaseII and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default "quick" layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

PLUSES • MINUSES

- + Records can contain up to 90 fields, plus groups of fields that may be repeated
- + Screen layout can be user defined, or "quick" mode used
- + Single-page letter writer provides detailed mail-merge
- + Processes can be defined, and run from user defined menus, for ease of use by others
- + Very full, and quite readable, manual
- Only one field may be used for indexing
- Very big program - a PCW8256 would be hard pushed
- Some of the menu operations are unforgiving to errors

Easylabel**Multilink Network Systems**

A quick and simple program for setting up a mailing list and printing out selected groups onto label stationery. It is pleasantly simple to use, but frankly spoiled by not having enough room for long addresses - only 4 lines of 25 characters each.

PLUSES • MINUSES

- + Simple menu driven operation

- + Label print runs can be easily restarted after power failure or paper jam
- + Addresses can be assigned up to 5 numeric codes, for sophisticated selection
- Space for addresses is only 4 lines of 25 characters
- The brief documentation needs some examples and screen shots
- Numeric selection codes are only 4 digits - not enough for, e.g., the MD's salary

Magic Filer

SageSoft

Magic Filer is not a true database, but is a structured filing system. Information is split into a hierarchy of categories, and tagged with a keyword which is not sorted as part of the data. You can browse through the data, but it will get tedious if you find it needs updating regularly. Many applications will find Magic Filer restrictive.

PLUSES • MINUSES

- + Good for browsing through data when you don't really know what's there
- + Data can be declared "read only" to protect it from alteration by other browsers
- The basic filing system is weird but not wonderful
- Editing data once in Magic Filer is awkward
- The documentation is far too brief
- You can only have one database per disc

Matchbox

Quest International Computers Ltd

A cheap, no-frills card index type database. The manual is only 13 pages long, so you had better know how to use a database before you buy this. You can't customise screen layouts, but you can print labels. Would suit a simple booklist or address list, if you really can't afford better or just don't want to get too sophisticated.

PLUSES • MINUSES

- + Clear on-screen menus guide you through the program
- + Can search for fragments of words in a record
- + Sorts on any selected field
- + Relatively simple to use
- All characters have to be upper case
- Only a single index field is allowed

Datafile One

Datarun

This database is both a low cost card index system and a mail merge utility specifically designed to work with LocoScript. As a card index, it's quite good for personal use, and the mail merge is simple but effective. Good value for money. The documentation is in the form of a database on the delivery disc.

PLUSES • MINUSES

- + Data can be range checked as it is entered
- + Complex masks can be used for searching the database
- + Quite fast record access for a low cost package
- + Report section (the mail merge) uses LocoScript documents for templates
- + LocoScript text styles (bold, italic, etc.) can be used
- The screen editor for designing layouts is a bit too simple to be effective
- No conditional processing in the mail merge section
- The on-line documentation is a nice idea, but cumbersome in practice. Needs a proper manual

AtLast1

Rational Solutions/NewStar

AtLast is a fairly simple card box type database. It's totally driven by menus and on-screen prompts, but this shouldn't be an excuse for the frankly inadequate manual. It's files are Pascal-compatible, so could be used for complex custom-written applications. AtLast is adequate, but unless money is a real problem, Cardbox does it better.

PLUSES • MINUSES

- + Data is accessible by Pascal programs, for really esoteric applications
- + Up to 5 separate indexes can be used to search the database
- + Can read data from word-processed text files
- The manual is far too brief
- Doesn't use screen editing very well in some functions
- Some menu choices are unclear, and recovery if you go wrong is hard
- No built-in facilities for totalling up records

Data Gem

Gemini

A simple database that offers data storage and retrieval operations. Data Gem runs as a set of BASIC files, and so is rather slow. You can speed it up by using index files, but this is fiddly. It's power will be found wanting if you are storing anything more than your birthday reminder list.

PLUSES • MINUSES

- + Adequate performance on simple files
- + The manual has a good introduction on explaining database jargon
- + Numeric fields can be calculations, like in spreadsheets
- Not powerful enough for complex searches or lots of data
- Cumbersome to use for anything other than a simple lookup on a single field
- Index files are expensive on disc space

Sage Database

Sagesoft

A basically competent card index with simple calculation abilities that is spoiled by some silly restrictions. There isn't much control over screen layout, which makes listings untidy. Indexing is very primitive, and effectively each record must have a reference number - you can't index on someone's name for example.

PLUSES • MINUSES

- + Numeric fields may be calculated from expressions
- + Data files may have write-protection and a password
- + Text editor and mail merger are included
- + Manual is simple but effective
- The (single) index field must be a number
- Setting up the database is very long-winded; it needs better screen editing and copying facilities
- Not much screen layout control when listing the data
- Label/form printing has to be done through the mail merger

Pocket InfoStar

Davis Rubin Associates

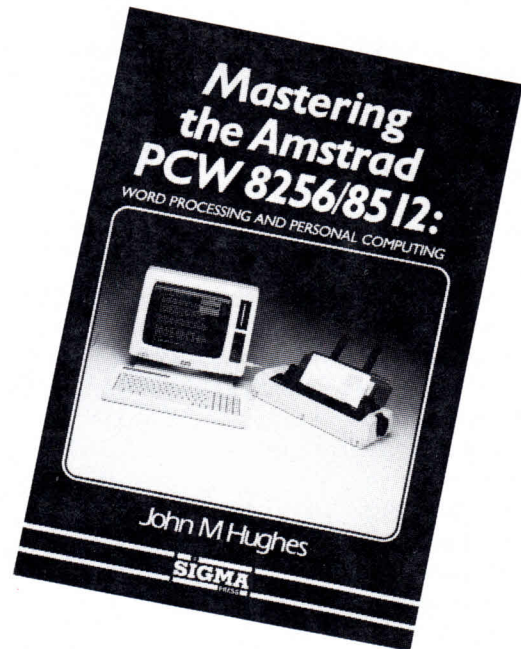
Consists of two large programs, DataStar and ReportStar (both available independently).

DataStar is a conventional database, with screen card layout and indexing. ReportStar then generates the printed output, either from DataStar or CalcStar files. Powerful if you can use them, but the suite is horrifically overcomplicated, and the documentation just incomprehensible.

PLUSES • MINUSES

- + DataStar is a quite good database with indexing and calculated fields
- + "Transaction processing" feature allows cross-referencing of data files
- + Can be integrated with other Pocket products, eg WordStar
- Two-volume manual set is very badly organised
- There are separate programs to run for form design, data entry and reporting
- Operation is all by obscure command keys, a 1a Wordstar.

**Next month we tackle
SPREADSHEETS,
EDUCATIONAL SOFTWARE,
GAMES and GRAPHICS.**

**Mastering the Amstrad PCW 8256/8512**

Word Processing and Personal Computing

by John M. Hughes (254 pages)

The PCW is a powerful machine, with far more potential than is apparent at first glance of the user manual. This book gives readers a thorough grounding in word processing techniques and then goes on to show how the PCW can revolutionise even the smallest office and bring word processing into the home for less than the cost of a mid-range typewriter.

You'll find advice on care and use of discettes, security and other fundamentals; a tutorial on word processing illustrating just about every command with quick reference sections; using SuperCalc2 spreadsheet - a powerful system for numerical calculations and financial planning; using the recently announced database packages to store and retrieve information - eg. for stock control or mailing lists; a guide to other packages including payroll and accounts systems; using CP/M Plus - the operating system provided with the PCW; installation of CP/M packages, including NewWord, the new WordStar style word processing package, is also covered.

Order your copy now from The Amstrad User,
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SPEED

How fast does your Amstrad *really* go?

One of the more common topics of conversation when computer programmers get together is speed. And if you thought converting mph to kph was bad you should hear how the speed of computers is described. You have learnt about bits, bytes, RAM, ROM, floppies, etc., but what on earth are FLOPS and MIPS? You have read about speeding up your programs by keeping variable names short, using integers, and leaving out REM statements. But how much effect do these have on speed and how can you tell? Read on and I shall attempt to answer these burning questions.

FLOPS? Floating point Operations Per Second. If someone talks about FLOPS per second they don't understand their own jargon, or they can make the computer accelerate, whatever that might

mean.

MIPS? Million Instructions Per Second. This is a similar measure to FLOPS but is a measure of a different activity. Whereas a floating point operation is a mathematical operation, an instruction is something like GOTO, PRINT, UPPER\$ etc., and without testing, I could not even guess the differences in speed of the different instructions.

Both the above terms FLOPS & MIPS are sometimes quoted by the big computer companies. When reading such figures as 2 megaflops or 3 MIPS just bear in mind that these are speeds for the fastest operation or instruction.

Well, after all this, how fast is the Amstrad?

The PCW 8256 can carry out around 870 instructions per second, 520 additions or subtractions, 475 multiplications, or 320 divisions per second. You probably think this is fast, and compared to you on a pocket calculator it probably is, but compared to some of the big commercial computers, using languages such as Fortran it is still fairly slow. A 20-year-old main-frame DEC computer can do 100,000 instructions per second and a modern VAX computer can manage 1 MIPS. A micro VAX computer, which could be easily transported to monthly user group meetings, can handle 200,000 instructions per second, and 150,000 FLOPS.

For real speed, some of the big machines claim speeds of 3 or 4 MIPS and over 4 megaflops.

How do you find the speed of the Amstrad?

On the CPC range of Amstrads, the BASIC has a command TIME which can be used as a timer. For PCW owners, there is no such feature in BASIC but a CP/M utility called DATE exists which is accurate to the second. By combining the DATE utility and a simple BASIC program I am able to run a series of simple benchmark programs that have been run on several computers, usually in Fortran, for assessing calculation speed.

The benchmark program is written in BASIC but the DATE utility, it seems, can only be accessed from CP/M. (If someone out there can correct me I would be pleased to hear it.)

So, How do we fit the two together?

Using another utility called SUBMIT, it is quite easy to draw up a sequence of events, or program, that jumps from CP/M to BASIC and back again. To prepare this program you need to be in CP/M with a CP/M utility disc in position. The smart way to operate is from the memory disc but, before you do this, PIP across to M the following utilities:-

**BASIC.COM, SUBMIT.COM,
PIP.COM, DATE.COM,
RPED.COM, and RPED.SUB**

Now you can operate from drive M and avoid the time delays of accessing the disc. Call up the editor RPED by entering SuBMIT RPED and create a new file called

TEST.SUB containing the following statements:-

```
DATE
BASIC TEST
DATE
```

Store this in the memory disc, and, if you are considering using it again save it on a disc in drive A.

Next, write the test programs. There are essentially 6, each one being a slight modification of the previous one. Once you have the hang of it all, you may wish to experiment further, and determine times for all manner of activities.

The basic program listing is:-

```
10 FOR i=1 to 100
20 FOR j=1 to 100
30 NEXT j
40 NEXT i
50 SYSTEM
```

All this does is count up to 10,000 and return to CP/M. Call the program TEXT. BAS and store it in the memory disc.

Right, now for the first test!

To run the test from CP/M type SUBMIT TEST and watch the screen. You will be given a date and time, accurate to the nearest second. Basic will then be loaded together with the test program. The 20549 free bytes message tells you the program is loaded. If the number is 31597 you have erred somewhere, and the test program has not loaded. After an eternity of waiting, actually only 13 seconds, the second date and time appear on the screen. Note down the two times and subtract one from the other. This is the time taken to load Basic and your program, run it, and return to CP/M.

Now edit your basic test program to include the following lines:-

```
25 a=i
26 b=j
```

Save the new test program, return to CP/M and run again. Now you have another time of around 36 seconds. From this, you can deduce that the two assignment

commands have added 23 seconds. Really 20,000 commands have been carried out in this time, and hence the statement I made earlier that the PCW can carry out 870 instructions per second.

To obtain the time for the four maths operations insert the following line in your test program:-

```
27 C = a + b (or)
27 C = a - b (or)
27 C = a * b (or)
27 C = a / b
```

The difference between the time for each of these runs, and the 36 second run, is the time to carry out 10,000 additions, subtractions, multiplications, or divisions. These results are for the default type of variable, which, according to the book, is single length floating point where necessary, and integer whenever possible. You will no doubt try this and not get the answers I have stated above. This is because I have used the best figures available by doing tests of integer calculations and using the better figure.

So, let us look at some of the profound statements, that we see so often, telling us how to speed up our programs. I am sure most of us have been guilty of repeating some of these directions without question.

