

The Aussie Mag
for Amstrad owners

THE AMSTRAD USER

WIN
A GREAT
OziSoft
GAME
COMPETITION

Issue No. 48

\$4.25

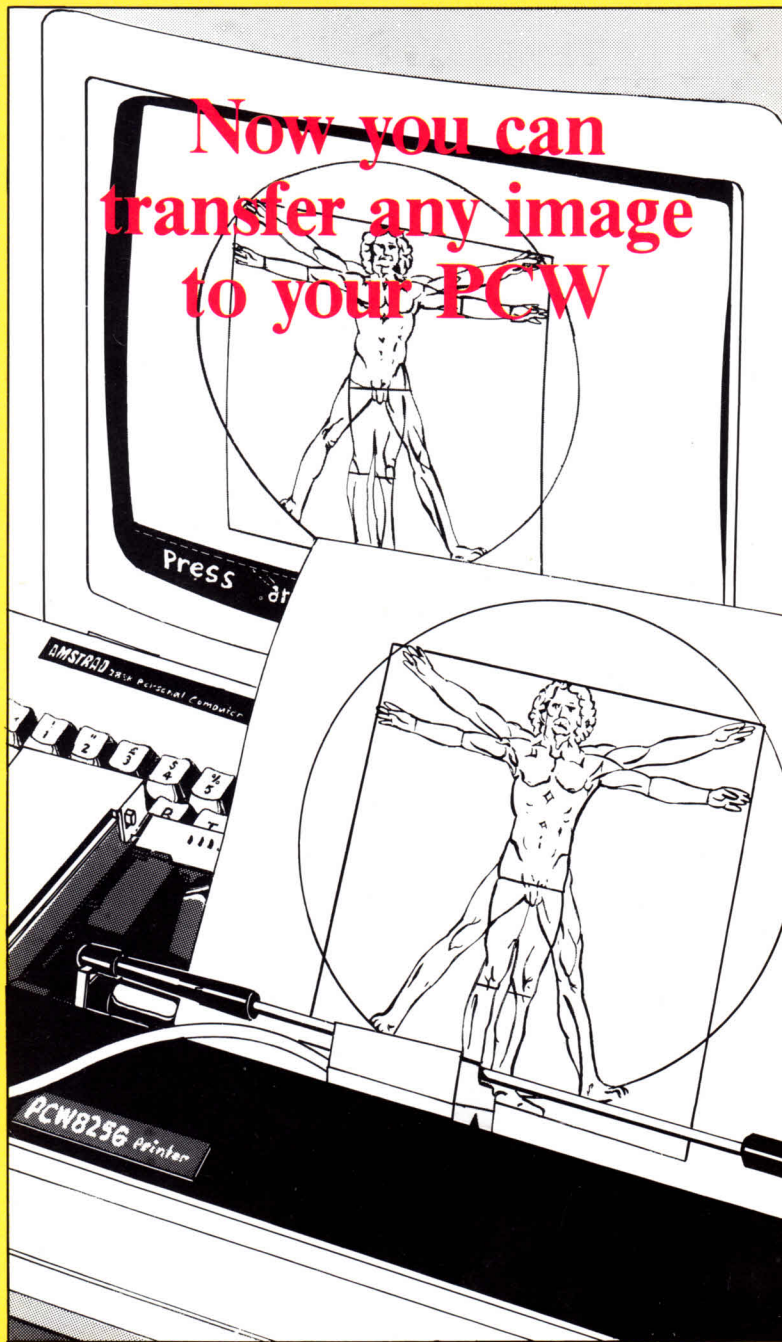
January 1989



RAMBO III

- *Competition winner type-in + a hardware project to build your own Joystick Splitter + heaps of software reviews*
- *Major review of Protext + an overview of a the integrated PCW T/Maker package + PCW communications*
- *Kuma PC Word Processing + 1512 Topics + PC Joysticks*

FOR THE NOVICE & EXPERIENCED USER



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MASTER PAINT is a magnificent program in its own right (keyboard or mouse driven) and is available for only \$59.95.

