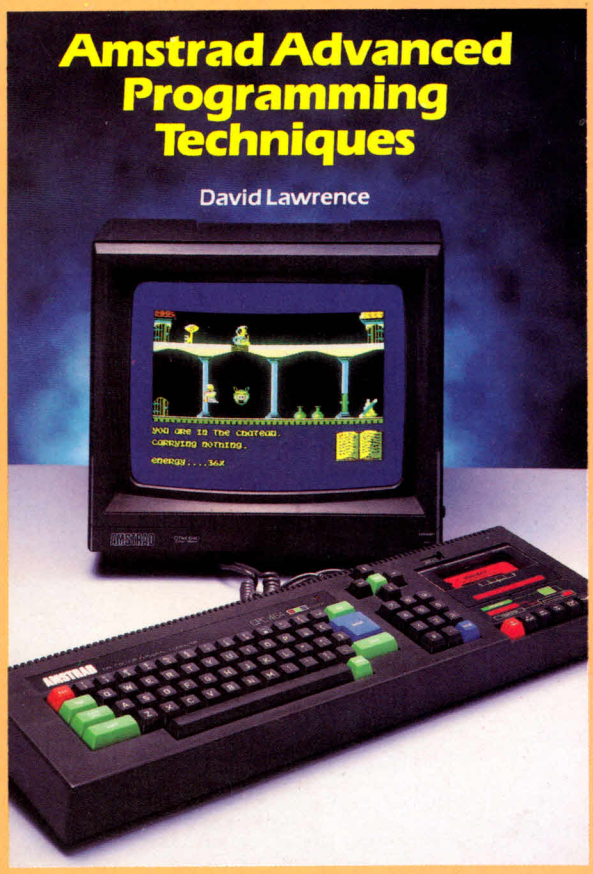
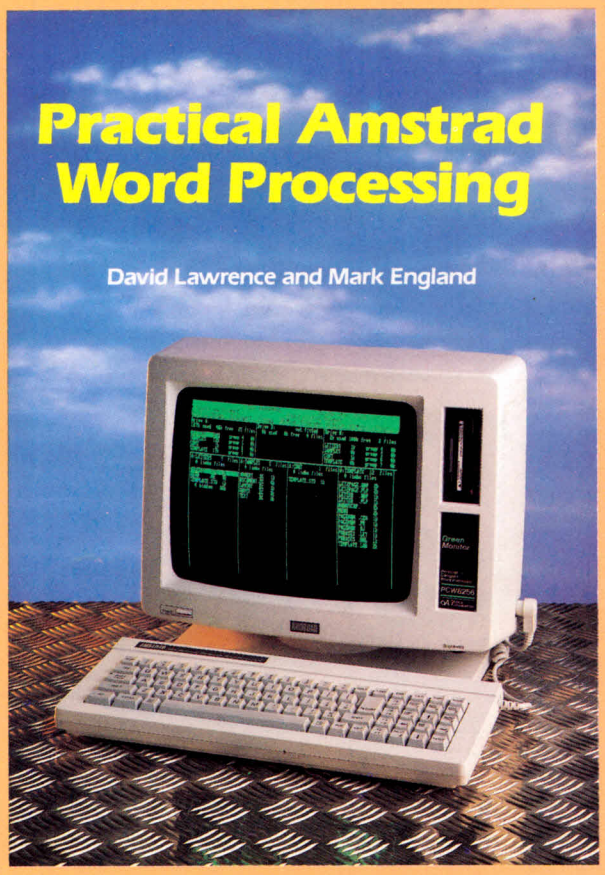
The Aussie Mag for Amstrad owners

THE AMSTRAD USER

Win a copy of ALIENS
See Page 13 for details

Issue No. 27 $3.75 April 1987





- *Review of the astounding AMX Pagemaker for CPCs plus Aliens, Druid, Glider Rider and more*
- *Full review of Database Manager (AtLast1) and The Electric Studio Mouse for PCWs*
- *Type-ins, Tips, Tutorials and Mail Order Shopping*

FOR THE NOVICE & EXPERIENCED USER

Registered by Australia Post – Publication No VBP7017

Compatible with you know who. Priced as only we know how.

The New Amstrad PC 1512. It uses all the same famous software as the IBM* PC.

Now you can have a compatible PC at an incomparable price. From around $1499 you can have 512K of memory, a monochrome monitor with single disc drive, a keyboard, a processor and a mouse.

Also included are Microsoft MS DOS 3.2 and Digital Research DOS Plus operating systems, together with the "GEM Graphics Environment Manager," "GEM Desktop," and "GEM Paint" software (all from Digital Research) and Locomotive "Basic 2" software.

6 models of the Amstrad PC 1512 will be available, offering inexpensive upgrading to colour monitor, double drive or hard disc capability. All offer standard features that are pricey extras on most other PCs. Like 16 colour graphics for example (many PCs only offer 2). Even the black and white monitor gives you 16 shades of grey. What's more, the Amstrad will run your LOTUS or IBM PC software considerably faster than a standard PC.

You can link your PC 1512s to modems, network them, or upgrade with printers and 20 megabyte hard disc drives. The PC 1512 is distributed and guaranteed throughout Australia by Mitsubishi Electric AWA and sold through leading department stores, retailers and computer specialists. Now there's a computer for every business at a price every business can afford.

Lotus

**IBM is the trademark of International Business Machines Corp. MS DOS is the trademark of Microsoft Corp. DOS Plus, GEM Graphics Environment Manager, GEM Desktop and GEM Paint are trademarks of Digital Research Inc. Locomotive BASIC 2 is the trademark of Locomotive Software Ltd. Lotus is the trademark of Lotus Development Corporation.*

Please send me more information about the PC 1512.

Name: .....

Company Name: .....

Address: .....

..... Tel: .....

AMSTRAD PC1512

TPB/1245

Post To: Mitsubishi Electric AWA, P.O. Box 11, Rydalmere, NSW 2116

THE AMSTRAD USER

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For Tape subscribers, the programs can be found at the following approximate positions:
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All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150, Australia. Urgent matters can be phoned through on (03) 233 9661.
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The subscription rate (for Australia) is $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,

With the meteoric rise in popularity of Amstrad computers in the UK came an over abundance of magazines - some good, some bad - and all professing to be the best thing for you and your machine since sliced partitions. Some of the magazines make it to these shores. There comes a limit to the number the UK market can support, so casualties are bound to occur.

The first is AMTIX!, published in the UK by Newsfield. The April issue will be the last one anyone will see and ends an 18 month life of previews and reviews of Amstrad software, nearly all of it devoted to the CPC machines.

Its demise perhaps illustrates that Amstrad users are becoming of age, less interested now in using the machine primarily for 'shoot-em-ups' and turning their attentions to the more serious, challenging, and ultimately, more rewarding aspects of computing. In the end, it is surely solving a knotty programming problem or writing a program that actually works which gives the most satisfaction.

While on the subject of casualties and nearer home this time, Strategic Software Club in Northbridge NSW is reported to be in the hands of liquidators. Although the majority of their sales related to Commodore (which couldn't have helped matters!), they did sell a certain amount of Amstrad software and hardware.

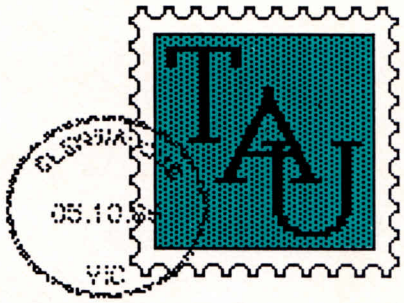
As I promised last month, you will find a review of Advanced Memory Systems' AMX Pagemaker in this issue. Some earlier imported versions have bugs - this doesn't say much for AMS's quality control - so make sure you buy the latest version. The review of the mouse for PCWs has also been included in this issue plus the start of a new tutorial in Basic. You'll also find details of some additions to both our book and software lists.

For a bit of fun, there is a very easy competition for CPC owners with a copy of Aliens to three lucky winners. And so that PCW owners are not left out, we have a competition planned for you too in the near future.

See you next month,

Ed

Letters



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.

In the November issue (No. 22) there was an article "CP/M Revisited - Part 1" by Fred Robertson-Mudie which covered the process required to change the ink and Border colours while running CP/M.

Having spent a great deal of time finding out these details quite a while ago, I can appreciate how helpful this information is. In keeping with this, I also spent some time finding out how to change colours when using DR LOGO. Below are the colours and code required to obtain that colour.

Basic	LOGO Ink	Colour
0	[0 0 0]	Black
1	[0 0 1]	Blue
2	[0 0 2]	Bright Blue
3	[1 0 0]	Red
4	[1 0 1]	Magenta
5	[1 0 2]	Mauve
6	[2 0 0]	Bright Red
7	[2 0 1]	Purple
8	[2 0 2]	Bright Mag.
9	[0 1 0]	Green
10	[0 1 1]	Cyan
11	[0 1 2]	Sky Blue
12	[1 1 0]	Yellow
13	[1 1 1]	White
14	[1 1 2]	Pastel Blue
15	[2 1 0]	Orange
16	[2 1 1]	Pink
17	[2 1 2]	Pastel Mag.
18	[0 2 0]	Bright Green
19	[0 2 1]	Sea Green
20	[0 2 2]	Bright Cyan
21	[1 2 0]	Lime Green
22	[1 2 1]	Pastel Green
23	[1 2 2]	Pastel Cyan
24	[2 2 0]	Bright Yellow
25	[2 2 1]	Pastel Yellow
26	[2 2 2]	Bright White

Unfortunately, the border can only be changed as detailed in Fred Robertson-Mudie's article. To use this command is very simple. As DR LOGO is in mode 1, there are 4 inks to use as in Basic.

```
?setpal @ [0 0 0]
```
will set INK @ to Black, which in this case will turn the background to black.

```
?setpc @
```
will set PEN @ to the colour specified.

```
?pal @
```
will return the code assigned to PEN @.

All these have default settings when DR LOGO is first run, which corresponds to the default setting in Basic. Here is a small demonstration to try out:

```
to square :side
setpc 1
repeat 4 [fd :side rt 90]
rt 117
setpc 2
repeat 4 [fd :side rt 90]
rt 117
setpc 3
repeat 4 [fd :side rt 90]
rt 117
end

to spiral :side
square :side
make "side :side + 3
spiral :side
```

```
end
```

Enter these under DR LOGO and run by typing

```
?spiral 5
```

Let it run for a while, then stop it using the escape key. To change the colours enter this sequence and run "?colour"

```
to colour
setpal 0 [0 0 0]
setpal 1 [1 2 0]
setpal 2 [0 0 1]
setpal 3 [2 0 0]
end
```

You can now experiment with changing the colours and the pen to give your LOGO programs a more colourful display.

B. Simpson, Nambour, QLD

Concerning the letter from S. Myers in the February issue of The Amstrad User, the quick and easy way to escape from the sun that is going "supa-nova" - purchase a galactic hyperspace, hyperspace to the planet, land at the space station and say 'yes' to the pleas of the refugees. Then exit the space station and galactic hyperspace at once. When you next land at a space station, sell the cargo and you will be rewarded with 100g of gems.

M. Carey-Smith, Grafton, NSW

Many thanks to everyone else who sent in similar answers for Mr. Myers.

Someone back in the mists of time nicknamed the CPC machines 'Arnold', an anagram of ROLAND Perry who developed them. The PCW is Joyce after Alan Sugar's secretary. What about the new Amstrad PC1512?

J. Malone, Brentwood

Herman - for Herman Hollerith, the granddaddy of IBM. He put business machines on the international map in 1887 by winning a US Government competition to tabulate census results. Uncle Sam was desperate that year because the results of the 1880 one were still being counted up. Herman used punched cards and newfangled electricity. The 1890 results were out in six weeks, Herman was rich, and has been cloned ever since.

Thank you for a wonderful magazine. I started buying it since becoming the proud owner of a PCW8256 about three month ago.

Your inclusion of programs for PCW owners is most welcome and for me "Wordcounter" was very helpful as I am writing articles for a study course that have to be of a specific word total and the program was very timely. "280 things to do with a straight line" is fun.

I'm not a computer buff and so really appreciate "Tip-Offs" to help me through my early days with the PCW. Have you done a review on the Lernloco program available through one of your advertisers? I found it quite helpful to iron out some of the mysteries.

I don't think you have reviewed the book "The Amstrad Companion" by David Lawrence and Mark England but it has been of great help to me with the CP/M system and also contains readable information on Basic, GSX and Logo. I believe the book by the same authors "Practical Amstrad Word Processing" is also worth having.

Thanks for your reviews of various software. Is it possible to find out where it is available in the various states? My kids want "Batman" and "Hitch-Hiker's Guide to the Galaxy".

Could you do a report on the truth in the rumour that is in the English magazines that 3" discs are hard to come by. Perhaps some of the add-on hardware and mountains of software we see advertised overseas will get to our shores this year.

Keep up the good work. I include my yearly subscription with this letter.

D. Breach, Hallet Cove Est., SA

Thanks for your words of encouragement (yet another satisfied customer!). The two books you mention have just been added to our list - see page 63.

There is no way that we can advise on which dealer will stock a particular piece of software. They all do their own thing. What we can tell you is that "Batman" is imported by OziSoft - (02) 211 1266 - and "Hitch Hiker's Guide to the Galaxy by Imagineering - (02) 697 8666. We suggest you ring them for the name of your nearest dealer.

As far as the rumour of a shortage of 3" discs is concerned, many users will know that this has been around for ages and was almost proved correct some nine months ago. We have not heard that there is a shortage in Australia of late, in fact we understand that a couple of disc manufacturers have started producing them.

Is it true that The Amstrad User is going to be replaced with Computing with the Amstrad?

I for one hope that this is not the case as I find your magazine streets ahead of any others for my Amstrad in terms of "local" information and general entertainment and it's more regular.

J. Cohen, Manly, NSW

ABSOLUTELY NOT !! Where do these rumours start? CWTA, the reprinted English magazine, is produced by Strategy Software (no connection with Strategy Publications) in Tasmania. The last issue that we saw in the news stands was November 1986. Since that time there have been five issues of The Amstrad User published regularly at the beginning of each month.

Firebird's THRUST is a great game.

Unfortunately it doesn't work on a 664, even though it claims to on the cover.

David Bennett

Sounds like Firebird's loading system again!. 664 owners be warned on future purchases.

Here's a tip for all budding gardeners around the country.

If you were wondering how your Arnold could help you grow flowers, follow these instructions:

1. Put your Arnold through a liquidizer and pour into a saucepan.
2. Add 500g of sugar. (664 owners may prefer to use the real thing).
3. Add one bottle of gelling agent.
4. Bring to a rolling boil and pour into glass jars.
5. Store jars until early August.
6. Spread paste liberally around the place where you planted your bulbs.

Wait a few weeks and - sure enough - your flowers will pop up from the ground, for everyone knows you get Tulips from Amstrad jam.

Daniel Homer

WANTED
A DDI-1 Interface.
Contact Neville Fletcher
(063) 833 225

Why don't you try mail order? If you have never tried mail ordering software before now is your chance. The Australian Amstrad User Club is offering NINJA for only $5.95 inclusive. Most orders despatched on the same day. Give it a go ...

See Page 41 for address.

The Australian Amstrad User Club in Manly is not connected with this magazine.

ADVERTISING DEADLINES

Issue	Booking by	Copy by
JUN '87	17/04/87	01/05/87
JUL '87	15/05/87	29/05/87
AUG '87	12/06/87	30/06/87
SEP '87	10/07/87	24/07/87

NATIONWIDE USER GROUPS

We are happy to welcome this month the **Capricorn Amstrad Users Group** in Rockhampton, Qld and the **Lismore District Amstrad Computer Club** in NSW, the latter having just officially formed with a modification to the sample constitution published in Issue 7 (August 1985).
With a number of AGMs taking place about this time, please don't forget to give us any changes as soon as possible.

WESTERN AUSTRALIA

ALBANY AMSTRAD USER GROUP

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

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

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Secretary:	Keith Saw	(095 27 6519)
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Mail:	29 Milgrove Avenue, Cooloongup, WA 6168	

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

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

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

SOUTH AUSTRALIA

AMSOUTH AMSTRAD USERS GROUP

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

AMSTRAD COMPUTER CLUB INC. (SA)

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

NORTHERN COMPUTING SOCIETY INC.

President:	Reg Pye	(08 265 5272)
Treasurer:	M. van der Hoeven	(08 258 1722)
Secretary:	Mike Taylor	(08 264 5715)
Venue:	The Scout Hall, Bagster Road, Salisbury North every Wednesday from 7.00p.m.	

PORT LINCOLN AMSTRAD USERS GROUP

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

PORT PIRIE AMSTRAD USER GROUP

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

SOUTH EAST AMSTRAD USER GROUP (SA)

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

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NORTHERN TERRITORY AMSTRAD USER GROUP

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Secretary:	Colin Gorton	(089 84 4655)
Venue:	Casuarina Library, Darwin at 8.00 p.m. every 2nd and 4th Monday.	

VICTORIA

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

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President:	Tony Blakemore	(03 890 3116)
Secretary:	Barry Fredrickson	(03 846 1340)
Treasurer:	Ron Dunn	(03 277 7868)
Venue:	St. Ninian's Church Hall, cnr. McCracken Avenue and Orchard Grove, South Blackburn on the 1st Sunday of each month from 1.00pm.	
Mail:	PO Box 279, Heidelberg, Vic 3084.	

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

GOULBURN VALLEY AMSTRAD USERS CLUB

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

LATROBE VALLEY AMSTRAD USER GROUP

Contacts:	M. G. Donaldson	(051 34 5711)
	F. Baxter	(051 92 4246)
Venue:	Contact above for details.	

MACEDON RANGES AMSTRAD USER GROUP

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

MARYBOROUGH AMSTRAD USER CLUB

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

MOUNTAIN DISTRICT AMSTRAD USER GROUP

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

NORTHERN AMSTRAD USER GROUP

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

SALE AMSTRAD GROUP

Venue:	Sale Neighbourhood House in Leslie Street each Thursday night from 7.00 pm.

SOUTHERN AMSTRAD USER GROUP INC.

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

WENDOUREE AMSTRAD USER GROUP

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

WESTERN COMPUTER CLUB

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

ACT

CANBERRA AMSTRAD USER'S GROUP

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

Venue: Large Lecture Theatre, Canberra TAFE College, Constitution Avenue, Ried on the first Wednesday of each month from 7.30 pm.
Mail: Secretary, Box 1789, Canberra , ACT 2601.

NEW SOUTH WALES

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

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Venue: Springwood Neighbourhood Centre, Macquarie Road, Springwood on the fourth Wednesday of each month at 8.00 p.m.

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

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

FAIRFIELD MICRO USER GROUP
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Venue: Room 65, Canley Vale High School, Prospect Road, Canley Vale every third Wednesday from 7.00 pm.

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Secretary: Ken Waegele (042 56 6105)
Publicity Off: Steve Parsons (042 96 3658)
Venue: AGA Gremania Club, Berkeley at 2.00 pm. evey third Saturday.

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

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

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

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

PORT MACQUARIE AMSTRAD USERS GROUP
Mail: Craig Tollis, Box 584, Port Macquarie, 2444.

SYDNEY AMSTRAD COMPUTER CLUB
President: Bob Knowles (02 810 7373)
Secretary: Reed Walters (02 560 9487)
Treasurer: Jim Chryss (02 327 7872)
Venue: Newtown area on the 1st Saturday of every month for a normal club meeting and on the 3rd Saturday for the purposes of programming tutorials only. Both meetings commence at 2.00 p.m. For more details contact either the Secretary or Treasurer between 6.00 p.m. and 9 p.m.

QUEENSLAND

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

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

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

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

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

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

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

SOUTHSIDE AMSTRAD USER GROUP (QLD)
President: Michael Toussaint (07 200 5414)
Vice-Pres: Peter Incoll (07 208 2332)
Secretary: Ken Henry (07 208 8730)
Treasurer: Tony Reynolds (07 841 4823)
Venue: Loganlea State High School (in the Communications Room) every third Saturday of the month starting at 2.00 p.m. A BASIC programming instruction course is held fortnightly.

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

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

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

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

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

TASMANIA

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

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

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

NEW ZEALAND

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

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

Closing date on amendments to this list for Issue 30 (June1987) is 28th April 1987

Gossip from the UK

* The sixth Amstrad Computer Show held in Hammersmith was once again an unqualified success. Naturally, the PC compatible had pride of place and following the tradition of giving nicknames to each Amstrad, this new one appears to have been dubbed "Hermann". Don't ask me why. There were fewer games software houses present this time with more of an emphasis on business programs, utilities and hardware gadgets. AMS were showing off Pagemaker and a new disc filing system called **Max**. The latter contains a comprehensive set of disc operations such as cataloguing, copying, deleting and renaming. Also included are disc utilities: a sector editor and formatter to name a few.

Siren Software's stand was kept very busy with demos of its Megadrive, Amram and Printmaster. **Megadrive** is a 5.25" drive capable of holding 1 megabyte of information and is compatible with both CP/M and Amsdos. **Amram** is a simple form of sideways ram for the CPC computers and supplied with icon-driven software. It saves any rom to disc, loads any rom to Amram, where the computer thinks it is a rom. **Printmaster** allows ordinary Epson-compatible printers to print superb quality text in a variety of styles and sizes. It can also print high-quality screen dumps in varying sizes and shades - and can do it as a background task.

The noisiest stand was, without doubt, that of Electromusic Research. On display was the Miditrack Music System with enough amps, synthesisers, keyboards and musical gadgetry to fill your room and enough power to blow the roof from above you. The Miditrack software has the power to transform your micro into an 8-track realtime digital recording system.

Also on show was a new package for the PCW and PC range which turns those machines into CAD workstations. (CAD = Computer Aided Design). The package, **Grafpad 3**, works with an A4 tablet attached to which is a stylus. The software supplied is Powercad and is configured to run with the CGA, EGA or Hercules graphics cards. It provides panning and freehand drawing, automatic dimensioning and unlimited zooming amongst other features. You also get a printer/plotter interface as standard.

Peter Macreth was as happy as a sand-boy. He is the Managing Director of Sandpiper Software and had clocked up the sale of the 1000th accounts package at the show. Not bad going for a small business package and without the help of a major sales drive.

Finally, an anti-glare screen from Spain caught my eye. It's called Amsfilter and consists of a solid transparent material instead of the usual mesh style and claims to absorb 60% of the 'harmful' rays. It has apparently sold 25000 before coming to the UK, but at £35 at time I can't see it selling too many in this new market

* The trend to produce games based on television productions continues. **The Growing Pains of Adrian Mole**, written by Level 9, is soon to be published by Virgin Games and follows the success of the Diary of Adrian Mole series. The BBC TV **Grange Hill Mob** has also been targeted, this time by Quicksilva. One of the episodes from the series will be produced as an adventure starring the two popular heroes Hollo and Gonch. I also learn that Inspector Gadget is to appear in **Inspector Gadget and the Circus of Fear** from Melbourne House.

* Rombo Productions, producers of the Vidi has linked with AMS, the producers of AMX Pagemaker *(reviewed this month - Ed)* to create a new pagemaker-digitiser package called **Magazine Maker**. An amendment to the Vidi software will allow users to digitise directly into Pagemaker documents. While on the subject, there is a product called **Extra! Extra!** which consists of 300k of clip art and over 25 fonts all readily incorporated into Pagemaker.

* Goldmark Systems is giving you the chance to upgrade your DMP2000 (and DMP3000) with a new static ram which will increase the printer buffer from 2k to 8k. This means that up to four pages of text can be printed without you computer being held up from other jobs. It comes in a kit form.

* Jumping on the 'compilation' bandwagon is US Gold with the the release of two packs - **Unbelievable Ultimate** and **Amstrad Academy**. Unbelievable Ultimate is a collection of three Ultimate games - Alien 8, Nightshade and Sabrewulf - all on tape. Amstrad Academy features Zorro, Bruce Lee, Bounty Bob and Dambusters, also on tape.

Visit PC87 in Melbourne and get two other Shows for free

Following last year's successful event Australian Exhibition Services (AES) will again stage its three-in-one show, PC87, Office Technology 87 and Communications 87, at Melbourne's Royal Exhibition Building from Sunday 31st May to Wednesday 3rd June 1987.

Amstrad users will be pleased to note that Mitsubishi Electric AWA will be participating in the PC87 section. The main features of the stand will be the recently released PC1512, Amstrad's first IBM compatible and the PCWs.

Products on display at PC87 will include microcomputer hardware, software and peripherals. Around 75 companies are expected to participate including the Singapore Trade Development Board.

A new display at PC87 will be an area devoted entirely to desktop publishing products.

Office Technology 87 will bring together an enormous range of complementary office products, while Communications 87 will include telecommunications equipment, data comms, networking and videotex. Further information from Janelle Schreiber (AES) on (03) 267 4500

Software Bonanza

Gremlin Graphics Software Limited, to give them their full title, are releasing software at an amazing rate of knots. Here are some of the titles soon to be available in Australia through importers ISD. The prices are expected to be $34.95 for the tape version and $44.95 for the disc.

Auf Wiedersehen Monty - the intrepid mole returns apparently to collect as much money as possible to eventually purchase his dream island "Montos". His efforts take him through different countries. In Paris, for example, he has to discover the whereabouts of the "Mola Lisa", acquire it any way he can and 'fence it' for as much as he is able. In the screenshot below, Monty is searching for the steering wheel he needs to complete his racing car which will enable him to compete in the Monaco Grand Prix, and hopefully win the money prize.

Samurai Trilogy - Kendo, Karate and Samurai (Courage, Strength and Perseverence) are what you need with this martial arts combat game. Set deep in the Orient in the province of the Nang River, there exists a band of warriors. Highly skilled and deadly, only students of exceptional calibre are permitted to train under their Supreme Masters to gain the ultimate accolade "Samurai War Lord". Under the guidance of the Supreme Master Chu Yu, two test must be successfully completed before you can be entered for the third and final "Samurai" test.

Star Games 1 - this is the first compilation released by Gremlin on a new label STAR GAMES. It features *The Way of the Tiger:* the fantasy role playing Martial Arts program in three parts; *Beach Head II:* with four graphic screens featuring attack, rescue, escape and battle options; *Barry McGuigan's Boxing:* the first boxing game which claims to focus on the art of the sport; and finally Rescue on Fractalus: a strategy, action and flight simulation game for experienced joystick jockeys. Star Games 1 will be available on tape and disc.

Krakout - billed as the newest and most absorbing arcade offering for a long time, Krakout is essentially a 'pat-a-ball' with colourful bricks which are extinguished upon contact with your missile. It sounds simple but Aliens masquerade in the background desperate for liberation and, once you have cleared their path, there's no stopping them. You can freeze your bat, turn bricks to bombs, introduce a bogus ball and choose the speed at which your missiles are deflected, always assuming that your arch enemy - the Ogre - doesn't eat them first.

Gremlin have also announced they have the rights to produce games based on Mask, Walt Disney's Basil the Great Mouse Detective and Death Wish II - all expected sometime in 1987.

Other Software Houses products imported by ISD include Firebird. The latest graphic/text adventure is **Imagination**, written by Peter Torrence, the author of Subsunk and Seabase Delta. In this game your mission is to discover the number of stars in the universe, and begins with you sitting in your living room with a computer, and floppy disc, and a choice of four games to play. The games are all linked in subtle and amusing ways. Available on tape only at $9.98.

STRIKE AT US GOLD

Not the industrial type, but the sporting type. Yes, US Gold have developed 10th Frame, a ten-pin bowling game for teams of four or eight separate players. The levels range from kid's through amateur to professional and take place on an alley viewed in prespective from behind the bowler. It claims to have all the professionalism of the real game including the ability to select league play.

PC NETWORK - a promise to Amstrad Users

Opened in the middle of February at Southport on the Gold Coast is probably the first computer store in Australia catering exclusively for the Amstrad user.

Stocking a full range of products including all accessories, the Manager of the new store Mr. Neville Wright said that the shop will be the flagship of a proposed retail chain of PC NETWORK stores.

Decorated in cool aqua and jade tones, the store is designed to relax clients and give them time to think about their purchases. Incorporated in the design are training areas for all models and software, plus a consulting area specially for small business persons to sit down, relax and talk about their problems.

It is also proposed to run seminars for dealers on weekends to train them in the various products for the Amstrad that the parent company Amsnet International imports for retail, trade and mail order disrtibution. Mr. Wright said "in the new store the emphasis is on friendliness, help and service. Computer jargon will be absent from conversations as we believe that it is probably one of the main fears that anyone has about entering a computer store. We will talk in plain English, a language readily understood by the small business community".

The new PC 1512 knocks IBM off the top spot

The newest addition to the Amstrad range, the PC 1512. outsold traditional market leader IBM in December and is now Britain's top-selling business micro.

Figures released a few weeks ago by the market research firm, Romtec, show that in December 1986, the first month in which the 1512 was widely available, Amstrad accounted for 26% of sales through dealers compared with IBM's 25%.

While this 25% is a fall of 13% from IBM's previous share of 38%, the company's unit sales have remained stable which indicates that Amstrad have increased the size of the total market with its new product.

Commenting on the news, Product Manager for Amstrad in Australia, Mr. John Chandler, said he was delighted with the figures but was not surprised to see the Amstrad doing so well. "Computing power plays an important role in maintaining a competitive edge in business today. We knew from our research that although many business owners recognised this, the financial commitment involved in purchasing the necessary equipment quickly dampened their enthusiasm."

"The Amstrad 1512 is the ideal business micro. It offers high performance, IBM compatibility, a wide range of software and several exclusive Amstrad enhancements, and most importantly, with prices starting at around $1500, buying an Amstrad doesn't break the bank."

Mr. Chandler said he is confident that sales of the 1512 in Australia will follow the same pattern as those in the UK. "There has been tremendous interest in the 1512 since it was launched here in December last year," he said. "We have taken orders up to three months in advance. We expect that the improvements planned for 1987, for example the expansion in the range of printers, will make the Amstrad even more attractive."