Use integer variables is a common suggestion. Well try it on the test program by adding a % sign to the a, b, and c. You should find a 10% increase in speed for addition and subtraction, and a 16% increase for multiplications. The division process is 20% slower though, so the overall advantage to your program would depend upon the amount of each type of operation. The better way of defining integer operation of course is to use DEFINT a,b,c at the start of the program. This takes 1 second off the overall program time but does little to affect the maths operations.

Keep variable names short. That is another common edict. Go back to your test program and change a to alpha, b to beta, and c to gamma, and rerun the tests. The effect is to make the program time around 5% slower.

Putting 3 REM statements in the program at lines 21, 22, 23 added another 45 seconds to the run time.

Well, what does all this mean?

The message is loud and clear.

Keep your comment statements out of subroutines and loops, and keep them brief everywhere else. Other than that, the advantage of using integer arithmetic, instead of the default type, would depend upon your program and would generally be only a 10% increase in speed.

For a real increase in speed you would need to use the machine language for the Amstrad, or one of the faster compiled languages such as Pascal. These are available for the Amstrad, and the machine language only requires the borrowing of a book of commands for the 8080 processor, and away you go. The compiler for this exists on your utilities disc as RMAC.COM and MAC.COM. I haven't tried it so I cannot comment further.

By now you are probably thinking that all this is a load of useless garbage designed to fill up the magazine, and you may be right. Most people spend 10 times longer wondering what the answer means than it took the computer to produce the answer. So whether it takes 5 seconds or 10 seconds to run a program is probably of little importance to most of us. But at least you can now talk with authority when the discussion turns to personal computers at the office tea-club!



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PC BUSINESS SOFTWARE

How to avoid a slipped disc

Or, use your operating system to keep your system operating!

By Dr. Ben Taylor, M.D., F.R.C.S., M.B.E.

If you are anything like me, the first thing you did on unpacking your shiny new PCW was to totally ignore all the dire warnings about making working copies of your discs and to plough straight in to LocoScript using the Amsoft master disc. Of course Amstrad don't actually provide any blank discs with the machine to enable you to follow their advice, but if you're still regularly using master discs without backup than you're taking a big risk.

This month we're going to explain some of the often overlooked basics of working with floppy discs, and also throw in a few techniques to make running programs from CP/M a little easier.

Different types of disc

The PCW 8256 uses discs called CF-2 discs. These can be put into the disc drive label side outermost, but either way up. You can read and write to either side of the disc, and each side acts quite independently of the other, which means that you will have to format both sides of the disc separately before you can use a new CF-2 disc.

The PCW 8512 also uses CF-2 discs in its top drive (called "A"), but takes identical-looking CF-2DD discs in its lower drive ("B"). These discs can go in the B drive either way, but once you have decided which way then you can't use the other side - you might as well think of them as being single sided discs, and cross out the other side's label to remind you. The B drive can usually read CF-2 discs, but cannot write to them. the A drive can never read or write CF-2DD discs, so try and keep the types of disc separated in your drawer.

When you're faced with a blank disc, before you can use it you have to "format" it - this is like saying you have to rule the lines on a piece of paper before you can write onto it.

Getting your back-up

The warnings you see with software about keeping copies of all discs you use are not just put about by a cynical cartel of disc manufacturers out to boost sales. The golden rule is to ask yourself whenever you finish using your PCW, "If I couldn't ever use again the discs I am putting away now, do I care?", then fine, but otherwise you ought to make "back-up" copies of all your discs.

Losing your disc is far more common than you think; no matter how reliable any computer is, your pet Labrador might still run amok with your new bestseller novel disc. Or your elbow might have an argument with a cup of coffee. Or, a disc may just decide to develop a bad sector.

You're particularly at risk if you are working with discs created on someone else's PCW - a slight difference in alignment in the drive heads on the two machines can cause write-fail errors. And don't be fooled into thinking that discs are safe from chewing by the PCW just because you have set the write protect tabs.

For discs that you've used to store LocoScript documents on, there is only one way to back up a disc, and that's using the DISCKIT program that comes on side 2 of the master disc. Start the PCW up (or press [SHIFT] + [EXTRA] + [EXIT] to restart it) and insert the DISCKIT disc in the top drive, with side 2 facing the screen. Now CP/M starts up, and you will see the distinctive "A>" prompt. Type DISCKIT [RETURN] (note the meaning - Disc kit), and what follows depends on whether you are using an 8256 or an 8512. DISCKIT gives you instructions as it goes along, so just follow those keeping a very careful track of which disc is which if you are copying from one to another. DISCKIT allows you to copy onto unformatted new discs, since it automatically formats them as it goes. Remember that if you format a disc you will lose all the data that was stored on it, and if you copy a disc then any data previously on the disc you are copying onto will be lost too.

If you are copying particularly valuable data, then after you've copied a disc you might feel happier if you verify it; select DISCKIT's VERIFY option, and it

will check that the disc you have copied indeed contains the same data as the original.

Living in peace with your discs

All that has gone before is equally applicable to LocoScript users and CP/M users. Now we're going to look in some more detail at how to get the best performance from your discs using CP/M.

The PCW machines have, in addition to the floppy disc drives built into the monitor unit, a "RAM disc". This is a section of computer memory that is reserved inside the PCW to act like a floppy disc. Files can be stored and retrieved from it, and it is referred to by CP/M as "M:",

as compared to A: or B: for the floppy discs. This means that on a PCW8256, you really have two disc drives, and three on an 8512.

Reading and writing on the M: drive is a lot faster than to the A: and B: drives, because there are no mechanical motors to run up to speed. By transferring your programs to M: and running them from there, you can speed up programs that make a lot of use of discs, and also cut out all that annoying disc swapping on a PCW8256.

Many commercial programs already make use of this facility automatically. If you've got a big package that still runs from ordinary floppy discs, then here's how to give it go-faster stripes:-

- Load in CP/M as normal, so that you see the prompt A> on the screen
- Clear out your M: drive by typing ERA M:*.* [RETURN], and replying Y to the question "ERASE M:*.* (Y/N)?" (Make very very sure you type M:*.*, NOT A:*.*, or you might lose your floppy disc contents - you can guard against this by setting the write-protect tab.)
- Find your CP/M work disc that has the file PIP.COM on it (the original is on side 2 of the discs that come with the PCW)
- Put it in the floppy disc drive, and type PIP [RETURN]. You will see an asterisk prompt.
- Remove the CP/M disc from the drive, and replace it with the floppy disc which contains the program you want to run.
- Type M:=*.*. The disc will whirr for a minute or two and the screen will tell you as it copies files across to M:
- When you see the asterisk prompt again, type [RETURN]. Now you will see the CP/M "A>" prompt again.
- Type M:[RETURN]. This tells CP/M that all your files are now in the RAM disc, and you will see the CP/M prompt change to "M>"
- Now you can remove the program's floppy disc from the drive. You should be able to use the

program exactly as if it was running from the A drive. The floppy disc drive is now free for you to use purely as data storage, without being cluttered up with program files.

There are a couple of points to watch out for:-

1. The PCW8512 has a large enough RAM drive to store an entire floppy disc from the A: drive, but the 8256 does not. On an 8256, if after you type "M:=*.*" in PIP it transfers some files and then says "ERROR; DISK WRITE NO DATA BLOCK", it means the RAM disc is full.

Your only option then is to try to cut out the non-essential program files from the floppydisc - the program manual should tell you which files are needed to actually run the program and which are, for example, simply for demonstration or installation. To transfer an individual file called FILE.DOC you would type (in response to the asterisk prompt in the PIP utility)

M:=FILE.DOC[RETURN].

If there are several files involved you should refer to the tip below titled 'Automatic Commands'!

2. It is important to save any work you do on a real floppy disc, A: or B: rather than M: (otherwise you will lose your files when you switch off). Whenever your program asks you for a file name, prefix your file name by "A:" or "B:", e.g. "A:MYFILE.DAT". Alternatively, many programs allow you to change your default disc drive; make sure your default is A: or B:.

WARNING!

Remember that when you turn the PCW off, all the files stored in M: will pass on to the great floppy disc in the sky.

Automating commands

The business of transferring all your program files from floppy disc to M: is well worthwhile, but can be tedious if you have to do it for a lot of individual files. Luckily there is a way in CP/M of doing it automatically using the SUBMIT utility.

Here's an example: suppose you have a database program called "DB", which you like to run from the M: disc. And suppose this database needs three files to run, DB.COM, DB.OVR and DB.ERR. Every time you run the program, you want to copy these files from A: to M: and then run the program. To do this, set up a file called, say, DB.SUB (it can be called anything you like as long as it ends ".SUB") which contains these lines:-

```
PIP
<M:=DB.COM
<M:=DB:OVR
<M:=DB.ERR
<
M:
DB
```

(If you don't know how to create a new text file on your disc, see the PCW CP/M manual section 2.4). You will need to have the CP/M files PIP.COM and SUBMIT.COM on the same disc as the database files. Whenever you run your DB database, just type SUBMIT DB [RETURN], and you will see the commands automatically happening before your very eyes.

Tech Note

The B drive has two disc heads, and stores data on both sides of a CF-2DD disc at once with only one disc directory for both sides. Formatting with DISCKIT processes both sides at once, so if you try to format the "other" side for the disc, you will erase the first side too, even if that side has the write protect tab set!

```
A>submit db _____ ①

A>pip
CP/M 3 PIP VERSION 3.0
*m:=db.com
*m:=db.ovr
*m:=db.err
* _____ ②

A>m:
M>bd

*****
*
* *** DATABASE 8000 from BenSoft *** ③
*
*****

*DB*> _____ ④
```

- ① This is all you actually type in - and if you follow the advice in "Making an auto start disc" you won't even have to do that.
- ② All these commands are being printed on the screen and executed automatically from the file DB.SUB
- ③ The program DB.COM comes up on the screen.
- ④ Now you begin using the database normally.

Making an Auto-start disc

The SUBMIT utility has many hidden features which deserve a closer look. One that we'll take up for now though is the ability to have customised discs to start up a program at the beginning of a session without your having to do any typing at all.

When CP/M starts up from scratch, before it gives you its first "A>" prompt it has a look on the floppy disc to see if there is a file called PROFILE.SUB. If there is, then it automatically runs the SUBMIT utility with this file. So considering the example with running DB from a submit file, if we rename DB.SUB as PROFILE.SUB, then all the commands in it will be automatically run when you start CP/M with that disc in.

The only problem comes in how exactly to adapt your program disc so that CP/M can start up from it - this is called "making a boot disc". CP/M is contained in a file on your current boot disc called something like J14CPM3.EMS (the digits might be

different depending on what version of CP/M you have), and you have to copy this file to your working disc, by using PIP. This file is quite large, about 40k, so you might have trouble fitting it onto your work disc, particularly with PIP.COM, SUBMIT.COM and all your work files - if you can't cut down the number of work files to fit everything in then you are basically stuck, and you won't be able to make a boot disc very easily.

To sum up then, take your submit file, which we've called DB.SUB so far, and rename it by typing

```
REN PROFILE.SUB DB.SUB
```

and then make it into a boot disc by copying the .EMS file across from your normal start-up disc; you'll have to use the M: drive as temporary storage:

```
PIP M: = J14CPM3.EMS
```

```
(put your work disc in drive A)
```

```
PIP A: = M:j14CPM3.EMS
```

Now, if you insert this disc when you first power up the machine, or reset it using [SHIFT] + [EXTRA] + [EXIT], your DB program will start up straight away without you having to type anything.

What is AMSNET International?

From Duncan Database comes **PC PROMISE**, a fully relational database written for the 1512 and IBM compatibles. It's a real beauty and only \$250 retail. To AMSNET Members as low as \$185 depending on your membership status.

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Quest International brings you a whole range (18) of terrific, easy to use programs for the 464 right through to the 1512, that's the IBM compatible. Even on software like **CASH TRADER** which normally retails for \$275, you could save up to \$72. Quest **Matchbox**, a standard filing system storing up to 32000 records will cost a member only \$85. Join AMSNET NOW!

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Now how about a quick interlude testing your mind. Try a game of **3D CLOCK CHESS** from CP Software.