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THE AMSTRAD USER

Issue No. 48 - January 1989

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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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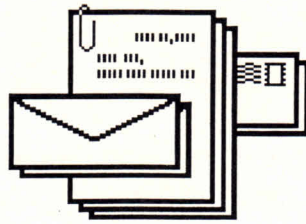
From time to time, some articles appearing in The Amstrad User will be reproductions from UK publications Amstrad Action, 8000 Plus and CPC Computing (formerly Computing with the Amstrad). The first two are printed under an agreement between Strategy Publications and Future Publishing Ltd, Bath, and the latter under an agreement with Database Publications.

The subscription rate (for Australia) is \$42.50 for 12 issues of the magazine only, or \$80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu please add \$21 airmail. Other overseas prices available upon application.

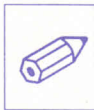
Please note that whilst every effort is made to ensure the accuracy of all features and listings herein, we cannot accept any liability whatsoever for any mistakes or misprints. Contributions are welcome from readers or other interested parties. In most circumstances the following payments will apply to published material: Cartoons \$10.00 and a rate of \$15.00 per page for programs, articles etc. unless otherwise previously agreed. Contributions will not be returned unless specifically requested coupled with a suitable stamped and return addressed padded bag (for tapes or discs).

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

LETTERS TO THE EDITOR



A monthly selection of your comments, hints and tips, advice and news - all shared for the benefit of Australasian Amstrad users.



I don't know if you will print this letter, but why is it that on the 3/8/88 I submitted to your magazine instructions for a joystick splitter and an extension cable and have seen neither printed in your letter page? I now see that you have advertised (two months later) the same type of splitter. Is this coincidental or blatant rip-off of write-ins?

I am now uncertain as to (whether I should) send in my tips on a DMP2000/3000 8k upgrade for \$10, or monitor extension leads. Apart from this misunderstanding I find the magazine very good.

Now that you are supplying the AMX Mouse, would it be possible for you to do a comparison test between it and the Kempston mouse. I mainly wish to know what software they run and if the software is compatible with each mouse.

R.S. Hamilton, Melton South, Vic

Shame on you for being so cynical. You must understand that we cannot possibly print all the letters we get, and those that do make these pages have often been waiting in the wings - such is the penalty of having to produce a magazine some 4 to 6 weeks before publication date.

The simple splitters available through this magazine were ordered from the UK before your letter arrived and was eventually advertised in the

November issue. (Don't confuse it with the Rapid Fire/Splitter previously advertised which was withdrawn due to unreliability).

Your article has now come to near the top of the pile, so we have included it in this month's issue on page 27.



I am a subscriber to your magazine and I own a CPC6128 with extra drive and Epson EX800 printer.

I enjoy the magazine but the increased amount of space devoted to the PCW and PC is annoying. What will the magazine be when more and more models are released?

My son (11) urges me to write and ask "what has happened to Cheat Mode?" I do not have the time (nor expertise) to "hack" programs, so he always looks for the cheats! How about some instructions in hacking for beginners?

Gilbert Griffith, Bright, Vic

When we saw on your letterhead that you supply 'Guns & Ammo, Chain Saws etc.' we fell over ourselves to answer your questions.

We store up the cheats each month until we have sufficient to print. Sometimes we have enough to keep us going each month, other times we have to miss a month. But worry not Master Griffith, Cheat Mode is a permanent feature of the magazine, if not always

continuous.

As for the CPC content, we've answered this question a few times before so we'll not go over that ground again. Try arguing the point with PCW or PC readers!



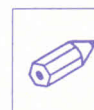
For inclusion in your User Group Information section we advise our mailing address as being 6,

Weston Street, Carlisle, WA 6101.

Having recently had occasion to correspond with all groups mentioned in your User Group section we were made aware of the difficulty in obtaining mailing addresses/contact names. It is also noted that several of the addresses given are not current and no forwarding address is available. Would it be possible to request all groups to update their details and provide a mailing address through your magazine.