Items of news for this section should be sent directly to The Editor, The Amstrad User, 1/245 Springvale Road, Glen Waverley, Vic 3150. Copy for MAY issue by 16th March

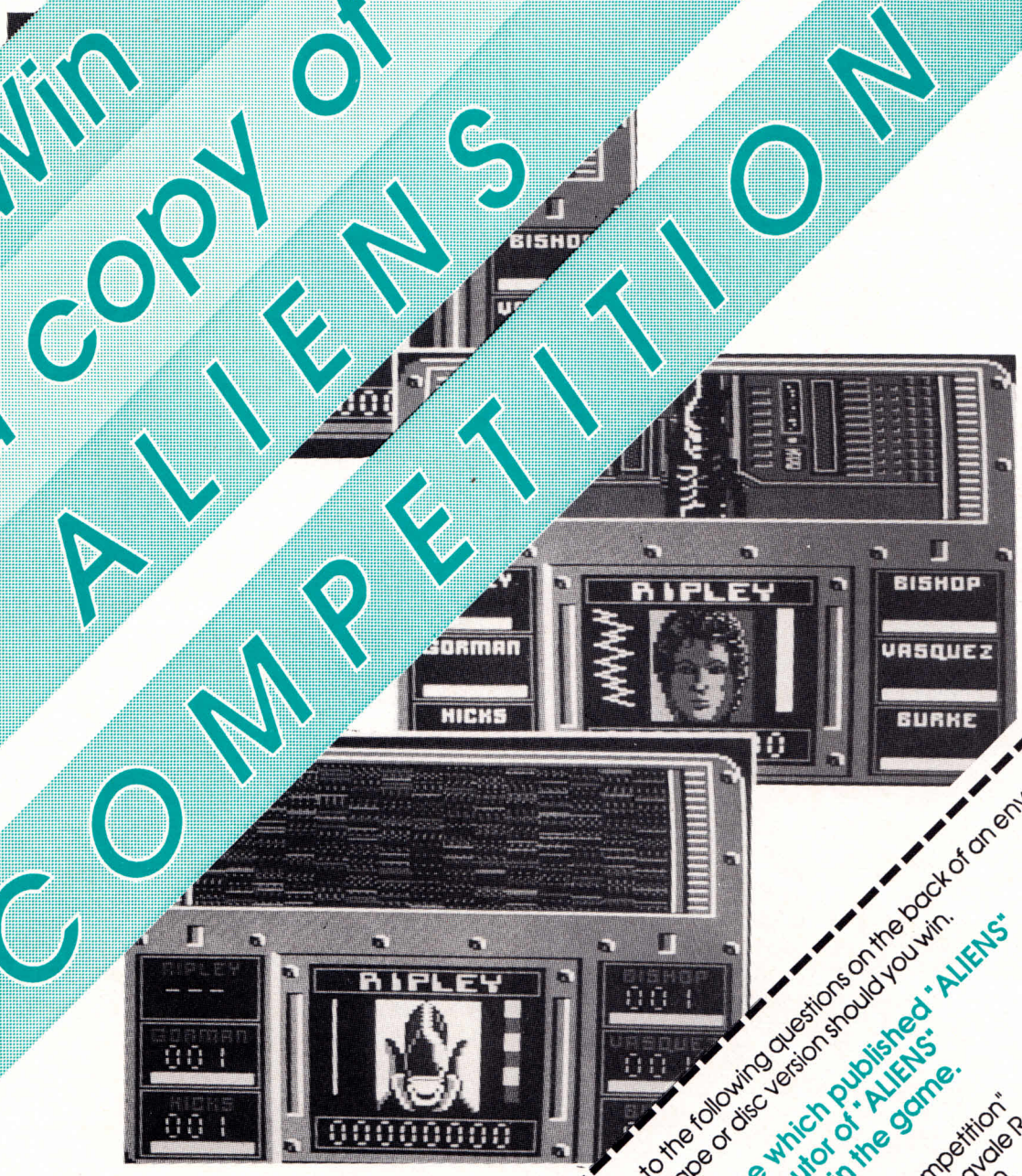
User Group Contact List

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

NSW		
Chris Craven	Canowindra	(063) 44 1150
Trevor Farrell	Coolah/Mudgee area	(063) 77 1374
T.J. Webb	Glossodia	(045) 76 5291
David Higgins	Inverell	(067) 22 1867
Paul Wilson	Moruya	(044) 74 3160
Frank Humphreys	Mummulgum	(066) 64 7290
Bob Hall	Newcastle	(049) 52 6915
Stephen Gribben	Singleton	(065) 72 2732
Ken Needs	St. Ives	(02) 449 5416
Chas Fletcher	Toongabbie	(02) 631 5037
Nick Bruin Snr.	Tweed Valley	(066) 79 3280
Vic		
Stuart McLean	4/304 Albert St. Sebastopol, 3356	
Brian Russell	Ballarat	(053) 31 2058
C. van de Winckel	Ballarat	(053) 313 983
Bruce Sokel	Bendigo	(054) 42 5608
David Carbone	Burwood	(03) 29 4135
Rod Anderson	Camperdown	(055) 93 2262
Paul Walker	Heathmont	(03) 729 8657
Terry Dovey	Horsham	(053) 82 3353
Andrew Portbury	Leongatha	(056) 62 3694
Sue Kelly	Manangatang	(050) 35 1402
Angela Evans	Mt. Evelyn	(03) 736 1852
Keith McFadden	Numurkah	(058) 62 2069
Lindsay Parker	Wandin North	(059) 64 4837
Maureen Morgan	Warnambool	(055) 67 1140
QLD		
Debbie Topp	Bribie Island	(075) 48 1688
Steven Doyle	Caloundra	(071) 91 3147
Mick O'Regan	Gladstone	(079) 79 2548
Kylie Telford	Goondiwindi	(076) 76 1746 (weekendsonly)
D.F. Read	Ingham	(077) 77 8576
Tim Takken	Ipswich	(07) 202 4039
Alan Laird	Maryborough	(071) 22 1982
R.C. Watterton	Toowoomba	(076) 35 4305
SA		
Lindsay Allen	Murray Bridge	(085) 32 2340
Michael Spurrier	Murray Bridge	(085) 32 6984
Mrs. S. Engler	Penola	(087) 36 6029
WA		
Dave Andersen	6 Kitchener Rd Merredin, 6415	
Graeme Worth	Scarborough	(09) 341 5211
P.M. Nuyens	Waroona	(095) 33 1179
TAS		
Conal McClure	Scottsdale	(003) 52 2514

If your name appears in the above list, then please drop us a line (if you haven't already done so) to let us know how things are proceeding.

Win a copy of ALIENS COMPETITION

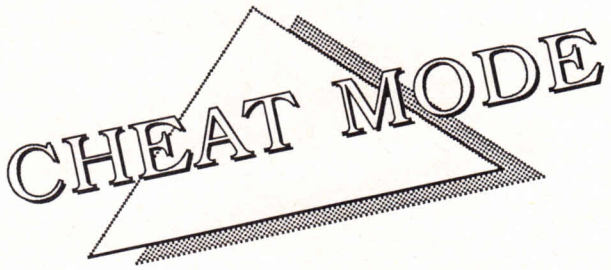


HOW TO ENTER: Simply write the answers to the following questions on the back of an envelope adding your choice of tape or disc version should you win.

1. **Name the Software House which published "ALIENS"**
2. **Name the Australian distributor of "ALIENS"**
3. **Name one of the characters in the game.**

Mail your entry to "ALIENS Competition" The Amstrad User, Suite 1, 245 Springvale Road Glen Waverley, Victoria 3150.

Note: No entries accepted after 30th April 1987. The first three correct entries drawn on 1st May 1987 will be declared the winners and will be notified by post and announced in the June 1987 issue



. . . and this month not a Poke in sight! We gave you seven of them last month, so now it's the strategists turn for some clues to help them on their way. But first . . .

Blunder down Under

You may have noticed two pokes for Contraption last month. The difference between the two were some line number changes and a slight re-arrangement of lines. Both versions should work but we really needn't have printed a choice. Sorry if we have confused you.
The Storm poke in the December issue (No. 23) also had a small error for which we apologise. Line 160 of the first poke should start with IF y <> and not IF y ( ).

Jack the Nipper

If you have been struggling with this Gremlin game John Stojko of Mayfield, NSW has provided a pretty comprehensive guide.
1. Take the weedkiller from I. Bloom and go to the garden. Drop the weedkiller in the garden and wipe out all the flowers. Now go to the graveyard and get the fertiliser from behind the ghost. Take it back to the garden and drop it. Watch the weeds grow.
2. Go into the China Shoppe and climb onto the high shelf with the two plates. Do the same at the Toy Shop with the two teddy bears and with the plates in the house.
3. Collect the key from the side of the Bank. Now enter the Museum and go into the next room. The passageway should now be open. Drop the key here and enter the passageway. After completing the arcade screen go through the door and the next one too. Get the bomb from the shelf and find the horn. Leave via the door and go to the Police Station.
4. Wake up the cat using the horn and then enter the next room with the cells. Drop the bomb and let all the prisoners escape.
5. Enter the Launderette and take the glue. Go to Gummo's Chomping Molars and jump onto the machine with the glue.
6. Go back to the Police Station and get the weight. Take this to Hummo's Socks and jump at the machine.
7. Get the battery from the Police Station and take it to Just Micro. Run through the square at the bottom of the counter. Watch the computers overload.
8. Go back to the Museum, get the key and take it to the Bank. Enter the Bank and drop everything you have. Collect the disc before entering the arcade screen. Get the washing powder and leave the screen. After putting the disc and powder somewhere safe, repeat the process and collect the credit card.
9. With the credit card, jump at the machine at the front of the Bank.
10 Take the powder to the Launderette and jump at the machines. This will cause them to overflow.
11. Take the disc to Technology Research. Jump at the computer at the right hand side.
12. Enter the Playskool and go through the next door. Collect the potty and the clay and then leave.
13. Drop the not so empty potty in the China Shoppe.
14. To conclude the game, take the clay to the Playskool and drop it. A monster will form. Now drop everything you are holding.
General Tips - Once you have used an object destroy it to increase your "Naughtyometer". Don't use your pea shooter unless it is necessary.

Elite

John Stojko has been busy. He also provides a 'cheat' which allows you to dock without actually docking. Once you have hyperspaced to a system, freeze the game using the DEL key. Press the 1 key to quit the game. Answer the prompt LOAD NEW COMMANDER (Y/N) with a Y. Now just save your character and exit. You will be docked at the space station in your present system.

Green Beret

In Issue 21 (October 1986) we gave you some hints for levels two and three of this 'stab-em-up' from Imagine. Jamie Bourne of Manjimup, WA tells you how to complete the rest of the game.
1. To get to the fourth level you must get past the helicopter at the end of level three. You need your bazooka with the full 4 shots. If you don't have it, the guy in the blue uniform will come straight onto the screen from the right side. You must shoot four helicopters but using only one life. In other words, if you get killed before you have shot all the helicopters, you will have four to shoot again on your

next life.
2. To shoot the helicopters wait until they are low to the ground and close to you. Then either jump up or stand and fire the bazooka. The shell must hit around the front of the cockpit area.
3. While all this is happening you also have to cope with the men coming onto the screen from the left side and the helicopter launching grenades. Once you have successfully passed this stage you have made it to the final section of the game. Here the guy in the blue suit gives you grenades instead of a bazooka which aren't as effective but you can do without the bazooka anyway.
4. Level four is difficult as the men are trigger happy and like throwing a lot of grenades. In the beginning you will find yourself at some hangars. You should climb straight up to the second height because from there you can jump from hangar to hangar cutting out a lot of danger. Next you must get past some guys and a rocket launcher which brings you to a patch of bush, as in level 3, and some more guys and a rocket launcher. Eventually you will reach some prison cells with land mines and here you should go to the second height and jump across the screen. You will reach a brick wall where karate troops will appear from the left of the screen and a flame thrower. The best way to handle this is to lie down close to the left edge of the screen as soon as the siren sounds. This enables you to shoot the guy with the flame thrower. You have to shoot four to complete the game.
5. Then it all starts over again except that it is more difficult with karate guys replacing the normal ones.

Dun Darach

Michael Shepherd of Arncliffe, NSW has sent in these hints and tips for the game from Gargoyle.
1. To get money (Iridi is the unit of currency), and you need a lot of it to complete the game, don't worry about trading or stealing to raise the funds. All you have to do is to go to Ioman Ludum, the gambling house on the corner of Cross Street and Downs Road, enter, and save your game. Then bet all your money on the 2-1 odds table. If you lose reload your saved game and try again. If you win, save the game and bet all your winnings again. If you repeat this procedure you can amass a fortune.
2. Deposit most of the money at the Argot Bank at 81 Silver Street. Go to the Thieves Guild (83 Silver Street) and buy a Thieves Licence for 10,000 Iridi. As long as you keep the 'select item' cursor behind the licence you won't be robbed if you pass a thief.
3. Throughout the city are Galleries (four of them). Inside each are four pictures giving a clue to an object and if that object is deposited in the gallery the picture changes to a tick. When all four pictures have been solved the object appears to further your quest. For example, the gallery at 1 Hermie Hill requires an arrow, barrel, dry salt and a hammer whereupon a bracelet will appear.
4. With the rooms starting with the word 'Hail' you need to deposit a shield with the same name for a clue or an object to appear. One is solved by getting a Lyre and then following Mhor to a secret entrance in Park Row and giving the Lyre to Dain. You then deposit the shield Dain gives you.
5. Finally, buy a statue of a rat from the shop at 3 North Wall then follow the rat (found around Claw La) to where it disappears, enter the secret door and give the statue to Teth.

Starion

Some hint and tips for puzzled players from Michael Lau of Kaleen, ACT.
1. A few pieces of blank paper and a pencil could come in handy when solving new puzzles.
2. When you are about to fly into the time-warp to attempt a new password, it is a good idea to save your position just before entering. Once you are in there is no way of getting out unless it is solved (which means starting from scratch).
3. Your velocity level at about three quarters of the way up is best. It's fairly fast, yet slow enough to control (half way or slower for beginners).
4. When attacking enemy ships, try to destroy them as early as possible. This gives you enough time to find out where the letter will appear.
5. After the enemy ship is destroyed, watch where the letter is forming and quickly move your ship to it. It saves time.
6. Do not shoot repeatedly. This raises your hull temperature and possibly lose a ship. Always take careful aim.
7. The Hydrox level is not really a fuel counter. It only goes down after a certain amount of movement (under continual movement it will last approximately 1 min. 50 secs.) The idea is to move less, which means getting the letters first try and blasting the ships quickly.
8. Always keep a watch on your oxygen level. It is usually the first to disappear (it takes about 4 mins.)

Fighting Warrior

This tip is from Tim Foulkes of Ringwood East, Victoria.
When you come to the red vase, hit it and the cave will appear. Wait for the next demon to arrive and strike it with your sword until it is left with only one stamina arrow. After you have done this, walk through the cave. The next demon you meet will die after you strike him once.

Macrocosmica

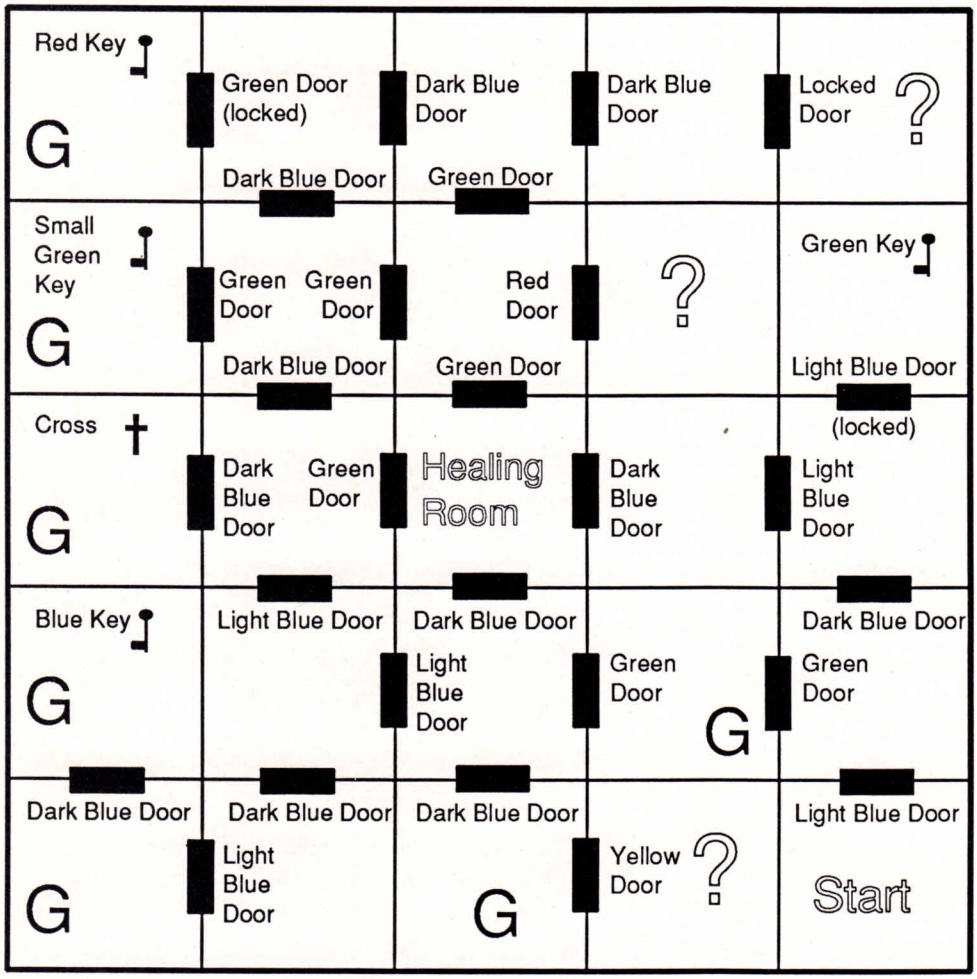
These hints from James Green of Rathmines, NSW should help you through Amsoft's game.

1. Make a minimum of 10,000 credits after buying all the accessories for your ship (excluding lasers because it is better to pay the pirates than to fight them).
2. Go to a space station and find out where Mr. Hoo is trading and but the AAMD. Then travel into the black hole. Once inside you will enter the mysterious 11th Galaxy.
3. When in the 11th Galaxy, go to the nearest planet, buy what is offered, refuel, repair and supply your ship with a full load of narcotics. Also buy a hyperdrive because in this galaxy there are no meteor storms, magnetic storms, pirates, rebels, civil wars or customs.
4. Leave this galaxy via a black hole and sell your narcotics on a planet with strict customs without declaring them.
5. To prolong the game beyond the 1000 days, go back to the 11th Galaxy and stay in a casino for another 1000 days, at least until 2000 days are up. This removes the possibility of you dying due to the days running out.

Harrier Attack

Twelve year old G. Rigby of Para Hills, SA provides this tip which will get you 1000 or more extra points each time your jet flies over to bomb a battleship. Keep pressing the bomb release bar in rhythmic, evenly spaced succession as you fly over the battleship at the slowest possible speed. Up to 1500 (or more) points are possible instead of only 500 each time. You also have to avoid flack in one main area above the buildings.

Dopple Ganger Map



You can thank James Edmundson of Sorrento in Queensland for supplying this map. As we have not been able to test it thoroughly you will have to take his word for it. He also supplies some tips:

The first thing to do is to get the human to the Life Healer.

Next, send the Dopple Ganger out to collect everything he can. When this has happened, send the human to collect the cross (vital) and move back to the healer. The human is the only one who can use the Healer.

Move the Dopple Ganger to a dark blue door, push hard, go back to the human then back to the Dopple Ganger. Repeat this until the Dopple Ganger is transported into the next room.

Only the Dopple Ganger may touch the green key.

[G = Guardian]

ALIENS

Joseph and Christopher Elkhorne have provided probably the most comprehensive review on a piece of game software that we have ever published and, we suspect, any other magazine. They were unable to finish the game (now there's a challenge) but were not supplied with any reviewers tips or hints. They've had to do it the hard way.
ALIENS, the film, was certainly entertaining, but how well has it been tranferred to the small Amstrad screen?

When the chance to review Aliens came my way, I could hardly wait. I'd seen the movie, and its predecessor. A few days later, I ripped the padded envelope apart, and pulled the cellophane wrapping off the storage box.

The presentation is quite nice. An initial perusal of the instructions seems to give one a great deal of useful information.

One of the criteria I use for assessment is trueness to the original source. In this, Aliens rates very high. Six crew members are accurate depictions of their movie counterparts. Even the various alien figures mimic their sources well.

The instructions give one a short synopsis of the movie opening, to set the scene. Your mission (should you decide to accept it) is to regain control of the base by any means, keeping all crew members alive. The oblique reference to Mission Impossible is deliberate. After six days of play by the two of us, getting to the Queen's Chamber escapes our abilities.

Loading the disc went well. Unfortunately, after the first time, it is a drag, waiting for game play. It takes one minute and thirty-one seconds from RUN to reach operation.

An initial credits screen scrolls upward -- SLOWLY -- followed by a logo screen and then the opening display. This reveals no data until the Fire (Shift) button is pressed. The Amstrad version of the game can use both keyboard and joystick at any time during play.

The tactical display advises the player of his crew members' locations and status. The upper part of the screen is a panoramic view of the room a selected crew member is in. One needs quite a bit of play to determine the field of view. It is too easy to get disoriented, particularly when multiple alien attacks ensue and one must shift locations to cope.

Two methods of moving a crew member are possible. First, one centres the cursor (otherwise known as "smart" gunsight) approximately on a door -- even the inner edge of the door frame will do -- and presses the space bar. This moves the crew member into the next room.

In directing mode, you type in a number from 1 to 9 and a direction letter: N,S,E,W. Then you switch to another crew member by selecting his/her key letter. The first character then trundles off until he runs into a wall, loses stamina, or gets wasted. I have tried mass movement of the squad in directing mode and lost four members in three seconds!

The first thing you notice in manual mode is the jerky movement of "gunsight" overlaying the video display. From centre screen the cursor moves until it reaches the edge, whereupon the video display performs what is known in the television game as a "swish pan".

At first, I thought the jerkiness was the result of poor coding. Now, I am suspicious that it is a deliberate play on the part of a sadistic programmer. One clue is that the alien warriors have an occasional hesitation step. For another thing, I tried to step the cursor slowly in a 360 degree circle to ascertain the field of view. In some spots, more than one keystroke (arrow keys) was necessary to shift the display.

The hesitation in the aliens' movement lends an element of unpredictability. Otherwise, they would be too easy to blast away. Not that that is the case, for a new player. Mastering the vertigo-producing video sight controls takes some effort. Trying to track an alien that has appeared (they apparently can walk through walls) often requires a three-part movement.

It is in the nature of aliens that they mostly appear behind one. Fortunately, the player is aided by visual and aural warnings -- most times. The instruction sheet refers to a device called a proximity meter, for detecting non-human life forms. This is supposed to highlight the crew member's name. Often you will get multiple warnings. Occasionally, however, a crew member is lost to the aliens with no alarm.

When an alien appears in a room a crew member is in, a drone pulsates. More than likely, the enemy will not be

in your field of view. You can either escape that room by plunging through a door or pan around and try to get it in your sights.

The warriors are frequently seen trying to wear a groove around the perimeter of a room. They initially seem to take no notice of a crew member. But, I must warn you -- shoot at one and if you do not terminate him, he will turn toward you and destroy you within a second.

It is all too easy to overshoot an alien in trying to find him. They frequently are walking left when you are panning right. If you are off position by as little as 20% of screen on your first shot, you will never get a second one .....

A near miss can be followed by a successful kill, using a head shot. Best tactics initially is to line up the cursor sight with the top of a door lock mechanism using the up arrow. When the game is initialised, the cursor is placed low and left of centre. One head shot will kill a warrior or queen, but two shots are necessary if in the body.

The aliens have another inconvenience: acid blood. If you shoot one in front of a doorway, a puddle of this toxic substance will appear and take ages to dissipate.
Even more annoying, although an alien might be well to the left of said doorway, if the cursor is even touching the inside of the frame, the acid blood will splash in front of it. Not ouze (sic) as the instructions say.

Also annoying and unrealistic is that if the sight touches a lock mechanism -- well to the right of the door -- acid blood again cascades in front of the door. Walk onto it and you're history.

At this point in time, I have only seen one face hugger type of alien. Since I had the sights high for countless games, the surprise of this little beastie scuttling along the floor was complete. Before I could t the sights depressed, he had turned, jumped into the character's face and converted him to a new way of life ....

Queen aliens sometimes appear, when one would least expect them. At the start of the game, you have no idea how many enemy creatures lurk within the base. Approximately every 2,000 points, the video display is covered by a "blast shutter" and counters advise you of the next "attack wave" of aliens. One cannot trust this -- most times, the queen's counter remains at zero but you may find as many as three. Or they will find you. For all I know, there could be a hundred! But queen aliens are worth more points.

One bonus that occurs, sometimes, is the sighting of Newt, the little girl survivor in the base. Curiously enough, a glimpse of her strange black-and-white image, coupled with an audible indication, brings 1,000 points -- and a further 500 if you shoot her!

One of those little annoying things in Aliens is the operation of the blast shutter. It will close as you have shot an alien, give you some useless information, then switch back to the vacated display. Whereupon, the alien you killed before drops to the deck. In this, and several other areas, one suspects the programmers need some refreshing flow charting.

Aside from the alien menace, there is another aspect called bio-mechanical growth. This fungus-like growth appears on the walls but can be blasted away, giving you a whole five points per successful shot. Whoopee!

As you have finite ammunition, this creates a problem. The instructions say the growth can eventually cause the lights in the base to fail. To prevent this, one has to get to the Control Room and/or Generating Room. The former is easy enough. But we have yet to discover a possible way of getting to the three remaining areas of the base for the bloody-minded programmers have included a number of lurks. Some unexpected surprises are all right, like Room 142: The Void. You get in only to find all is blackness. Firing the gun and turning will momentarily illuminate portions of the room. You find, however, no door to exit from.....

So, you lost one crew member, more or less. No one said it would be easy. But how do you cope with a door you cannot walk through and which will kill you if you blast it?

Earlier, I said that 2,000 points activated the blast shutters. Going into room 69, however, even with zero points accrued, will bring up a new attack wave. This room is the junction between the first part of the base and the main core. Travelling around the first portion, getting to the armoury and surviving the aliens is not much of a problem.

Getting into the main part of the base and to the control room there, is possible. The remaining three junction rooms, to the north and south wings, and to the final section wherein lies the Queen's Chamber, appear to be impassable. The strategy thus far has eluded
us. The generating plant, of course, is in the North wing.

These three rooms contain some sort of irregular feature on the walls, not like the bio-mechanical growth seen elsewhere. It does, however, increase with time.

And, if nothing else defeats the player, time certainly seems to be an adverse factor. If you are lucky enough to get lots of bonus points early on, the game apparently takes umbrage and turns out the lights, anyway .....

Joseph's Summary
And I really wanted to give this game a favourable review!
Bad points:
The first irritation is the 48 seconds it takes to scroll the credits on screen. Then, when the game is at last ready to play, the occasional glitch of colour attributes whilst the music is playing is annoying. Other video glitches occur.

Once into play, the jerky and inconsistent control functions and the swish pan effect take a lot of the fun out of Aliens - The Computer Game.

In the first few minutes of play, having the crew members wiped out by unknown forces was disconcerting. A note in the instructions to the effect that firing draws the aliens would have helped.

The interaction between fire and move is REALLY irritating. Imagine trying to play "Elite" with such a dumb control method!

Sloppiness in control also means that sometimes you blast a door, when you're really aiming at bio-mechanical growth. Not that destroying doors makes any difference -- you can sometimes see an alien appear in a room when you are facing a solid wall! So why bother to seal a room by blasting the lock mechanism?

Selecting a crew member takes more

than a tap on the initial key. It demands a momentary holddown, which is annoying to a touch typist.

Consistency of internal logic is lacking – switch back and forth between two players in the same room, being attacked, and the one alien present may walk in opposite directions. It is as though the location-and-player are treated independently.

Also, the status display will go to safe for the crew member that dispatches the alien, but the other name remains highlighted, even though the threat has disappeared.

This is even more noticeable when you get six crew members into the same room.

Since the video display and control functions require so much concentration, it is easy to miss the status display changing from a pastel green bar to a pastel yellow one. This was a particularly cruel programming choice.

There is no high score facility and -- wait for it – the player's score does not even remain on screen when the game terminates. When things get hectic, one can find the game over and the score gone before you can even react!

Pursuant to my comment on flow charting – it is possible for an attack wave display to activate just as your last crew member has succumbed. Who really cares what is coming next when no one is alive to scream.....

Finally, is it even possible to win this one?

Good points:

Music and sound effects absolutely great!

OK if you don't like the science-fiction genre, this will not be your cup of tea. But it is a valid adaptation, rather than exploitation – i.e., a title with little resemblance to the original medium.

The documentation is ALMOST enough to get you started. The map is a distinct help but you will have to work up the room numbers, as the method is curious.

Christopher's Summary

All of the above that the old man said, and particularly –

I enjoyed the movie but the game does not appeal to me.

The aim of the game is to get as many of the crew members to the Queen's Chamber as possible. Unfortunately, this does not seem possible as one of the rooms leading to the chamber appears to be impassable. All that is seen in this room is a mass of confetti on the walls and there appears to be no exit.

If, indeed, there is no exit, the game cannot be completed.

SECOND OPINION

On the other hand, a second, much shorter and perhaps more emotional opinion reads "Fantastic! Aliens is a game I can really appreciate having seen the film. Snippets of music, unearthly clanging noises and alien sounds pulsate through the speaker. The atmosphere is intense and will hold you in a deathly grip. When spotting an alien, I stabbed viciously at the fire button, terror and panic so strong it caused irrational feeling. This one game I'm going to see through to the end!"

Dr. Who & the Mines of Terror
Mission Elevator
Druid
Glider Rider
Kettle
Cylo

Reviewed by Ian Barnes

DR WHO AND THE MINES OF TERROR *Micropower*

What would you do if you picked up a new piece of software and the back cover of the box asks you if you are ready for brain combat and means it? In this game, The Doctor (from the long running Doctor Who series from the BBC) must face his arch enemy, the Master who wants to make the Doctor's brain a component of his Time Instant Replay Unit (TIRU). Naturally, The Doctor is trying to prevent this from happening.

The gameplay takes place in mines on the 2nd Moon of Rijan where the Master is mining Heatonite, a rare element needed for the TIRU. The mines and the processing factory above it form a gigantic maze. The section of the maze that The Doctor is in, is shown covering the whole screen, and scrolls left and right as the Doctor moves, scrolling up/down when he reaches the top/bottom of the screen. The screen is in Mode 0, and the 16 colours are used to interesting, if slightly jarring effect.