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Learning to ~~type~~ type

A review of TYPING TUTOR

Typing fast is a very valuable skill that's well worth developing. Quite apart from budding secretaries, as more and more jobs involve the use of computers you will find that quoting a typing speed on your curriculum vitae can be a useful fillip. There are several typing tutor packages already on the market - two programs from Iansyst (a beginners course and an improvers course) and *Touch 'n' Go* from Caxton - so what can a new one offer?

Computer One's tutor is aimed at the typing novice rather than the amateur who can already "get by" and wants to improve. Where this tutor scores is that it has been written specially for the Amstrad PCW machines. This means that it is able to use the PCW's screen size and graphics capabilities to the full, and it certainly does.

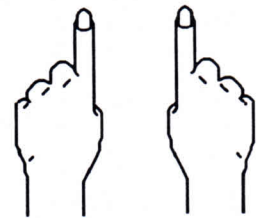
Unusually for a typing tutor, Computer One's comes with a decent size (14-page) user guide that actually provides useful information. Read it before your start typing, and it talks about the correct typing position, like seat height and lighting conditions. It's good to see the importance of these factors recognised, since getting them wrong will be a severe barrier to typing proficiency.

When you do start, after several screens of introductory blurb you are introduced to the "home keys" where you're fingers normally rest. Subsequent lessons take you through the keyboard in pairs of keys and go through traditional exercises to reinforce each key pair before moving on to the next fingerwork.

The exercise screen is informative but not cluttered. There is a full keyboard diagram to get you out of the habit of looking down at the keys as you type - it includes an overlaid diagram showing which fingers you ought to be using to get to the keys. The practice

phrases appear on a single line at the bottom of the screen, and the top of the screen shows your performance and targets in words per minute and your error rate.

Although the Computer One tutor has a regimented series of lessons introducing keys in a set order, you can override the ordinary sequence and dot around as you want. This is necessary as you get better and want to concentrate on particular weaknesses. You select the lesson you want by a menu and the cursor



Probably the most common method of entering information through the keyboard!

up/down and [ENTER] keys beloved of LocoScript users.

Letter drills can get pretty boring after a while, but it's not all work and no play. An addictive hangman game comes as an extra package, which provides light relief and sharpens up your speed.

You choose a typing skill level in words per minute. A sentence appears on the right of the screen and works its way over to the left,

at a speed dependent on the skill level you chose. If the challenge sentence reaches the "lose" mark, or you make too many errors, another piece of the gallows goes up. If you type fast enough to get to the "win" mark, you've saved your man. It's a nice extra to the typing tutor, but purists would say that there is no attempt in it to encourage good habits.

Overall I was very impressed with the Computer One *Typing Tutor*.

It makes an effort to be interesting as well as instructive. There are, however, a few negative points:-

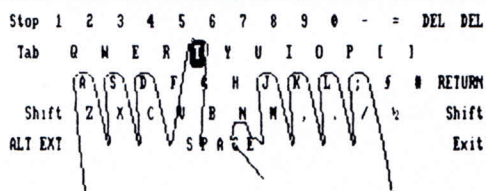
First, the graphical presentation might not be everyone's cup of tea - some people find it distracting.

Second, there is a lot of explanatory text and "press space bar to continue" jive, which gets annoying after the first time around - there ought to be a way of speeding up the blurb for experienced users.

Finally, by its nature it is a beginners program designed to teach typing from very basics - if you are a competent two finger typist wanting to improve, you won't want your speed to drop while you re-learn.

In this case you might prefer Iansyst's *Two Fingers to Touch Typing Conversion Course*, even though its name sounds like an incitement to breach the peace.

Ex. No. 16a	targets:	Last Sentence:	Overall Results:
Part: 2/10	Speed: 30 wpm Accuracy: 98 %	Speed: 28 wpm Accuracy: 96.8 %	Speed: 38 wpm Accuracy: 97.7 %



The hand that rocks the cradle is the hand that rules the world.
The hand that rocks the cradle is the hand

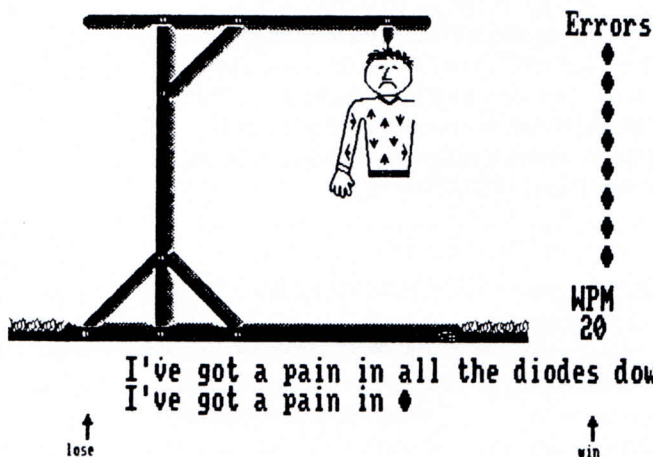
The hands show you which finger to use for each key. These figures show the current targets in speed and accuracy. Alongside are printed your actual performance in the last sentence and overall.

If you make an error the key you should have pressed is highlighted on the keyboard.

This is the sentence you have to copy. If you make a mistake, the program beeps at you.

The arrows mark the points where mistakes were made. The program never actually prints the errors on screen - you have to correct them before you can continue.

The hangman game - the text moves left on the screen and you have to type fast enough to keep the cursor moving to the right.



THE FINAL ANALYSIS

PLUSES

- + Imaginative screen layout
- + You can jump about between lessons as you want
- + Robust user interface is proof against most mistypings
- + Good manual
- + Includes excellent hangman style game for light relief
- + Probably the best package available for beginners

MINUSES

- No way of turning off slow explanatory text
- No improvement course for self taught typists
- Some may find the lively screen layout distracting

TIP-OFFS

Presenting the lowdown on LocoScript, CP/M, life, the universe and avoiding the PCW hair-tear syndrome.

KEY CONVENTIONS

On these tips pages we've used the following conventions in explaining keyboard commands.

1. All commands which you are to type on the keyboard are printed in bolder text.
2. Where we want to refer to a single key such as "Return" or Extra", we print them inside square brackets. Therefore "Type DIR [RETURN]" means to type the letters D, I and R, followed by the large "Return" key.

The Set and Reset keys on either side of the spacebar we refer to as:[+] and [-].

3. Many keyboard effects require the use of the "Shift", "Alt" and "Extra" keys in conjunction with another key. We represent this with a lightly-printed plus-sign. So "Type [ALT]+P" means to hold down the "Alt" key and type the letter P. The use of "Shift" however is normally obvious and will be ignored. For example we would refer to the [F8] key rather than to [Shift]+[F7].

Control and Escape

Some of the key labels on the PCW keyboard are not conventional. If you buy some software, you might be frustrated by not being able to find the keys it refers to as "CONTROL" and "ESCAPE" or ("CTRL" and "ESC:). On the PCW, you will find that the "CONTROL" key is labelled "ALT", and the "ESCAPE" key is usually labelled "EXIT", or sometimes "STOP" - it varies between software packages.

Caps lock key

The SHIFT LOCK key on the PCW does not work quite in the conventional way. Most computers have a CAPS LOCK key which puts all letters into upper case, but leaves the number keys unshifted, unlike SHIFT LOCK which alters both. CAPS LOCK is normally a good deal more useful - it would allow you to type PCW 8256 instead of PCW**"%'. But all is not lost; buried in the depths of the PCW manual there is a way of

getting CAPS LOCK: just press [ALT]+[ENTER]. The same combination again releases CAPS LOCK mode.

The 8512 second disc

If you've invested in a PCW8512, or bought a second disc drive for the 8256, then you might get caught out if you haven't realised that there are crucial differences between the two disc drives on the PCW. Discs on the single density drive (drive A) have two sides; each side has to be formatted separately, and can be write protected separately. On the double density drive (drive B), which has twin disc heads, the PCW uses both sides of the disc at once. Formatting the disc formats *both* sides, and the disc can only be used one way around in the drive (the way that it was when you formatted it). So don't try to format side 2 of a double density disc, thinking you can store more files there, because you will only erase everything that is on side 1!

Copying to printer
Apart from simply printing out a copy of a file that you have on disc, the printer can also be made to echo everything that is written to the screen while you're in CP/M. To do this, type [ALT]+P at any time; the PCW will beep once, and then the printer will reproduce all subsequent text that goes onto the screen. Typing [ALT]+P again turns off the printer (but won't beep at you). This can be really useful - for example, you can store with each disc a paper copy of its directory. Type DIR [ALT]+[RETURN], and the directory will appear on the printer. When the printer stops, type [ALT]+P again. Or, you can print a copy of the output from a program to use as instructions for someone else; type [ALT]+P before you run it, and again after it has finished.

This only works for simple text printing - the printer won't copy any fancy screen graphics. But don't forget you can get a full screen dump by pressing [EXTRA]+[PTR].

The Unit key

There is a little mentioned facility in LocoScript, hinted at by the mysterious presence of a key marked "UNIT". The "Set" menu also has an unit option. Units are a way of storing place markers in LocoScript text, so you can easily move around.

Suppose you are writing an instruction manual, with a summary section. Every time you write an instruction, you want to update the summary section too. At the place where you are inserting an instruction section, set a unit mark (type [+JUT]), and also set one in the summary section. Now pressing [UNIT] while in the instruction section will take you straight to the summary section, and then [ALT+[UNIT] takes you straight back. You can set any number of unit marks - each press of [UNIT] takes you to the next (or last) mark.

Screen Printout

It's often handy to print out an exact copy of the screen on the printer. If you have lots of discs, maybe you could keep with each one a copy of the LocoScript main menu screen showing all the document names so that you know what's on it. To get a "screen dump" like this at any time, whether you're in LocoScript, CP/M or an application program, just press [EXTRA]+[PTR] **WARNING!!** If you are still using LocoScript Version 1 (supplied with early PCW 8256's), then doing a screen dump while editing a file in LocoScript will work fine, but will crash the machine afterwards. Contact your local Mitsubishi AWA branch office for advice on the update. (The version number is displayed on the initial title screen.)

A different way of using letter templates

You will by now have discovered that you need several different headings for writing paper, depending on whether you are writing to your mum, your bank manager, or whoever. You have probably set up various TEMPLATES.STDs and alternative layouts in different LocoScript groups to suit all your needs, but there are other ways of storing templates that are more economical on space and possibly easier to use. You could set up headers for letters using the "Edit Header" option from the "Modes menu [f7] - but don't-it wastes paper and a large blank area at the top of following pages looks wrong. Try this technique first:

Firstly, create a letter exactly as you want it, headings and all. Now, while editing it press [ALT]+[PAGE] (to take the cursor to the top of the page), [COPY], then [EOL] repeatedly until you have highlighted the area of the letterhead that you will want to re-use in other letters. Press [COPY] and then a letter from A to Z by which you wish to store the template, like "F" for "Family" letters. What has happened is that your whole heading has been saved as a LocoScript *phrase*, and to re-use it in other letters you just type [PASTE] followed by the letter it is stored by (F, as we used) at the top of the new letter.

When you create a letter, you are first faced with the contents of the document TEMPLATE.STD of the current group.

If you are using this phrase template method, you will need to totally clear your template file to give yourself a clear work page at the start: to do this, edit the template file normally, type [CUT] at the top, move to the bottom, [CUT] again to delete it all, and then save it normally.

A final note: as explained in the tip titled "Using Phrases", you'll have to store your new PHRASES.STD document on your startup disc so that you can still use it next time you start LocoScript from cold.

```

E:group0\MORETON.STD Editing text. Printer idle. Using B:M.
-Layout -P12 -LS1 -LPB Page 1 line 9 of 54
COPY and CUT text: type block 0..9 or phrase A..Z or CANCEL to return to area select
(centre) (+bold) (+PitchED) Roundhill Farm,
(centre) WINCANTON,
(centre) Somerset,
(centre) BA9 8HD. (-Pitch)
(centre) Telephone 0963 33256 (-Bold)
Dear

```

I suppose this must seem rather a strange letter to read, since it's really only written to provide an illustration of the Moreton patent method of setting up letter templates. You can see this in action in the highlighted text above ...

This is how the screen should look when you CUT the letter heading for storing as a Phrase - the highlighted area can then be pasted instantly into future letters.

Foot trouble

Although the current version of LocoScript (version 1.2) has fixed many of the old bugs in using headers and footers, there are still many frustrating pitfalls for

the unwary. Here's a word of advice if you are wondering why you can't get footers to appear properly.