David Ammon, Greenwood, WA

Many groups do take the time to notify us of changes to the published list. Those who don't will eventually have the incorrect information printed as changes take place. By being too lazy to let us know, they pay the penalty of being cut off from other User Groups and waste valuable page space. Next month we will be printing a complete and updated list. So to all groups, please make sure the listing shows the correct details for your group and advise of any amendments necessary. If you have found that a group is not responding to your correspondence and/or you cannot contact them by phone, tell us about those too and we will remove them from the list.



I have recently purchased the PCW Year Disc #1. I am having trouble in using the two programs on side two - BANNER and CHESS. Could you please write back and give me instructions on how to use these two programs?

Stuart Passmore, Albany, WA

Both programs run under CP/M Plus which you must load first. The program

(loosely called) Banner is loaded with the message at the same time, ie. at the A> prompt type in BANNER HI THERE <return> as see what happens. It will only take one line at a time so break the message if necessary. For Chess (didn't you read Chess.Doc?), type CHESS at the A> prompt. Select level 0 or 1 (1 is harder), then choose black or white (white moves first). If you type BOARD on your move you will get a screen display of the current positions. When you make your move make sure that you put a minus sign between the current and desired position reference of the piece you want to move and always put the 'letter' first. You can surrender by typing Ctrl(ALT) and C together or type DRAW to offer a draw. To castle on the king's side enter O-O (letters) and on the queens side O-OO. Pressing ALT and P will echo everything to the printer so that you can keep a hard copy of your moves. Alternatively you could set up a chess board and move the pieces as you and the computer dictate.



Does anyone know how to modify the PCW to log on to four independent disc drives (A:, B:, C: and D:)? As far as I can determine, the PCW's disc drive controller chip (a NEC uPD 765AC-2) will handle four disc drives. Perhaps the BIOS will need patching? If someone can help could they please correspond with me at 45 Cadell Street, Toowong, Qld 4066. Any assistance will be gratefully received.

Paul Hunt, Toowong, Qld



Thank you for introducing me to Money Manager Plus! It is simply brilliant. I have been hunting for just the right accounting programme for several months. I even wrote to you for advice but guess you were too busy. Everything I looked at fell into one of two categories:

1. It was so determined to meet all the criteria laid down by professional consultants that, no matter

All our Mail Order items are now in one place starting from Page 59

The following items have been added this month:

- | | |
|--|---|
| CPC GAMES:
Batman (new version)
By fair means or foul
Darkside
Dragon Ninja
Eddie Edward's Super Skl
Filppit
LED Storm
Mach 3
Operation Wolf | Rambo III
Robocop
Saplens
Technocop
Thunderblade
Untouchables
WEC Le Mans |
| PCW GAMES:
Corruption | COMPILATIONS:
Arcade Force 4
Gold, Silver, Bronze
Straight Six |
| PCW BUSINESS:
T/Maker
9512 Keyboard | 9512 Keyboard Protectors |
| PC GAMES:
Captain Blood
Empire
Filppit
Inside Trader
King's Quest 4 | Lancelot
Leisure Sult Larry II
Night Raider
PC Gold Hits
Rambo III
Saplens |

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Buy 1 box of 10 MAXELL CF2 3" Diskettes at just \$63.80 a box

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Melbourne 3000
Tel: (03) 329 6466
Fax: (03) 329 0292

Challenge Rubber Stamps
114, Berkeley Street,
Carlton, 3053
Tel: (03) 347 2800
Fax: (03) 347 2378

what the blurb said, the average non-accountant like my client just could/would not learn to operate it. or

2. It was one of several excellent 'Cheque Book' or "Cash Book" types, excellent in their own way for the simplest of home uses, but unable to cope with the average small business.

Money Manager Plus is right on the target between the above two. My very non-computer-literate client fell into it with less than an hours instruction: he is even beginning to think perhaps that computers are not such dreadful machines!

Big advantages: it is very flexible, easy to learn for the least accounting inclined, allows you correct/add/delete entries without all that dreadful Journal work beloved of most accountants, prints out most of the analyses and reports you could wish for.

Only faults so far: it won't do a formal profit and loss statement. However, my client's accountant says this will cause him no problem from the summary analyses I tried on him.