Scattered around the mines, factory, reactor and greenhouses are various objects. The Doctor can pick these up, store them in his pockets, throw them or use them. Included in the box of instructions that comes with the game is an identification chart which will tell you what each object is. This box of instructions contains many different items such as decoder cards and maps that you will need to play the game; along with instructions to load and play the game for 4 different types of computer in 3 different languages.

The Doctor has a companion called the Splinx which is a cybernetic cat. The Splinx can be programmed to execute various commands such as move to a marker, pick up the closest object and then return to the Doctor. Unfortunately the Splinx runs on batteries, and must be recharged. Also, wandering around the maze are Rijarians, who are harmless; Controller robots who will chase you and electrocute you if they can; and Madrags, who will bite your head off if you get near them at all.

There are a few problems with the game, such as the fairly bad flickering and the fact that the Splinx is missing one of its commands and drains its battery at such a rate that it is almost useless. There is no background music but the spot effects are excellent, especially the sound the pick makes and the machinery in the factory. When you first play the game don't be surprised when you don't get too far but persevere, try different ideas, and don't try breathing vacuum and you will soon get the idea of how to play.

MISSION ELEVATOR - *Eurogold.*
Anyone who has played Elevator Action will know the basis of this game, however there have been a number of features added to Mission Elevator which make it totally different. You play the part of agent Trevor, FBI superagent, and you must battle your way to the top of a hotel that has been over-run by enemy agents. You change floors by stepping onto any of the elevators that move up and down between various floors. When you are standing in the very middle of an elevator you can direct it to any floor.

The floors have been split up into groups of 8, and before you can go to the next section, you must find the porter who has the emergency door key in his pocket. He is hidden behind one of the doors on any of the eight floors, and before you can find him you must get the pass key. While you are doing this enemy agents will be appearing from doorways and alcoves, attempting to stop you in the simplest way possible; by putting a bullet through your head. If this is not enough you must also find two clues on each level which will enable you to defuse the bomb on the 62nd floor.

The graphics for most of the game is very good. There are pictures on the walls, doric columns and statues scattered around, and elevators everywhere. The door opening is well done and you will be surprised at some of the things you find behind the doors of a hotel. The only really bad graphics are when your player is jumping, as he looks like he is having a fit. The control of your player is the only other problem. You must be right in the middle of an elevator for it to respond to the joystick; if you are ducking and have three bullets in flight, then attempting to shoot again makes you stand up; and to open a door you must be in the right position and facing in the right direction, which is not easy with bullets flying overhead.

All in all this is a well presented game with plenty of action and lots of puzzles. The spot sound effects are quite good and there is no background music. The bad guys crumple when they die, and agent Trevor has plenty of lives. Apart from some slight problems with positioning and the fact that you cannot reprogram the keyboard controls this is a very playable game that will present a challenge for quite some time.

DRUID - *Firebird.*
It is mid-afternoon as you approach the fortress of the evil Acamantor. As the last of the Great Druids it has fallen upon you to enter Acamantor's dungeons, wherein you must defeat the four Demon princes who have appeared through an inter-dimensional gateway and threaten to bring chaos to the lands of Belorn.

Your only weapons against the hordes of darkness are the powerful spells you carry. Throughout the dungeons you will find chests containing more spells; however you must choose which spells you take from each chest carefully as you cannot return to a chest. Also there are a number of Pentagrams of Life scattered around the dungeons, these will fully revitalize your life essence - but only if you can get to them in time.

This game gives a downward view as if you where looking at the landscape from a great height. As the druid moves around, the landscape will scroll to keep you in the middle of the playing area. This scrolling is very fast and almost flicker free, giving a very good effect. The top section of the screen tells you the number of spells of various types that you are carrying and also contains a life essence meter. Contact with any of the roaming monsters will decrease your life essence, and if it reaches zero the game is over. The normal monsters can be killed by using the fire, water or lightening spells, but each type of monster is more resistant to some types of spell and so the correct choice is vital.

One of the really powerful spells creates a GOLEM which can run around crushing the minions of darkness, and it is here that a second player can join in. Normally the golem is set to follow the druid or be sent in the direction the druid is facing. An alternative is to use a second player who uses the keyboard to control the golem. One of the only faults in the game becomes apparent at this point as the golem seems to disappear as soon as any part of it goes off screen. However, it is still there and will appear if moved back towards the druid. The only other problem the game has is that you must line up perfectly to go through doorways and use unlock spells, which can be deadly when you have a monster or two hot on your heels.

The fast scrolling, the range of monsters, the two player option and the many different levels of the dungeon combine to make this an exciting game with plenty of monster zapping which also requires enough strategy to ensure lasting appeal. The loading music is a nice touch, especially the way it slowly fades out as you reach the end of the tape. By the way, have a look at the high score table each time you load the game as you seem to get a different one each time.

GLIDER RIDER - *Quicksilver.*
How would you go about attacking the floating fortress of the worlds largest arms dealers, the Abraxas Corporation? If your answer was that you would send in a single man armed with only 9 hand grenades and a motorbike that turns into a Hang Glider then Glider Rider is the game for you. If not then don't worry, Glider Rider will appeal to anyone who enjoys battling against almost impossible odds.

The idea of the game is that you have been dumped on the island of EoOs, headquarters of the Abraxas Corporation. It is hoped that your motorbike-come-hang glider will be too small to be noticed by the radar defence systems, leaving only the ground-to-air lasers to be dealt with. The whole island was manufactured out of plastic for the Abraxas Corporation to make it invisible to radar, and has been disguised with plastic grass and trees. This is actually just an excuse by the programmers so that they could build a square island, but the effect is fairly good and the island is displayed in the standard three-dimensional way which looks very nice.

There is a large complex in the middle of the island which is so heavily defended that you will be fried if you go near it. Instead you must try to blow up the small nuclear reactors that have been scattered around the island. This will disable

most of the weaponry and give you access to the final two generators hidden somewhere in the compound. The only way to disable a reactor is to drop a grenade on it from the glider, and you will usually be frizzled by the ground-to-air lasers when you attempt this. Running into a transmission pole with the bike disables lasers for about 8 seconds, but this is not long enough to take-off and bomb the generator. Other problems that you face are that there are ten reactors to disable, and you only have nine grenades. It is possible to pick up more grenades, but the instructions don't tell you how. The instructions also don't tell you which of the objects that you will come across are the reactors. These are round buildings, and each has a transmission pole and a laser near it. If you manage to hit one it will crack and looks like a broken egg.
This game suffers from the effects of being a conversion from a certain other computer. The landscape is all a single colour and looks a bit bland because of this. The water and laser effects are excellent, and the background music is very good. The game is let down by the instructions which contain a lot of useless muttering about the joys of hang gliding and fail to give basic information. This makes the game almost impossibly hard, but read all the instructions well, there is some information that you need to know. This is a well designed and implemented game that suffers from the one point that it is too hard for the beginner. If you are looking for a real challenge, then here it is.

KETTLE - *Alligata.*
This would have to be one of the strangest games that I have ever seen. The idea of the game is to fight your way through a complex underground maze using a steam powered kettle. At each level of the maze you must find the tin opener which will unlock the way to the next level; however, the tin opener is hidden in a bowel which emits energy draining bubbles. If you are by now totally confused then don't worry, it only gets worse.

Your kettle's only weapon is a 'Crizza' which circles your kettle until you press the fire button, which will cause it to shoot out in the direction you are currently facing. The Crizza will kill bubbles immediately, but must hit a bowel 10 times. When a bowel has been killed it will turn into a diamond, and one more hit will reveal either a tin opener; an alien; a bonus point token or a jug of water to top up the steam in your kettle. An alien will sap your energy until it is killed, and needs 3 hits by the Crizza. The game ends, of course, when your kettle runs out of steam.

All of this may have got you a bit worried, but the game-play itself is very simple. One or two players using joystick and/or keyboard can play at once, with each player having one half of the screen on which is a scrolling sideways-on view of the section of the maze you are in. The scrolling is done well and is very smooth, and the graphics (which are done in the 16 colour mode) are strange but very good. The sound effects are curious, but fit in well with the rest of the game; and there is a really good bit of title music at the beginning. It is sure to be the weirdest version of 'Polly Put the Kettle On' that you have ever heard.

In summary this is a fast paced one or two player game which, once you can sort out exactly what it is you are supposed to be doing, is very challenging but a lot of fun. The game has a lot of nice touches including some fairly easy first levels which you can skip once you've had some practice and the the ability to restart at the level you die at. The sound and graphics are well done and there are a number of selections you can make at the beginning of the game which alter the game-play to suit the player. There is a pause key in the game that is not mentioned in the instructions, just press TAB. There is also a secret map but I could not find it anywhere.

CYLO - *Firebird.*
Yuck! This is yet another 3D type game, worst than most and with few good features at all. The main character of the game is a box with a face on one side and a pair of legs underneath. This box is moving around a large maze, but you can only see about a 6 by 6 area at once. This means that you are forever going off the screen. The entire maze consists of weird objects, and the design of these is the only good part of the game. Unfortunately the colours seem to be selected at random at the start of a room, so some of the effect is lost. Some of these objects can be picked up and used, but it is almost impossible to find something new and then work out how to use it before your time runs out.
The movement of the box is limited to walking between squares, this means that the box will always be lined up and should be easy to control. Instead the programmer has made life difficult for you again by making the movement controls the 'R', 'V', 'I' and 'M' keys in the middle of the keyboard and the object examination, pick up and drop keys etc. along the edges. This means that whenever you do anything with an object, you must locate your fingers on the direction keys again, which takes p time you cannot afford. The thing that really wrecks this game beyond salvation is the clock. The clock is also a fuel gauge, but whenever you are moving or not it clocks down at an amazing rate. This mean that you only have time to see about 10 rooms before you need new fuel, and the fuel capsules are few and far between. There is supposed to be a master refuelling unit near the base unit, but I was never able to find it and it was the same for everyone else who played this game. There are some really good games in the Firebird 199 series, but this is not one of them.

We've run out of space (again!), so we have held over the following reviews until next month:

WILLOW PATTERN
ELEVATOR ACTION
WEST BANK
WIBSTARS
SAI COMBAT
KARATE
THAI BOXING

CAT & MOUSE GAMES

A review of The Electric Studio Mouse

by Barry Tucker

The mouse operated program produced by The Electric Studio is an expensive way of adding size text and graphics to your PCW's capabilities. After using the mouse for two months, I would say that its shortcomings and drawbacks are too numerous for the $425 price tag - $200 would be a fair price.

The same company produces a light pen for the PCWs, and the only user of it whom I know personally is not happy with the pen - in fact, it's broken down completely.

Our principal complaint about both packages is identical: the absence of a removable grid makes the construction of drawings , designs and charts difficult.

The Electric Studio has also adopted some confusing protocols in relation to print-outs. The manual is not easily understood in this, and other, areas and it's necessary to experiment to find out what can and can't be done.

When loaded from CP/M the program, which is called ART, presents a reversed screen and a main pull-down menu on the left-hand side. This gives you access to disc management, the printer, or various means of drawing lines and shapes, fillings or textures, inking, text, or EXIT. EXIT and CLEAR SCREEN choices must be confirmed with a Y/N input from the keyboard. Pressing ALT+EXTRA +CUT together will also clear the screen.

Other keys on the keyboard will give you quick access to various facilities, and these are described in the manual. These keys are too numerous to mention here but a significant one is the letter C, which gives you the co-ordinates of the current cursor position and allows you to calculate the opposite position. Letter B reverses background and foreground colours.

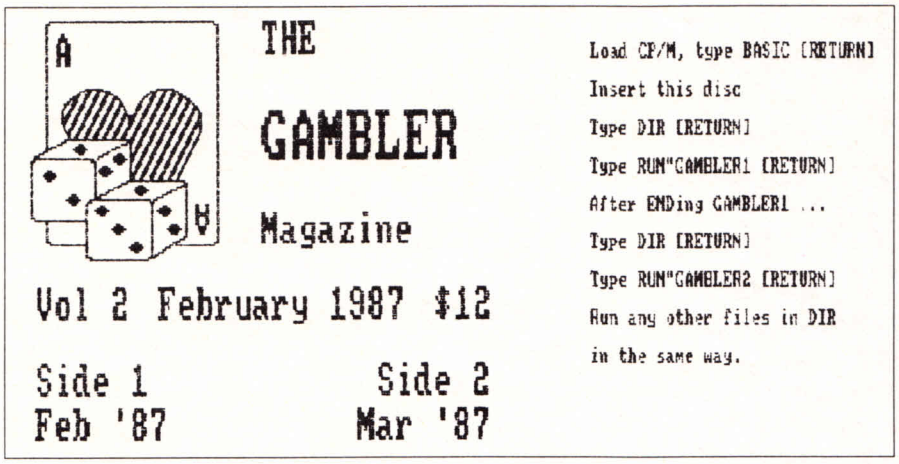
Pressing COPY saves the current screen to memory. This is useful before using the FILL option, because if the fill does not look satisfactory it can be cancelled and the previous image recovered by pressing ALT+DEL. It is otherwise difficult and time-consuming to erase a fill once it has been placed.

Any selection from the main menu will take you through a series of pull-down menus giving you further options. These are selected by moving the mouse to move the large white cursor and accessed by pressing the first of three buttons on the mouse. The second button cancels the existing function and returns you to the previous menu, or to the main menu. The third button is equivalent to the ALT key on the keyboard and is used to expand certain shapes.

The first option on the main menu is HELP, giving the user on-screen instructions.

DISC gives you access to SAVE, LOAD and DIRECTORY. Each screen takes up 22k of space, allowing the user to store only six files on each side of a disc. The reverse side of the ART disc is blank, so you can store six files there.

PRINTER will give you first a direction and size sub-menu, and then a LOW or HIGH density option. Selecting the right direction is tricky at first. Options are; VERTICAL, which dumps the screen vertically to A4-size paper; SMALL which dumps the screen horizontally to a size of 126mm x 84mm - roughly the size of a post card or FULL SIZE dumps the screen to a size of 202mm x 168mm -



as wide as A4 and just over half as deep.

Some experimentation is necessary to determine where to place your design or text, or combination, because the manual does not give you examples showing which way it will print out. The disc cover for THE GAMBLER Magazine was first created as two separate files - one for the outside logo and text and another for the running instructions on the inside of the cover. I had reasoned that the design had to run up or down the left-hand side of the screen, and the A4 paper, which left no room for the running instructions on the same file.

I did that because I thought it would be the most economical use of paper in the long run. But I wasted paper and time trying to merge the two files in two separate printing operations. After days of frustration I got mad enough to start all over with a horizontal layout, which prints out exactly as planned using the SMALL size option. It wastes some paper (two disc covers to an A4 page) but because it's easier life is worth living again.

LINES gives you three options: a SINGLE LINE can be drawn from any point to another. It starts at the current cursor position, but this can be changed by holding down either ALT key and moving the mouse. A PINNED LINE allows you to draw a series of lines, each one beginning where the last one ended - known as "rubber banding". Again the ALT key can be used to relocate any of the starting points, and either CAN key can be used to disconnect the line. RAYS allows you to draw a series of lines from a common starting point - very useful for the quick construction of a pie chart diagram.

The problem of drawing horizontal and vertical parallel lines - in the absence of a removable grid - is not difficult because if the line is not lying on the same line of pixels it will have visible kinks in it - moving the mouse from side to side eliminates the kinks. Fixing a point opposite one on the edge of the screen - in the absence of a removable grid - is not easy. But the job can be made easier by pressing letter C (to get x y co-ordinates) or by using the cursor control keys, rather than the mouse, to drive the cursor across the screen. When the cursor is driven in the way it always moves in a dead straight line although the process is slow. Using SHIFT with a cursor key will move the cursor eight pixels at a time.

Incorrectly placed lines can be eliminated by drawing over them with the INK reversed. Inking is reversed by pressing letter R and returned to normal via letter N,

The DRAW option gives you another four tools. PEN is available for freehand drawing in thicknesses of one pixel. It can also be used as an eraser by R-eversing the INK colour. BRUSH is a paint brush, and is only effective when the strokes are up and down the screen - like painting a wall. SPRAY is like a spray-gun, putting a random series of dots on the screen. There are nine brush and spray nozzle sizes - the bigger the size the slower the strokes.

The fourth option is POINTS, which places a pixel-sized point on the screen. Pressing the Z key will bring up a eight-times enlargement, allowing you to fill in more points with great accuracy.

The CLEAR SCREEN facility is located at the bottom of the DRAW sub-menu. After selecting CLEAR SCREEN this choice must be confirmed, or cancelled, by entering Y/N from the keyboard.

The FILL option presents the user with fifty-five textures, some of them similar and some of them reversed. The selection is made by using the mouse to position the white cursor over your choice, and then pressing button number 1, referred to as the "trigger". Some choices of FILL might look out of place in your design. The COPY facility referred to earlier is handy for recovering from this messy situation. Care has to be taken to ensure the area you are going to fill is fully enclosed, to prevent the FILL running into other areas.

When using FILL a small representation of the chosen fill will appear in the top right-hand corner of the screen. The same area will always tell you if you are using R-everse or N-ormal inking. Pressing CAN or letter T will take you back to the texture menu. Fill that is running wild can be stopped by pressing CAN or button number 2 on the mouse.

The UTILITIES menu gives you access to MOVE, COPY, SAVE AREA, EXAMINE AREA,LOAD

AREA and ZOOM. MOVE will allow you to move part or all of a drawing or line of text in a vertical or horizontal direction. You cannot relocate something on a different plane, or skew it around. COPY allows you to copy anything to another position on the screen, leaving the original in place.

SAVE, EXAMINE and LOAD AREA allows the user to save any area of screen to disc, under a new file name, to examine files before placing them on screen, and to bring them back and relocate them in the same size or a different size and shape on a different part of the screen. Each press of the trigger will place another copy of the saved file on screen.

Using the RELAY key during MOVE, COPY and LOAD AREA will create flipped or mirror images.

ZOOM gives you an eight-times magnification of the area around the current cursor position. After ZOOM-ing and EDITING, the ENTER key must be pressed to save the changes. ZOOM can also be accessed by pressing letter Z.

SHAPES gives the user the choice of Triangle, Rectangle, Polygon or Circle/Elipse. TRIANGLE and RECTANGLE give the further options of NORMAL (outline), SOLID (filled in) or 3D. SOLID RECTANGLES can be used to cover any area you want to eliminate, and then R-everse the INK to complete the erasure.

RECTANGLE is also used to produce a square, by using either ALT key to reduce the length of the longest sides. The 3D facility takes some getting used to, but is a lot of fun to play with. 3D shapes will always sit on the horizontal or vertical plane - there is no facility for skewing shapes away from those exact planes. The POLYGON can be used to create diamond shapes.

The Electric Studio has provided the would-be publisher or advertising mogul with nine sizes of text. The disc cover for THE GAMBLER Magazine was created using the first three sizes. Size 9 is "ginormous", and seems to have little practical application.

The text design itself is reasonable for computer-generated graphics given the limitations imposed by pixel size and shape. It seems to me that the ideal terminal screen for computer graphics would require a square-shaped pixel, with the ability to address parts of the individual pixels - something we will have in the future.

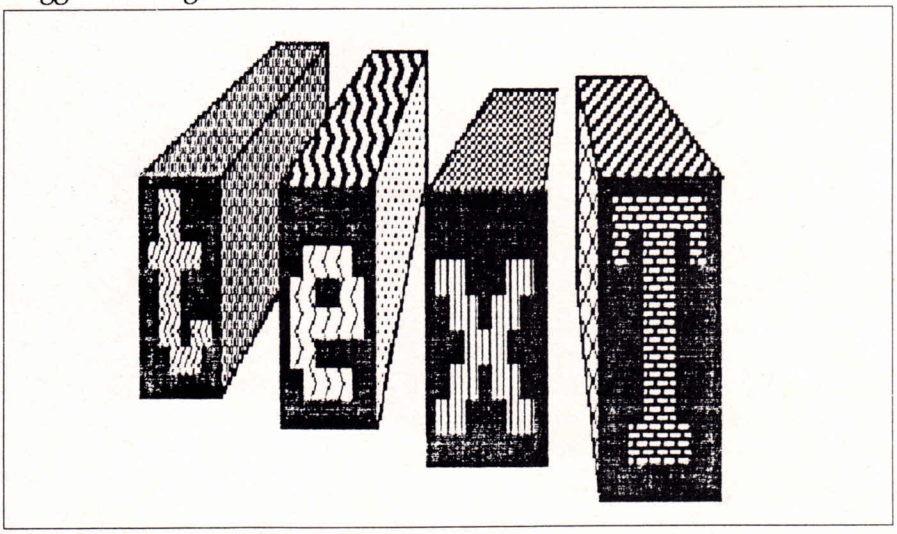
However, the spatial relationships of the characters in a line of type leaves a lot to be desired and is certainly not of a professional standard. The spacing between lines is usually too tight, although there are three methods available to change the line spacing. The first one is the MOVE facility. The others are not described in the manual, so I will outline them.

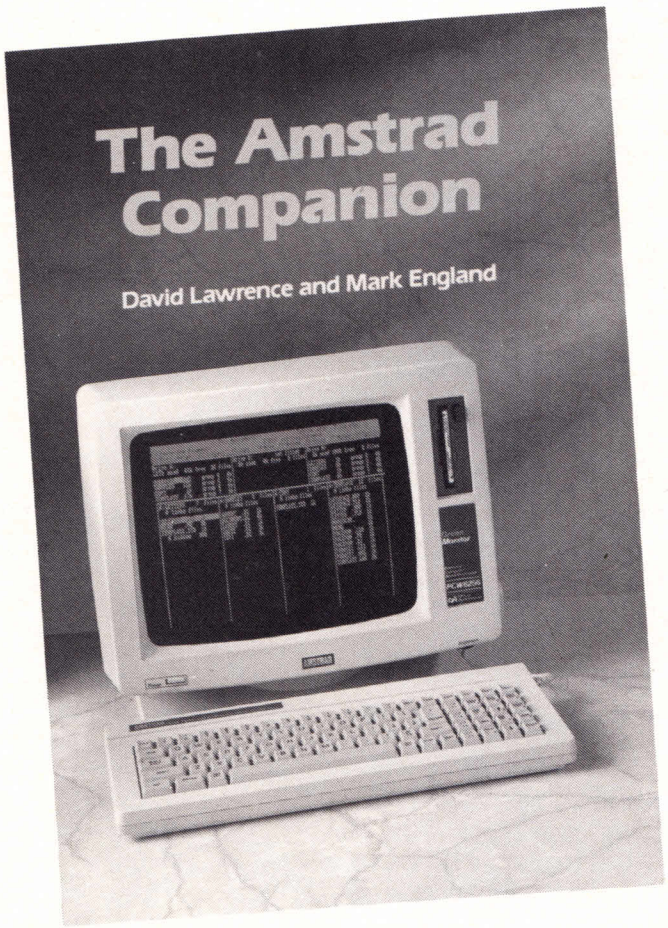
The line spacing of the text for the running instructions on the inside of THE GAMBLER Magazine cover was originally too tight, making the copy difficult to read. Normally you would press RETURN at the end of the line, the cursor would go to the start of the next line, you would press the "trigger" and begin the next line of type. But if you press RETURN again, the cursor moves down one more line, to the third line, and if you press the "trigger" at this point you will get double line spacing.

The third method is to use the cursor key to drive the cursor away from the previous line of type, until you have the desired spacing. This method can result in uneven spacing of lines of type, and you may have to equalise it by using the MOVE function anyway.

I have also had a lot of bother with eliminating lines of type or misspelt words. The cursor left key can be used to go back to an incorrect character, but each character the cursor passes under also will be erased. Another problem arises when R-everse INK is used to wipe out bad characters - when you resume typing (if still in R-everse) the characters will now appear on a large, black background, which also has to be eliminated. Switching between R-everse and N-ormal can create a lot of work, unless you remember to switch back to the correct mode again.

The reversed letters on a black background can look quite dramatic by themselves. They can be further enhanced by using a FILL in the letter itself, in the background, or in both.





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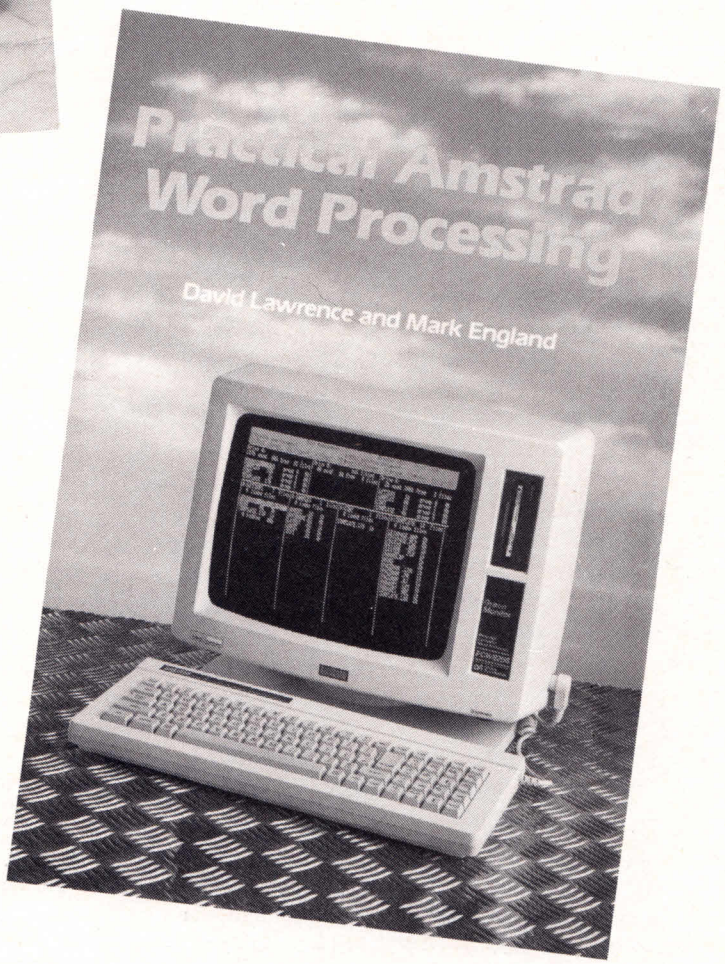

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See also Pages 44 and 64

TIP-OFFS

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

After griping last month about the lack of tips to hit these offices, I am pleased to report that some PCW owners took notice - not enough of course - but it's a step in the right direction. The majority of the letters offering suggestions on how best to please PCW owners/readers always demand we keep Tip-Offs. And so we shall - until they run out!

Hyphenation in LocoScript

You can add a bit of class to your documents by understanding how hyphens work in LocoScript.

There are two kinds of hyphen - "soft" and "hard". A hard hyphen will print out as a normal hyphen on the screen, but LocoScript knows not to break the word over two lines. This is useful for phrases like "toss-up", if you want to ensure that you don't get "toss-" on one line and "up" on the next.

Soft hyphens are a bit more subtle. If you have a long word in a letter, it might not quite fit at the end of one line and so LocoScript will put it at the start of the next, leaving the previous line looking unnaturally short. If you insert a soft hyphen in the word, then LocoScript will break the word over two lines. If you subsequently edit the document so that the long word is not over a line break any more, then LocoScript will not print out the hyphen as part of the word.

Hard and soft hyphens can be got at from the 'f5' menu while editing. Alternatively, the [+] menu can be used to set a hard hyphen, and the [-] menu for a soft one. Just typing a hyphen normally in a word is a sort of mixed hard and soft hyphen. The hyphen is always printed in the word (like a hard hyphen), but if the line length demands it LocoScript will break the word at the hyphen, like a soft hyphen.

Centring large sections of text

The 'f5 lines' selection on the Editing Text screen to produce centred lines is most useful in the production of small advertising leaflets and so forth.

The drawback is that the centring process stops operating at the end of each line, leaving you back at square one with the need to enter the command once again. A better solution is to have a "Centre Tab" defined in the middle of your line, ie. at the "46" mark on the ruler for each layout that you use.

To do this, whenever you define a layout (using 'f2 layout' and 'brand New layout', position the cursor in the middle of the ruler (usually at mark '46') and press the 'f5' Centre Tab' key. Now when you use this ruler, just press [TAB] at the start of each line you need to centre, which is much more convenient for long stretches of centred text.

INPUTs without question marks

The INPUT statement in BASIC is pretty useful as a way of asking questions and getting replies from the user as a program is running. For instance, to get someone's name you might use the program line

```
10 INPUT "Name"
:name$
```

This then prints 'Name?' (note the question mark is added on automatically) on the screen, waits for the user to type their name and press [RETURN], and stores the result in the variable 'name$';.

However, there are some useful variations to this method.

1) To avoid having a question mark automatically stuck on the end of the question use a comma instead of a semicolon after the prompt text. So

```
INPUT "Press
[RETURN]",zzz
```

puts up on the screen an instruction to the user 'Press [RETURN]', and waits until the user does so. As a side effect, the variable zzz gets set to zero, but you can ignore that.

2) To avoid the business of pressing [RETURN] at all, you can resort to a different technique. If you wanted to tell the user to 'press any key to continue', you can use these lines:

```
zzz$=""
PRINT "Press any key to
continue"
WHILE
zzz$="":zzz$=INKEY$:
WEND
```

Automatic WRDCOUNT

It is possible to prepare a disc which, when you start CP/M up, automatic-

ally runs a BASIC program of your choice. If you have typed in the WRDCOUNT program listing published in Issue 22 (November 1986), this can make swapping between LocoScript and BASIC much easier.
Take a blank disc and copy onto it from your master CP/M disc J14CPM3.EMS, BASIC.COM and SUBMIT.COM. In case you are still frightened of CP/M, just start CP/M up and have your copy of the master disc in drive A.
Then type:
PIP [RETURN]
(you see an asterisk appear.....)
M:=J14CPM3.EMS
M:=SUBMIT.COM
M:=BASIC.COM
(Put your disc with WRDCOUNT.BAS into drive A....)
M:=WRDCOUNT.BAS
Change discs so that your work-disc-to-be is in drive A instead. Type:
A:=M:*.*
[RETURN]
Now you are back at the 'A>' prompt. Next, using the RPED text editor *(see further on in this issue)* prepare a file called PROFILE.SUB containing the following line:
BASIC WRDCOUNT
If you are going to run a program other than WRDCOUNT, just substitute its name in place of WRDCOUNT in PROFILE.SUB. Now if you reset the machine by pressing [SHIFT] + [EXTRA] + [EXIT] and insert this disc, your Basic program runs automatically.