If you choose the option of having the header and footer on page 1 different to all the other pages, then the footer will not in fact appear unless there

is a second page to print. So, to get a footer at the bottom of a single page document, either set the header/footer pagination to "All pages the same", or finish your document with [ALT]+[RETURN] to force a second page into existence.

Using phrases

LocoScript has a quick and handy way to save you typing out regularly used phrases again and again - you can save up to 26 short phrases so that at a single keystroke the words are automatically typed for you.

To set this up, first type the phrase normally into a document as you are editing.

Place the cursor at the start of the phrase, and press [COPY].

Move the cursor to the end of the phrase, press [CUT], and choose a letter (A to Z) to store the phrase by. To insert the phrase later on in the document, type [PASTE] followed by the phrase's reference letter.

You can go on using the same set of defined phrases in any document you edit during a given session with the PCW. If you want to turn off the machine but still use the same phrases when you next edit a document, then you will have to save them.

To do this, select the "Save all phrases" option from the "Blocks" menu [f8] while editing any document. This creates a file PHRASES.STD in the first group on the M: disc. Now replace the PHRASES.STD file on your start-of-day disc with this new version using the copy command [f3], and these new phrases will be available whenever you start up LocoScript using that disc.

Problems with DISCKIT

Copying discs with the aid of DISCKIT is kid's stuff, so (naturally) it can be rather boring! Imagine that you are running a large application from a full RAM disc (drive M) with your priceless new data safely on one of the floppy discs, A or B. The time has come to make a backup copy, so you leave the application in the approved manner, write-protect your data disc and run DISCKIT from a CP/M system disc containing DISCKIT.COM. Following the instructions on the screen everything goes as you expect until you

eventually press Y to go ahead with the copy. Then a message appears on the screen "Copying in 20 parts" (if you are copying a double density disc in B) - yes, two-zero parts, which is a gentle way of breaking the news to you that you are in for FORTY disc changes. This is caused by a "feature" in DISCKIT that it uses the M drive as temporary storage while copying discs. Therefore, if there's not much room on your M drive the copying process will be in several parts. So for best effect, M must be empty before copying discs, or you're in for a lot of disc swapping.

If you find yourself faced with the "copying in 20 parts" message, you can break out of DISCKIT; at the stage that it says "press Y to continue", remove all discs from the drives, and press Y. Then an error message appears saying that the drives are empty and asking you to "R-entry or C-ancel?". Press C for cancel, and the process is aborted. Now you can exit from DISCKIT normally, clear out your M drive and start over. Now, with a clear RAM disc, you will see, "Copying in 2 parts" - so you might reach the pub before closing time after all!

Other users need you!

Yes, to save everyone re-inventing the wheel, we are happy to pass on tips, advice on installation and use of packages, and any bugs you have discovered, when they occur and how to get round them. Do your fellow PCW owners a good turn.

Mysterious happenings inside PIP

Most of the utilities that come free with CP/M such as PIP, SUBMIT and so on are not renowned for being overly helpful when things go wrong. Suppose you want to use PIP to transfer a single file from drive A: to drive B:. As you well know, you type PIP B; = A:MYFILE.DOC Cross your fingers and hope everything goes smoothly. But if it doesn't you'll probably never work out what has gone wrong by reading the

error messages that CP/M produces. Here are some of them explained in human being-style terms: ERROR:DISC WRITE NO DATA BLOCK - B:MYFILE\$\$\$ means that the destination disc B: is full, and doesn't have enough room for the new file. ERROR: MAKE FILE R/O DISC - B:MYFILE\$\$\$ means that the write protect tabs are activated on the B: disc. Take the disc out, unprotect it and

try again. ERROR: OPEN FILE NONRECOVERABLE-B-MYFILE.DOC ERROR: OPEN FILE INVALID DISC SELECT-B.MYFILE.DOC both these mean that either you haven't got a disc in the disc drive (idiot), or the disc is unformatted or has been corrupted. You can format the disc using DISCKIT, but this will erase anything already on it.



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Mastering the Amstrad PCW8256/8512

Book review by Arnold Goldman

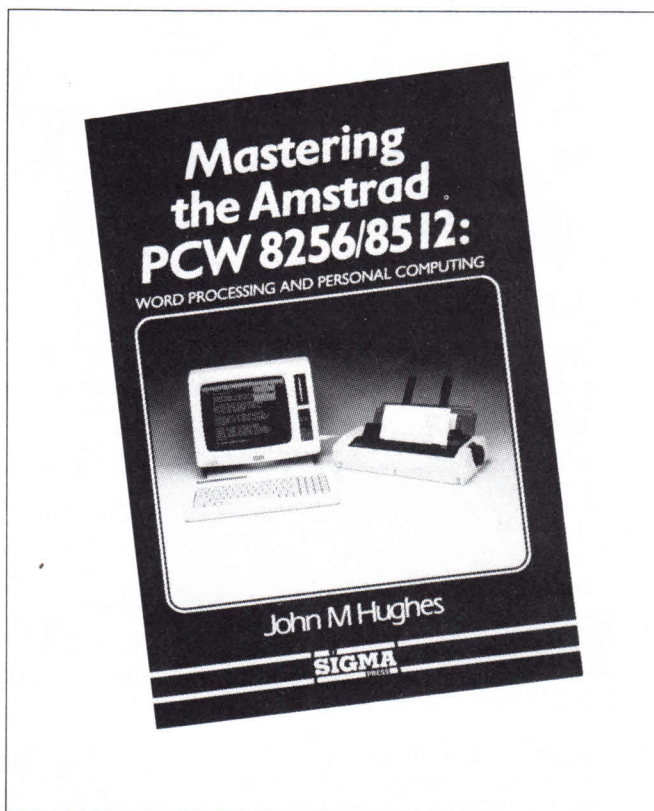
There are three kinds of people who can write about computers. There are those who fully understand how they work, having grown up with them, and cannot understand how anyone else cannot be familiar with the jargon used as if it were part of everyday language. There are those, like me, who are coming to grips with computers and are learning about them as we write. Then there are those like Dr. John M. Hughes who is so familiar with computers that he has become Head of Computing at a comprehensive school in Wales, whilst retaining the ability to write in normal English. He has also written a number of short stories which indicates his literary ability more than I can write in a short review.

This background is obvious when the book is compared with the handbook supplied with the PCW8256. The handbooks have all the information in them. Well, almost all the information. This book is different in the way it presents the information to the reader. The author treats the reader as a complete newcomer to computing, and does not assume a prior knowledge of anything to do with computers.

The persons at which this book is aimed appear to be those who wish to use the computer for commercial purposes with the minimum of learning time, and without having to learn anything about BASIC, LOGO, JETSAM, GSX or any other complexities. It is not a book for the keen programmer, or the

experienced operator. These people could easily find their way around the supplied handbooks.

The book itself has 254 pages, including index, and is set out in 12 chapters. The first 5 chapters deal with LocoScript operations in a detailed and well explained way. Dr. Hughes certainly knows his way around LocoScript, having used it to produce the book. (Editor please note.) On reading through it, I learnt a



number of things that, although being mentioned in the Amstrad handbook, had escaped my notice. Three chapters deal with the basics of CP/M. Only the fundamentals of file management are included, but explained in such a way that it all seems so easy. Three more chapters cover application programs such as Cambase and SuperCalc 2 in some detail, and others in a brief way. The last chapter introduces some of the possibilities for businesses with a number

of employees, and includes mention of payroll and accounts software. There is also an appendix explaining how to prepare ASCII files from LocoScript. The index is easy to use, but is not quite as comprehensive as I would have liked, and was found to have wrong page references for at least two items. The book is good value for the inexperienced computer user who wishes to become competent in the minimum time. It is certainly easier to read than the Amstrad manuals, and covers a wider range of topics to suit the commercial user than the manual. The competent computer enthusiast, however, would probably find the book to be far too basic, but the author clearly states this to be his intention. He has certainly succeeded in producing a book for the beginner which will cover all that will be needed to run a small business. It is a pity that the book cannot be offered as an alternative to the Amstrad handbooks at the point of sale. I am sure that many purchasers would prefer it.

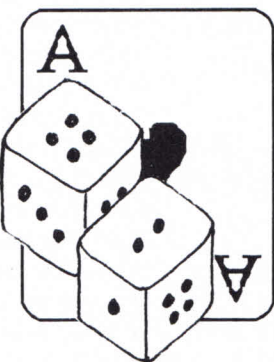
Mastering the Amstrad PCW8256/8512 by John Hughes is available from The Amstrad User for \$32.25. Subscribers may purchase the book at a discounted price of \$29.50. Postage is extra.

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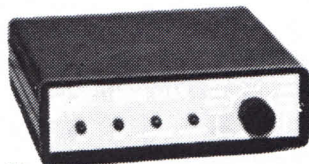
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CP/M Revisited

A Primer for beginners - Part 2

by Fred Robertson-Mudie

In the first part of this series the program SETUP.COM was being discussed in relation to altering some of the initial CP/M boot parameters, and dealt with the Initial Command Buffer and Sign-on String. At this point in time, the only other parameter which might need changing is that dealing with the RS232 interface.

All the other questions asked by the program can, therefore, be answered by Y <enter>.

An RS232 Interface is the method by which your computer can be used to contact the outside world. They are sold as separate items for the Amstrad (presumably as a lot more money can be made that way than by supplying a built-in interface), and are usually used with a Modem to connect with a telephone and gain access to Bulletin Boards, other computers etc. All the Interface does is to pass TTL data to the Modem which in turn converts the TTL data to audio tones and passes it over the phone line. However, to ensure that your computer can "talk" with another machine the data needs to be sent using the

same data standards and transmission speed as the other machine. Moreover, there are various international standards for Modems such that your Modem will need to send the same audio tone frequencies as the machine you are connected to.

As this is intended to be a CP/M Primer and as Modems and RS232 Interfaces and their uses and "standards" are a subject unto themselves, the subject will not be pursued here. However, further details are contained in various texts including:

The RS232 Solution, by Campbell published by Sybex
ISBN 0-89588-140-3

With CP/M 2.2, the data standards and transmission speeds used by the RS232 Interface are set-up on the disc by using the SETUP.COM program. The setting-up comes under the question relating to the SIO (Serial In/Out) Channel A part, and the standard message appears as follows:

Z80 SIO Channel A: 9600 tx baudrate, 9600 rx baudrate, 8 data bits, NO parity, 1 stop bit
is this correct (Y/N):-

Answer N <enter> to this question and, when asked for the correct data, enter the following:-
300,300,8,NO,1 <enter>

The machine will then show the new data and ask you if it is correct. Answer Y <enter> to this.

You are now set up to use a Modem at 300 baud transmit and receive rate, the most common standard used. The other common standard is 75 baud transmit and

1200 Baud receive with, in the case of Viatel, 7 data bits. This can be easily substituted for the above mentioned 300 baud data. The wealthier among us may be able to afford a Modem which can operate at 1200 Baud transmit and receive, full duplex, and, again, this information can be substituted for the above. It should be pointed out that if you are using the Amstrad RS232 Interface, it can be used to access Viatel from Basic, so there is no need to change the data on the disc.

Again, answer Y <enter> to the remainder of the questions, including whether you wish to update your system disc and whether you wish to restart CP/M. That concludes the alterations to the SETUP.COM program, other than to mention that the booting information now on your disc can be transferred to other discs by the use of the program BOOTGEN.COM. In addition, the use of the program FORMAT.COM. will automatically transfer the booting information on the disc containing the FORMAT program when that program is used to format new discs.