One quick tip for MM+ users. As in all accounting programs, frequent saving and backing-up is a must. Here's how to do a simple back-up.
1. SAVE as per manual. The main menu comes back with the highlight still on SAVE.
2. SAVE again, but this time, when asked, put your Back-up disc in the drive before "pressing any key". This saves the same data onto the second disc, and its all over except for labelling.

Owen Dibbs, Sunshine Beach, Qld

DISPLAY ADVERTISING DEADLINES

Issue	Booking by	Copy by
MAR '89	11/01/89	27/01/89
APR '89	13/02/89	24/02/89
MAY '89	13/03/89	24/03/89

Please refer all display advertising enquiries or bookings to DERRICK LEWIS & ASSOCIATES on (03) 51 9984.

Classified ads should be phoned or sent directly to The Amstrad User.



About twelve months ago I bought an Amstrad PCW8256. I have no criticism of the machine, but I am not getting the best of it.

I was given three books of instructions, but no tuition. My difficulties arise because the machine is not strictly applicable to the instructions. Apparently the instructions are not updated to new modifications in the machine, which I use only as a word processor.

I notice that courses of instruction are available in Sydney for other machines. These are usually crammed in to two days at week-ends.

Having had experience both as pupil and teacher in secondary and tertiary courses of instruction I am convinced such cramming sessions are not nearly as effective as one, or at the most two hour sessions with intervals between to practice what has been learned.

The Amstrad is highly regarded as a word processor, but apparently it is not being pushed very much in Sydney. Is there any possibility that those involved in marketing the machine will put on courses of instruction in Sydney?

C.E. Chadwick, Artarmon, NSW

In what way does your machine differ from the standard PCW8256 - there aren't that many modifications you can do to it? Perhaps you are confusing the software with the hardware. LocoScript 1 differs from LocoScript2 for example. To your rescue however comes a company called Amstrad Support run by Julie Pomery which provides 'one-to-one' personal tuition on the Amstrad PCW. The help can be tailored to suit the experience of the 'student'. Give Julie a ring on (02) 686 2216 for more details.

ALL LETTERS SHOULD BE ADDRESSED TO:

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

Sorry, but we cannot answer any personal correspondence.



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Tasword 464-D/664 (disc)	79.00
Tasword 6128 (disc)	79.00
Tas-spell (disc)	56.00
Tascopy 464 (cass)	32.95
Tascopy (disc)	45.95
Tasprint 464 (cass)	32.95
Tasprint (disc)	45.95
Tasdiary (disc)	45.95
Tas-sign 6128 (disc)	89.95
Amstrad PCW 8256/8512	
Tasword 8000	79.95
Tas-spell 8000	56.00
Tasprint 8000	52.00
Tas-sign 8000	89.95
Amstrad PC 1512	
Tasword PC	135.00
Demo disc (Tasword PC)	5.00
Tas-spell PC	110.00
Tascopy PC	110.00
Tasprint PC	110.00
Tas-sign PC	110.00

Send SAE for more information. Specify computer type.

Australian Distributor



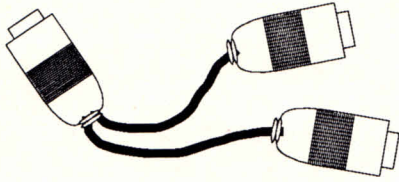
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JOYSTICK SPLITTER CABLE



With this cable and three connectors you can use two Joysticks from the same port on your Amstrad (not simultaneously).

Available through this magazine for just \$19.50 (post free). See page 64 for ordering.

CLASSIES

WANTED

PCW GAMES. We are seeking original games for the PCW8256 to add to our range. Authors only please contact BJH Software, 4 Dobson Road, Shepparton, Victoria 3630.

FOR SALE

Start Computing with the Amstrad CPC6128 - by Judith Thamm.
A Basic course for beginners, full explanations. 112xA4 photocopied pages coil bound with over 50 programs. Ideal for computer clubs. Book \$20.00, 3" disc \$10.00, P&P \$2.00
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Amstrad CPC6128, DMP2000 printer, green monitor, Datacorder, two word processors, office program, many games, books, magazines, joystick. \$900 ono. (02) 332 1025, Paddington, Sydney.