Cutting a dash

It has been suggested that two or three consecutive hard hyphens saved as a phrase, will act as an approximation to a dash. A different way of doing it is to save a single 10 pitch double width hyphen
(+Pitch10D)-(-Pitch)
as a phrase. This way, you get a single, long, continuous dash.

Jonathan Baylis

True random numbers

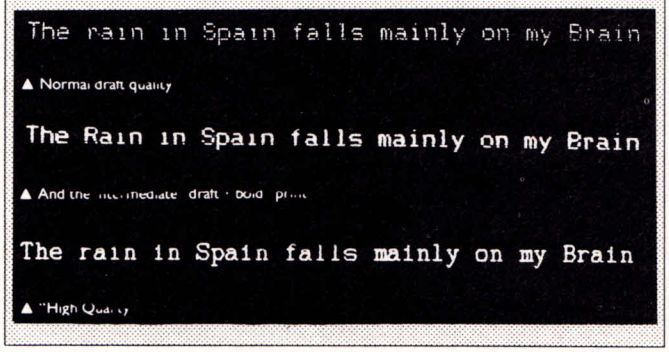
The snag with Basic's RND function to generate random numbers is that the resulting numbers are not truly random. However, Geoffrey Childs' tip in Issue 25 (February 1987 - page 24) on how to set and read the PCW clock can be adapted to generate more or less true random numbers from BASIC. Since the clock can be made to count in seconds, it can be used to generate 3600 different numbers which only depend on the time that you read the number.
Every time you need a *really* random number, type
RANDOMIZE
PEEK(64504!)
in the program. After this, the function RND will return a decent random number. For example,
X=RND
sets the variable X up to contain a random number.

Problems with pitches

One of the nice things about LocoScript is the way you can change the character pitch (the size of the printed characters) anywhere in a document. In a tip in Issue 25 (February 1987 - page 22), some margin settings were suggested to get 2 cm margins on A4 paper for all the different pitch sizes you can use.
These settings do indeed work, BUT only if they are set up in the 'Base Layout'. If you mix the margin settings within one document, they do not work. For example, create a document and set the Base Layout to 12 pitch, with left and right margins at 09 and 89 as suggested. Then type in several lines. Next, insert a new Layout and set the pitch to 15, with the new left and right margins at 11 and 110. Now type in some text and the text will scroll right off the screen and continue beyond the right margin. A similar thing happens for pitch 17, with its margins of 13 and 127 - when you print it out, only part of the text for 15 and 17 pitch appears. What has happened is that the line lengths are being based on the margins defined in the base layout. The original right margin was 89, therefore the new margin of 110 will be extended 21 characters to the right of this. ie. off the right hand edge of the page. For 17 pitch, the right margin of 127 will be 38 character too long, nearly half a page extra!
To sum up; beware of changing the margins and

Be bold - be fast

The two print options that the PCW provides - draft or high quality - seem to be two extremes. Draft is very mucky, but high quality is very slow To produce documents of reasonable quality at a decent speed try using the 'Bold' command in the text, and then use the 'Draft Quality' mode to print the document out. Put the 'Bold' command at the very start of the document and remember that if you insert new layouts later on you may have to re-enter the bold command. To get draft quality for printing, press the {PTR] key, then from the 'f Options' menus select the 'Draft Quality' option. This will give a kind of intermediate quality that is good enough for many purposes.



altering the pitch size at the same time. Unless you are using the same character pitch as defined in the Base Layout, you could get some funny effects.

Charles Hassell

If you want to change pitches in mid document, the best way is to leave the layout settings well alone, and just use the 'f4=Style' menu to alter the pitch. This way, the right hand margin will be properly aligned on the printed page, although it may not seem so on the screen.

Cheap screen filters

Does anyone manage without a screen filter over their PCW? The minimum brightness is often very bright, and the glare and reflections off the bare glass in daylight can be horrendous. Trouble is, screen filters are expensive.

Apart from wearing sun glasses as was suggested some months ago in the Letters section, a cheap way around this is to tape a sheet of 0.6 Neutral Density lighting gel over the screen. This gives you spectacular contrast enhancement, minimal glare, no perceptible loss of definition and a good brightness range.

If you know anyone involved in amateur dramatics, get them to pinch some bits of gel in other colours (eg. deep orange) to give you a complete change from LocoGreen!

Jonathan Baylkis

LocoScript's Character Set

The LocoScript manual has a set of keyboard diagrams at the start showing weird and wonderful characters which can be got at with various combinations of [ALT] and [EXTRA], but it can be hard to find the exact symbol you want at any time. Here is a more organised list showing the characters available to LocoScript users:

Greek Characters

α	alpha	[ALT] A
β	beta	[ALT] B
γ	gamma	[ALT] G
Γ	capital gamma	[SHIFT]+[ALT] G
δ	delta	[ALT] D
Δ	capital delta	[SHIFT]+[ALT] D
ε	epsilon	[ALT] E
θ	theta	[ALT] Q
λ	lambda	[ALT] L
μ	mu	[ALT] M
π	pi	[ALT] P
Π	capital pi	[SHIFT]+[ALT] P
ρ	rho	[ALT] R
σ	sigma	[ALT] S
Σ	capital sigma	[SHIFT]+[ALT] S
τ	tau	[ALT] T
φ	phi	[ALT] F
χ	chi	[ALT] X
ψ	psi	[ALT] Y
ω	omega	[ALT] O
Ω	capital omega	[SHIFT]+[ALT] O

German characters

ß	double S	[EXTRA] S

Accents

(type the accent *first*, then the character to go under it. So to get e- acute, press [EXTRA]+6 and then type e)

´	acute accent	[EXTRA] 6
^	circumflex accent	[EXTRA] 7
`	grave accent	[EXTRA] 8
¨	umlaut accent	[EXTRA] 2
~	tilde	[EXTRA] -

Spanish Characters

¡	open exclamation	[EXTRA] !
¿	open interrogative	[EXTRA] ?

Scandinavian Characters

å	a-ring	[ALT] 8
Å	capital a-ring	[SHIFT]+[ALT] 8
æ	ae dipthong	[ALT] 9
Æ	capital ae dipthong	[SHIFT]+[ALT] 9
ø	o-slash	[ALT] zero
Ø	capital o-slash	[SHIFT]+[ALT] zero

Punctuation Symbols

¶	paragraph	[EXTRA] P
†	dagger	[EXTRA] D
•	bullet	[SHIFT]+[ALT] fullstop

Monetary Symbols

₧	pesetas	[EXTRA] £
¢	cents	[EXTRA] $
¥	yen	[EXTRA] Y
ƒ	florins	[EXTRA] F

Other Symbols

↑	up arrow	[ALT] U
↓	down arrow	[ALT] N
←	left arrow	[ALT] H
→	right arrow	[ALT] K
↔	double ended arrows	[ALT] J
⊗	arrow into paper	[ALT] I
⊙	arrow out of paper	[SHIFT]+[ALT] I
©	'copyright' symbol	[EXTRA] C
®	'registered' symbol	[EXTRA] R
™	'trade mark' symbol	[EXTRA] T

Maths Symbols

≤	less than or equal	[ALT] <
≈	approximately equal	[ALT] =
≡	equivalent	[SHIFT]+[ALT] =
≠	not equal	[EXTRA] =
≥	greater than or equal	[ALT] >
±	plus or minus	[ALT] -
|	modulus bar	[EXTRA] fullstop
÷	division	[ALT] /
×	multiplication	[SHIFT]+[ALT] /
\	backslash	[EXTRA] %
↑	'to the power of'	[ALT] U
∴	therefore	[ALT] ;
⇐	is implied from	[SHIFT]+[ALT] <
⇒	implies	[SHIFT]+[ALT] >
⇔	double implies	[EXTRA] 9
∞	infinity	[ALT] %
°	degrees	[EXTRA] 5
⅛	1/8 fraction	[ALT] 1
¼	1/4 fraction	[ALT] 2
⅜	3/8 fraction	[ALT] 3
½	1/2 fraction	(key by itself)
⅝	5/8 fraction	[ALT] 5
¾	3/4 fraction	[ALT] 6
⅞	7/8 fraction	[ALT] 7

French Characters

ç	c-cedilla	[ALT] comma
Ç	capital c-cedilla	[SHIFT]+[ALT] comma
«	open quotes	[EXTRA] <
»	close quotes	[EXTRA] >

Remember that these special key combinations work by holding down [ALT],[EXTRA] or [SHIFT] while the second key is pressed, in much the same way as you use [SHIFT] to get upper case normal characters.

Richard A. Cook

Multicolumn printout from LocoScript

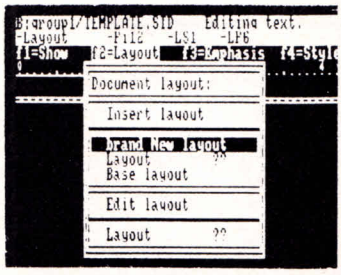
If you produce newsletters or other circulars, you probably want to print out text in two columns as is customary. LocoScript doesn't (at the moment) have a command to do this, but with a bit of guile you can do it in a roundabout way.

Suppose you are using standard A4 paper with proportionally spaced text. If you were doing a normal letter, with text in one column across the paper, you would use margins of roughly 10 and 89, giving 80-wide text with 2cm margins free either side.

Since 80-wide text takes up the page normally, to fit two columns and a gap between them into the same space the columns ought to be about 38 wide, leaving a gap of 4 spaces between them. So, the first thing you have to do is set up two LocoScript 'LayouTs: one must have a left margin at 10 and a right margin at 47, and the other is to have a left margin at 52 and right margin at 89. Columns 48 to 51 are therefore the gap in the middle.

It is best to reserve a special Group on your LocoScript disc for documents to be in multicolumn format. Go to that group and start editing the TEMPLATE.STD document. To set up the Layouts, press the 'f2=Layout' key and then [ENTER], which picks the 'Brand New Layout' option. You are now dropped into the 'Editing Layout' screen - look at the top to see which layout you are editing; probably it will be number 1.

Press the cursor down key to get to the ruler line, then the cursor left and right keys to put the cursor at 10. Set the left margin by pressing [f1]. Similarly, set the right margin at 47 by moving the cursor there and pressing [f2]. Now press [EXIT] to store this layout.



▲ About to set up one of the LayouTs

From the editing screen, repeat the whole process to get a second layout with a left margin at 52 and right at 89. Again, make a note of the number which LocoScript assigns the new layout - probably '2'.

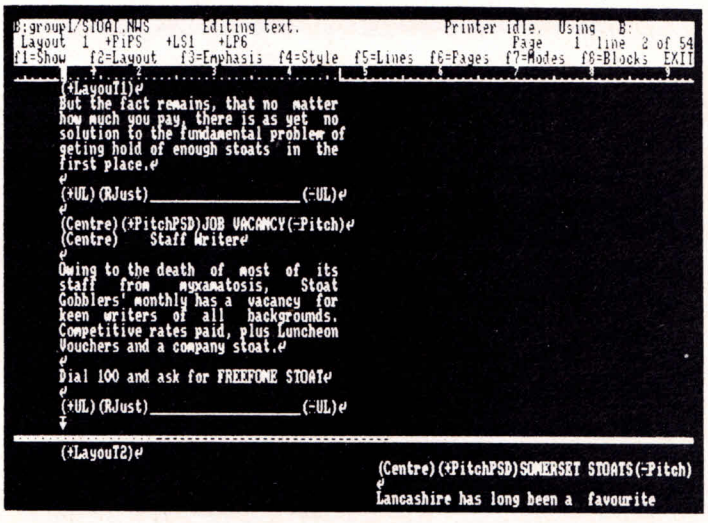
Now you are set to go. At the start of the document to be multicolumned, make sure you are using your first LayouT (with the margins at 10 and 37). Type in the whole document normally. Then, once you've finished all the fine editing and are about to print it out, go to the head of the second page and insert the second Layout (with the margins at 52 and 89). At the head of page three, revert to layout 1, and so on ... each odd page having the first layout and each even page having the second layout at its top.

Now you are set to print. Save the document normally and print it. It is best to use single sheet paper for this; put the first sheet of paper in the printer, and when it is finished and ready to print page 2, put the *same* piece of paper in again. The second page, because of its special margins, is printed in a separate column to the right of the first one. Now do page 3 and 4 together on a fresh sheet, and so on.

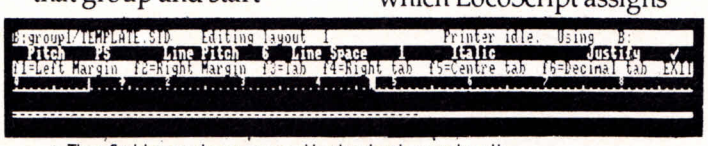
This is a very workable method. The only snag is that you have to be accurate about positioning sheets of paper in the printer exactly the same each time, or you will find the column gap varies a lot, or that the text lines on the two columns are not properly aligned.

Practice makes perfect.

Charles Williams



▲ LocoScript's editing with a document for two-column printing



▲ The first layout you need just prior to saving it

Send your "Tip-Offs" to
The Amstrad User
Suite 1, 245 Springvale Rd
Glen Waverley, Vic 3150

AtLast - Database Manager

Long, long ago, in the mists of time, a company called Rational Solutions sold a database called AtLast. Now, with a crash of drums and a blinding burst of light, AtLast has been improved and relaunched under the name Database Manager (AtLast) for a cheaper price of $99.95 . Is it true that you can pay less money and get a better program? Surely life isn't like that? Read on and find out ....

If you own a PCW (or a CPC 6128 for that matter), the chances are you run a small business, or organise a local club, or just like to lead an organised life. If so, you are probably interested in applying your new-found computing power to sorting out your records once and for all. This is the territory of the database. Traditionally, powerful databases have been hideously complicated to use, and simple databases have been hideously lacking in any useful features - now *AtLast* aims to bridge the gap between ease of use and power of operation. Is it the panacea it claims to be?

AtLast at first

The biggest change which has happened to AtLast since its previous incarnation is the addition of a manual. It now boasts around 70 pages of properly typeset, printed text, with examples helpfully sprinkled about and a full index. It begins with the statement 'AtLast is a sophisticated program. It requires effort to master, but that effort is well worth while', and on the whole the text does its best to nurse newcomers over the shock of coping with a new program.

The delivery disc also contains two sample databases, one for managing the membership records of a club, and another for doing some simple accounts record-keeping. The opening pages of the manual encourage you to play around with these files to discover how the system works.

AtLast is operated from a series of menus and questions on the screen. This contrasts with something like *dBaseII* where you are expected to read a manual and just know what to type when asked to give a command. As with all databases, before you can do any actual data entry you have to define a layout to use for the data.

AtLast an example

Take a typical example to see how AtLast tackles things. Suppose you are running a small business from home, perhaps mail order. What you need to know is (a) your customers' names and addresses, (b) What

WHAT A DATABASE IS

Think of an address book: you have all your family and friends written down alphabetically and you can instantly find Fred Snodgrass's phone number despite the fact that the 'S' section is almost at the end of the book. This is because you can go straight to 'S' by the indexed page labels, skipping 'A' to 'R' entirely.

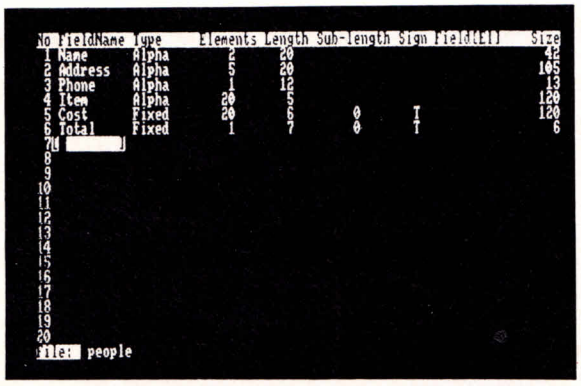
A database does just the same search operation as you do on an address book - it's like an electronic index book. So what do you gain by taking the trouble to type the entire contents of your filing system into your PCW? If all you want to do is look up the phone numbers of your 50 friends, the answer is 'not much'. What databases are really good at is searching quickly through the information stored, sorting it into order and producing printed lists and summaries of it. For example, suppose you run a small mail order business and need to hold records of your customers and the products they have bought from you.

With the order records stored on a database, you could trace all customers who had bought Magic Widgets, or run through all your customers and tot up the total amount owed to you in unpaid bills. Then when your bank manager presses you for details on just how you intend to pay off your six-figure overdraft, you can thrust a piece of paper under his nose proving that your customers owe you at least $20,000,000. Computer printouts never lie!

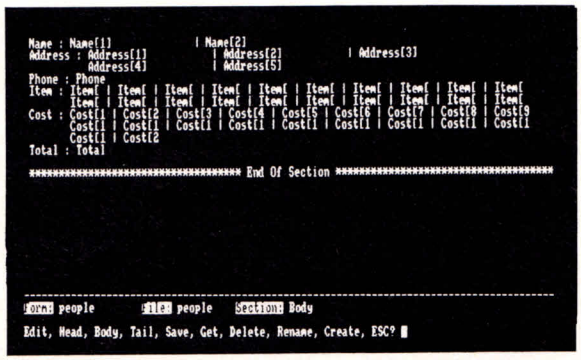
products they have bought from you in the past, and (c) how much they owe you.

As ever, you have to first work out how much space each item you want to record will require, and then arrange them on the screen accordingly. Suppose for each customer you want a forename and surname of 20 letters each, five lines of 20 letters for the address and a phone number 12 digits long. For the product records, allow for storing the last 20 items someone bought, and the price for each - you could identify products by a 5 character code like 'wm-10' for a 10 pound watermelon. Finally, you might want a 'total' field indicating the amount outstanding on the customer account.

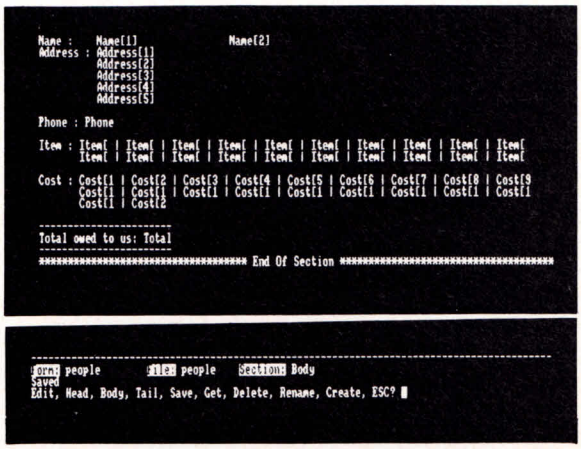
1 Run DBDEF to define the database format. Define a new 'file' within the database called, say, CUSTOMRS, with the fields set up to match the requirements stated previously. If you change your mind over an entry you can go back and alter it with the cursor keys.



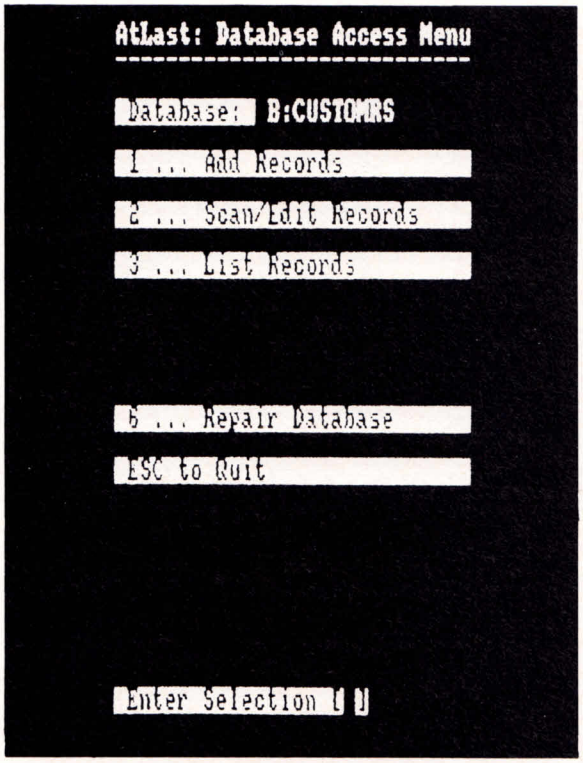
2 Now you can define which field AtLast should use to index (ie. sort) on. Then, pressing [EXIT], back at DBDEF's main menu choose option 3 to 'Autogenerate' a form. This takes the file definition and produces a standard form with all the fields you defined labelled and arranged like this:



3 Now use the screen editing keys to alter the 'card format' to what you like. Any field may go anywhere, and any text may be inserted at any place to make the screen prettier or more informative.

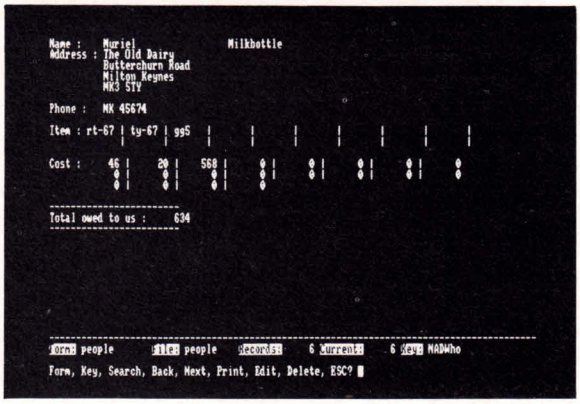


4 After this, the database is more or less set up, and you can start entering your data. [EXIT] back to CP/M and run DBUSE (to use the database). Once you've specified the name of the database to be used, you get this simple menu:

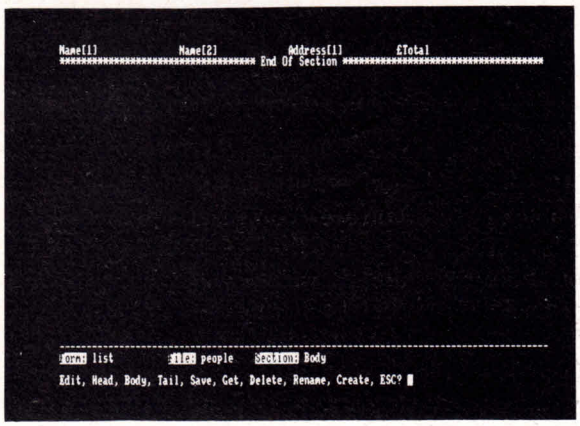


5 Adding records is now a simple process. Just move the cursor to the field you want and fill it in. If you don't specify a value for a numeric field, it will become zero by default. One annoying niggle is that to get to any field you have to visit all the fields before

it. For example, to get to the COST field, you have to go through all 20 of the ITEM fields, even though you don't want to fill the last 19 of them yet.



6 Once you've entered all the records, you probably want to get some kind of printed list to browse through. After all, it's fun highlighting bad debtors with a big red pen. To do this, leave DBUSE and run DBDEF to define a new format suitable for printing a list - of course you only have to do this once. Define a form that only contains the fields you want to see, all on one line. Suppose we want the full name of the customer, the first line of the address and the amount owed.



7 With this form designed, (which you might call LIST), you can produce a listing from within DBUSE. Choose menu option 3 from DBUSE's main menu, answer the questions about indexing, selection and page size, and the result whistles out on the printer. The entries are sorted by surname, and at the end it gives the total number of records and the total amount owed.

So much for the whistlestop tour. Most of the regular features which you would want to use are there, but there are several other powerful ways to use AtLast. First, of course, you can select which records to print out on the report. These might be all customers who owe more than $100, all customers who have bought more than three products, all customers after 'S' in the alphabet, or any combination of these.

Another feature AtLast boasts is some form of 'relational' database capacity. This is a phrase much misused in adverts, and essentially has come to mean 'can do some of the things dBaseII can do'. A relational database in this sense is one which allows you to look up where that fact occurs in another information set a the same time.

For example, once you discovered that Miss Aardvark has bought item RT-67 from you, a relational database could access parts list and tell you what part RT-67 actually was.

AtLast can nearly do this, although you have to open and close the databases manually. This is really cheating, and it's a bit naughty to bandy the word 'relational' around. Still at the price, it would be very surprising if it could do more.

AtLast the manual

AtLast's manual will be a major selling point, since it is rare for a 'budget' package to have such a large and well produced one as this; normally you get a few sheets of photocopied A4 printout.

It is written in quite a wordy style, which makes it good for the beginner but a little difficult to use as a reference manual once you get more experienced. One excellent section is entitled 'How to....', which goes through several common operations in detail.

The manual does occasionally lapse into computerese, though. The phrase "logically distinct databases" crops up now and again, which will mean nothing to non-computer scientists. Also, it uses a confusing way to describe the keys to use for special operations. For example, there is a key you have to press to change from insert to overwrite mode in the screen editor, which gets referred to throughout as '<InsertMode>' key.

In reality, this is [f1] on the PCW, but you don't discover this until an obscure appendix late in the manual. The reason it's done this way is to allow the manual to be used with the PC1512 and CPC6128 versions of AtLast, but it really would have been better to pick one of the machines and use its keys rather than aim for generality with silly generic names.

AtLast the end

At $99.95, AtLast is good value for money and hard to pick holes in. It can do all of the operations you need for general use, and will only let you down if you need calculated fields in your records, or to cross-correlate unusually complex sets of data.

It does take a few hours of careful manual-reading to get the best from AtLast, and if you are completely terrified of databases than you might have problems. Then again, the same applies to any powerful database, so there's no escape.

AT LAST THE FACTS

For those who know what the figures mean, here is what AtLast can offer to your filing system:

- Menu operation - usually a single keystroke for a single function: A record may contain up to 20 fields, BUT each field may have up to 99 elements. For example, you could store a 5 line address in a single field with 5 elements.
- A field (or element) may be up to one line long (79 characters)
- You can have multiple indexes to a database - e.g. you can sort it by both surname and date of birth.
- You can select records or groups of records by quite complex conditions, e.g. 'All people who owe more than $100 and live in Sydney'.
- The format of screen layouts and printed output is fully definable. You can print labels, lists, simple mailshots in almost any form you like.
- Records can be read or written to ASCII files.
- You can make some changes to the record format even after the data has been entered.
- For numeric fields, you can print their total at the end of a listing (although there is no general arithmetic allowed in fields).

PLUSES + MINUSES

+ The basic form layouts are generated automatically
+ The data can be indexed on more than one item
+ Good screen editing facilities
+ Printed reports can include totals
+ Generally clear 70-page manual
+ Subsets of records can be selected using sophisticated 'rules'
- Manual sometimes lapses into computerese
- Page dimensions have to be specified every time you want to list things, even to the screen
- Can't do general arithmetic within fields

Fields, records & indexes

A brief summary for those not into database-speak. A 'record' is what a screenful of information is called - it corresponds to one card in a traditional card index box. Following the analogy, each item written in the card, the surname or a line of the address, is a 'field'. An 'index' is the particular field used to sort the cards into order - often a surname. If you search a file which isn't indexed, the database has to look at each record on the offchance that it's the one you want, like sorting through a pile of cards dumped in a random heap on the floor.

CHOOSING THE RIGHT DATABASE

Picking which database is the right one for your application is very difficult. The main thing is not to be seduced by the word 'powerful' in a product's description, because this usually means 'impossible to use unless you are Professor of Computing'. Decide what you will use your database for and stick to those features.

Beyond being 'easy to use', which all databases are if you believe the adverts, here are some features you might need: to sort the data into alphabetical order; to be able to write the database contents out to an ASCII file for programs like mailmergers to read; to be able to print out only selected fields from a database, in any layout you choose; to be able to specify that one field of a record is to be worked out from the other fields. Also check the maximum number of fields per record that you may have.

Here are two database packages which are aimed at vastly different types of user:

dBase II from First Software

This famous name database can do almost anything. It is really a programming language to allow you to build your own database, and needs some programming skills to get the best out of it. If you are unsure of BASIC programming, avoid dBase like the plague, but if you are a competent programmer you will find it extremely flexible and powerful. The only real flaw is that it can only deal with 32 fields per record.

First Base from Minerva Systems

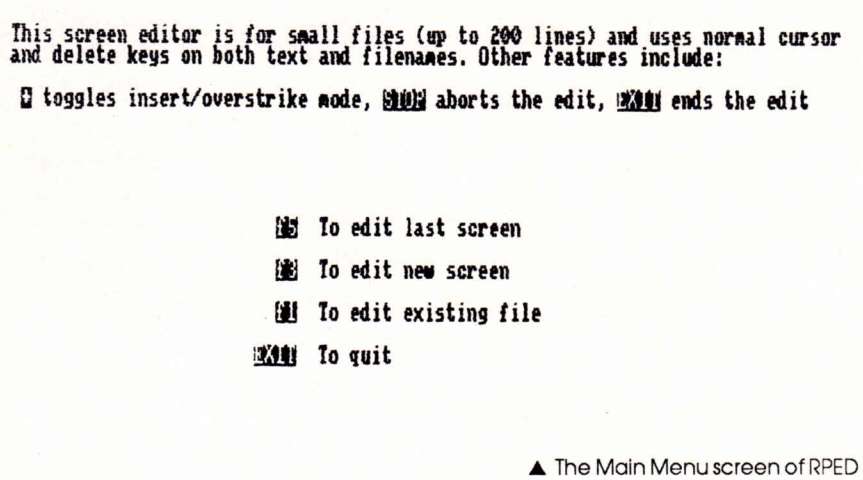
Aimed at the first time user, First Base is one of the simplest databases to get to grips with. If all you want to do is hold club membership records, or simple customer details, it could do very well for you. It provides simple data entry, editing and sorting, and is good value for money. However, it is a little finicky if you want to produce anything more than very simple printed output (although it can do it.).

Learn to be an Editor

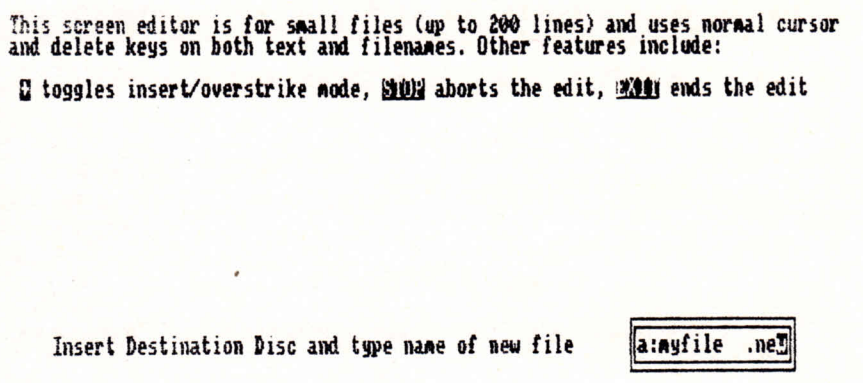
The PCW's text editor RPED explained

by Ben Taylor

If you use CP/M and programs that run from CP/M, you will have discovered a regular need to produce what are called 'ASCII files'. Don't be put off by the name - 'ASCII file' is just a confusing way of saying a plain text file. One of the most common occasions when you need to create an ASCII file is if you are trying to program. So it seems appropriate to discover the easy way to create the kind of files they need to work with.