The next item relates to the built-in programs in CP/M 2.2. The built-in programs are REN, to rename a file or program; ERA, to erase a file or program; DIR, which gives a directory of files or programs; SAVE, which saves files or programs to disc; TYPE, which lists out text or document files; and USER which changes the User

area of a disc. The uses of these built-in programs is fairly well covered in the manual, other than SAVE which will be dealt with at a later date, and USER which will be dealt with in the context of a User manipulation program. However, it is worth mentioning that TYPE can be used to look at the document or text files which accompany many of the CP/M programs and which contain instructions for use of these programs. It can also be used to look at Assembly listings, i.e. ASM files. Using the TYPE command to look at non-ASCII files will result in some strange effects which may "lock-up" the machine. This will not do any harm to anything and can be fixed by switching the computer off and starting again. In CP/M, pressing the Control key along with certain other keys gives an additional function to that other key. For example,

Command	Action
^C	Terminate CP/M program; reset discs
^E	Move cursor to next line
^H	Delete character to left of cursor
^J	Move cursor to next TAB position
^K	Execute command (line feed)
^M	Execute command (carriage return)
^P	Engage or disengage printer
^Q	Resume scrolling after ^S command
^R	Redisplay line
^S	Freeze Screen
^U	Delete All characters in line
^X	Delete all characters to left of cursor
^Z	Mark end of string in PIP and ED (close file)

pressing P whilst holding down the Control key will cause all data coming out on the screen to also be sent to the printer. This function is usually denoted as ^P. So, ^P will engage the printer, and using ^P again will disengage it. This on-off switching is usually known as "toggling". Use of this function without a printer, or with the printer switched off, will

cause the computer to sit and wait till it can contact a printer. The remainder of the Control functions and their associated keys are shown above. Various other keys when used with the Control key are used for different functions in other versions of CP/M, as is also the case in various programs, e.g. Wordstar, Dbase etc.

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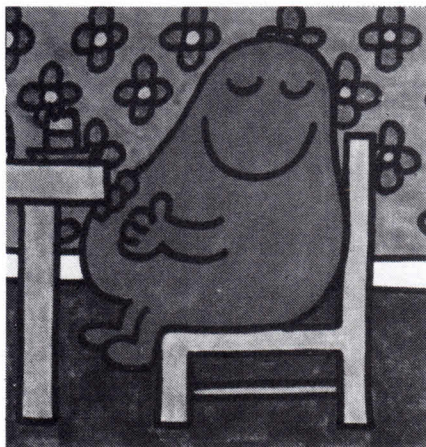
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Software Reviews

Some recent releases for CPC's



First Steps with the Mr Men

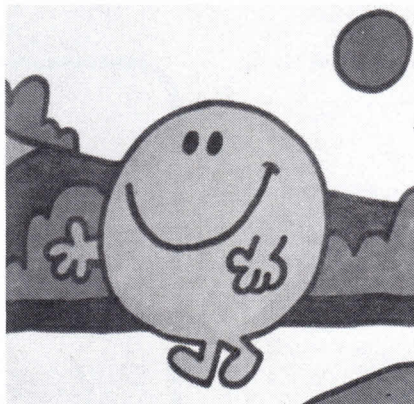
Mirrorsoft, CPC464 cassette
Richard Boulton's charming story booklet sets up four games with the Mr Men. Even a very young child can play, since no reading or writing is involved. It's good practice with the ideas of left and right, which even many adults find troublesome.

In the first, Mr Greedy has to be directed to a luscious ice-cream hiding in a corner of the room. Only the cursor keys are needed, and colour-coded stickers of Mr Clever pointing various ways are provided (though I don't know how long they would last - presumably you'd be taking them off to use the computer for other jobs). Mr. Clever's colours match the colours of the walls on screen (not much help on a monochrome monitor, but not essential.)

Mr. Greedy does not stop with one icecream, but they become harder to get: more and more walls appear in the room and he has to be navigated round them.

The booklet doesn't tell you to reset the computer (Control-Shift-Escape all together) before you can load the following program without a 'memory full' error.

Mr. Silly is being sensible in the second program and has gone shopping for a hat. He says (pictorially) the style and colour he wants to try on. Cursor keys move a marker along the shelves and the Copy key - with a Mr Clever sticker - selects. What silly thing does he do when he tries on the next hat?



The third program was my favourite - I especially identified with Mr. Forgetful who tidies things up into good places and then can't remember where.

Mr. Forgetful has installed a dozen wardrobes in his room: six along one wall, six facing. He puts a left shoe in a left-hand wardrobe and the right shoe in a wardrobe on the other side. How organized! He does the same with socks, boots, mittens, skates and slippers. But oh, no, what is where?

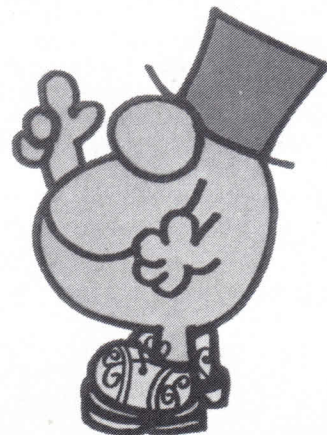
He must go back and forth across the room (by means of the cursor keys), looking inside wardrobes. The trouble is that they stay open only if he finds two things to match. He somehow has to remember where he saw the first sock when he finds a second.

Everything has muddled itself into new wardrobes if you play the game again.

A variation on the game puts alphabet letters instead of clothing in the wardrobes. An adult can specify a subset of letters and make it fun for a child to learn a few at a time.

In all these Mr Men games, various keys allow restarting the game, turning sound on and off (the tunes are hardly symphonic) or changing the background colour.

A nuisance in the packaging is that the booklet does not fit inside with the cassette. It has to be removed from the outer plastic sleeve - rather awkward. Loading and playing instructions seem to be missing until you think of removing the outer jacket and



reading the back of it.

The cassette is labelled 'CPC464' although the outer package says 'For use on Amstrad' without specifying. It would not load it on our 6128; we did not have a tape-decked 664 to try it on.

Here & There with the Mr Men

Mirrorsoft, CPC464 cassette
Joystick or keys

This time Mr Tickle and Mr Grumpy practice left and right - thinking ahead for simple route planning is the theme.

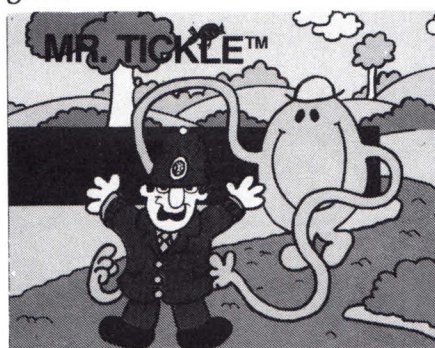
The object of the first game, Mr Tickle's *Jigsaw Puzzle*, is to line up doorways and move pieces to build up a complete picture of Mr Tickle.

In the second game, Mr Tickle tries to cheer up Mr Grumpy, who doesn't want to be cheered up. Mr Tickle's arm can stretch longer and longer to reach through doorways to where Mr. Grumpy is hiding. Sometimes he tries to block up the doorways with chairs. Mr Tickle's arm can be made to bounce off walls, chairs, Mr Grumpy or even itself.

Instructions can be given a step at a time, using the cursor and Return keys, or planned out a whole list at a time.

Mr Lazy, in the third game, is snoozing under an apple tree. He tries to instruct a friendly worm to crawl along the correct branches and drop a juicy apple for him to eat.

A gang of four Mr Men in the last game tries to stop Mr Tickle from moving in a checkerboard-like game.



PAXMAN PROMOTIONS GIFT PACK

Comprising:
3D Time Trek (Anirog)
House of Usher (Anirog)
Jonny Reb (Lothlorien)
Survivor (Anirog)

3D TIME TREK

After a devastating raid on your planet by space pirates, you have sworn to kill every alien fleet in the galaxy singlehandedly. This particular galaxy consists of an 8 x 8 grid of sectors which must be explored relying on information from several sources. These are your long-range sensors: galaxy map, battle computer and navigation computer.

Upon finding a sector with aliens (condition red, condition red!), you must blast them all quickly with a cursor to avoid gaining shield damage. This is not difficult, but the graphics aren't crash hot.

If energy and shield levels become too low locate and warp to the planet - there, a landing must be negotiated, down onto a rather big platform. This is ridiculously easy and therefore rather pointless.

The program has several other deficiencies. The first is when you are flying through space. The upper half of stars zooms past but the others just flicker, ruining the effect. No score is kept, nor are you prevented from warping to a sector you are already in. Not a major flaw, just an example of slack programming.

This could be best described as a jazzed up version of the old Star Trek type of game, although with a little practice it only takes about 20 minutes to complete - it's simply a matter of interpreting given information and keeping the shield rating up.

SUMMARY - Compared to other space games, 3D Time Trek is very colourful, highly repetitive and has little long term appeal - joystick is required.

SPEED	4
ORIGINALITY	3
DOCUMENTATION	4
GRAPHICS	3
ENTERTAINMENT VALUE	3
ABILITY TO HOLD INTEREST	3
EASE OF USE	5
TAU INDEX	45%

HOUSE OF USHER

Dressed in a top hat and cloak, a traveller arrives at the legendary House of Usher. This simple scenario is the background for a fast-paced platforms and ladders game, in which 9 rooms must be negotiated before the final 2 rooms may be entered.

The traveller begins in reception and may choose to enter any of nine doorways. Once inside, the idea is to jump over gaps, climb up ladders and avoid the nasties in order to reach the exit door. In some rooms objects must be collected and there is an overall time limit.

As for game presentation, sound effects are minimal although there is a gloomy tune between games. Compared to most games of this type, the graphics are positively primitive. Generally speaking most rooms are difficult to complete as your man is hard to precisely line up. There is also little margin for error.

Notwithstanding the difficulty, the reason House Of Usher cannot be recommended is the fact that the game crashes, necessitating a reload, after about 11 games. This occurred several times so it was no fluke. Dying is very easy, so this is more serious than it sounds.

SUMMARY: Even if the bug, which doesn't affect the actual game, is overlooked, House of Usher is difficult and dated although initially addictive. Joystick required.

ORIGINALITY	4
SPEED	4
DOCUMENTATION	3
GRAPHICS	2
ENTERTAINMENT VALUE	2
ABILITY TO HOLD INTEREST	4
EASE OF USE	4
TAU INDEX	41%

JOHNNY REB

The Union and Confederate forces are at it again! Set during the American Civil War, Johnny Reb revolves around a skirmish between 2 armies based on either side of a river. The objective for each army is to capture the enemy flag, although if you choose to set a limit on the number of moves, the player with the better positioning is declared the victor.

After loading you are asked a series of simple questions. These determine the length of the game and composition of your army. There is also an option for one or two players and a demonstration mode.

During each player's turn, the individual units are highlighted and instructions are requested. Your infantry and cavalry are mainly used for close combat and reaching the opposite flag, whereas the artillery is good for pounding the enemy from a distance. Any unit may swim across the river provided they aren't wounded.

The documentation is a shambles. Although it is lengthy and detailed there are a string of amendments at the end for the Amstrad. Then when loading the program still more are announced. Not to worry though, Johnny Reb is very user friendly and I was quickly blasting away at those damn Yankees!

SUMMARY: The pace may be too slow for some but if you enjoy pure strategy games like Chess and Othello then you should like this.

GRAPHICS	2
DOCUMENTATION	2
SPEED	2
ENTERTAINMENT VALUE	4
ABILITY TO HOLD INTEREST	6
EASE OF USE	6
ORIGINALITY	6
TAU INDEX	50%

SURVIVOR

Probably the best known title on the tape, this is a fast moving 2D maze game in which Angus the Survivor searches for bombs and money scattered throughout Deadstone Abbey. To assist in his quest, he is armed with a gun and porcupine bombs. These are used to destroy evil spirits and robots which will drain his energy level upon contact.

Surviving the game depends on keeping up this energy. To do this you must pick up bottles of elixir lying around here and there. Lots of treasures are also there for the taking as well as extra ammunition for the gun (slowest bullets I've ever seen!)

There are seven levels to complete and a number of bombs must be found on each before programming to the next, which will contain more bombs. Reading sign posts will help you find them, but it's easy to start going around in circles.

Graphics are adequate for this type of game, and a merry tune accompanies Angus' exploits. There is also a humorous hi-score table and joystick/keyboard option.

Unfortunately, Survivor has an inconsistent bug that sometimes prevents the user from having a second game, i.e. the intro screen will freeze up totally, requiring a complete reset. This does not occur often, but of course shouldn't be there at all.

SUMMARY: Constant action and ease of use makes this a good arcade game for younger players, if you're prepared to risk the bug. Originally released as budget game.

ENTERTAINMENT VALUE	3
ABILITY TO HOLD INTEREST	4
ORIGINALITY	4
DOCUMENTATION	4
SPEED	3
GRAPHICS	3
EASE OF USE	7
TAU INDEX	50%

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ECHO - a Printer Utility

from Ian Jardine

Many times I have had use for the screen echoing command available from the CP/M using the [CTRL]+[P] key sequence to provide a log of screen activity on the printer. Some computers also provide this facility from Basic, although the Amstrad does not. This program will provide a similar facility via a Resident System Extension (R.S.X.) which will allow the echoing of all screen output to the printer.