SERVICES

Personalised Stationery - an ideal gift for any occasion. 100 sheets of high quality paper with address and phone number printed plus 50 matching envelopes. See page 42 for details.

Ribbons Re-inked. DMPs Epson LX86 Star NL10 LC10 - all \$3.50 each. Epson LX80 \$4.50. Epson 800s \$5.00. PCW \$5.50. Free return post: Windsor Software, Freepost 47, Box 408, Lutwyche Qld 4030

GAMES for the PCW for use on PCW 8256/8512

1. **CRICKET** \$25.00
 - realistic simulation
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 - calculates averages
 - packed with features
2. **SOCCER LEAGUE** \$20.00
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 - Black Out

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BJH Software, 4 Dobson Road
Shepparton, Vic 3630

Just \$7.50 gets you a spot in our Classies reaching over 8000 readers each month!

Classified Ads Order Form

This new section of the magazine offers you the chance to speak directly to the huge waiting world of Amstrad owners - or would-be owners.

You can place an ad of up to 30 words for just \$7.50. So you could use it to sell a printer, launch a user group or publicize a piece of software you have written.

One thing you can't advertise is the sale or swap of software you've purchased. Such ads can be misused by software pirates. Just fill in the application form and send it to us together with payment. We'll then place the ad in the next available issue (published 3 to 7 weeks after we receive your order.)

Classification: For Sale Wanted Services User Groups

Please place the following advertisement in the next available issue of The Amstrad User

I enclose payment of \$7.50 by Cheque/MO/Bankcard/ Visa/Mastercard (cheques payable to The Amstrad User).

Credit Card Number

Credit Card Expiry date

Name

Address

Telephone

Write your advertisement here, one word per box. If you want your phone number printed, it must be included in one of the boxes.

NEWS BREAK

Our monthly update on the gossip, news, releases and the general Amstrad scene from both home and abroad

NEW ZEALAND NEWS

1989 promises to be the greatest year ever for Amstrad users. A wider range of computers and software will be available, and will represent Amstrad's policy of offering to the end-user "the best value for money" computer products in New Zealand.

The Amstrad PPC range of portables seems to have found its niche in the market with excellent sales being reported during the November/December period. The PCW9512 has also enjoyed good sales during the same period.

RCB Software, sole distributors of "Reckon" products in NZ have reported very good sales in their range of business and educational software from September to date. Four new educational tutorials, Book-keeping to Trial Balance, Corporate Finance, Capital Budgeting and Sales Force Management were released in November. These business training programs have become a favourite with large and small companies as well as Government Departments, Polytechs and Business Training Centres. For the younger (and not so young) people, Reckon have a current range of four excellent and inexpensive Educational Games. A reminder to readers, Reckon programs were written primarily for Amstrad 6128, PCW and PC computers. The PC versions work perfectly with IBM and compatibles.

RCB Software have also released a

new PCW program called T/Maker. This is a very popular and powerful program from America. T/Maker is the ultimate all-in-one program for the PCW8512 and 9512. It is published under licence in Australia by Reckon Pty. Ltd. This means there is back-up support close at hand for a superb integrated program with a recommended retail price of only \$NZ279 (including GST).

RCB Software have also advised that they will be stocking a 20mb Hard Disk for the PPC range of portable computers from mid-January. The expected retail price will be \$NZ1599 (including GST). The product is complete with all cables - just plug it in and away you go.

Further information is available on any product mentioned in this column at your local Amstrad dealer or write to Freepost 68, Box 25-015, St. Heliers, Auckland 5.

COMPETITION FOR GAMESTERS

OziSoft, in conjunction with Ocean, are running an easy-to-win competition through The Amstrad User (see insert at page 24). The first five correct answers out of the bag win a hit Ocean game, T-Shirt, Cap and Key-ring. The next ten correct answers win a T-Shirt and a Key-ring. There will also be fifty runner-up prizes of Ocean Key-rings.

Both CPC and PC owners may wish to enter as the software prizes can be in either formats. The competition closes at 5.00 pm on Tuesday 31st January 1989.