▲ The Main Menu screen of RPED



▲ Entering the name of the file to edit

Unfortunately LocoScript is singularly bad with ASCII files. It wasn't until a few months after its first release that it could even produce the things, and even now the time spent swapping between LocoScript and CP/M is so tedious that it is impractical to edit files that way. The answer lies in one of the free programs hidden on the PCW master discs - the RPED text editor.

Starting from scratch

To run RPED you will need to have a disc with the files BASIC.COM and RPED.BAS on it. You will find these on side 2 of the original PCW master discs, but you should of course have copied them onto a work disc by now. Starting it going is simple: you just put that disc in the current drive and type

BASIC RPED [RETURN]

BASIC starts up with its introductory burble, and after a short pause you are faced with RPED's master menu screen. Since we are creating a new file, press the [f3] key, for 'To edit new screen'. You will see a new prompt appear on the screen asking for the name of the file which will be used to hold your new text.

As it stands, the space for the filename is preceded by 'a:', meaning your file must go onto the A drive. If you want to store the

file on B or M rather than A, you can change this; use the cursor left key (not the delete key) to get the cursor over the 'a', and just type 'b', 'm' or whatever you want. Now use the cursor right key to get back to the spaces for the name of the file and type it. Press [RETURN] or [ENTER] to confirm the filename, and the screen clears, leaving only a few cryptic prompts on the top line.

This blank screen is for editing, and the prompts at the top tell you how to use it (well, sort of). It's really very easy; just use the cursor keys to move the cursor to wherever you want to put some text, and start typing. Press [RETURN] when you have filled a line, and, as you'd expect, you're moved to the left hand end of the line below. The two delete keys work as normal, and if you put the cursor in the middle of some text and start typing, the new text is inserted, shifting the remainder of the line to the right.

RPED is only a simple editor, and isn't designed for massive files. You can't create files longer than 200 lines - if you want to do this, you'll need to buy a specialist programmer's editor.

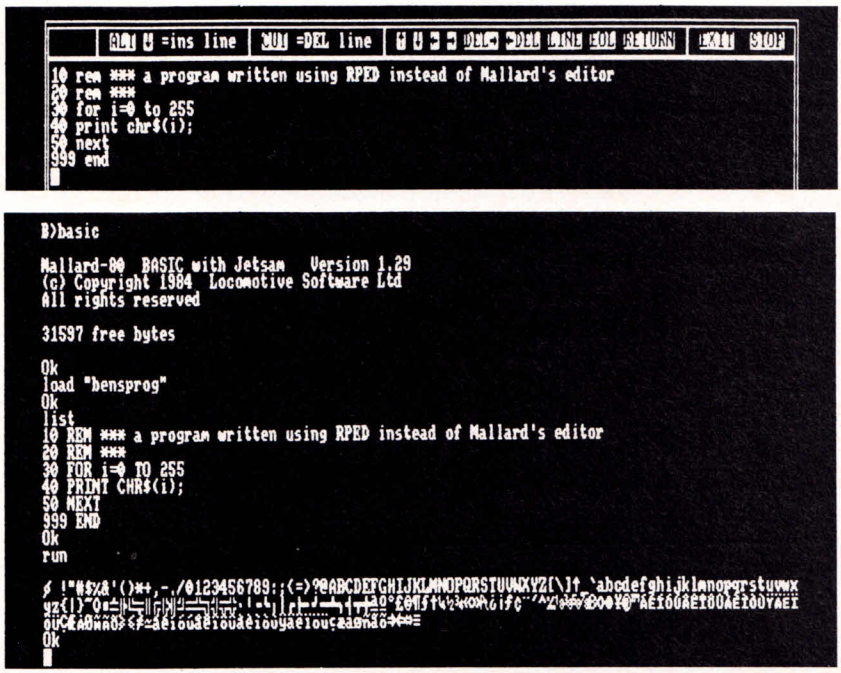
When you have got your file just as you want it, press [EXIT] and it will be saved into your specified file, returning you to the main menu screen. Press [EXIT] again if you want to return to CP/M.

Editing an existing file

No one ever gets things right first time, and you are bound to want to make modifications to existing files.

To do this, get to the RPED main screen and press the [f1] key, 'To edit existing file'. As for creating a file, you are asked for the file name in question - enter this and press [RETURN]. The file is now displayed on the screen and RPED switches to edit mode.

Use the cursor keys to get to the mistakes and use the DEL keys and any other editing commands listed in the box to change them. When everything is done press [EXIT] to return to the main menu. You can edit other files or [EXIT] again back to CP/M.



▲ The editing screen in RPED and, below, how Basic copes with programs written with it

The (f5) 'To edit last screen' option

Creating a new file and editing an existing one are the two main uses of RPED, and the third choice on the menus screen is a little obscure. Pressing [f5] 'To edit last screen' from the RPED main menu screen takes you back to the last file you were editing, provided you haven't EXITed from RPED in the meantime.

One use of this is if you accidentally press the [STOP] key during an editing session, when perhaps you meant [EXIT]. This aborts the edit and puts you back to the main menu, so you lose all your edits. But all is not lost - press [f5];, and you get back to the file again, since that was what you last edited.

Using RPED for BASIC programs

RPED is actually written in BASIC, and since it can be run like any other program it is particularly convenient for BASIC programmers to use. Normally, when typing a program in, you start BASIC going, type in the program and use the laborious EDIT command to correct individual lines. However, for programs of any length, using RPED can save a lot of denture wear as you gnash your teeth.

To type in a listing the new way, start BASIC up (type BASIC [RETURN]) and then type RUN "RPED" [RETURN]. Type the listing into RPED as described in the previous section, calling it something like "WEEVIL.BAS" - or anything with a.BAS filetype. Pressing [EXIT] from RPED's main menu takes you back to Mallard BASIC, and to run the new program type RUN "WEEVIL" [RETURN] (or whatever you called it).

When typing in the listing, you can type lines just as you would within BASIC; for example, you

can use either upper or lower case, and you can use the ? abbreviation for PRINT. When you load the file into BASIC, it will read everything correctly.

When you encounter your first mistake (what do you mean, you don't make mistakes?) you can either use BASIC's LIST and EDIT facilities for small changes, or you may prefer to go back into RPED for more major structural repairs. If so, type RUN "RPED" [RETURN] again, edit the existing file WEEVIL.BAS, and when you get back to BASIC type RUN "WEEVIL" [RETURN] again to run the modified version. Repeat as necessary.

The important thing to remember is that any changes made within RPED are automatically saved to disc once you finish editing, but any changes made in BASIC using its EDIT command are not, and you **must** save the new program version explicitly. To do this, type SAVE "WEEVIL",A [RETURN] before you leave BASIC. The reason that you use,A in the save command is so that BASIC saves it as an ASCII file, otherwise RPED will not be able to read that program file in future (by default, BASIC saves files in a special coded form).

Note also another difference between RPED and the ordinary EDIT method for amending files - after EDITing a line, you can just type RUN [RETURN], and the new version runs. If you've just left RPED after modifying the file, the program will not be in BASIC's memory any longer. This is why you have to type RUN "WEEVIL" [RETURN], which implicitly reloads the program and then runs it.

WHAT'S IN A NAME?

Several readers have written demanding to know what CP/M stands for. Well, although you won't be much the wiser for knowing, here goes with a few acronyms to satisfy the curious: CP/M means 'Control Program for Microcomputers'. Presumably CPFM didn't quite sound right to the inventors. As for what it is, well, it's just the software which produces the magical 'A>' prompt on the screen, and which knows what to do when you type DIR [RETURN].

ASCII (pronounced as in the late comedian Arthur ASCII) stands for 'American Standard Code for Information Interchange'. As ASCII file is just one which has nothing but simple text characters in it. A normal LocoScript file is not an ASCII file, because it is full of special codes which only LocoScript can understand, whereas files produced by RPED are ASCII files.

RPED vs. WORD PROCESSORS

Those used to LocoScript's facilities will be in for a bit of a shock with RPED. The first thing you will have to get used to is pressing [RETURN] at the end of each line - RPED will not automatically 'wrap' the lines around at a convenient work break. There are no fancy ways to move text around. You can type characters, you can delete characters and you can insert blank lines in the file. That's it, and there is certainly no way to move blocks of text around the screen or duplicate lines, you'll just have to retype things character by character.

USEFUL KEYS IN RPED

+ switches you between insert and overstrike mode. As explained above, if you type new text in the middle of old text, the new stuff is inserted and the old shifted along. If you press + , new text overwrites the old characters than used to be in those positions. + again changes back to insert mode.

[ALT] ↓ inserts a blank line above the current line you are on, so you can type in new text.

[CUT] deletes the current line you are on and closes up the gap.

[EOL] takes you to the end of the current line, and [LINE] (press [SHIFT]+[EOL] for that) takes you to the start of the current line.

[RETURN] takes you to the start of the next line.

[EXIT] saves the current file and returns you to the main menu screen.

[STOP] aborts the edit altogether, and returns you to the main menu screen.

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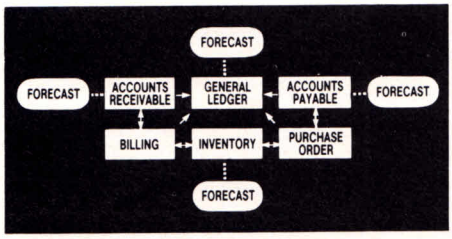

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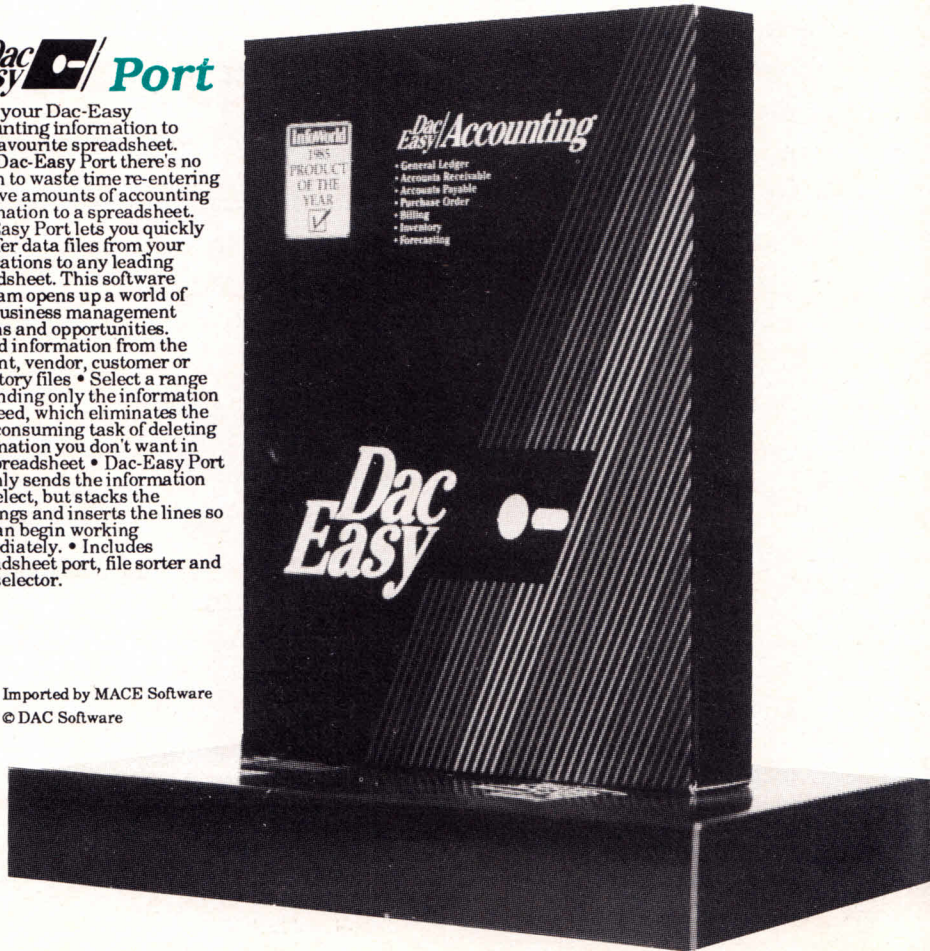

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Dac Easy For the PC1512 $245.00

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by John Hughes

Computer programming is easy! So easy, in fact, that a few years ago it was estimated that over five million schoolchildren all over the world had learned how to program in the BASIC programming language, an advanced form of which is supplied with your PCW.

There are many advantages in learning how to program. First, although there are literally thousands of excellent commercial programs on sale, they obviously can't meet all your possible needs. Second, The Amstrad User prints some useful programs from time to time, and you will get much more out of them if you understand how they work and how to modify them to fit your own circumstances. Third, writing even a short program which is 'all your own work' will teach you far more about how your PCW works than reading any number of books and articles. Finally, it will do wonders for your standing down at the pub.

Loading BASIC

Many small computers have BASIC all ready to go when they are turned on, but on the PCW you will have to start off by loading it in. Switch the computer on and put your copy (never the original!) of the CP/M Plus master disc into the disc drive - this is the disc which has LocoScript on one side and CP/M on the other, and is the same one which you use when formatting discs.

When the A> prompt appears, type BASIC and press RETURN or ENTER. The BASIC language will be loaded off the disc into the computer, and the screen will display a start-up message to confirm that everything is ready.

```
CP/M Plus  Amstrad Consumer Electronics plc

v 1.4, 61K TPA, 2 disc drives, 368K drive M:

A)basic

Mallard-80  BASIC with Jetsam   Version 1.29
(c) Copyright 1984  Locomotive Software Ltd
All rights reserved

31597 free bytes

Ok
```

BASIC as a Calculator

Once BASIC has been loaded into the computer, you can use it immediately as a sort of oversized pocket calculator.

For example, to add the numbers 20 and 40, simply type

PRINT 20+40

using either capitals or small letters and press RETURN or ENTER. The answer will be instantly displayed on the screen, with 'OK' after it to show that the computer is ready and waiting to do something else. (unlike a pocket calculator, you don't need to press the '=' key - indeed, it won't work if you do).

The word PRINT is simply a BASIC command meaning 'Put something on the monitor screen'. There is a slightly different command which we shall meet later which is used to send output to the printer.

All arithmetical operations can be carried out in the same way as the sum we have just seen, except that some of the symbols used in computing are not quite the same as those used in ordinary arithmetic: division is marked with '/' and multiplication by '*'

All the usual rules of precedence apply; that is, any expressions in brackets are worked out first, followed

by multiplication and division, with addition and subtraction last. Remembering this, enter the following for yourself, ending each line with Return or Enter:

PRINT 4+5*10
PRINT (4+5)*10

If you have entered everything correctly, the first sum should give the answer 54, the second the answer 90.

Unless you are a very careful typist, you may already have had your first BASIC error message - probably 'Syntax error'. All this means is that you have typed in something which the BASIC language doesn't understand - perhaps you typed PRUNT instead of PRINT, or perhaps you forgot that the '=' sign should be left out. Don't let it worry you; there is no possibility at all of a keyboard error damaging your computer or affecting the BASIC language which you have loaded in.

A different sort of error arises from the ways in which the computer applies the rules of arithmetic. For example, if you try

PRINT 24/0

The computer will print a prim 'Division by zero' to warn you that any answer it manages to come up with is meaningless.

Saying Hello

Just as BASIC tries to work out, or 'evaluate', any arithmetical expression which occurs to the right of the command word PRINT, it will also output on the screen any message which is enclosed in double inverted commas. For example:

PRINT "Hi there!"

will cause the words 'Hi there' to appear on the screen; the quotation marks themselves do not appear.

This may not seem nearly as useful as using BASIC as a calculator; however, when we get on to more advanced programming, you will see that the ability to print messages on the screen can be a very useful one indeed.

Printing Hello

A close relative of the PRINT instruction is LPRINT. It functions in exactly the same way as the PRINT command, except that the output is sent to the printer, rather than to the screen. Try it with some of the examples given above to see how similar the two commands are.

Your first program

So far, although we have certainly been using BASIC, we have not done any real programming. This is because writing a program implies giving the computer a series of instructions which it can then carry out on its own, one after the other.

In this sense a computer program is no different from the sort of program which is used by a washing machine, a microwave oven or a dishwasher; in each case a series of commands is set in motion and the machine takes the appropriate action to obey each one.

In BASIC, these commands take the form of a series of lines each of which begins with a unique line-number and contains a single instruction written in a form which the machine can understand. (Actually, there are circumstances under which a line can contain more than one instruction, but this need not worry us here).

```
10  PRINT 100+127
20  PRINT 142/98
30  PRINT 98*24.762
40  PRINT "Finished"
50  END
```

Our first program illustrates the principle of the thing. It will carry out three different arithmetical operations, one in each of the lines numbered 10,20 and 30, and will place each of the answers on the screen. Line 40 will print 'Finished' at the bottom, and line 50 has the command END, which tells BASIC that there is nothing more to do.

When the program is run, the lines will be obeyed (the jargon term is 'executed') in ascending order of their line numbers. What those line numbers are is irrelevant, as long as they are numbered in the order we want them to be obeyed: they could as easily have been numbered 1, 2, 3 or 100, 150, 200. However, it is usually a good idea to choose numbers which are not too close together, for reasons which will become clear later.

Try typing the program in, making sure that you copy it exactly. Common mistakes which you need to be aware of includes using the letter 'O' instead of the number zero, both in line numbers and arithmetic operations, and misspelling command words like PRINT.

```
10  PRINT 100+127
20  PRINT 142/98
30  PRINT 98*24.762
40  PRINT "Finished"
50  END
RUN
 227
 1.44898
 2426.676
Finished
Ok
```

Running the program

When you have typed in a complete line, double-check that you have made no mistakes; if you have, go back to correct them with the cursor and delete keys in the usual ways, and press RETURN or ENTER only when you are certain that there are no errors. When the whole program has been entered, type in the word RUN and press RETURN; the computer should respond as shown.

Your first bug?

If you find that you have made a mistake in any line after you have pressed RETURN, you can still correct it as follows: either retype the whole line again correctly, as though it had never been entered in the first place - the new version of the line will completely obliterate the old one in the computer's memory - or type EDIT followed by the number of the line which you want to correct.

```
10  PINT 100+127
20  PRINT 142/98
30  PRINT 98*24.762
40  PRINT "Finished"
50  END

EDIT 10
10  PINT 100+127
```

Editing a line

Let's illustrate this with an incorrectly entered version of the program in which the command PRINT in line 10 has been entered as PINT. The command EDIT 10 has then been entered, and the computer has responded by displaying that line on the screen, with the cursor at the beginning of it.

To correct the mistake, simply move the cursor to the appropriate place, type in the missing R and press RETURN. The correct version of the line will overwrite the original in the computer.

Reviewing your work

As you become more familiar with BASIC, there will inevitably be occasions - especially when you are writing longer programs - that you will want to be able to review your work on the screen.

This can be done with the command LIST. Type it in, and the whole program will be printed on the screen in ascending order of line numbers. (There is a similar command, LLIST, which will list the program on the printer)

Using LIST and EDIT as appropriate, you can call up your program onto the screen and make whatever corrections or alterations you want. You could, for example, change the message which is to be printed when the arithmetic has been finished, or alter the calculations which are to be performed. You could even insert whole new calculations or messages of your own.

Remember that BASIC always executes lines in ascending order of their line numbers, even if this is not the same as the order in which you originally typed the lines in. As far as the computer is concerned, it makes no difference at all if you enter a program by typing Line 10 first, line 20 second and so on, or by typing Line 30 first, then Line 10 and Line 20 next.

Next time we shall look at some ways in which we can move beyond the simple printing of messages and results of calculations by using variables. In the meantime, try to become as familiar as possible with the commands we have already met, so that you can enter and correct a simple program without getting too bewildered.

When you have finished using BASIC, you can simply return to CP/M by typing in the command SYSTEM; this will remove BASIC from the computer and put you back into CP/M Command Mode, with the usual A> prompt.

If a program doesn't work

Even the simplest programs can cause difficulties, and finding out what is wrong can be surprisingly tricky. The following may give you some ideas of places to look:

Line numbers - make sure that the lines are numbered in the order you want them to be carried out.

Using the right symbols - check especially that you haven't used a lower-case 'i' instead of the number '1', or a letter 'o' instead of a zero.

If you get a 'syntax error' message while a program is running, the faulty line will be shown on the screen with the cursor already on it, to help you correct it.

BASIC Commands

The following are the commands we have met so far, with a brief description of what they do:

END - To mark the conclusion of a program

LIST - Prints a copy of the program on the screen

LLIST - Prints a coy of the program on the printer

PRINT - Prints on the screen either a message enclosed in inverted commas or the result of an arithmetic operation

LPRINT - As PRINT, but using the printer.

LOCOMAIL & LOCOSPELL

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

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THE AUSTRALIAN AMSTRAD PROFESSIONAL USER CLUB

name pending

About the club:

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

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

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* Telephone ordering - our helpfull staff enjoy receiving your calls, goods can be posted on the same day in most cases
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* New software developments
* Monthly newsletter produced by AMSTRAD experts and other professionals containing news, product information, your Q+A, details of the month's special offers and a Business bulletin, which gives tips on the accounting side of your business.
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[_ _ _ _-_ _ _ _-_ _ _ _-_ _ _ _]

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TAU

UTILITY TYPE-INS

A set of very useful routines from David Waterson, which you can graft into your own programs, plus an Auto-Menu program from Michael Stanley.

Basic Construction Kit

These routines answer a lot of requests we've had for useful utilities in Mallard BASIC: simple things like clearing the screen, which are built into most versions of the language.

David's routines go somewhat further than this, offering cursor positioning and box drawing, which is good for highlighting program inputs and the like.

You may already know that BASIC communicates with the screen of your PCW via a 'terminal emulator'. This is in effect a piece of software which responds to certain codes and translates them into cursor movements or special effects such as inverse video (black on green) or underlining. Each code is called an 'Escape sequence' and begins with the ASCII character 27. in BASIC this is written 'CHR$(27)'.

David's routines make use of these codes by first defining a string variable, 'esc$', as CHR$(27) and then adding the appropriate character to produce a given effect.

For instance the code to start underlining on screen is Escape followed by 'r'. In line 90 of the listing a string variable 'ulo$' is assigned this sequence and you can then use the command 'PRINT rev$' anywhere in the main part of the program (from lines 500 onwards) to turn on this effect. The other assignments in lines 60 to 130 work in the same way.

The single line function at line 190 lets you position the cursor at any point on the screen before printing. 'x' should be replaced by the column you require and 'y' by the row.

The final routine, which is a sub-routine running from line 230 to line 350 draws a box on the screen, once values are set up in the variables 'x' 'y' 'w' and 'h'. These give the position on the screen where you want the box to start and the width and height of the box itself.

The main program, which starts at line 500, is simply a demonstration of the utilities. You can put your own program in its place and make use of any of the routines as just described.

```
10 ' ******** screen set up commands *****
20 ' **** by David Waterson
30 ' **** The Amstrad User - April 1987
40 ' ****
50 esc$=CHR$(27)
60 cls$=esc$+"E"+esc$+"H"
70 rev$=esc$+"p":'       reverse video ON
80 nor$=esc$+"q":'       reverse video off
90 ulo$=esc$+"r":'       underline ON
100 ulf$=esc$+"u":'      underline off
110 cof$=esc$+"f":'      disable cursor
120 cuo$=esc$+"e":'      enable cursor
130 bel$=CHR$(7):'       bleep
140 '
150 ' CURSOR POSITIONING FUNCTION
160 ' cursor will be positioned
170 ' at x,y by the code { print fnp$(x,y);
"ANY STRING" }
180 '
190 DEF FNp$(x,y)=esc$+"Y"+CHR$(x+31)+CHR$(
y+31)
200 '
210 GOTO 500 : 'MAIN PROGRAM
220 '
230 'START OF BOX ROUTINE
240 'inputs x,y,w,h  (x-coord, y-coord, wid
th, height)
250 '
260 L1$=CHR$(150)+STRING$(w,CHR$(154))+CHR$
(156)
270 L2$=CHR$(149)+STRING$(w," ")+CHR$(149)
280 L3$=CHR$(147)+STRING$(w,CHR$(154))+CHR$
(153)
290 PRINT FNp$(x,y);L1$
300 FOR k=1 TO h
310     r=x+k
320     PRINT FNp$(r,y);L2$
330 NEXT k
340 PRINT FNp$(r+1,y);L3$
350 RETURN
360 '
500 PRINT cls$:'         clear screen
510 PRINT cof$
520 x=1:y=1:w=30:h=13:GOSUB 230:  'DRAW A B
OX
530 PRINT FNp$(3,3);rev$;" You can have rev
erse video ";nor$
540 PRINT FNp$(12,4);ulo$;"Or you can under
line text";ulf$
550 x=6:y=5:w=20:h=4:GOSUB 230: 'DRAW A BOX
560 PRINT FNp$(7,6);"The inside of a"
570 PRINT FNp$(8,6);"box can be cleared"
580 PRINT FNp$(9,6);"by redrawing the box"
590 PRINT FNp$(10,6);rev$;"   PRESS ANY KEY
   ";nor$
600 a$=INKEY$:IF a$="" THEN GOTO 600
610 x=6:y=5:w=20:h=4:GOSUB 230: 'DRAW A BOX
620 PRINT FNp$(7,6);"HAPPY PROGRAMMING"
630 PRINT FNp$(10,6);"BYE-BYE!!!"
640 PRINT FNp$(20,1);cuo$
650 END
```

How to type in a listing

The first thing is to load up Mallard Basic. To do this, turn on the PCW (or reset it with [SHIFT]+[EXTRA]+[EXIT] and into the top drive put the CP/M startup disc, which is the other side of the LocoScript startup disc.

When you get the A> prompt, type BASIC, and after a few seconds a message about "Mallard-80 BASIC" appears and it says "OK". Now copy out each line in the listing very carefully, including the line numbers, and press [RETURN] at the end of each line. Be careful to distinguish between capital I and the digit 1, o and 0, and colons and semicolons. During a long listing it's important to save your work every 15 minutes or so. And for all listings you must save them before attempting to run them. To do this, find a work disc you can write to, put it in the disc drive, and type

SAVE "PROGRAM". [RETURN]. Or you can choose any other name instead of the word "program'.

When you've finished, type LIST [RETURN] and the whole program will appear on the screen. Check it, and if any lines are wrong, you can correct them with the line editor. For example, if the mistake was in line 100, you would type EDIT 100 [RETURN], and use the cursor keys and delete keys to fix the line. Press [RETURN] when the line is correct.

If you have mistyped a line number, so that a line appears in the wrong sequence, just type the incorrect line number and the [RETURN], which effectively deletes the line, then retype the line with its correct number.

When you're satisfied the listing is correct, SAVE the finished version (see above) and now your program is ready to run. Just type

RUN [RETURN]

And yes... it goes wrong. It's more than likely, no matter how meticulously you copied the listing out, that the first time you run the program it won't work properly. You may get some arcane message like "Syntax error in 100". List the program out (using LIST), and carefully check the screen against the original in the magazine.

Incidentally apart from syntax errors, the line number mentioned in the error message isn't necessarily where the error is located - it's simply the point at which the computer gets stuck. You may have to look elsewhere for the error.

When you've found it, either retype the line wholesale, or correct it by using the line editor as described above.

Type RUN again, and hopefully it works this time. If not, go on correcting and re-running until it does. Finally, don't forget to save the corrected version again.

When you've finally finished with the program, typing SYSTEM [RETURN] returns you to CP/M

To run the phone coster another day, start BASIC up normally, put the disc you saved the program on in the drive and type

LOAD "PROGRAM" [RETURN] or

whatever name you gave the program when you saved it. Then as before, when it says OK, type

RUN [RETURN].

AUTO-MENU

This is a handy little utility which automatically lists out up to 24 BASIC programs on a disc, presents them on a menu and allows you to run any of them by pressing the corresponding number. It also collects a description from a REM statement in the first line of a BASIC program and prints that next to the program's name in the menu.

The program is a little rough and ready and involves a jump out of a FOR....NEXT loop in line 60, which could potentially cause problems. It does work, though, and is useful, so we thought you'd like to see it.

Naughty Jumps

As you probably know, BASIC actually translates your commands into machine-code while it's executing your program. When it comes to a loop (either FOR...NEXT or WHILE...WEND) or a sub-routine, it records the start position of the FOR,WHILE or GOSUB command on a structure called the 'stack'. This way it knows where to return to when it comes across a NEXT, WEND or RETURN statement.

If you jump out of a loop or a sub-routine, the interpreter won't come to the right NEXT, WEND or RETURN statement and the marker will never be removed from the stack. This may 'crash' your program. While most versions of BASIC can handle bad programming like this, it is much safer not to risk it. The moral is: 'Never jump out of a loop or sub-routine.'