Two new commands are provided:

|ECHO.ON - Will turn on the printer intercept and all the following screen output will be echoed to the printer.

|ECHO.OFF - Will turn the intercept off and return things to normal.

The Basic program provided is simply a loader to poke the machine code into reserved memory above himem. The code is relocated as required by the basic loader and will work comfortably provided that any other machine code already present does not result in the loader lowering himem below 16384 (&4000). This is because the R.S.X. needs to be in RAM that is not overlaying ROM. The loader will detect this if it occurs and abort with a memory full error. Once the loading of the code is complete the loader will erase itself from memory, leaving the R.S.X. Commands |ECHO.ON & |ECHO.OFF ready for use.

The Basic loader should be SAVED before it is RUN as it erases itself when complete. The loader is heavily REMarked and should be easily understood. It first checks to see if it has already been loaded by setting up an error trap for the external command |ECHO.OFF. If the R.S.X. is already in memory, then this will not cause an error and the program will

abort. If the command causes an error, then this is detected by the error trap, and the program will then lower HIMEM to a suitable level and poke in the machine code above HIMEM. Any addresses requiring relocation are signalled by a ## in the data statements. The byte following the ## is an offset from the start of the program, which is added to the start address to give an absolute address. Which is then converted into a low and high byte pair, and poked into place at the current address. The program will attempt to leave the symbol table in the same state as power up, ie. Symbol after 240, provided that there is sufficient memory to do so and the table has not been previously divided by lowering himem without first issuing a Symbol after 256 Command. It does this by using an error trap for the SYMBOL AFTER command.

It should be kept in mind that only characters in the range of ASCII 32-127 will be echoed to the printer, and any characters outside that range will be converted to a space. If the printer is not connected, or off line, and a |ECHO.ON command is issued, then the program will lock up until the printer is connected. The intercept will remain active until turned off by using the command |ECHO.OFF.

The assembler listing is provided for those who are interested in delving into the method used to obtain the screen echo facility. The |ECHO.ON command simply directs the normal screen output to our intercept routine, where the current screen column is compared with the previous column, and a line feed sent if the current column is less than the previous one. If not then the current column is stored and the outgoing character checked to be sure it can be printed. If it can then it is sent to the printer unchanged. If not then it is converted to a space and sent to the printer. Finally, the original character is restored and a jump to the normal screen handling routine in the ROM is performed. The |ECHO.OFF command simply restores the normal screen handling routine.

Some abnormalities will be observed if the editing keys, including [CLR] & [DEL], and the copy cursor are used to correct anything on screen. A line feed will be sent each time the column count is less than before, so

the printout may be a bit strange.

If screen format commands like LOCATE are used then what appears on the printer will be different to what appears on the screen, due to the action of these commands sometimes causing a line feed due to the column being less than before. As is usual, experimentation will show just what can and cannot be done.

The |ECHO.ON, |ECHO.OFF commands will work just as well either in direct mode or in a running program so it is possible to have a routine to print to the screen, and by simply inserting a |ECHO.ON in the program just before the routine, have it display on the printer as well. After the routine is completed, a |ECHO.OFF will put things back to normal. I am sure that with a little thought, you will be able to come up with lots of other uses.

```
10 REM *** SCREEN ECHO TO PRINTER ***
20 REM *** ECHO.ON - ECHO.OFF R.S.X. **
*
30 REM Allows the Echoing of
40 REM Screen Output to the Printer
50 REM Basic Machine Code Loader (Relocates code as req'd)
60 REM Version 1.3 - By Ian Jardine, August 1986.
70 REM
80 REM **WARNING** SAVE before RUNNING a
  s line 440 will erase program
90 REM
100 CALL &BC02:MODE 1:PEN 1:PAPER 0' Initialize Screen
110 LOCATE 1,2:PRINT " ** MACHINE CODE SCREEN ECHO UTILITY **"
120 PRINT " "STRING$(38,"*"):LOCATE 10,9
130 REM ** Set Error Trap to Check if Already Loaded
140 loaded=(1=1):ON ERROR GOTO 150:|ECHO.OFF:GOTO 160
150 IF ERR=28 AND ERL=140 THEN loaded=0:RESUME NEXT
160 ON ERROR GOTO 0
170 IF loaded THEN PRINT"..is already Loaded..":PRINT:END
180 REM ** Set Error Trap to Handle SYMBOL AFTER Command
190 ON ERROR GOTO 200:SYMBOL AFTER 256:GOTO 210
200 IF ERR=5 AND ERL=190 THEN symfl=(1=1):RESUME NEXT
210 ON ERROR GOTO 0' Disable Error Trap
220 proglen%=&8B' Length of Code to be Loaded
230 MEMORY HIMEM-proglen%' Set New Memory size
240 IF HIMEM<16384 THEN ERROR 7' HIMEM too low so abort
250 start=HIMEM+1:addr=start' Set Pointers
260 IF HIMEM>16511 AND NOT symfl THEN SYMBOL AFTER 240' Restore Symbol Table
```

```
270 INK 2,0,20:PEN 2:PRINT"Loading ... "
;
280 chk=0' Set checksum count
290 READ byte$' Read First Byte
300 WHILE byte$<>"END"
310 IF byte$="##"THEN GOSUB 450 ELSE byte%=VAL("&"+byte$):chk=chk+byte%
320 POKE addr,byte%' Load Byte into Memory
330 addr=addr+1:READ byte$' Increment Address & Read next Byte
340 WEND' Loop Here Until All Done
350 READ chsum:IF chk=chsum THEN 370' Check Data Statement Checksum
360 MODE 2:INK 2,20:PEN 1:PRINT:PRINT"**ERROR** in Data"CHR$(7):LIST 520-
370 CALL start' Initialize Screen Echo R.S.X. Routine
380 INK 2,20:PRINT"Completed":PRINT
390 PEN 1:PRINT TAB(13)"Memory Cleared":PRINT:PRINT
400 PRINT"Use the External Command ";PEN 3:PRINT"|ECHO.ON";PEN 1
410 PRINT"to Echo Screen Output to the Printer."
420 PRINT:PRINT"Use ";PEN 3:PRINT"|ECHO.OFF";PEN 1
430 PRINT" to Turn it off Again.":PRINT:PRINT
440 NEW' That's All Folks
450 REM ** Calculate Absolute Address for Relocation
460 READ byte$:offset%=VAL("&"+byte$)' Get Offset from Start of Program
470 chk=chk+offset%' Update checksum
480 POKE addr,UNT(start+offset%)AND &FF' Calc & Poke L.S.B
490 byte%=INT((start+offset%)/256)' Calculate M.S.B
500 addr=addr+1' Increment Address
510 RETURN' Go Back & Poke it
520 REM ** Data Statements for Machine Code Program **
530 DATA 01,##,09,21,##,21,C3,D1,BC,##,11,C3,##,25,C3,##
540 DATA 44,45,43,48,4F,2E,4F,CE,45,43,48,4F,2E,4F,46,C6
550 DATA 00,00,00,00,00,3A,##,5D,FE,FF,C8,3E,FF,32,##,5D
560 DATA 2A,D4,BD,22,##,88,21,##,5E,22,D4,BD,3E,0A,CD,2B
570 DATA BD,30,F9,C9,3A,##,5D,FE,00,C8,3E,00,32,##,5D,2A
580 DATA ##,88,22,D4,BD,3E,0A,CD,2B,BD,30,F9,C9,00,F5,3A
590 DATA ##,8A,BC,38,07,3E,0A,CD,2B,BD,30,F9,7C,32,##,8A
600 DATA F1,F5,FE,20,38,04,FE,80,38,02,3E,20,F5,CD,2B,BD
610 DATA 38,03,F1,18,F7,F1,F1,C3,00,00,00,END
620 REM ** Checksum for Data Statements
630 DATA &34CC
```

The assembler listing appears on the next two pages.

```

1      ; ECHO.ON - ECHO OFF
2      ; ECHO SCREEN OUTPUT TO PRINTER
3      ;
4      ORG 8000H
5      LOAD 8000H
6      ;
7      PRTCHR: EQU OBD2BH      ; MC_PRINT_CHAR
8      LOGRSX: EQU OBCD1H     ; KL_LOG_EXTERNAL
9      TXTOUT: EQU OBDD4H     ; IND_TXT_WRITE_CHAR
10     ;
11  INIT:  LD   BC,RSXTBL      ; RSX TABLE
12         LD   HL,RSXBUF     ; O/S BUFFER
13         JP   LOGRSX       ; SET UP R.S.X.
14  RSXTBL: DEFW WDTBLE      ; POINT TO TABLE
15         JP   SET          ; ECHO.ON JUMP
16         JP   RESET       ; ECHO.OFF JUMP
17  WDTBLE: DEFB "ECHO.O"    ; WORD TABLE
18         DEFB "N"+128      ; END OF WORD 1
19         DEFB "ECHO.OF"   ; 2ND WORD
20         DEFB "F"+128      ; END OF WORD 2
21         DEFB 0            ; END OF TABLE MARKER
22  RSXBUF: DEFS 4          ; BUFFER FOR O/S
23  SET:   LD   A,(FLAG)     ; ECHO.ON
24         CP   OFFH        ; ALREADY ON?
25         RET  Z           ; RETURN IF ON
26         LD   A,OFFH      ; CODE FOR ON
27         LD   (FLAG),A    ; SET FLAG=ON
28         LD   HL,(TXTOUT) ; GET JUMPBLOCK ENTRY
29         LD   (JPBKST),HL ; SAVE IT
30         LD   HL,SEND     ; POINT TO NEW ROUTINE
31         LD   (TXTOUT),HL ; REPLACE JUMPBLOCK ENTRY
32  FIRST: LD   A,10        ; CODE FOR LINE FEED
33         CALL PRTCHR      ; TRY THE PRINTER
34         JR   NC,FIRST    ; RETRY TILL SENT
35         RET              ; BACK TO BASIC
36  RESET: LD   A,(FLAG)    ; ECHO.OFF
37         CP   0           ; CHECK IF ALREADY OFF
38         RET  Z           ; RETURN IF OFF
39         LD   A,0         ; CODE FOR OFF
40         LD   (FLAG),A    ; SET FLAG=OFF
41         LD   HL,(JPBKST) ; GET ORIGINAL ENTRY
42         LD   (TXTOUT),HL ; RESTORE JUMPBLOCK
43  FINAL: LD   A,10        ; CODE FOR LINE FEED
44         CALL PRTCHR      ; TRY THE PRINTER
45         JR   NC,FINAL    ; RETRY TILL SENT
46         RET              ; BACK TO BASIC
47  FLAG:  DEFB 0           ; 255=ON, 0=OFF
48  SEND:  PUSH AF         ; SAVE O/S CHARACTER
49         LD   A,(COLPOS)  ; GET LAST COLUMN SENT
50         CP   H           ; LESS THAN BEFORE?

```



```

51          JR    C,SAVCOL          ; JUMP IF NOT LESS
52 LFEED:   LD    A,10              ; CODE FOR LINE FEED
53          CALL PRTCHR            ; TRY THE PRINTER
54          JR    NC,LFEED         ; RETRY TILL SENT
55 SAVCOL:  LD    A,H              ; COLUMN COUNT TO A
56          LD    (COLPOS),A       ; SAVE CURRENT COLUMN
57          POP  AF                ; RESTORE CHARACTER
58          PUSH AF                ; SAVE IT AGAIN
59 CHECK:   CP    32               ; IS IT < ASCII 32
60          JR    C,ADDSP          ; GO IF IT IS
61          CP    128              ; CHECK IF < ASCII 128
62          JR    C,PRINT         ; GO IF IT IS
63 ADDSP:   LD    A,32            ; SUBSTITUTE A SPACE
64 PRINT:   PUSH AF              ; SAVE IT
65          CALL PRTCHR            ; TRY THE PRINTER
66          JR    C,DONE          ; GO IF SENT OK
67          POP  AF                ; RESTORE CHARACTER
68          JR    PRINT           ; RETRY UNTIL SENT
69 DONE:    POP  AF              ; CLEAR STACK
70          POP  AF              ; RESTORE ORIGINAL CHAR
71          DEFB 0C3H             ; CODE FOR JUMP
72 JPBKST:  DEFW 0                ; TXTOUT JUMBLOCK ENTRY
73 COLPOS:  DEFB 0                ; HOLDS PREVIOUS COLUMN
74          END                    ; THAT'S IT!!