COMPUTER GIFT CARDS RELEASED

Perhaps a little late for Christmas now, but nevertheless a good idea for any time of the year, Gift Cards can answer a problem where a choice of gifts for a computer owner is difficult.

The Computer Gift Card system works in a similar way as a book or record token. A nominated sum is paid to a dealer who issues a receipted gift card for that amount. The recipient can then use the card against a purchase at the same dealer. Although the scheme is sponsored by Imagineering, the card can be used for purchases of any software (or hardware) the recipient may choose.

Readers will be pleased to note that The Amstrad User will be participating in the scheme, which means that whilst the cards and purchases have to be made through the magazine Mail Order Service, the purchaser and recipient don't have to live anywhere near us!

NEW GAMES RELEASES

By the time you read this, most of the new software mentioned below should be available from one source or another.

OziSoft have an enormous list of additions in a bid to capture the Christmas games market on both CPC and PC. The list for both formats includes Afterburner, Batman (a new version), Dragon Ninja, Operation Wolf, Rambo III, Robocop, Technocop, Thunderblade, The Untouchables and WEC Le Mans.

Just for the PC there is Battlechess, Grand Prix Circuit, Jack Nicklaus Golf, Leisure Suit Larry II, Police Quest II and Space Quest III. You should also look out for Silpheed, Gold Rush and Man Hunter. Captain Blood and Night Raider now appear in IBM format for the PC, and a compilation called PC Gold Hits (for CGA monitors) will also be released. It contains Infiltrator, Bruce Lee and Ace of Aces. A massive nine 5.25" discs and four 3.5" discs are supplied with King's Quest 4. →

Pactronics

newproducts

ENTERTAINMENT:

FLIPPIT - CPC disc/tape, PC

FLIPPIT is an addictive new game from an ALL-AUSTRALIAN company. It requires the same sort of 'spatial relationship' logic as Rubik's cube, and it is just as frustrating. It has 105 preset levels, PLUS (if you ever finish those) it has a 'randomizer' feature that will change the patterns and relationships for each and every level, giving you a never ending challenge.

MACH 3 - CPC disc/tape, PC

A fast scrolling, non-stop action, futuristic shoot-em-up. You control your MACH 3 space fighter, and you must navigate it over a hostile 3-D landscape. State-of-the-art animation combined with stunning sound and frantic action make for hours of gameplay.

SAPIENS - CPC disc/tape

A whole new generation of adventure game has arrived. SAPIENS is set hundreds of thousands of years ago, around the time of the last great Ice Age, when the only law was the law of survival. Not only do you have to defend your territory against hostile tribes, but you also have to provide for your tribe, and foster its population. You'll face many challenges in a day, but the biggest challenge is to survive.

STRAIGHT 6 - CPC disc/tape

Six of the best, straight from France, STRAIGHT 6 contains six top quality games from LORICIELS, one of the continent's leading software houses. It has shoot-em-up, arcade adventures, a soccer simulation and space games. This has to be the best value pack for the CPC 6128.

LANCELOT - CPC disc/tape, PCW, PC

Venture back in time to a period when knights were bold and damsels were fair. LANCELOT is a faithful reproduction tracing the origin and foundation of the order of the Knights of the Round Table. Guide Sir Lancelot in his quest for the ultimate, the Holy Grail, and help him to get the love of Lady Guinever (and Lady Elaine (!?!))

BUSINESS:

MINI OFFICE PERSONAL - PC

Word Processor, Database, Spreadsheet, Communications and Label Printer; all of the most needed forms of business software are contained in one easy to use package. All the modules have extensive help screens, and are operated by pull down menus. A comprehensive, easy to follow manual is supplied, complete with tutorial sections. All of this combines to form a simple, elegant yet surprisingly powerful business tool, and at an unheard of price.

Available from: John Martins, Harris Scarfe, Myer, Harvey Norman, Grace Brothers, Computer Base (Castle Hill & Bankstown), Maxwells of Rockdale and Ettalong, B & B Computers of St. Mary's or other retailers around Australia.