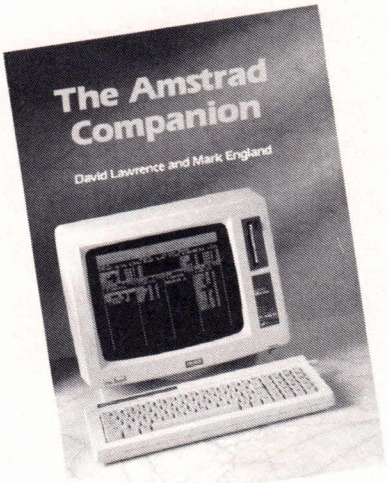
```
10 REM Automatic menu of Basic programs
20 REM The Amstrad User - April 1987
30 DIM prog$(26),desc$(26)
40 FOR a%=1 TO 24
50 prog$(a%+2)=LEFT$(FIND$("*.bas",a%),8)
60 IF LEN(prog$(a%+2))=0 GOTO 150
70 OPEN "R",1,prog$(a%+2)+".bas"
80 GET 1,1:FIELD 1,128 AS f1$
90 f%=INSTR(1,fi$,CHR$(185)): IF f%=0 GOTO
130
100 f1%=INSTR(f%+1,fi$,CHR$(0))
110 IF f1%-f%>70 THEN f1%=f%+70
120 desc%(a%+2)=UPPER$(MID$(f1$,f%+1,f1%-f%
-1))
130 CLOSE 1
140 NEXT a%
150 a%=a%-1
160 desc$(1)=" Exit to Basic "
170 desc$(2)=" Exit to CP/M "
180 PRINT CHR$(27);"E";CHR$(27);"H";SPACE$(
29);"Menu of Basic programs"
190 FOR b%= 1 TO 13-(a%/2): PRINT: NEXT b%
200 FOR b%=1 TO a%+2
210 PRINT TAB(2);b%;TAB(6);prog$(b%);TAB(15
);" : ";desc$(b%)
220 NEXT b%
230 PRINT CHR$(27);"Y";CHR$(61);CHR$(62)
240 PRINT "Which option (1 - ";a%+2;")";
250 INPUT wh%
260 IF wh%<1 OR wh%>a%+2 THEN PRINT CHR$(27
);"A";:GOTO 230
270 IF wh%>2 THEN CHAIN prog$(wh%)
280 IF wh%=1 THEN NEW ELSE SYSTEM
290 END
```

BOOK LOOK

There are a lot of books around dealing specifically with Amstrad computers. As we have said before, many of these have the distinction of being "rushed" publications to jump on the bandwagon of the release of a new machine. You've probably seen some - the old Commodore title renamed Amstrad with hastily converted programs and additional bugs to annoy and perplex. We have always tried to make sure that any books we sell are going to help rather than hinder the Amstrad user, hence a number never make it to our list. Those that do are certainly worth looking at, and here is a brief rundown on the latest additions.

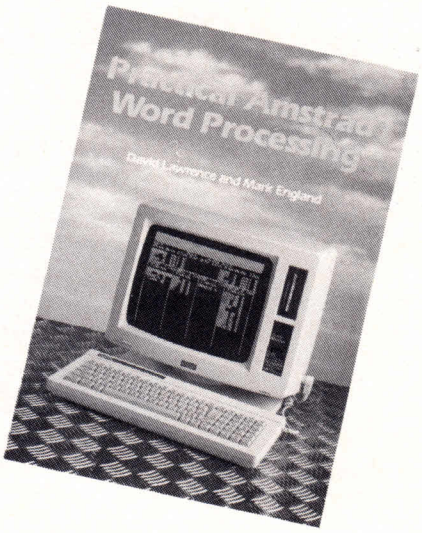
For PCWs . . .

The Amstrad Companion
David Lawrence and Mark England



The book aims to get the PCW user up and running as quickly as possible without having to spend hours unlocking the secrets of the machine, a book "not somuch for reading as for doing".
It falls into four main categories:
1) An introduction to CP/M with the emphasis on the ways in which it can be used to configure the system more efficiently together with an outline of the more common operating procedures.
2) A collection of fully documented programs in Mallard Basic covering aspects of finance and data handling. These include double-entry accounting, banking, budgetting and a database with different record handling techniques.
3) Details of the GSX graphics system supplied with the PCW and, for the first time in book form, how it can be practically used in conjunction with the power of Mallard Basic to enhance the output of Basic programs. (This section was used as reference in Arnold Goldman's recent series in The Amstrad User of articles on GSX Graphics).
4) An introduction to Logo language as it applies to business graphics and data processing by means of lists.

Practical Amstrad Word Processing
David Lawrence and Mark England



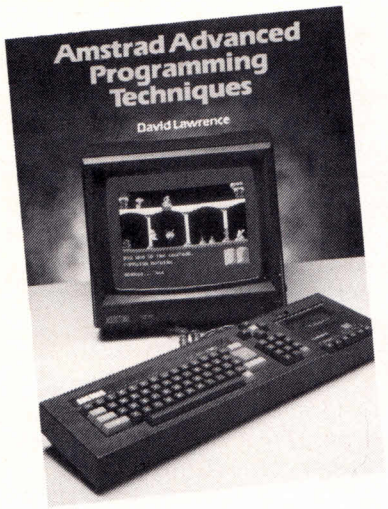
Specifically for LocoScript, this book has been written in the form of a course of intensive short sessions which can be spaced out over a period of days at the reader's own leisure. It has been structured around a set of documents which are built up as the sessions progress with programmed exercises showing how those features are incorporated into everyday work.

The areas covered include not only the ways to improve the presentation of documents, but working methods which use LocoScript's file groupings and layouts and templates to dramatically cut the time needed to prepare a wide range of standard documents and forms.

For CPCs . . .

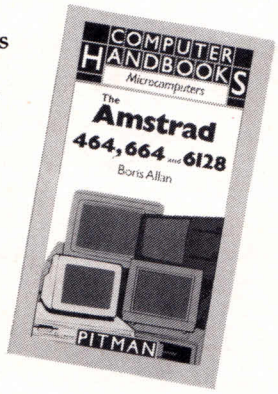
Amstrad Advanced Programming Techniques
David Lawrence

As you will gather, David Lawrence is responsible for a number of Amstrad books. One of his most popular titles - and still selling well - is The Working Amstrad (essentially for the 464/664 but just as useful for the 6128). Amstrad Advanced Programming Techniques follows that successful format. It is not a plethora of programs, an introduction to Basic or a collection of trivial routines and is certainly not a book of theory.



Its aim is to guide the user into developing his/her own application programs and begins with a look at the advantages of modular programming, which makes subsequent checking and debugging on routines much easier. There are chapters on debugging, proper methods of inputting information, string handling techniques, error trapping, storage and retrieval, data structures, sorting and searching. In all, it is a handy reference to have available whenever you are tackling a new and potentially difficult program.

The Amstrad 464/664/6128 Handbook
Boris Allan

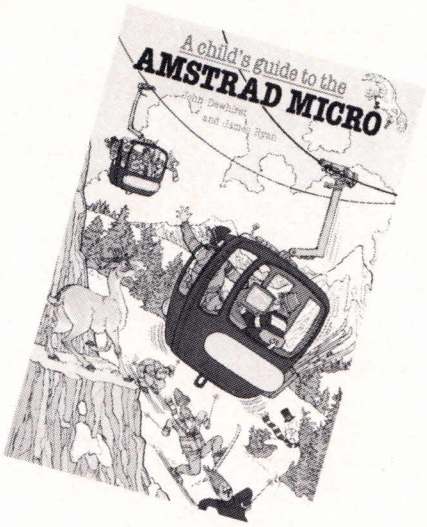


This handy book (excuse the pun) is small in size but contains over 100 pages of information showing how the Amstrad CPC computer can be programmed in a rational manner. To this end it concentrates on two main applications - file handling (and statistics) and programming using turtle graphics.
It could be useful to have beside your machine.

. . . and if you haven't got a clue . .

A Child's Guide to the Amstrad Micro
John Dewhirst and James Ryan

This book is not new to our list, but is mentioned here as we now have more stock and to help those people who are too proud to admit they don't know one end of the keyboard from the other. Naturally it is written for young children. It is difficult to gauge a starting age - all children are different - but around 8/9 years old should give you a guide. It really is a super little book for raw beginners, cleverly illustrated



with five friendly experts to help the reader through his/her learning process. If specifically requested, this book can be sent in a plain wrapper for more senior beginners!

General

CP/M: The Software Bus - a programmers companion
A. Clarke, J.M. Eaton and D. Powys-Lybbe

No sooner do we locate a book on CP/M, buy all the copies we can and put it in the magazine, the stock disappears within a couple of weeks. The same is likely to happen with this title - so be warned.

The authors are pretty well known in CP/M circles, all of them (we believe) are members of the UK CP/M User Group, so they know what they are talking about. There are 320+ pages of information on CP/M up to version 3.1 (that's CP/M Plus). They cover the basics in console commands, information and batch processing transients, PIP, and go on to CP/M compatible assemblers, programming languages, editors, BIOS, networking and multi-user systems. At the end are some "bug fixes" from Digital Research. To quote from the book "if you are new to CP/M you may find that some of this book is way over your head at first reading - and if you are also new to programming, even more of it. Take heart, we've allowed for all levels of understanding".

The Free Software Handbook
Platt, Hatcher and Van Meter.

If you've got CP/M, you've got access not only to some first rate applications software but also to a vast array of public domain programs. The great thing about public domain is, if you like a program and find it useful you can make copies and give them to friends, legally. Because of this, a public domain - or "p-d" - program can travel large distances. The problem then is documentation - how do you know how it's supposed to work?

Word of mouth is never very satisfactory, and sooner or later you're going to come across something you forgot to

ask about. Of course, the original authors of p-d programs have no incentive to document them. Often the authors are unknown, or the programs considerably modified by later users. The Texas firm of People Talk set out to fill the documentation gap, and this book is the result. But let's make one thing clear to start with - **THE BOOK IS NOT FREE.**

Of course, there are far too many p-d programs for one book to cover more than a fraction of them. The authors have, therefore, picked their 70 favourite programs to document. For each one you get a description of the program, together with details of operation. The writing style is chatty, informal and very friendly. The assumption throughout is that hackers write p-d programs but ordinary people use them. When the book has to get technical - for a modem program and a selection of hackers' tools - the explanations are kept clear and reasonably simple.

AMSTRAD COMPATIBILITY

Unfortunately, Amstrad owners with an interest in p-d have more than documentation to worry about. The little matter of the 3" disc format has prevented the normal flow of p-d from other machines at an individual level. User groups have been the main force behind p-d on the Amstrad machines, so if you're not a member of one you probably won't have many of the programs the book covers.

You can also get the programs on 3" discs. For most users, the book will only be of any use with the discs so in a sense this is more a software review. Bear in mind, however, that these programs are public domain. If you can cadge copies off a friend, do so - that's what the programs' authors intended. In any case, you'll probably find the book helpful albeit over-priced.

The programs fall into various serious categories - applications, file management, communications etc. - but the first thing to mention is the games section.

The games present quite a few difficulties as most of them, and that means 15 programs out of the total 70 considered, are in BASIC. The problem is, this means MBASIC or something compatible - Locomotive BASIC just won't do. Mallard BASIC, as supplied with the 8256 and 8512, works just fine so PCW owners can have a whale of a time. If you own a CPC on the other hand, you probably don't have a suitable BASIC. That still leaves chess, othello and an enormous adventure all in .COM form.

APPLICATIONS

Serious programs form the majority, and some of them are very useful indeed. If you run a shop, the inventory program FOOD could be just what you're looking for to keep track of your stock levels. As for any writers out there, they might like to try out SPELL-11. It's a spelling checker complete with start-up dictionary, and compares very favourably with commercial alternatives. Use this in conjunction with the p-d word count WCOUNT and you could save yourself a lot of effort, not to mention a fair bit of money.

On the disc management side there are utilities to squeeze and unsqueeze files, erase and unerase, rename, transfer and index them.There's also a whole package of library utilities and a marvellous master catalogue program, either of which would help organise the most chaotic collection of discs. For hackers there are debugging and disc editing tools, a comms program and an input/output trap.

Although these programs are not particularly new, and are therefore designed to run on earlier versions of CP/M, most of them will still run under CP/M Plus. The handful that don't are unfortunately of no use to PCW users, while 6128 owners will need to dig out their CP/M 2.2 discs. And the classic Star Trek game STRTRK needs an archaic dialect of BASIC which Mallard can't stand in for. Otherwise, there are a lot of rough edges which quality commercial software would have removed.

Whether this package is your kind of thing depends on what you're after. It does make CP/M interesting and fun, and that takes some doing. For PCW owners it offers entertainment and a good set of utilities at a very reasonable price. As for CPC users, there are much slicker entertainments packages available to them elsewhere - but it still offers great value for CP/M users, on the serious side of things. In addition it offers a rare taste of the pioneering spirit that computing used to be all about - or a touch of nostalgia, if you were there.

SUMMARY

It's a friendly, helpful book with the documentation to 70 great programs, some of almost professional quality. It contains the sort of utilities taht are actually useful and perhaps it could be considered a little piece of history.

On the other hand, the software may be free but the book and discs certainly are not. The book alone costs $69.95 and with three discs full of the p-d software in a package with the book it costs $99.95. This will put it out of the range of a lot of people. CPC owners will not be able to run most of the games and PCW owners won't be able to run some of the applications due to incompatibility with CP/M Plus.

If you are rich enough but can't get hold of either the book or the package through your dealer give us a ring and we will see if we can get one for you.

THE PUBLIC DOMAIN

When a programmer writes a piece of software, he has an automatic copyright over it. Nobody else can make a copy of the program without getting his permission - which usually means parting with cash.

Copyright doesn't normally lapse until 50 years after the author's death. Computers being fairly rare in 1937, you might suppose that all worthwhile computer programs were still under copyright. In fact, this is not the case. Many benevolent programmers give up their rights to programs they've written, so that anyone can use and copy them quite freely.

Surrendering your copyright over a program in this way is called "putting it in the public domain". There are now large numbers of public domain programs in circulation, many of them really quite old in micro-computing terms. Nobody can sell the actual programs, though commercial distributors will charge for copying, documentation and the discs themselves.

GROW-WORM

A rebirth from Andre Urankar

Unfortunately I cannot claim originality for the concept of this game, which the children have christened "Growworm", but I hope that this new presentation warrants a rebirth of what is a most frustrating game.

The objective is simple: to collect (or in "games" talk, eat) all the mushrooms throughout the passages without crossing over your own tail. Note however, that your tail is growing longer by the minute. Further complexity is added to the subsequent levels (of which there are basically five) by slight changes to the tunnel arrangement. At level four we also have a lighting problem and the tunnels are seen only in brief flashes. Finally at level 5 there is a simple "bonus" round. If by some chance (or by changing certain paramet-ers within the program) you do make it past level five, then the game returns to the start, but at a more hectic speed.

The program is self documented, but the following notes should help with understanding some of the features of the program, and aid those people with the uncontrollable urge to make modifications:

180 - 240 : determine the direction of movement based on the action of the joystick. Alternate keys could be progr-ammed here using the INKEY(x) command. The move-ment at the start of each screen is controlled by line 180.

270 - 330 : using the command TEST(x,y) to report the INK that is active at that point. The INKs are used as follows

ink 0 = background
ink 1 = body of worm
ink 2 = head of worm, colour of mushrooms
ink 3 = walls of passages

the results of the collision test force the program to alternate points.

360 - 410 : to provide continued action (after the start), the program tests the possibility of moving in any of the four directions. Due to the order of the tests the "auto-movement" attempts to move the worm to the left hand top corner. A re-arrangement of the first four lines would make movement to an alternate corner.

440 - 530 : worm drawing routine. Line 450 controls the speed of drawing and therefore the speed of the game.

560 - 820 : routines related to erasing, losing a life and eating a mushroom. Each routine has a small "sound" associated with it.

850 - 1130 : title screen. Note that the screen is kept invisible by making the writing ink the same colour as the screen until all details are complete. There is a small machine language program (lines 850 - 870) that stores a complete screen (CALL 35012). This routine could be useful in other applications.

1160 - 1370 : game instructions

1400 - 1470 : level of difficulty. I have used the range 1 to 5, but there is no reason why this could not be increased to 9. Note that the INKEY command is used here which means that only a single digit can be used. Don't forget to change the test parameter in line 1470 if the range is altered.

1540 - 1640 : graphics (UDG) for the game

Symbol 42 = walls of passage
Symbol 180 = head for up direction
Symbol 181 = head for down direction
Symbol 182 = head for left direction
Symbol 183 = head for right direction
Symbol 201 = tail of worm
Symbol 229 = mushroom

Words of caution - the UDG for the walls must have the bottom-most left hand point in colour since this is the point tested. The centre of the UDG for the body of the worm must also be in colour for the same reason.

1670 - 1750 : screen layout

1780 - 2360 : basic labyrinth layout, with modifications for the higher games levels. The positions of the mushrooms are fixed for the first four levels (although the actual numbers appearing do vary) because of very strong argu-ments from my children. They argued that if the game was supposed to be competitive, then each competitor should have the opportunity of facing the same layout. Apart from that there is no reason why the routine used for the random positioning in the bonus level could not be used.

2390 - 2410 : "sound" for extra lives routine

2440 - 2530 : bonus for completing a screen, and set up the parameters for the next screen

2560 - 2600 : game over routine, which blacks out the screen and CALLs the stored title screen to restart.

2630 - 2770 : where I got back at the children with a completely different screen layout and random placing of the mushrooms.

The REMark lines can be omitted when typing in this program to save finger-energy.

For those people that want infinite lives, just change the value of the constant "lives" in line 100. I can't offer you infinite lives but you can start with up to 32000. That should see you through a few screens.

The program was written on and for our Ami, which is a 464. However, since there are no machine specific calls used, I believe that there are no complications in using it on Ami's bigger CPC brothers.

```
10 'Program Name: GROWWORM
20 'Developed By: A.M.Urankar
30 'Based on     : several games of the sa
me concept.
40 'Date         : January 1987
50 '
60 GOSUB 1530 :'Initialization
70 GOTO 850 :'Title Screen
80 '
90 '++++++++  Start of Game  ++++++++++++
++++++++++++++++++++++++++++
100 MODE 1:level=1:lives=5:score=0:SPEED
INK 10,10
110 GOSUB 1670 :'draw screen
120 mushrooms=0:g=24:h=2:gg=376:hh=376:to
tal=0:ghi=0
130 g=24:h=2:gg=376:hh=376
140 GOSUB 1780 :'draw labyrinth
```

```
150 x.loc=19:y.loc=2:PEN#1,2:LOCATE#1,x.l
oc,y.loc:PRINT#1,CHR$(182);:PEN#1,1:PRINT
#1,tail$:i=0:b=1
160 '
170 '>>>>   movement
180 WHILE JOY(0)=0:WEND:movement=0
190 movement=JOY(0):IF movement=0 THEN 36
0
200 IF movement=1 THEN y=-1:x=0:GOTO 270
210 IF movement=2 THEN y=1:x=0:GOTO 280
220 IF movement=4 THEN x=-1:y=0:GOTO 290
230 IF movement=8 THEN x=1:y=0:GOTO 300
240 GOTO 190
250 '
260 '>>>>   collision test
270 r=TEST(x.loc*16-8,(25-y.loc)*16+24):h
ead=180:GOTO 310
280 r=TEST(x.loc*16-8,(25-y.loc)*16-8):he
ad=181:GOTO 310
290 r=TEST(x.loc*16-24,(25-y.loc)*16+8):h
ead=182:GOTO 310
300 r=TEST(x.loc*16+8,(25-y.loc)*16+8):he
ad=183:GOTO 310
310 IF r=1 THEN 640
320 IF r=0 OR r=2 THEN 440
330 IF r=3 THEN 360
340 '
350 '>>>>   self movement
360 r=TEST(x.loc*16-8,(25-y.loc)*16+24):I
F r=0 OR r=2 THEN m=0:y=-1:x=0:head=180:G
OTO 310 ELSE m=m+1
370 r=TEST(x.loc*16-8,(25-y.loc)*16-8):IF
 r=0 OR r=2 THEN m=0:y=1:x=0:head=181:GOT
O 310 ELSE m=m+1
380 r=TEST(x.loc*16-24,(25-y.loc)*16+8):I
F r=0 OR r=2 THEN m=0:x=-1:y=0:head=182:G
OTO 310 ELSE m=m+1
390 r=TEST(x.loc*16+8,(25-y.loc)*16+8):IF
 r=0 OR r=2 THEN m=0:x=1:y=0:head=183:GOT
O 310 ELSE m=m+1
400 IF m=4 THEN r=1:GOTO 310 ELSE GOTO 19
0
410 GOTO 190
420 '
430 '>>>>   locate and draw the worm
440 x.loc=x.loc+x:SOUND 4,100,3,4:IF pace
-nb=0 THEN 460
450 FOR p=1 TO (pace-nb)*20:NEXT
460 y.loc=y.loc+y
470 LOCATE#1,x.loc,y.loc:PEN#1,2:PRINT#1,
CHR$(head):PEN#1,1
480 IF x=1 THEN LOCATE#1,x.loc-1,y.loc:GO
TO 520
490 IF x=-1 THEN LOCATE#1,x.loc+1,y.loc:G
OTO 520
500 IF y=-1 THEN LOCATE#1,x.loc,y.loc+1:G
OTO 520
510 IF y=1 THEN LOCATE#1,x.loc,y.loc-1
520 PRINT#1,CHR$(201)
530 IF r=2 THEN 780 ELSE 560
540 '
550 '>>>>   erase last part of worm
560 IF RND<(level/40+0.05) THEN 730
570 b=TEST(gg+16,hh):IF b=1 THEN gg=gg+16
:g=g+1:GOTO 730
580 b=TEST(gg-16,hh):IF b=1 THEN gg=gg-16
:g=g-1:GOTO 730
590 b=TEST(gg,hh+16):IF b=1 THEN hh=hh+16
:h=h-1:GOTO 730
600 b=TEST(gg,hh-16):IF b=1 THEN hh=hh-16
:h=h+1:GOTO 730
610 GOTO 730
620 '
630 '>>>>   lost life routine
640 FOR gh=100 TO 1 STEP-1:INK 3,gh MOD 2
6:SOUND 1,120-gh,1,15,8,1,1:NEXT:SOUND 1,
120,75,15,0,1,1:INK 3,5:FOR w=1 TO 2000:N
EXT:i=1:GOTO 570
650 LOCATE#1,x.loc,y.loc:PRINT#1," ";
660 lives=lives-1:IF mods=4 THEN SPEED IN
K 10,100 ELSE SPEED INK 10,10
670 LOCATE 29,22:PEN 1:PRINT USING za$;li
ves
680 IF lives=0 THEN 2560
690 INK 3,5,0:FOR x=1 TO 1000:NEXT:IF ghi
=1 THEN INK 3,0,5 ELSE INK 3,5
700 g=24:h=2:gg=376:hh=376:GOTO 150
710 '
720 '>>>>   erase routine
730 LOCATE#1,g,h:PRINT#1," ";
740 IF b=1 AND i=1 THEN SOUND 1,g*h,5,15,
1,1:GOTO 570
750 IF b=0 OR b=2 OR b=3 AND i=1 THEN GOT
O 650 ELSE GOTO 190
760 '
770 '>>>>   eat a mushroom
780 ENT 1,20,20,1:r=0:ENV 1,10,10,1:SOUND
 4,100,10,7,1,1
790 score=score+100:total=total+1:LOCATE
29,14:PRINT USING za$;score:IF score/4000
=INT(score/4000) THEN 2390
800 IF total=mushrooms THEN 2440
810 IF score>hiscore THEN hiscore=score:L
OCATE 29,10:PRINT USING za$;hiscore
820 GOTO 470
830 '
840 '+++++++  TITLE SCREEN  ++++++++++++
++++++++++++++++++++++++++
850 DATA 33,0,192,17,0,64,1,0,64,237,176,
201,33,0,64,17,0,192,1,0,64,237,176,201
860 RESTORE 850
870 FOR a=35000 TO 35023:READ it:POKE a,i
t:NEXT:MODE 1
880 CLS:x=80:y=280:INK 0,0:INK 1,0:INK 2,
0:INK 3,0,14:PEN 0:BORDER 0:LOCATE 13,12:
PEN 3:PRINT"Please Wait !!"
890 RESTORE 910
900 READ a,b,c,d:IF a=-1 THEN 1010 ELSE P
LOT x+a,y+b:DRAW x+c,y+d,1:GOTO 900
910 DATA 68,70,62,90,62,90,50,100,50,100,
30,100,30,100,18,80,18,80,0,30,0,30,15,0,
15,0,55,0,55,0,68,40,50,40,70,40
920 DATA 74,0,95,50,92,40,105,50,105,50,1
15,50,115,50,128,40
930 DATA 133,10,143,40,143,40,153,50,153,
50,165,50,165,50,170,40,170,40,160,10,160
,10,148,0,148,0,138,0,138,0,133,10
940 DATA 175,0,195,50,175,0,200,20,200,20
,206,0,206,0,226,50
950 DATA 236,30,256,30
960 DATA 266,0,286,50,266,0,291,20,291,20
,297,0,297,0,317,50
970 DATA 320,10,330,40,330,40,340,50,340,
50,352,50,352,50,357,40,357,40,347,10,347
,10,335,0,335,0,325,0,325,0,320,10
980 DATA 362,0,383,50,380,40,393,50,393,5
0,403,50,403,50,416,40
990 DATA 416,0,437,50,437,50,445,30,445,3
0,472,50,472,50,451,0
1000 DATA -1,-1,-1,-1
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1010 RESTORE 910:x=x+2:IF x>90 THEN 1020
ELSE 900
1020 LOCATE 13,12:PRINT"                "
1030 PLOT 100,240,2:DRAW 530,240:DRAW 530
,40:DRAW 100,40:DRAW 100,240
1040 INK 3,0:PEN 3
1050 LOCATE 12,13:PRINT"S = Start the gam
e"
1060 LOCATE 12,15:PRINT"I = Instructions"
1070 LOCATE 12,17:PRINT"D = set 'Difficul
ty'"
1080 LOCATE 12,19:PRINT"E = End the game"
1090 CALL 35000:GOTO 1110
1100 CALL 35012
1110 INK 1,18:INK 2,16:INK 3,5
1120 a$=INKEY$:IF a$="" THEN 1110 ELSE a$
=LOWER$(a$)
1130 q=INSTR("side",a$):IF q=0 THEN 1120
ELSE ON q GOTO 100,1160,1400,1500
1140 '
1150 '+++++++  INSTRUCTIONS  ++++++++++++
++++++++++++++++++++++++++
1160 MODE 1:INK 0,0:INK 1,0:INK 2,0:INK 3
,0:PEN 1:BORDER 0:PAPER 0:CLS
1170 PLOT 1,1:DRAW 639,1,3:DRAW 639,399:D
RAW 1,399:DRAW 1,1:PLOT 4,4:DRAW 635,4:DR
AW 635,394:DRAW 4,394:DRAW 4,4
1180 PEN 3:LOCATE 9,2:PRINT"I S T R U C T
 I O N S":PEN 1
1190 LOCATE 3,4:PRINT"In this game you ha
ve inherited the"
1200 LOCATE 3,5:PRINT"body of a very hung
ry worm, that is"
1210 LOCATE 3,6:PRINT"trapped in a labyri
nth. To stay alive"
1220 LOCATE 3,7:PRINT"you will need to go
bble up all the"
1230 LOCATE 3,8:PRINT"little mushrooms th
at are growing in"
1240 LOCATE 3,9:PRINT"these dark and damp
 passages."
1250 LOCATE 3,11:PRINT"Unfortunately, you
 are at the same"
1260 LOCATE 3,12:PRINT"time, getting long
er and longer!!"
1270 LOCATE 3,14:PRINT"Naturally you can'
t eat your own"
1280 LOCATE 3,15:PRINT"body (that will co
st you one of your"
1290 LOCATE 3,16:PRINT"lives!). You start
 with five lives"
1300 LOCATE 3,17:PRINT"but get extra live
s for each 4000"
1310 LOCATE 3,18:PRINT"points. Remember a
lso that worms can"
1320 LOCATE 3,19:PRINT"leave parts of the
ir body behind when"
1330 LOCATE 3,20:PRINT"they get too long!
!"
1340 LOCATE 6,23:PRINT"Movement is via th
e joystick."
1350 LOCATE 5,24:PRINT"Press the FIRE but
ton when ready."
1360 INK 0,0:INK 1,15:INK 2,6:INK 3,5:PAP
ER 0:PEN 1
1370 WHILE JOY(0)=0:WEND:GOTO 1100
1380 '
1390 '+++++++  Level of Difficulty  +++++
++++++++++++++++++++++++++
1400 WINDOW#2,8,32,12,22:PAPER#2,0:CLS#2
1410 INK 3,0:PLOT 100,240,2:DRAW 530,240:
DRAW 530,40:DRAW 100,40:DRAW 100,240:PEN
3
1420 LOCATE 12,13:PRINT"Level Of Difficul
ty"
1430 LOCATE 16,15:PRINT"( 1 to 5 )"
1440 LOCATE 13,18:PRINT"1 is the fastest"
1450 INK 3,14
1460 a$=INKEY$:IF a$="" THEN 1460 ELSE a=
ASC(a$)
1470 IF a<49 OR a>53 THEN 1460 ELSE pace=
a-49:GOTO 1100
1480 '
1490 '+++++++  END OF GAME  ++++++++++++
++++++++++++++++++++++++++
1500 CLS:END
1510 '
1520 '+++++++  Initializations  +++++++++
++++++++++++++++++++++++++
1530 SYMBOL AFTER 41
1540 SYMBOL 42,&C3,&FF,&5A,&5A,&5A,&5A,&F
F,&C3
1550 SYMBOL 180,&66,&C3,&C3,&C3,&66,&3C,&
18,&18
1560 SYMBOL 181,&18,&18,&3C,&66,&C3,&C3,&
C3,&66
1570 SYMBOL 182,&E0,&F8,&8C,&7,&7,&8C,&F8
,&70
1580 SYMBOL 183,&E,&1F,&31,&E0,&E0,&31,&1
F,&E
1590 SYMBOL 201,&18,&24,&42,&99,&99,&42,&
24,&18
1600 SYMBOL 229,&0,&0,&7C,&FE,&FE,&10,&38
,&0
1610 tail$=STRING$(4,CHR$(201))
1620 za$="##########"
1630 WIDTH 70:DEFINT b-g,i-r,t-z
1640 RETURN
1650 '
1660 '+++++++  Screen Layout  ++++++++++
++++++++++++++++++++++++++
1670 INK 0,0:INK 1,18:INK 2,6:INK 3,0:BOR
DER 0:PAPER 0:PEN 1:CLS
1680 WINDOW#1,27,40,1,25:PAPER#1,1:CLS#1
1690 RESTORE 910:x=430:y=320
1700 READ a,b,c,d:IF a=-1 THEN 1710 ELSE
PLOT x+a/2.5,y+b/1.5,2:DRAW x+c/2.5,y+d/1
.5,2:GOTO 1700
1710 LOCATE 29,9:PRINT" Hi-Score ":LOCATE
 29,10:PRINT USING za$;hiscore
1720 LOCATE 29,13:PRINT"  Score = ":LOCAT
E 29,14:PRINT USING za$;score
1730 LOCATE 29,17:PRINT"  Level = ":LOCAT
E 29,18:PRINT USING za$;level
1740 LOCATE 29,21:PRINT"  Lives = ":LOCAT
E 29,22:PRINT USING za$;lives
1750 RETURN
1760 '
1770 '+++++++  Basic Labyrinth  +++++++++
++++++++++++++++++++++++++
1780 INK 0,0:INK 2,0:INK 3,0
1790 PEN#1,3
1800 WINDOW#1,1,25,1,25:PAPER#1,0:CLS#1
1810 mods=level MOD 5:IF mods=0 THEN 2630
1820 PRINT#1,"************************";
1830 PRINT#1,"*        *   ***        *";
1840 PRINT#1,"* * **** * *  ** ****** *";
1850 PRINT#1,"* *      * **  *        *";
1860 PRINT#1,"* **** *** *** * * ** * * *";
1870 PRINT#1,"*    *     *   * *    * *";
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```
1880 PRINT#1,"**** * ***** *   ** *** *";
1890 PRINT#1,"*    * **    ******   * *";
1900 PRINT#1,"* ** *    **         *   *";
1910 PRINT#1,"*    *** ***** * ** *****";
1920 PRINT#1,"* **        ** *    *   *";
1930 PRINT#1,"* ** ******    ****   * *";
1940 PRINT#1,"*    *     ** *     *** *";
1950 PRINT#1,"* **** * * ** * ***   * *";
1960 PRINT#1,"*      * *      *   *   *";
1970 PRINT#1,"**** *** *** **** ***** *";
1980 PRINT#1,"**** *** *   *    *      *";
1990 PRINT#1,"*          * * **   *****";
2000 PRINT#1,"* ** *** ***      *     *";
2010 PRINT#1,"*             *** ** *** *";
2020 PRINT#1,"* ** ***** **       *   *";
2030 PRINT#1,"*  * *         ** **   * *";
2040 PRINT#1,"** *   ** *****   ***   *";
2050 PRINT#1,"**   ****       *     ***";
2060 PRINT#1,"**************************";
2070 '
2080 '>>>>   Labyrinth changes with level
2090 IF mods=1 THEN 2290
2100 LOCATE#1,7,5:PRINT#1,"*"
2110 LOCATE#1,9,10:PRINT#1,"*"
2120 LOCATE#1,24,22:PRINT#1,"*"
2130 IF mods=2 THEN 2290
2140 '
2150 LOCATE#1,5,9:PRINT#1,"*"
2160 LOCATE#1,6,18:PRINT#1,"***"
2170 LOCATE#1,19,18:PRINT#1,"*"
2180 IF mods=3 THEN 2290
2190 '
2200 LOCATE#1,13,9:PRINT#1,"**"
2210 LOCATE#1,3,20:PRINT#1,"**"
2220 LOCATE#1,17,22:PRINT#1,"*"
2230 LOCATE#1,13,9:PRINT#1,"**"
2240 LOCATE#1,10,13:PRINT#1,"**"
2250 LOCATE#1,11,14:PRINT#1,"*"
2260 LOCATE#1,11,15:PRINT#1,"**"
2270 '
2280 '>>>>   position of mushrooms
2290 RANDOMIZE TIME:mushrooms=20+INT(RND*
31):RESTORE 2350:PEN#1,2
2300 FOR n=1 TO mushrooms
2310 READ a,b:LOCATE#1,a,b:PRINT#1,CHR$(2
29);:NEXT
2320 INK 2,6
2330 IF mods=4 THEN INK 3,0,5:SPEED INK 1
0,100:ghi=1 ELSE INK 3,5:SPEED INK 10,10
2340 RETURN
2350 DATA 3,2,9,2,17,2,24,3,9,11,17,13,19
,24,9,20,17,5,2,18,24,8,20,18,20,4,21,22,
5,20,24,5,14,22,16,9,13,17,20,7,15,18,6,4
,24,15,16,19,14,24,5,15,4,6,12,2,20,10,17
,21,3,24,2,12,8,6,14,4,24,11,24,20,9,22,1
3,6,21,12,9,18,4,10,12,8,19,15,13,20,2,9,
14,15
2360 DATA 12,12,7,9,4,13,9,15
2370 '
2380 '>>>>   routine for extra life
2390 ENT 3,10,-2,2:ENV 3,100,-2,2:SOUND 1
,284,200,1,3,3:lives=lives+1:LOCATE 29,22
:PRINT USING za$;lives
2400 IF sx=1 THEN 2530
2410 IF total=mushrooms THEN 2440 ELSE 56
0
2420 '
2430 '>>>>   next screen
2440 INK 3,5,0:INK 2,6:level=level+1:IF p
ace-nb>0 THEN nb=nb+0.5
2450 WINDOW#3,8,18,11,16:PAPER#3,1:CLS#3:
PEN#3,0:LOCATE#3,2,2:PRINT#3,"Level ";lev
el:PRINT#3:PRINT#3," coming up!";
2460 sb=INT(score/4000)
2470 FOR bonus=1 TO 300 STEP 6:score=scor
e+2*(level-1):LOCATE 29,14:PRINT USING za
$;score:SOUND 1,50,1,4,1,1
2480 se=INT(score/4000):IF se>sb THEN sx=
1
2490 NEXT
2500 IF score>hiscore THEN hiscore=score:
LOCATE 29,10:PRINT USING za$;hiscore
2510 LOCATE 29,18:PRINT USING za$;level
2520 IF sx=1 THEN 2390
2530 sx=0:GOTO 120
2540 '
2550 '>>>>   Game Over
2560 WINDOW#3,15,25,11,15:INK 2,6,9:PEN#3
,2:PAPER#3,3:CLS#3:LOCATE#3,2,3:PRINT#3,"
GAME OVER":FOR x=1 TO 2000:NEXT
2570 r1=0:g1=400:x1=0:y1=640
2580 PLOT 1,r1:DRAW 640,r1,0:PLOT 1,g1:DR
AW 640,g1,0:PLOT x1,1:DRAW x1,400:PLOT y1
,400:DRAW y1,1
2590 r1=r1+2:g1=g1-2:x1=x1+2:y1=y1-2:IF g
1<>198 THEN 2580
2600 level=1:lives=5:i=0:score=0:total=0:
ghi=0:GOTO 1100
2610 '
2620 '>>>>   bonus level
2630 LOCATE#1,1,1:PRINT#1,STRING$(25,"*")
;
2640 LOCATE#1,1,25:PRINT#1,STRING$(25,"*"
);
2650 FOR n=1 TO 25 STEP 24:FOR m=2 TO 24:
LOCATE#1,n,m:PRINT#1,"*";:NEXT:NEXT:
2660 DATA 3,4,6,7,19,20,22,23
2670 RESTORE 2660
2680 FOR n=1 TO 8:READ m:FOR p=1 TO 11:LO
CATE#1,1+p*2,m:PRINT#1,"*":NEXT:NEXT
2690 FOR m=9 TO 18 STEP 2:FOR p=0 TO 14 S
TEP 13:FOR n=3 TO 10 STEP 3:LOCATE#1,n+p,
m:PRINT#1,"**":NEXT:NEXT:NEXT
2700 FOR n=9 TO 17:FOR m=12 TO 15 STEP 2:
LOCATE#1,m,n:PRINT#1,"*":NEXT:NEXT
2710 PEN#1,2:mushrooms=0:tm=INT(RND*20)+1
5
2720 FOR q=1 TO tm
2730 x=RND*(22)+2:y=RND*(22)+2:IF y=2 THE
N 2730
2740 IF TEST((x-1)*16,(25-y)*16)=0 THEN L
OCATE#1,x,y:PRINT#1,CHR$(229):mushrooms=m
ushrooms+1 ELSE 2730
2750 NEXT
2760 INK 2,6:INK 3,5
2770 GOTO 150
```