```



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Wired for Sound

Computer musician Mark Jenkins investigates the musical possibilities of Arnold, and introduces Part One of this Music Special.

Ardent game players will already have some idea of the musical possibilities of Arnold. Games such as *Monty on the Run*, *Knight Games Ghost'n'Goblins* and many others make good use of Arnold's sound chips and indicate that, with the right software, Arnold could be a musician in his own right.

Later on we will look at how the Midi system allows you to control professional synthesisers with your micro, but don't forget that Arnold's sound chip is a small synthesiser in its own right, and many of the music-oriented packages available need nothing more than software and an ear for a tune to let you make music.

Upto to now there has been a number of products available for music enthusiasts - most of them pretty weak, *Minstrel* from Kuma Computers and *Music Box* from The Electric Studioto name two. When compared with Rainbird's *Music System*, *Music Box* is well laid out but 'looks puny and overpriced. Later in this two part Music Special we look at the disk-only *Advanced Music System*.. This can be upgraded from the basic *Music System*, at least in the UK, and we will let you know if the same applies here in Australia.

Much more basic is *Music Master* from Vanguard Leisure, licensed from Datasync. Vanguard are the people who launched the *Maestro*: a hardware package offering a small stereo amplifier, headphones, two 3-inch speakers and a music demo cassette which takes full advantage of the Amstrad's stereo sound output. Both packages are covered in depth later.

Another package which will provide endless hours of fun is *Amdrum*, manufactured by Cheetah Marketing. *Amdrum* is the only one of these packages to go beyond the comparatively limited potential of the Amstrad's own sound chips. Again, see the full review in this two part article.

THE DEVELOPMENT OF MIDI

Why have microcomputers become so popular among professional musicians? Simply because in the last few years musical instruments have become more and more like computers anyway - so using a micro such as

an Amstrad is no longer an intimidating prospect for musicians as diverse as The Human League, Blancmange, Marillion and Dire Straits. It was inevitable that professional synthesisers eventually would be linked up to micros.

We're talking about the latest stage of the synthesiser revolution, which started around 1968 when Robert Moog developed the voltage-controlled oscillator, and which took a massive leap in the late 1970s with the addition of microprocessor control.

The early synthesisers - played by pioneers such as Walter Carlos and Keith Emerson - had two main problems: only one note could be played at a time, and each new sound involved setting scores of knobs in positions which could not easily be reproduced. Later microprocessor-controlled synthesisers such as the Sequential Circuits Prophet 5 and the Roland Jupiter 8 were fully polyphonic (capable of remembering large numbers of sounds defined by the user), so only a few problems remained.

Even in the '70s, synthesisers from different manufacturers were still incompatible with each other. So if you wanted to experiment a little - controlling many instruments from remote keyboards, note recorders (otherwise known as 'sequencers') or other instruments - you were out of luck. But when Dave Scott of Sequential Circuits experienced problems in getting his Polysequencer design to control the Prophet 5 synth, he came up with a proposal for a Universal Synthesiser Interface (USI).

Taking the USI proposals to Japanese manufacturers such as Roland and Yamaha resulted in a much expanded format known as MIDI, the Musical Instrument Digital Interface, which is now almost universally used on home computer interfaces, synthesisers, drum machines, sequencers and even guitars

Midi is a binary language similar to RS232 and other computer standards. It uses a serial interface which manifests itself as a five-pin DIN plug of which three pins are used for earth, live and return loop. Midi In or Out sockets (or both) will be found on the input signal) is an option. Although some micros now have built-in Midi, most need a small interface to

convert their cartridge or user-port transmissions to the Midi hardware standard.

The 128 note values available through Midi are made to correspond to a range of ten and a half octaves on a piano keyboard, which is more than enough for conventional composition. You can also send vibrato, wow, pitch-bend and other modulation levels through Midi. Codes are transmitted at regular intervals to synchronise drum machines, sequencers and other units which play notes at a set tempo, so your micro can easily lock on to drum sounds or to other music computers.

WHAT MIDI CAN DO

The most obvious thing Midi can do is store and replay notes entered from a synthesiser. This makes it possible to compose very lengthy pieces and play them back on several instruments simultaneously using suitable compositional software, such as EMR's *Miditrack Performer*, reviewed later. With many keyboards now capable of 'sampling' or recording real sounds as well as synthesising new ones, the days of the conventional studio using multi-track tape machines could be numbered.

Micros can also store sounds defined on synths but transferred via Midi to the micro's disk drive. And they can help to create new sounds by giving a colourful graphic display of all a synth's functions. Some software packages, such as *DX-Droid* for the Yamaha DX7 synth (not available on Arnold, I'm afraid!), will even create new sounds for you at random!

Back at a more reasonable level, experimenting with Midi requires an Arnold, a Midi interface and suitable software - and of course a Midi-standard music keyboard. One of the best to start off with is Casio's CZ-101 (imported by Mobex), which for around \$799 offers eight-note chords or four different single notes played simultaneously. It comes with miniature keys but is an ideal beginners' instrument.

Nowadays you can pay quite a lot for a Midi sequencer such as Roland's MC500, but a micro such as the Amstrad can perform all the same functions with a much more informative display for just the cost of a Midi interface and software. The only difference is... we have yet to see an Amstrad being used on stage!



MIDITRACK PERFORMER

EMR: cassette & disc

If you wish to use the Midi system on your CPC machine, EMR's *Miditrack Performer* is really the

only option at the moment. This is a software package that comes with a Midi interface which lets you control synths such as the Casio CZ-101. The Casio is a very powerful compositional tool, and *Performer* takes full advantage of all the expression available via the Midi interface.

The one package contains both cassette and disk-based versions, so running on any CPC model. It also comes with the interface itself, which plugs into Arnold's expansion port. This box contains the Midi sockets, and can also control the cheaper Korg or Roland non-Midi drum machines, which you may be able to pick up second-hand. You will be able to use *Performer* only to synchronise these, but they could function as a cheap second instrument to your main Midi keyboard.

There's only one main display from which the whole package is controlled. This screen is fairly packed, but having it all there in front of you would certainly help in a live performance. On the right of the screen are the Save, Load, Delete Filename, Clear, Text, Arrange and Time Correct functions. The last of these refers to *Performer's* ability to clean up a sloppy performance on the synth keyboard to a variable degree.

In the centre of the display are Metronome, Count-In (so you know when recording is about to start), Clock, Tempo, Number of Plays, Time Signature and Start Bar (so you can begin recording at any bar of a composition). Record, Play and other important functions are selected using a command window at the bottom of the screen, and you can adjust the tempo using the cursor keys or a joystick.

The functions are first selected with the cursor keys, activated with the spacebar and then altered in value using the cursor keys again. This slows you up a little - it would have been nice to have used the keyboard to enter Tempo value, for example. Some of the icons are a little obscure too: a little man on a podium standing for Tempo, a picture of a metronome for Clock. A little confusing, but on the whole *Performer* is pretty easy to use.

On the left of the display are the compositional functions to select which of the eight available tracks you're dealing with to play or mute each track; to assign a Midi channel; to loop tracks or allow them to play just once; to filter out velocity recording (which can waste a lot of memory); to transpose the pitch of a track; and to arrange a chain of up to 64 patterns for compositions around 20 minutes long.

Total capacity of the package is around 8,000 notes, though the actual capacity depends on the amount of information you require with each note. It will deal with eight or more polyphonic synthesisers and drum machines. *Performer* is limited to eight tracks in

theory, instead of the full 16 channels catered for by the Midi standard. This is presumably because of the limitations imposed by the speed of the Amstrad's processor and memory, but the package does allow you to merge two or more tracks into one, so your composition can contain up to 29 separate tracks, though you would not be able to edit all of them separately.

A more serious problem was that the review package would hang up if you tried to load a file that didn't exist. This could be frustrating if, for example, you had created a file called SONG1, and tried to call up SONG 1 by mistake. It simply means that you have to be careful when calling up files!

But will it ever replace a real recording studio? That depends on whether you're willing to buy a mixer and effects units to deal with all the synthesisers, and whether you're prepared to go without vocals, guitar and other conventional instruments. The best solution is probably to buy a cheap four-track cassette machine and use one track for a click to synchronise *Performer*, three for vocals, guitars etc, and have all the drums and synths running 'live' onto your master tape.



MAESTRO

Vanguard Leisure: all CPCs

The Maestro is designed to improve the sound quality of your 464,664 or 6128, by taking the stereo output from Arnold and amplifying it into two good-quality speakers or a pair of personal headphones.

Maestro comes well-packed in an expanded polystyrene pack, with a full-colour sleeve giving installation details. It consists of a small grey amplifier box, two metal-grilled speakers, a pair of headphones, connecting leads and a demonstration software cassette.

The amplifier has independent volume controls for each channel and a push switch to control speaker or headphone output. Leads are attached to the back of the box for power input and output, and signal input from the micro. There are also two DIN-type speaker sockets which take the plugs from the speakers. The amplifier is well-made, only being let down by the rather flimsy mounting of the volume controls - the knobs wobble when you turn them.

The speakers themselves are solidly mounted in plastic cases, each provided with a metal bracket which acts as a stand. The speakers can be tilted in these cradles to provide a degree of directional adjustment. The drive units are dual-cone, which

means that the bass and treble frequencies are reported by different parts of the same speaker. Not quite as good as having separate speakers for each range, but better than the single-cone type. Overall they are very similar to the type of speaker provided with in-car stereo systems.

The headphones, which are like those supplied with personal stereo cassette players, are comfortable and very light to wear. They plug into the front of the amplifier box with a short lead. The length of this lead and the input lead from the Amstrad restricts where you can put the amplifier so that it's only really possible to put it close to the micro's case.

Positioning of the speakers is quite important, as they shouldn't be too far apart if you want a good stereo 'image'. Don't put them too close to the monitor or TV, though, as the strong magnets can distort the screen image. For the same reason, it's not a good idea to put them too close to a disk or disk drive. The speakers are supplied with screws to attach their brackets to the wall, and this is probably a good way to mount them.

The quality of sound that Amstrad micros can produce is very good, and this is well reflected in the standard of output from the *Maestro*. The sound is clear and clean, with little distortion. While not up to hi-fi standards it is subjectively very good, and makes the old CPC sound like a different machine. The demo cassette provides a couple of good examples, in stereo. The Amstrad's stereo output is divided into three channels, one for left, one for right and the third split halfway between the two, so appearing in the centre.

I tried several cassettes, including *Winter Games* which came out well, and the library of tunes provided with Rainbird's *Music System*. The *Music System* puts the background rhythms on one side, rather than in the centre, which gives a strange effect, but it's still heaps better than the mono output of Arnold on his own.

When you're not playing anything through the *Maestro*, there is a fair amount of background hum. This is more noticeable through the headphones, but under normal circumstances it's not enough to be annoying.

EXCELLENT VALUE

The *Maestro* represents excellent value for money. It's a very attractive peripheral for any Amstrad CPC micro, and as the advertising blurb says, it 'works with ALL add ons'.

All, that is, except the *Amdrum*. This is rather a special case though, as the *Amdrum* expects to be connected into your hi-fi and is fitted with an RCA phono plug which isn't directly compatible with the

stereo jack on the *Maestro's* input lead. But it shouldn't be hard to cobble together a connecting lead if you want to use this setup. The *Amdrum's* output is only in mono.

In all other respects, I can thoroughly recommend the *Maestro*.

CONNECTING THE MAESTRO

This is fairly straightforward, although you end up with quite a few extra leads sprawling across your desk.

Switch off all power to your micro, and disconnect the power line from the monitor to the keyboard. On the 664 or 6128 this is the five volt lead going to the micro, rather than the 12-volt coming from it - something not made clear in the instructions. This lead connects to a flying socket from the *Maestro*, and a similar lead from the amplifier plugs into the back of the micro. You are effectively breaking the *Amstrad* lead in the middle, so the *Maestro* can take its power from it. The *Maestro* doesn't draw much current, so this extra load will not effect your *Amstrad*.

You next plug each of the speakers into the sockets on the back of the amplifier, and the headphones into the socket on the front. A small stereo jack plug connects into the 'stereo' output from the *CPC* and you're away. No permanent changes have been made to the micro, and you can disconnect the amplifier again whenever you like. The *Maestro* is switched on and off with the power switch on the *Amstrad* monitor.



AMDRUM Cheetah

If you've listened to many modern rock bands you'll know the rhythms generated using electronic drum kits. Until recently these boxes of tricks started at several hundred pounds - only small change for a promising band, but a lot for someone starting out. Stand-alone drum boxes come with digitally recorded drum sounds which you can program in many varied rhythm patterns, most micro-based drum machines have been hampered by the quality of their sound chips. These aren't capable of reproducing acoustic instruments accurately enough for serious use.

Amdrum gets around this restriction by ignoring the *Amstrad's* sound chip and using its own circuitry to produce the drum effects. This is accomplished with a small plug-in unit which connects to the expansion bus on the back of a *CPC*. The mono sound output is taken

from a flying lead attached to the side of this unit, and fitted with a phono plug intended for connection to the auxiliary input of a hi-fi amplifier.

This means the *Amdrum* can't be used on its own, since you can't hear its output without a separate amplifier. The *Amdrum* is intended for use with other electronic instruments though, so it's reasonable to expect this kind of equipment to be on hand. But it's a shame that no through connector is provided on the *Amdrum* for connecting other peripherals which use *Arnold's* expansion bus.

Once linked up, you have to load the *Amdrum* software and a set of drum sound data before you can use the unit. The software and drum sounds are provided on cassette, and instructions are provided for transferring these to disk.

A set of predefined rhythms are also provided, but these are not so easily shifted to disk. Since they're meant to demonstrate the *Amdrum's* capabilities, it's odd *Cheetah* should expect you to use them from cassette when everything else might be on disk. This is particularly weird as the *Amdrum* software can't load anything from cassette when it's loaded from disk itself. If you don't manage to transfer the demo rhythms, you have to run the whole shebang from cassette when you use them.

The 'drumkit' provided with the *Amdrum* consists of eight sounds: bass drum, snare, mid and low tomtoms, cowbell, open and closed hihats and claps. Each sound is very close to its acoustic original, although some still have an electronic overtone. This, if anything, adds to the overall effect, giving the whole kit a 'modern' sound.

When you do run the demo rhythms, you can hear that the *Amdrum* is capable of some very complex and professional-sounding patterns. The demo covers rock, reggae, latin, march and several other music styles, and can be used as the basis of complete songs or edited to produce the effects you want. You can also create your own rhythms from scratch, of course.

The software allows you to create new rhythm elements and to link these together. Elements can be repeated in any order you like and loop around to repeat complete sequences, which *Amdrum* refers to as songs. Songs can be saved to disk or cassette, and reloaded later for replay or edit.

Individual rhythm elements can be made up by entering numbers on a chart displayed on screen, or by tapping out a rhythm in real time. In real time you can add or delete any of the drum sounds while listening to the beats already laid down. If you use the display two bars are shown on either side of the current one, which helps line up repeating beats. A sound is added to any beat by pressing its corresponding number key, and you can have up to

three sounds on a beat.

It's a pity you can't see the cursor following the beats as your rhythm is played back, as this would help debugging. But the facilities that are provided give a lot of sophistication, and are similar to those on a Roland drum machine I used once.

The *Amdrum* can be used for some quite serious work, but as it doesn't support midi it can't be used for triggering other instruments. It does have a synchronisation feature however, which can lay down the pattern for each sound separately on a multi-track recorder. You can then treat each sound individually and add extra effects such as reverberation.

The manual is well laid out, but a bit brief and very small (A7). I suppose it saves on staples, though!

Supplied for review with the *Amdrum* were two cassettes offering different drum sounds, one electronic and the other Latin-American. Both are good, offering a wide selection of sounds for particular kinds of music.

The drumkit editor, provided on each cassette, allows you to combine sounds from more than one kit, making up new selections. Sounds can be saved backwards, which means they play backwards, although you can't play them through the editor - reverse play is all that can be achieved with individual sounds. It would be handy to be able to treat the sounds digitally through a separate sound editor too.

BUILDING UP TO A 'SONG'

If you're constructing an *Amdrum* rhythm pattern or 'song' from scratch, you first define the number of divisions per beat, which depends on the complexity of the final rhythm.

Amdrum lays down a pattern of single closed hihat beats to act as reference for your rhythm. They can be deleted later if you don't want them in the finished song.

You add sounds to a pattern by tapping the Control key in real time or by adding sounds to a display of the current pattern. When you're happy with the pattern it can be saved to memory and you can define the next.

Once you have defined all the patterns you need you can link them together to form a complete song. If, for instance, you have defined patterns 1, 2, 3, 4 and 5, your complete song pattern might be 1, 2, 3, 1, 3, 4, 5, 1, 3. *Amdrum* software can then repeat the complete sequence.

ON THE BEAT

The *Amdrum* is a very reasonably priced alternative to purpose-made drum boxes. You've got to have an Amstrad micro too of course, so the cost of that should

be added in a direct comparison. It's a unit which is really of more interest to someone who does quite a bit with electronic sound or music rather than the casual explorer, and offers a lot for the home music-maker.

Being largely software-based there is a lot of scope for extensions to the system. It should be possible to create the data needed for an *Amdrum* sound either from scratch with a sound designer, or perhaps by capturing it with a microphone and feeding it in from cassette. You would then have sound-capture facilities approaching those of the fabled Fairlight keyboard.



MUSIC MASTER

Vanguard Leisure: cassette & disc

This is the software package marketed to go with the *Maestro* amplifier and speaker system. It comes on cassette or disk and loads without difficulty. Unfortunately, once loaded you start to wonder whether it's worth the money.

The screen shows three octaves of keyboard, and when you press a key you can hear the corresponding note. The keyboard can be transposed up and down to cover a full eight octaves and you can select any of six voices for the notes. The six function keys f4 to f9 give you rather poorly enveloped percussion sounds. A foreground track can be laid over one or two background tracks.

All this sounds rather good, until you realise that it's all *Music Master* can do! You can only lay down notes in real time, and when you've laid down a backing track (which has to be the right length and in perfect tempo) you must then play the accompaniment and melody line without stopping. I'd be interested to hear of anyone other than a trained musician who can do this without error.

If you do succeed in creating a tune, you can save it to cassette or disk and reload and replay it later. There are no facilities to edit the piece.

So sophisticated is *Music Master* that Vanguard doesn't seem to think it needs a manual, printing brief instructions instead on the back of the box. They contain some odd English, suggesting that DataSync, the people who wrote the program, are from abroad. A pity someone at Vanguard couldn't have edited it through.

This article continues next month with a run-down on the amazing "Advanced Music System" by Rainbird, and the Electronic Music Utility (EMU) from Discovery.

Adventurer's Attic

by Philip Riley

It was at a user group meeting that the system described in this month's column was suggested to me. I have been toying with the idea of coding the location descriptions of adventures in order to save memory. It was at the meeting that I mentioned the system I had been working on and one of the members gave me a listing of a small test program that he had been using. Although using much the same principle as my own it was much better, so the old system was scrapped and the new one started upon.

The basic idea of the system is to use ASCII characters stored in strings that are used to pick words out of a dictionary also stored in string variables. The listing that I had been given had the bare essentials to make it work so I set about expanding it a little.

Originally the program would only encode and decode, the dictionary of words had to be put in manually. The program now encodes and decodes and updates the dictionary with any new words that are used. You can also load and save to disc or tape and keep a check on the amount of memory while at the same time performing a garbage collection.

It is when saving and loading data files to tape or disc that a particularly nasty little problem can arise. We are using ASCII characters within the strings, two of which can cause problems. I was fortunate enough to hear about the problem before I started using this system. All of this fuss is over just two innocent characters - the

comma (,) and quotation symbol ("). You cannot save these characters to tape or disc on a data file successfully. When the computer reaches these two symbols it thinks that it has reached the end of the string. It will take the remainder of the string as the next string along and so you will find that all of your data has been completely mixed up for you. I am not sure if it is when saving the data or loading the data back into the computer that the computer actually mixes your data for you but it really makes no difference anyway as the result is still the same. Also remember that you cannot use the lower section of ASCII characters (No. 1 to No. 31). I always start at character No. 45 [CHR\$(45)] as this not only takes us past the lower characters but also puts us past the Comma and Quotation symbol [CHR\$(34) and CHR\$(44)].

Many of you out there who like to write your own programs may have encountered the problem of string variables eating up the memory. For those of you who have not had to contend with this problem or do not understand what I am talking about I will explain. The Amstrad is not a very tidy computer when it comes to strings. All of the string variables that you use have to be stored in memory. When you change that string it does not go to the same spot in memory that it has been using, it will go to the next area of free memory and store the updated string in that area of memory. So if you are constantly using and

changing string variables you can very quickly use up all of your free memory and the program will crash. To prevent your Amstrad from locking up on you, you will need to perform a garbage collection at regular intervals within the program. To perform a garbage collection you use the FREE command: a=FREE(""). Unfortunately the more strings that you use the longer this process will take and this can be rather tedious as time goes on.

The reason I mentioned this little quirk in the Amstrad is that the coding system that I use employs a lot of strings and this is one of its major drawbacks. Of course this problem could be solved by writing the routine in machine code or by writing it in Basic and then compiling it. I do not know the first thing about machine code, but I have tried to compile the program without much success.

Next month we will publish the listing of the program with a full explanation of how it works and how to use it and so, until then, keep adventuring and keep those letters coming in.

SOME QUESTIONS

From Danny Liebke of Ocean Shores in NSW: I need help with the **Hobbit** - how do you get out of the wood elves dungeon? And with the **Hitch-Hickers Guide to the Galaxy**: how do you get the Bugblatter Beast to go to sleep?

From D. Hughes of Ryde, NSW comes: In **Sorcery+** the bubbling

spring at the main gate restores energy, but I cannot get past the door in the top right hand corner on the wooden bridge. Also, do you have any clues to find what's at the Altar Scene in *Souls of Darkon*. The area to the east of the altar contains metal but I can't find it. Also, how can the blacksmith help?

Stephen Snow takes up James Edmundsen's offer to help out "lost souls" in *Forest at World's End*. He writes: I have got to the part of the program where you are at the Witch's Hovel and I cannot get past that point. Every time I go into the Hovel I get magic dust thrown on me and then get beaten to death with her broom. (*Some of us have experienced this on a Friday night - Ed*). I cannot find any other channels to go past that point no matter what equipment I have with me. Could you please assist?

Adam Musial, who offers some answers below, requires help with *Sea Base Delta*. He needs help in getting past the top security area which is covered by a TV scanner. In *Subsunk* he can't open the hatch in the machinery room or get the pill out of the bottle.

SOME ANSWERS

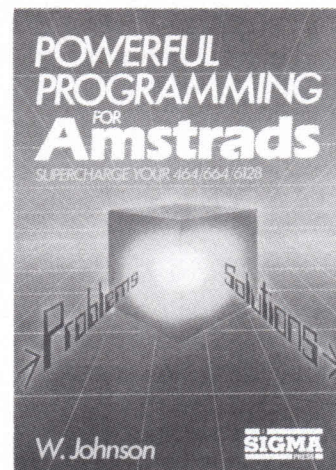
From Adam Musial for Clinton Willis who is having a problem with *Sea Base Delta* the answer is apparently REMOVE BEAT. Other clues include JOIN AIRBOTTLE when you have the airbottle and diving suit. Then WEAR SUIT. When at the lift on level 2 STICK BUTTON with the bubble gum you have chewed. In order to use the travel car again, you need to SHOOT OCTOPUS with the spear gun and then FILL PEN with its ink. This will enable you to fill in the required form.

Our thanks to Adrian Booth - we'll put your mammoth hints and questions (at least the ones that have not been so far covered) in next month's issue.

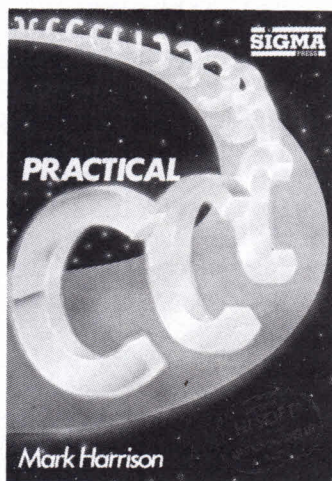
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by Mark Harrison

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