PAGEMAKER

Richard Monteiro examines AMS's Pagemaker: Can it turn your Amstrad into a publishing house?

Here at last, is the legendary Pagemaker. Has the long-drawn-out wait been worthwhile? Are the features up to scratch? Is it worth the money? Read on and judge for yourself.

With Pagemaker you can design your own magazine on your computer screen - an A4 page containing both text and graphics freely mixed. Essentially, it is a high-resolution typesetting and artwork system.

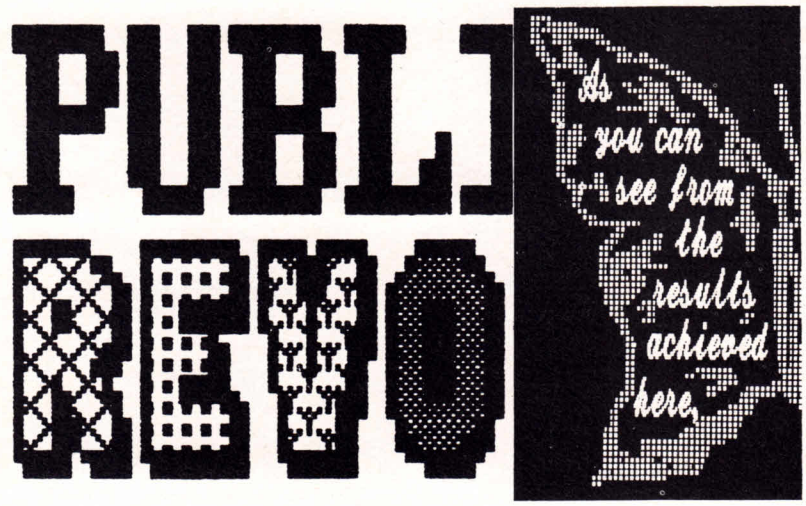
You will drool when you hear what AMS's Pagemaker can do. The system can be used with either the AMX mouse or a combination of joystick and keyboard controls. Graphics masterpieces you created earlier on other software can be 'imported' to Pagemaker. Text files from many well-known word-processors such as Tasword, Protext or WordStar can be loaded in. You can print text in a number of different typestyles, making flow around graphics. If you don't find that impressive, then having the ability to convert video images (such as those produced by the Vidi video digitizer reviewed last month) into a form that AMX Pagemaker can understand, certainly is.

When you first load Pagemaker, you are presented with a screen displaying several icons - symbols representing options available - and a section cordoned off for your design. Select any of these icons and a small menu will pop up, letting you get at any of the drawing or text-handling routines. The top left of the screen displays seven icons and the top right shows two.

We'll start with the left-most icon, which looks like a plus sign. Selecting this causes a three-option menu to appear. From here you can load, save, delete or clear a complete A4 page, an ordinary screen or just a 'cutout' - a small part of a page.

A page will take up a staggering 68k of disc storage; screens take up the normal 17k. The screen is in Mode 2, making the most of high-resolution graphics. Up to 16 different shades of grey can be displayed, giving some excellent detailed and interesting pictures. Mode 0 and Mode 1 screens can be loaded into the page - different colours will have different grey-levels associated to them.

The next icon, in the form of a



pair of scissors, lets you cut, paste, rotate, stretch and scroll any area of the page. A rectangular area (which you can define) can be easily duplicated elsewhere with the Copy function. The usual mirror images - left-to-right and top-to-bottom - can be done; so can rotations of 90, 180 and 270 degrees.

Using the Rotate option will often corrupt highly detailed images. This is because Mode 2 screens have asymmetrical resolution - the pixels are taller than they are wide. Sometimes you can take advantage of this to get amazing effects.

Stretching or squashing a picture can produce excellent results. This must be one of the most powerful functions on any art package. Choosing the Stretch option gives you the further choice of reducing the image by half or magnifying it to double-size. The third option, variable stretch, will let a rectangular area of the screen be squeezed or expanded into another rectangular area with different proportions.

Another very useful facility is Scroll. An area of the canvas can be scrolled or moved in any direction to pixel accuracy. It's great if you like distorting someone's face, for instance.

The heart of the Pagemaker system is the text mode, selected by an icon displaying a script letter. A Text can be placed on the screen in a multitude of sizes, fonts and formats. Font sizes can be varied from a few square pixels to 128 by 64! Fonts can be redesigned with the in-built character definer. Text can be printed using proportional spacing, left and right justification, centring or word-wrap. Many other features are included and are easily selected.

Many of these tricks - centring for example - work to pixel accuracy, not just to the nearest character.

With the Format option you design your basic text appearance - column width, straight or ragged margins, etc.

Centring text is the first of many text-handling functions: words are centred inside the page - not the canvas area. If a text window has been defined then everything will be centred in that.

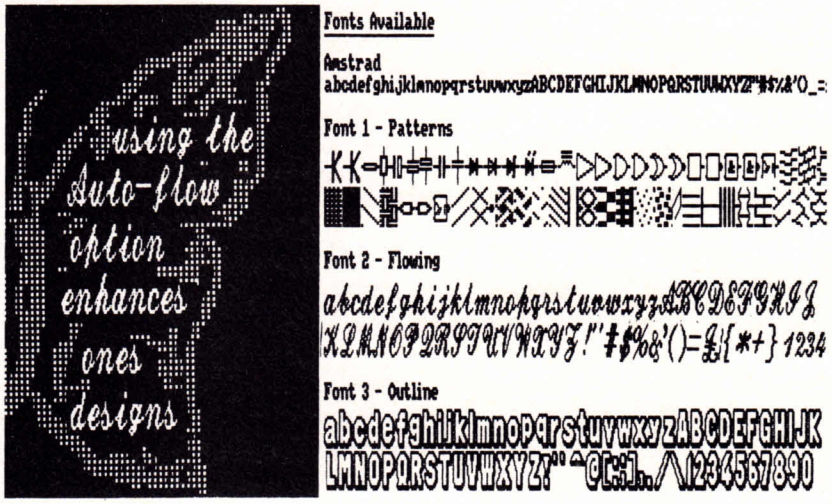
If you wish all lines to be the same length in a column, use the Justify option. This prevents words sticking out on the right side of the column; it works by inserting enough extra space between words to pad out each line to the correct length. 'Ragged left' or 'right-justified' text is also possible, ideal for lists or directories.

Selecting Word Wrap ensures that text is not split at the right margin. Instead, the whole word is carried over to the next line. Justified text is not possible when this option is in use.

If what-you-type-is-what-you-get is what you want, choose Literal, which will not format text at all.

Column and Autoflow are two independent Format options that control the overall way in which the other Format options are implemented. Column is the default; it means that when the right margin is reached, the text should be formatted - as with standard wordprocessors.

Autoflow, on the other hand, is

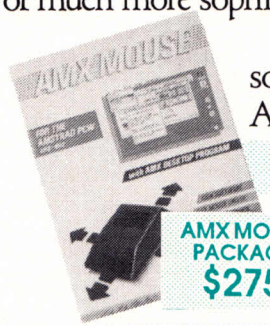


What's so special about the Mac, the Atari St, The Amiga, Windows and Gem?

It's no surprise that nearly all new 16 bit 'state of the art' micros now come with a Mouse and Wimp environment (Windows, Icons, Menus and Pointers) as standard.

With the AMSTRAD PCW you already own one of the classic micros and by simply adding the AMX Mouse and Desk-top you can achieve the same ease of use, freedom and versatility of much more sophisticated computers.

The AMX Mouse and compatible software – it's what you and your AMSTRAD micro have been missing.

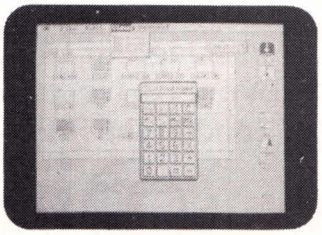


AMX MOUSE PACKAGE $275

AMX MOUSE PACKAGE 3" DISC $275.00

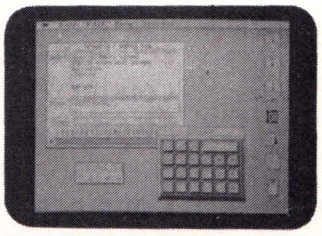
There's not much joy in a joystick and keyboards can be all fingers and thumbs. Acclaimed by the press as 'the best input device', already over 50,000 micro users have adopted an AMX Mouse. No more complicated CP/M commands to remember, with the AMX Mouse you just point and click, even the experts find this system more efficient. Available for the Amstrad PCW 8256 & 8512.

GRAPHIC FRONT END



Provides an easy to use graphic based front end to your computers disc filing system including a comprehensive set of disc management operations such as cataloging, coping, deleting, re-naming and formating. There's no need to enter a command to run programs from disc, just point the mouse at the representing icon and click the button.

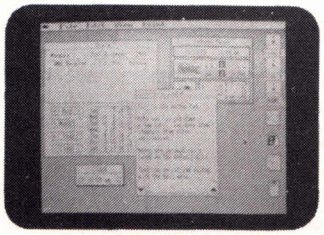
TELEPHONE ADDRESS BOOK



A central place to store all your important names, addresses and telephone numbers.

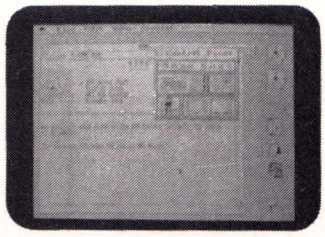
A database type search facility allows you to enter any part of the information such as a persons' name, company name, town etc and instantly see the matching entry.

DESK DIARY



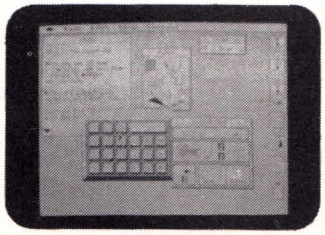
A versatile appointments diary allowing you up to seven lines to be entered for any day. Printing facilities allow yearly and monthly summaries to be produced indicating days for which an entry has been indicated.

MEMO PAD



This allows anything from a quick memo to a complete multi-page report to be produced from the Desktop. Many word processing features are included such as centering, justification, cut, copy and paste etc.

DESK ACCESSORIES



The AMX Mouse package also includes a number of extra functions which are available for use at all times from the desktop. These include a jotter, alarm clock, calculator, puzzle and control panel – the type of tools found on a real desk top!

STOP PRESS... STOP PRESS...

There will be a growing list of further mouse compatible software for the Amstrad PCW from AMS and other leading software houses in the coming months including Graphic and Desktop publishing programs.

This superb product is available now from all good computer dealers or direct by cheque, Bankcard, Visa or Amex.

AMX SOFTWARE

IMAGINATION AT YOUR FINGER TIPS

AMSNET International Pty Ltd, 106a Scarborough St., Southport, QLD 4215

Telephone (075) 325 464 · Telex AA43470

very different. With it you can achieve incredible layouts. It allows text to fill an area of almost any shape. When a picture or other object blocks the path of the text, a new line is created. It has to be seen to be believed.

Effects alters the way the font is output to the screen. Words can be italicized or 'thickened' (made bold), which can do wonders when high-lighting parts of your text. There is one further effect that you can subject your text to: Attribute. This basically alters the area around a character by changing it to the opposite colour from the character. The size and spacing of characters within a font can be altered with Adjust. When altering the size of a character, you will see it stretch (or shrink) enabling you to note exactly how it will appear on screen. Letters have different widths; for example, an i is much narrower than an m. When text is output to the canvas, the computer makes sure that the gap between characters is identical - a very professional finish. It is possible to 'kern' or adjust this spacing; even negative spacing is allowed, which can produce interesting results like an expensive advert.

For simple layouts like posters or even cartoon strips, manual entry of text is ideal. However, for large chunks of text it is probably best to use a proper wordprocessor. AMX Pagemaker can load in text files produced from many of these. If any of the Format options have been pre-selected, they will be obeyed. For example, if Autoflow is on and the cursor is positioned inside the object (or for that matter outside), the loaded text will fill that space.

There are four fonts to choose under the Sel Font option: the normal Amstrad typestyle, a flowing typestyle, an outline font and what printers call a 'pi font' - various symbols and signs. It is possible to define any of the fonts (bar the Amstrad one) or characters using the character definer included in the package. Fonts can be designed from scratch, using the Font option. Once designed, the font can be saved. Likewise, other fonts can be loaded whenever required - these will no doubt be for sale from AMS and others in due course.

The last of the text-handling options is Character. This allows you to 'pickup' from any location on the screen a character or design and invert it (change whatever was white to black and vice-versa) or mirror it top-to-bottom or left-to-right.

Hopping onto the next icon, a pot with a paint brush sticking from it, we find a miniature graphics studio. Its facilities equal or exceed those in many stand-alone graphics packages.

Paint, the first option, is a very intelligent fill routine. It can fill any shape with your choice of character or pattern. Tremendous results can be achieved using this - even if you make a mistake, there is an Unfill option. It all adds to the making of a superb package.

The Spray option can create convincing pictures. The brush spray will produce a solid effect; mist spray will give an airbrush-type effect (a series of random dots that eventually build up to make the pattern).

All the standard features available in normal art packages are present in Pagemaker: circles, ellipses, arcs, triangles, boxes and lines. You can define their sizes and shapes. The shapes are drawn extremely rapidly - unlike other art packages.

Select Font, Font and Character have all been repeated in the graphics studio for convenience. These options work just as well for designing patterns and displaying them as for characters.

Defining windows is next, chosen by selecting the icon showing a blank page. A window is a small area of the screen in which all your work will be confined. For example, if you use the Spray option, the spray will appear only inside the window, preventing the rest of your work from being ruined by an accidental slip.

It is possible to define either a text window or a graphics window. Only one window may be used at a time; this is not a limitation as once you have finished with one, you can easily define another. If necessary, you can invert the contents of either type of window.

Many packages fall down on their printer-dump routines. Pagemaker scores heavily in this area. Selecting the printer icon will let you choose either an A4 or A5 printout. Further to this, you are given the choice of three dump qualities: Draft, which is 'high speed', takes half an hour for a supposedly low-quality A4 dump. There is also Standard - medium speed and medium quality. Finally there is NTQ, near typesetting quality.

Be warned that you will be waiting well over an hour for a NTQ dump. But the results! They are stunning! If I had not witnessed the finished page, I would never have believed that such quality was available from such an inexpensive setup, compared to phototypesetters costing as much as a house.

The high-quality dump should be used only when your ribbon is fairly worn, to avoid smudging. It caters for most printers - Epson-compatibles, Amstrad DMPs. And in the 'near future' it will be possible to drive a laserprinter.

You can dump a complete page, just the screen in view or a graphics or text window previously defined. What more could you ask?

The last icon on the top left of the screen, a shaded square, could well be dismissed as the most

uninteresting of the lot. In fact this is the Goodies icon: it contains a jumble of facilities.

Preview, the first, lets you either inspect the page in ram or any other pages you may have stored on disc. It draws a miniature of the page on screen.

Gridlock helps align the cursor accurately. Imagine a grid drawn on the screen - you determine its spacing. When the cursor is moved, it jumps in tidy increments according to the grid. This is extremely handy in technical drawings where straight lines are essential.

If you want the cursor co-ordinates displayed, select the Coords option.

Calls to the computer's operating system are available by selecting Command. These are better known as 'bar commands' - commands prefixed with the '|' symbol.

It is possible to set the speed at which the pointer or cursor travels. Default is slow - but that is hare's pace by comparison to some other art software. The options for medium and fast can prove tricky for detailed drawing.

Scanner is the final goody. It lets pictures from a video digitizer be 'grabbed' and placed anywhere within the page. (Just as we went to press, Rombo, maker of the Vidi digitizer reviewed last month released an overlay file to read its images into Pagemaker. We did not have time to test it.)

There are only two icons left on the screen. One looks like a sick mouse: the Quick-Click Window (QCW). The other is a cross. You'll be thankful for it when you have made an error and wish to delete your last command.

The QCW has many features that otherwise need two or three button presses. Choosing this icon will cause a further 20 to spring to view: gridlock on/off, zoom, ghosting on/off, spray size/type, pattern select, shape character--istics and instant eraser, to name but a few.

With Zoom you can magnify and alter an area of the screen - ideal for fine or detailed work. Ghosting is the process of displaying an image on the screen but using only one of the two colours that make up that image. Shapes can be drawn hollow, solid, patterned and dotted, among other ways.

You're not convinced that Pagemaker is much use? The potential is there to create startlingly good newsletters, press releases, even small magazines - look, our last month's cover page was designed using Pagemaker.

What a system! The software is extremely well written with just about every function you could ask for - and others you would never dream of.

You may well wonder how it keeps all this information in memory. The answer is that it doesn't. If you select an option that is not currently in memory, it will load it from disc. Shuffling discs can become a bore, but the end results fully justify the need.

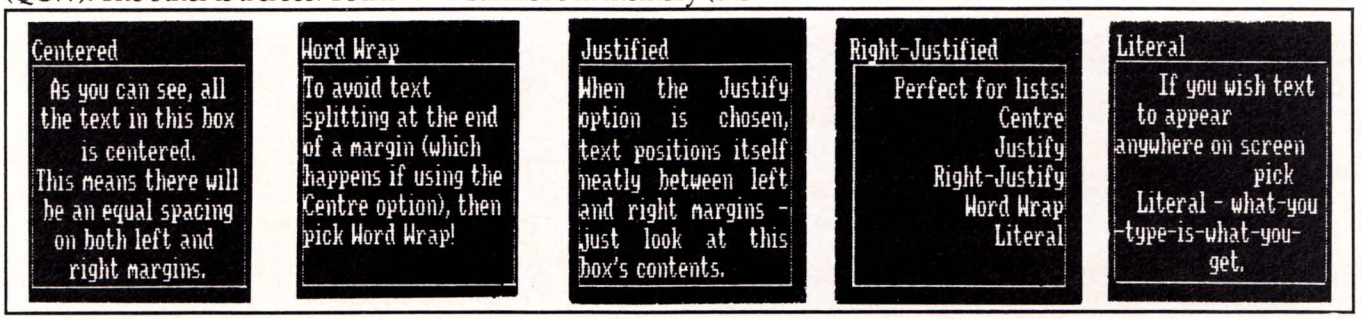
Before you rush out and buy AMX Pagemaker, make sure you have either a 6128, a 664 with an extra bank of 64k memory (the DKTronics expansion ram works fine), or a 464 with an extra 64k and a disc drive. If you have these, then don't hesitate to obtain this extremely useful utility.

PLUSES
+ Features galore.
+ Powerful text-handling routines.
+ Advanced graphics toolbox included.
+ Digitized pictures can be incorporated.
+ Printouts are unbelievable.

MINUSES
- Takes a while to get used to all the features.

AMX Pagemaker is now available in Australia and retails for $170.00. You can also get the VIDI at $295.00 and Magazine Maker, a combination of Pagemaker and the VIDI, for $425.00

Note: An early version of Pagemaker, Version CD 0.85, apparently has a bug which does not allow you to place text in a column. Although this can be overcome by drawing a box, dropping the text into the box and then deleting the box outline, we suggest that you return this version to the place of purchase for a replacement.



STAND OUT AMONGST THE REST

Ian Barnes tells you how to produce more effective text displays

This is the first of a yet to be determined number of articles designed to help you to get the most out of programming your Amstrad. The articles are not going to be yet another BASIC tutorial; instead they are designed to help you to write smaller, more efficient programs, as well as presenting ways in which you can give your programs a final polish.

In this first article, I will be presenting some simple methods to add interest to text such as instructions or title pages, without lengthy routines or designing new character sets. These routines are designed to make text look more colourful and give an illusion of depth to an otherwise flat and uninspiring display. The routines that will do all this and more to YOUR programs produce shadowed, outlined, or highlighted text.

'So,' I hear you ask, 'what is/are/were shadowed, outlined, or highlighted text?' I'll look first at shadowed text, which is the basic routine for all three of the effects; Shadowed text involves the reprinting of each character, the second time in a different colour and with a slight offset, so that the letter has a shaded outline on one or two sides, giving the effect of a light shining on the screen from the left or right, with each of the letters casting a shadow onto the background. This is demonstrated in the first program.

It is a very simple sub-routine to set up, and can be included at the end of your program. As you can see, simply put the string you want printed in A$, with the X and Y co-ordinates of the start of the string (by character position, not graphics position) into X and Y and then GOSUB 1000, or to wherever you have located the routine. Below is an examination of the steps in the routine.

1. The first step is to work out where to print the text using the graphics mode so that it is off centre, these co-ordinates are stored in xgraph & ygraph.
2. The second step is to move the graphics cursor to this position, TAG the text cursor to the graphics cursor, and print the first 'background' version of the text.
3. The third step involves setting the transparent background mode on, this is so that when the 'foreground' text is printed, the 'background' text will not get wiped out.
4. The final step is simple to LOCATE the text cursor, print A$, and then set everything back to normal before returning from the sub-routine.

Despite the short length of this routine, the improvement in the appearance of text is great. Other sub-routines to improve the appearance of text are demonstrated in the second program. Outlined text is achieved by printing the background text two or more times; each time with a different offset from the foreground text, until the foreground is surrounded by a border of a different colour. The last effect, which I have called highlighted text, is the same as shadowed text except that the foreground text is printed using TAG, to print at the graphics cursor, and is logically ORed with the background text, giving three colours in the final text.

Experiment with these routines, some very good effects are gained by the use of different colours, multiple shadows, and shadows at different angles. Note however that using the shadowed text routine given in the first program, if you use only upper case or letters without decenders, (y g j q p) then simply printing a space over the letter will erase it. Whereas the use of different offsets may mean that parts of the background text will be left on the screen.

PROGRAM 1

```
10 MODE 1
20 DEFINT a-z
30 INK 0,13:INK 1,26:INK 2,0:INK 3,6
40 BORDER 13
50 PEN 1:PAPER 0
60 a$="SHADOWED TEXT DEMO"
70 x=12:y=8:GOSUB 1000
80 a$="This is Shadowed Text."
90 x=10:y=12:GOSUB 1000
100 LOCATE 6,16:PRINT"And this is not sh
adowed text"
110 PEN 3
120 a$="Which would you use?"
130 x=11:y=20:GOSUB 1000
140 PEN 0
150 a$="Random Noise, 1986"
160 x=12:y=24:GOSUB 1000
170 PEN 1
180 GOTO 180
930 '
940 ' Shadowed text routine
950 '
960 ' Set A$,X,Y then GOSUB 1000
970 '
980 ' Must print one line at a time
990 '
1000 xgraph=x*16-14:ygraph=412-(y*16)
1010 MOVE xgraph,ygraph,2
1020 TAG:PRINT a$;:TAGOFF
1030 PRINT CHR$(22)+CHR$(1);
1040 LOCATE x,y:PRINT a$
1050 PRINT CHR$(22)+CHR$(0);
1060 RETURN
```

PROGRAM 2

```
10 MODE 1
20 DEFINT a-z
30 INK 0,13:INK 1,26:INK 2,0:INK 3,6
40 BORDER 13
50 PEN 1:PAPER 0
60 a$="OUTLINED TEXT DEMO"
70 x=12:y=4:GOSUB 1000
80 a$="HIGHLIGHTED TEXT DEMO"
90 x=10:y=8:GOSUB 2000
100 a$="These are both variations"
110 x=8:y=12:GOSUB 1000
120 a$="On the shadowed text routine"
130 x=6:y=16:GOSUB 2000
140 LOCATE 3,20:PRINT"Will you ever use
normal text again?"
150 PEN 0
160 a$="Random Noise, 1986"
170 x=12:y=24:GOSUB 1000
180 PEN 1
190 GOTO 190
930 '
940 ' Outlined text routine
950 '
960 ' Set A$,X,Y then GOSUB 1000
970 '
980 ' Must print one line at a time
990 '
1000 xgraph=x*16-16:ygraph=414-(y*16)
1010 PRINT CHR$(23)+CHR$(3);
1020 MOVE xgraph+2,ygraph,2
1030 TAG:PRINT a$;
1040 MOVE xgraph-2,ygraph
1050 PRINT a$;
1060 MOVE xgraph,ygraph+2
1070 PRINT a$;
1080 MOVE xgraph,ygraph-2
1090 PRINT a$;:TAGOFF
1100 PRINT CHR$(22)+CHR$(1)+CHR$(23)+CHR
$(0);
1110 LOCATE x,y:PRINT a$
1120 RETURN
1930 '
1940 ' Highlighted text routine
1950 '
1960 ' Set A$,X,Y then GOSUB 2000
1970 '
1980 ' Must print one line at a time
1990 '
2000 LOCATE x,y:PRINT a$
2010 PRINT CHR$(23)+CHR$(3);
2020 xgraph=x*16-16:ygraph=412-(y*16)
2030 MOVE xgraph+2,ygraph,2
2040 TAG:PRINT a$;:TAGOFF
2050 PRINT CHR$(23)+CHR$(0);
2060 RETURN
```

CP/M REVISITED

A Primer for beginners - Part 6

from Fred Robertson-Mudie

This month we will have a look at the CP/M Public Domain communications program UKM7.COM which, along with its Document file UKM7.DOC, will be included on The Amstrad User Year Disc 5 due for release in May.

As discussed in Part 2 of this series, when using CP/M 2.2, the computer's data communications parameters, i.e. the Transmit and Receive Speed (Baud rate), Parity, and number of Data Bits and Stop Bits, are set on the disc by using the program SETUP.COM. When this has been done, all that is needed to start communicating over the telephone lines is an RS232 Interface and a Modem, plus some communications software.

The software requirement can be a major problem as, whilst there is a plethora of communications software available, some of them are good, some indifferent, quite a number are pathetic, some are rather expensive and not too many are configured for the Amstrad. However, thanks to Ward Christensen we have an excellent public domain communications program called MODEM7. This program has been revised, altered and refined over the years, and the version which I obtained in the UK last year and which is now in our Software Library (at the Canberra User Group), i.e. UKM7, is one of the latest and easiest to use versions of the program - and is already configured for the Amstrad.

To use the program, attach the RS232 Interface and Modem, power them up, and at the CP/M prompt, type UKM7 <Enter>. A sign-on message will tell you that it is UK Modem7 Version 1.4, and this will be followed with a Command Menu as follows:

PRIMARY OPTIONS:

S	Send binary files, afn list
R	Receive binary files, drive:
T	Terminal mode. Terminal Filename optional
DEL	Delete Terminal file
CPM	Exit to CP/M
X	Expert, toggle menus on/off
M	Menu display

SECONDARY OPTIONS: (for primary options S and R)

N	Non batch mode, send or receive file
Q	Quiet mode, remote system Send/Receive
S,R,V,	Monitor data Sent, Received or View file
T	goto Terminal mode after file transfer
A	==>>

This command menu tends to look rather daunting at first glance but, for the time being, most of the commands can be ignored and only the main ones utilised. The first thing to do at the program prompt is type T <Enter>. This will scroll up the Terminal Menu, as follows:

^T	Tansfer (send) ASCII file without checks
^X	Abort transfer initiated above
^C	Computer mode, toggle echo on/off
^^	Send following characters literally
^E	Edit to Command menu
^D	Display Terminal menu

Whilst this may appear to add to the confusion, particularly as the cursor has now disappeared, rest assured, all is well and you are now in the Terminal mode. Anything you type now will be sent via the RS232 to the Modem, though it will not echo on the screen unless you are actually connected up to another machine at the other end of the telephone line.

Should you wish to save a copy to disc of all the text you send and receive (say to a file you decide to call BLURB.TXT), simply type ^E and you will return to the Command Menu. Then, at the Command Menu prompt

```
A)ukm7
UK MODEM7 D.R. Back Version 1.4
Control port=001H  Data port=0C5H

SYNTAX: primaryoption[secondaryoptions] [d:][filename] [ afn]

          PRIMARY OPTIONS:
 S      Send binary files, afn list
 R      Receive binary files, drive:
 T      Terminal mode. Terminal filename optional
 DEL    Delete Terminal file
 DIR    Directory list, afn optional
 CPM    Exit to CP/M.
 X      Expert, toggle menus on/off
 M      Menu display

          SECONDARY OPTIONS: (for primary options S and R)
 N      Non batch mode, send or receive file
 Q      Quiet mode, remote system Send/Receive
S,R,V   Monitor data Sent, Received or View file
 T      Go to Terminal mode after file transfers

A ==>>
```

How it looks on the screen

type T BLURB.TXT <Enter>. You will now return to the Terminal mode and to show that the data is being saved to disc, a colon will appear at the beginning of every line. When you have finished, type ^E to return to the Command Menu, then CPM <Enter> to exit the program and, as you do so, the text will be saved to disc.

If you wish to transmit (send) files from Drive A, one file at a time, then go to the Command Menu from the Terminal mode by typing ^E and, at the Command Menu prompt type SNT A:Filename.Ext <Enter> and the file will be sent automatically.

On completion, you will be returned to the Terminal mode. To receive files one at a time on Drive A, type RNT A:Filename.Ext <Enter> at the Command Menu prompt. Again, on completion, you will be returned to the Terminal mode. As can be seen, the person receiving the file needs to know the name of the file being sent.

In the case of sending and receiving batches of files, e.g. everything on one disc, the procedure is exactly the same as for a single file but the N command should be omitted as should the filenames.

That is a brief rundown on using the program, but read the DOC file. You will now be able to talk to your friends via your computer, swap (public domain) software, access Bulletin Boards locally, nationally and, if you're rich, internationally and, again if you're rich, you can access Telecom's Telememo Service and similar. If you're a keen Public Servant, or a hard-working private enterprise type, you can now access your work computer from home, and if you have the desire to be a "hacker", you can access all the main-frames, world wide!

Finally, UKM7.COM will also run under CP/M Plus though the communications parameters will have to be set using the program SETSIO.COM. The simplest way to do this is to write a PROFILE.SUB program (e.g. by using ED.COM or Tasword) and have it on the same disc as UKM7.COM, SETSIO.COM and SUBMIT.COM. The PROFILE.SUB file should be written (if using standard 300 baud communications) as follows:

SETSIO 300 BITS 8 STOP 1 PARITY NONE XON ON HANDSHAKE ON

The communications parameters will then be set automatically when the disc is first booted, which saves time and effort. In addition, the UKM7.COM file could also be started up from within the PROFILE.SUB file by typing UKM7 on the second line after the SETSIO data.

Fred Robertson-Mudie is a member of the Canberra Amstrad User's Group.

What's it all about?

A brief look at our Mail Order software

The title of this article just about sums up the phone calls we have been getting since dipping our toe into software marketing. Our aim in making this small, but hopefully, expanding range available is to provide a service to readers who live away from well supplied locations. As mentioned in the March editorial, most of the orders are coming from more remote areas so in that respect we are succeeding, and as we don't charge postage on these items everyone gets them for the same price, regardless of where they live.
What we didn't realise was that many readers had not heard or read of the software and consequently had no idea what it was supposed to do. To put that right, the following are extracts from the introductions (not reviews) supplied with each piece of software.

Cassettes for 464/6128

BUDGET TITLES

BOMBSCARE T=$9.98
The planet is Neptune, the year is sometime in the future. An alien enemy has planted a huge time bomb at the centre of the planet's space station. The Base, as a result, has been evacuated and a bomb disposal robot (code named Arnold) has been sent in. You must control this robot and defuse the bomb. Certain tools will be required, which together with other useful objects are scattered around the deserted space station. The enemy alien will attempt to sabotage your mission with enemy absorbing devices which Arnold can destroy.

STORM T=$9.98
Corrine, beloved wife of Storm the warrior, is a helpless prisoner in Una Cum's laboratory lair. Una Cum has left his castle to search for a box called The Fear. Meanwhile Storm and his comrade the powerful wizard Agravian Undead must pit their wits against the foul traps Una Cum has left behind. A thrilling and highly addictive arcade adventure for 1 or 2 players.

TERRA COGNITA T=$9.98
Far into the future, on Krion, a remote barren planet orbiting a dying sun, three mining engineers discover the remains of a Warrior Robot, just its head. One curious engineer kicked the head, it began to speak and told a terrible tale of mankind's destruction of Krion . . . and then the ground beneath began to vibrate, the dust parted, revealing a smooth artificial surface. They saw that the robot's head was attached by thick cables to what they were standing on. Suddenly the head spoke again, this time of revenge!

BOOTY T=$9.98
Jim the Cabin Boy must make his way below decks to collect various items of booty (automatically picked up when he walks past them) strewn around the ship. When you have collected all the items from the Black Galleon's 20 holds, you are given 45 seconds to locate the bronze key to the next pile of booty. Clearing all the booty a second and third (impossible) time causes a search for the silver and gold keys, each increasing the game's speed and hazards.

NECRIS DOME T=$9.98
Necris Dome is a floating cemetery in space run by the Mandroids led by the Archmandroid. Over the years the Archmandroid has become a renegade and thinks for himself. He has become a threat to human life. As a member of the secret force, you have been assigned to investigate the situation aboard the Dome and destroy the Archmandroid at all costs, even if it means the destruction of the satellite to do it.

MAGIC MATHS T=$9.98
Magic Maths is a stimulating learning package for 3 to 9 year olds and has been designed to be extremely easy to use. It has 10 levels of difficulty covering simple or advanced addition, subtraction, multiplication and division, addition and subtraction combination or a combination of all (the most difficult level). It features digitised speech which asks the questions displayed and responds according to the answer given.

ARCADE

FUTURE KNIGHT
T=$34.95 D=$49.95
You are Randolph (a hero). Your quest is to rescue your beloved maiden from the evil clutches of Spegbott the Terrible. You receive an inter-dimensional distress call from the S.S. Rustbucket in which she is held captive, following its crash on the Planet 2749 of the Zragg system. After teleporting to the space ship you progress through 20 gruelling levels, fighting your way through the wreckage, defending yourself against the Berzerka Security Droids to finally reach the planets surface. Here you must do battle against mystical creatures to ultimately reach Spegbott's castle and defeat him in mortal combat.

TRAILBLAZERS
T=$34.95 D=$49.95
Thunder into the unknown at a breakneck speed, pushing your reflexes to their limits in this definitely exhilarating journey that's not for the faint hearted. Roll left, roll right avoiding endless chasms of doom that lay in and around the squares of mystery. Squares that will sometimes slow your progress, on occasion with fatal consequences and sometimes speed up unexpectedly or make you jump automatically. Keep a keen eye on the clock as the quicker you complete your task the higher will be your bonus. *(This game proclaimed "Beaut fun" by Ed's children).*

ADVENTURE/ STRATEGY

AIR COMBAT EMULATOR
T=$39.95 D=$49.95
Your AWAT (All Weather - All Terrain) jet stands fully fuelled and fully armed. A vast invasion fleet is anchored just off your shores. Ground forces have come ashore and are advancing on your positions protected by massive air cover. You are the last fighter pilot. Your country turns to you and asks "Are you good enough to be called ACE". Features tanks, helicopters, hills, trees,, ships and a totally unique refuelling sequence. Also has optional twin flying mode where you can fly and fight with your friend as weapons man.

ACTIVATOR T=$37.50 D=$49.50
". . . must help us . . . power fading . . . unknown force . . . please help . . ." This was the final message from Federation Space Port Antari. Deep space probes have located a power source of unknown origin which can render life-forms and their associated equipment inactive. Your mission is to locate Antari and, using your remote Activator pod, enter and re-activate her. After years of neglect many strange and dangerous life-forms have infested Antari. You must avoid these beings and locate the fuel rods which are now scattered throughout the ship and return them to their correct location for re-activation.

DR WHO and the Mines of Terror
T=$34.95 D=$54.95
The Master is planning to use the Doctors brain in a modified TIRU (Time Instant Replay Unit) to produce a chaos weapon to control the future as well as the past. Heatonite, a time-warping mineral, is a critical component and is being manufactured

on the 2nd Moon of the planet Rijar. As Dr. Who, you must halt the Heatonite production, disable TIRU and regain the plans contained in a 'memory capsule'.

DRUID T$=29.95 D=$49.95
Until now, the balance of power has been held and peace maintained throughout Belorn. But now, four demon princes have appeared though an inter-dimensional gateway in the dungeons of the evil Acamantor. The Task of destroying the princes and closing the gateway has fallen on you, last of the Great Druids. Survive the constant onslaught of the hell-spawned dimensional monsters and destroy the princes with your spells of formidable power. Succeed, and you may attain the ultimate level of light Master, greatest Druid of them all.

TOMAHAWK D=$49.95 (PCW=$57.50)
This is a real-time flight simulation based upon the US Army AH-64A Apache Advanced Attack Helicopter - the meanest, deadliest combat helicopter ever to rule the skies! Its specialised job is to hunt tanks and destroy anything in its way. Flying a real helicopter is a demanding task requiring training and practice - particularly ground attack. Tomahawk gives you this challenge.

LORD OF THE RINGS (CPCs and PCWs) T=$44.95 D=$44.95
Now becoming a classic in adventure games, Lord of the Rings Part 1 can recognise intelligent sentences up to 128 characters long using its 'Inglish Input' system. It is based on the book The Fellowship of the Rings - one of the trilogy from J.R.R. Tolkein. Travel across the mysterious and enchanted world of Middle Earth but beware the Black Riders. (The tape version also contain a copy of the book "The Fellowship of the Rings").

MINI OFFICE II D=$79.95
Turns your Amstrad Computer into a versatile business machine. In this package are six different modules including a word processor, a database, a spreadsheet, a graphics pack and a label printer. With these you can write letters, prepare reports, create computerised files, compile mailing lists, set up financial records, carry out complicated calculations, draw graphs, print out labels and much more. Can also be used with the AMX Mouse.

FAMILY FUN PACK 1 T=$19.95 D=$29.95
This is our own software package and judging by the sales is proving very popular. It consists of two games for younger children - Spelling Bee (based on Hangman) where you have to guess one of 1500 words at three levels of difficulty and Copy Cat (based on Simon) which tests reactions and memory. It has an arcade style game called Laser Blast and a tricky text adventure entitled House of Dracula. Finally, there are eight brainteasers to keep you puzzled.

PCW owners: Only Lord of the Rings and Tomahawk are available at the moment.

TAU HALL OF FAME

GAME	SCORE/TIME	ACHIEVER
Airwolf	1500/25 mins	Heath Corcoran
Alien 8	4 valves/no time spec.	Shannon Reynolds
Android One	9030/no time specified	Robert Baxter
Assault on Pt. Stanley	13970/19 mins	Adam Menz
Atom Smasher	940/6 mins	John Baxter
Battle for Midway	8 carriers:speed 1:level 3	Steve Alatakis
Beach Head	132500/16 mins	Anthony Eden
Bomb Jack	1235960/15 mins	John Dawson
Boulderdash	20906/87 mins	Alex Smyth
Bruce Lee	222075/43.5 mins	Mark Davie
Chiller	4400/no time specified	Lyndon Mahoney
Chuckie Egg	415570/60 mins	Tony Barberi
Codename Mat	23370/120 mins	Brent Milner
Combat Lynx	81450/no time specified	Steve Alatakis
Commando	372300/no time specified	John Madden
Decathalon	1232800/178 mins	Dale Derksen
Defend or Die	797175/33 mins	Stephen Colley
Dragons Gold	1830/5 mins	Robert Baxter
Er-Bert	68350/21 mins	Anthony Eden
Evasive Action	1418/7 mins	Melissa Baxter
Fantastic Voyage	100%/36 mins	Matthew Schuback
Galactic Plague	150600/55 mins	Donna Watmough
Gilligan's Gold	243923/35 mins	Keith Watmough
Ghostbusters	$48800/30 mins	Paul Schmidt
Grand Prix Rally II	59367/13.5 mins	Allan Etherington
Green Beret	521280/100 mins	Carl Allen
Harrier Attack	337600/14.5 mins	Michael Hopkirk
Haunted Hedges	466460/35 mins	Lorraine Martin
High Rise	13530/15 mins	John Baxter
Hunchback	552600/no time specified	Tony Barberi
Hunter Killer	17/67 mins	Chris Catalfamo
Jet Set Willy	54 items/14 mins	Simon Przewloka
Knight Lore	98%/44 mins	Umut Akcelik
Kong Strikes Back	284600/40 mins	Malcolm Fraser
Maze Eater	18640/8 mins	Robert Baxter
Minder	$17749/no time specified	Steve Alatakis
Moonbuggy	160110/no time specified	A. Kippenberger
On the run	43826/29 mins	Nicholas Moger
Raid	416950/26 mins	Allan Etherington
Roland in the Caves	9748815/6 mins	Anthony Eden
Roland goes Digging	$805.65/45 mins	David Thomas
Roland on the Ropes	1211600/275 mins	Brad McGinniss
Roland in Space	60%/40 mins	Paul Schmidt
Roland in Time	72/18 mins	Paul Azzopardi
Scout Steps Out	7737/10 mins	Robert Baxter
Sorcery	92500/15 mins	Mike Nicolai
Sorcery +	221874/no time specified	G. Falkenberg
Space Hawks	74100/5 mins	Andrew Coppens
Spannerman	58200/20 mins	Rowland Hayes
Splat	7280/45 mins	Neil Campbell
Star Commando	236980/91 mins	Glenn Preston
Survivor	223160/19.5 mins	Alex Smyth
Way of Exp. Fist	558900/66 mins	Gavern Cherry
Wild Bunch	13071/no time specified	Damien Elliott
Yie Ar Kung Fu	10611601/2 hours	Darren Shannon
Zorro	999900/32 mins	Jason Scott
3-D Monster Chase	1320:7 keys/7 mins	Adam Broadway

ADVENTURER'S ATTIC

Time Limits and Interrupts

by Philip Riley

A very simple and effective way of making a game more interesting is already built into your computer. I am talking about the AFTER and EVERY commands. They are simple to use and can be used very effectively to bring a little excitement into your game.

How are they used? Well, I have just completed a game called Castle of Doom that uses the EVERY command. The object of the game is to enter the castle and escape with the treasure, but the treasure is hidden in an old mine that is under the castle. Try walking through the mine and you will be killed by a cave-in. So you take the train that the miners used. Once you are on the train it starts to roll and it is here that I enable the interrupt. Every so many seconds the EVERY command sends the program onto a subroutine that steps the program onto the next room, giving the effect that you are travelling through the mine on the train. Suddenly you spot the treasure and you must stop the train (hope you remembered to fit the handbrake onto it) and get the treasure.

How do you get the best possible use out of the interrupt? Timing is everything, get your timing wrong and the game will be either impossible or the interrupt will be useless. In the game that I have described above I had to make sure that the program went to the subroutine often enough to makequick thinking necessary when typing in any commands but not so quick that you are not able to read the location description and type in a command before moving onto the next location.

The only sure way to know how long the time delay on the EVERY command should be is to play the game without the interrupts in, and when you get to the section of program that requires the interrupt, read the location description while timing yourself. Once you have the time, add a little on to allow for slower readers, also remember that you know what is printed on the screen (after all you did write it) so you will read it much quicker than someone who is reading it for the first time. Finally add on time for the player to have a quick think (not too long or you will defeat the purpose) and type in a command if necessary.

When you have calculated a time put the interrupt into the game and play it again so that you are able to check that the timing is right. If you only just manage to do whatever needs doing then you will need to lengthen the time a little. If you have lots of time to spare then you will need to shorten the time a little. Don't forget that you also know the commands to be typed in, others don't, also not everybody will type as fast (or as slow) as you so you will also need to take this into account.

Your next useful little command is the AFTER command. Unlike the EVERY command the AFTER command only sends the program onto a subroutine after a certain amount of time has elapsed. I have a game planned that will use about three AFTER interrupts. The game will be set on a submarine and you will have a limited amount of air and power as well as other little problems along the way that must be solved within a certain amount of time (or else).

I plan to have gauges at the top of the screen that will inform you of the time you have left. When your time runs out the AFTER command will send you onto a subroutine and that will be the end of the game for you.

Again timing is everything. You will need to play the game while timing yourself to see how long the interrupt should be. You will probably need to add more time onto your own time for this type of application depending on how far through the game you need to go before you are able to fix the problem and disable the interrupt.

Which reminds me, don't forget to disable the interrupt after solving a particular problem (in Castle of Doom I had to disable the interrupt when you left the train and enable it when you got back onto the train). Another point to remember is that there are four different interrupts on the EVERY and AFTER commands each of which has different priorities. Three has the highest priority and zero the lowest. This means that if two or more of the interrupts happen to coincide with each other the highest would be executed first and the computer would work its way down to the lowest.

As an afterthought, another interesting way to use the AFTER command would be to have a time limit to solve a particular problem, but when that problem has been solved it would produce another problem also on a time limit. It could be very frustrating for the player to be presented with four or five of these time limit problems one after the other and it will certainly keep interest alive if the player can watch a gauge moving slowly down to zero (I think that towards the end panic may set in!).

Thats about all we have room for this month so keep adventuring and I will see you next month.

Cross to Capacity

A 'handshake' may bring to the computer mind a communications connotation, but in one traditional sense it can signify the successful conclusion of a sale. So it is that Cross Computers who have built up a reputation for reliability and service backed by Amstrad products are now in the capable hands of George and Carole Kenyon. The name of the shop has changed to Capacity Computers.

Whilst continuing to service the needs of families, Capacity Computers will seek to further the use of computers in small business. Carole and George bring with them a wealth of business experience covering accountancy, office management and over 20 years in the computer industry - systems analysis and programming, data processing management, computer consultancy - and have owned several micro computers for business and personal use. Customers are going to benefit from the increased technical back-up whilst still receiving the same support.

The full range of Amstrad computers will be offered and supported, together with a comprehensive range of leisure, educational and business software. Computer users, including would-be users, will be welcome to come and browse, and try out whatever software they wish.

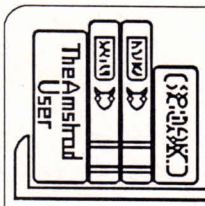
Capacity Computers, at Shop 1, Boronia Village Shopping Centre, next to N.R. Reid Real Estate in the Safeway Car Park, hopes for the continuing support of Amstrad users, and in return offers continuing support for their computer systems.

For further details, phone (03) 762 8566, or better still, drop in for a chat.

The official hand-over

The Amstrad User
MAIL ORDER SHOPPING

Send orders to The Amstrad User
1/ 245 Springvale Road,
Glen Waverley, Victoria 3150
or phone on (03) 233 9661



BOOKS

TITLE	Subscriber Price	Normal Price
Advanced Amstrad 6128 Computing	$25.15	$27.95
Advanced User Guide	$19.75	$21.95
Adventure Games for the Amstrad	$25.15	$27.95
Amstrad Compendium	$20.65	$22.95
Amstrad Games Book (Pitman)	$14.35	$15.95
Amstrad Games Book (Melb. House)	$20.65	$22.95
Amstrad Pentacle Adventure Creator	$8.05	$8.95
Basic BASIC	$11.45	$12.75
Brainteasers for the Amstrad	$19.75	$21.95
Childs' Guide to the Amstrad Micro	$11.65	$12.95
Disc System, The Amstrad CPC 464	$25.15	$27.95
Dynamic Games for the Amstrad	$17.95	$19.95
Exploring Adventures on the Amstrad	$21.55	$23.95
Games and Graphics Programming - 464/664 /6128	$26.95	$29.95
Graphics Programming Techniques	$22.45	$24.95
High Energy Programs for the Amstrad (Post Free)	$9.95	$9.95
Ins and Outs of the Amstrad	$20.65	$22.95
Intro. to CP/M Assembly Language	$32.35	$35.95
Machine Code for Beginners	$17.95	$19.95
Machine Lang. for the Absolute Beginner	$20.65	$22.95
Making Music on the 464/664 (OK for 6128 too)	$19.75	$21.95
Master Machine Code on your 464/664	$19.75	$21.95
Mastering the Amstrad PCW 8256	$29.50	$32.25
Pitman's First Book of Amstrad Games	$11.65	$12.95
Powerful Programming for Amstrad 464/664/6128	$22.55	$25.05
Practical "C"	$25.80	$28.65
Practical Programs for the 464	$21.55	$23.95
Programming the Amstrad CPC 464	$17.95	$19.95
Ready made Machine Language routines - 464/664	$20.65	$22.95
Structured Programming on 464/664/6128	$26.95	$29.95
Whole Memory Guide - 464	$26.95	$29.95
Working Amstrad	$17.95	$19.95
Writing Adventure Games on 464/664	$20.65	$22.95
60 Programs for your Amstrad	$19.75	$21.95

Recent additions to the list

For CPCs

Amstrad Advanced Programming Techniques
Author: David Lawrence — Normal - $24.95 — Subscribers only - $22.95

The Amstrad 464/664/6128 Handbook
Author: Boris Allan — Normal - $9.95 — Subcribers only - $9.25

For PCWs

The Amstrad Companion
Authors: Lawrence & England — Normal - $27.95 — Subscribers only - $25.95

Practical Amstrad Word Processing
Authors: Lawrence & England — Normal - $27.95 — Subscribers only - $25.95

General

CP/M - The Software Bus . . a programmer's companion - with CP/M Plus
Authors: Clarke, Eaton and Powys-Lybbe — Normal - $32.25 — Subscribers only - $29.95

Please add $5.00 post and packing to all book orders regardless of quantity ordered

SOFTWARE

For CPCs	Tapes	Discs
Aftershock	$39.95	$57.50
Air Combat Emulator	$39.95	$49.95
Activator	$37.50	$49.50
Bombscare	$9.98	-
Booty	$9.98	-
Dr Who	$34.95	$54.95
Druid	$29.95	$49.95
Elevator Action	$34.95	$49.95
Family Fun Pack 1	$19.95	$29.95
Formula 1 Simulator	$11.98	-
Future Knights	$34.95	$49.95
Hyperbowl	$11.98	-
Lord of the Rings	$44.95	$44.95
Magic Maths	$9.98	-
Mini Office II	-	$79.95
Necris Dome	$9.98	-
Sport of Kings	$11.98	-
Storm	$9.98	-
Terra Cognita	$9.98	-
Tomahawk	-	$49.95
Trailblazers	$34.95	$49.95

For PCWs		
Aftershock	-	$57.50
Tomahawk	-	$57.50
Lord of the Rings	-	$44.95

Titles in ***bold italics*** new to list.

All prices include postage.

BACK COPIES

THE AMSTRAD USER

Issues 1 to 9 each	$4.00
Note: 2, 5 and 8 are 'Out of Print'	
Issues 10 to 21 each	$4.50
Issues 22 to 26 each	$4.75
Tapes for any of the above	$5.00
Year Disc 1 - Issues 1 to 12	$50.00
Year Disc 2 - Issues 13 to 16	$22.50
Year Disc 3 - Issues 17 to 20	$25.00
Year Disc 4 - Issues 21 to 24	$25.00

Tapes or Discs not suitable for PCWs

THE AMSTRAD COMPUTER USER (English)

Issues 3 to 7 each	$5.00
Issues 12 to 20 each	$5.50
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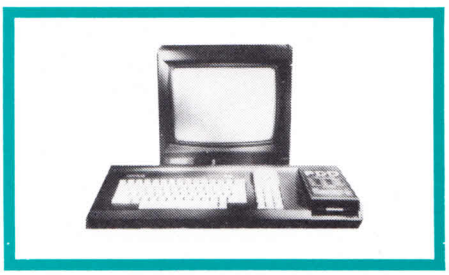

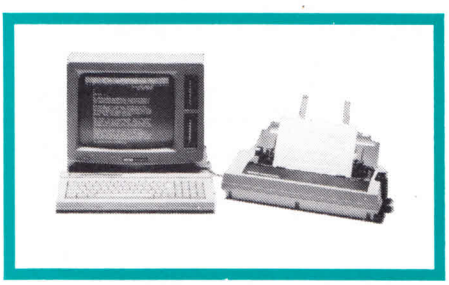

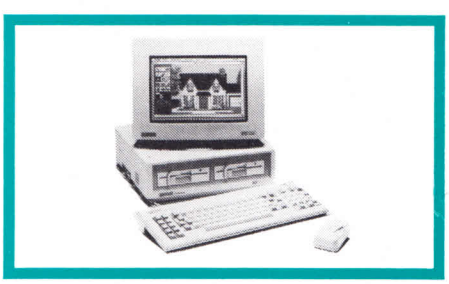

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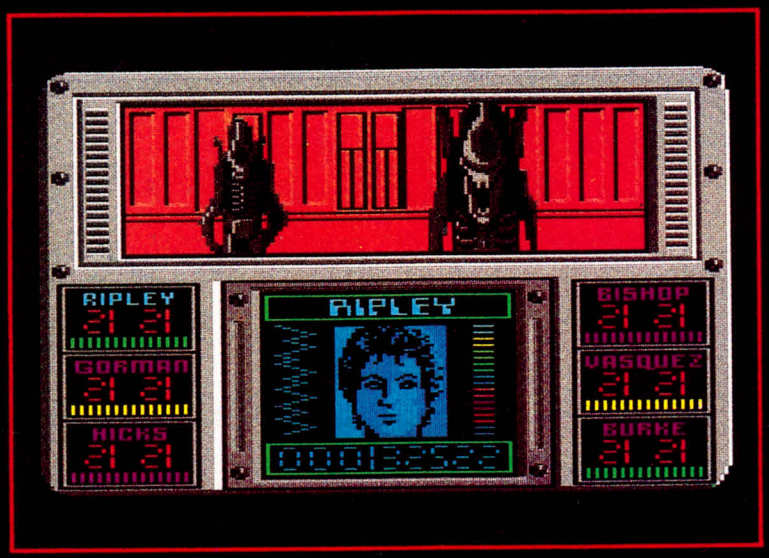

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