FOR THE NEAREST RETAILER IN YOUR STATE CONTACT

NSW: Pactronics Pty. Ltd., 33-35 Alleyne Street, Chatswood. (02) 407 0261
VICTORIA: Pactronics Pty. Ltd., 51-55 Johnston Street, Fitzroy. (03) 417 1022
QUEENSLAND: Pactronics Pty. Ltd., 12 Stratton Street, Newstead. (07) 854 1982
SOUTH AUSTRALIA: Baringa Pty. Ltd., (08) 271 1066 ext. 6132
WESTERN AUSTRALIA: Pactronics WA, 757 Canning H'way, Ardress. (09) 332 3807
MAIL ORDER: The Armstrad User, 1/245 Springvale Rd., Glen Waverley 3150. (03) 233 9661
NEW ZEALAND: Micro Dealer, 60 Terakau Drive, Palupanga, Auckland (09) 279 9300

Pactronics

For the CPC alone they have Last Ninja II, LED Storm, Pacmania, R-type, Roy of the Rovers (disc only) Jack the Ripper and Artura. Add to those Gremlin's latest compilation '10 Great Games 3', Mad Mix, Guerilla Wars, 1943 and Super Sports and you have an impressive line-up.

Naturally the availability of all the titles mentioned above depends upon the UK companies sticking to their release dates and getting them flown over to Oz in time for the Christmas rush.

MINI OFFICE PERSONAL FOR PC

Mini Office in its original form first appeared on tape for CPC machines some four years ago. That version was superseded by Mini Office II (tape or disc), and was followed by Mini Office Professional for the PCW and PC. The PC version has now been updated and renamed Mini Office Personal.

It features a Word Processor, Spreadsheet, Database, Label Printer and Communications - all menu driven - with a Utility menu to help first-time users configure the system.

The Word Processor has most of the facilities you would expect to find in more expensive packages and is capable of automatic reformatting of paragraphs while you type.

The Spreadsheet has rapid and easy selection of cells and is ideal for a beginner. The Database is not relational but offers simple calculations on single or merged files and very easy sorting. The Label Printer module is simplicity itself. The label (you choose the size) is displayed on the screen into which you place the imported information from the database with just one keypress.

The Communications module, entirely menu-driven, will drive a Hayes-compatible auto-dial modem through COM1-4. It has three terminal modes of which Viewdata will work with EGA and CGA as well as with MDA and Hercules systems.

Mini Office Personal is imported by Pactronics and is available for \$99.95 from most dealers or The Amstrad User.

PC DIGITAL VOICE AND CHIP-SET

Advances in the techniques by Eltech for digitising speech and music have allowed the release in Australia of a complete development kit for manufacturers, system builders, the hobbyist and designer. For those who want to actually digitise sound from a microphone, tape etc., a PC-XT/AT plug-in card is supplied with software to allow full editing of phrases and sound tracks.

After the editing is complete the operator loads the digitised sound into ROM. A low-cost board allows recording of up to 2.2 hours of speech or music on a 20mb hard disc. After the digital audio is prepared, a set of board-level products are available for replay of single, dual or multiple phrases or passages.

Where the application requires low-cost, custom manufacture of replay/record devices, the actual chip-set is available with design notes from the design engineer. For single phrase applications the VP-

1000 chip is used for speech analysis/synthesis using S-RAM or E-PROM. When multiple phrases (up to 32) are required the VP-1600 controller chip is used in conjunction with the VP-1000, a CPU or manual control. Control of more than 32 phrases is available by custom design. When real-time record/playback using D-RAM is required then the complete process is available from the VP-2500 chip. For low-power applications the VP-2505 provides real-time record and playback using C-MOS D-RAM.

The applications for this technology are endless, including public announcements, queuing systems, remote answering machines and portable solid state players/recorders. Having no moving parts, the system features reliability at low-cost. An information kit explaining in detail the application of the development kits, board-level products and chip-sets can be obtained from Zenology Pty. Ltd. on (03) 233 5764.

MICROSOFT CHOOSES RECKON

Reckon Software Pty. Ltd., publishers of the widest range of business and educational software in Australia, is now an authorised Microsoft distributor.

The decision by Microsoft to appoint Reckon Software is directly linked to Reckon's positioning in the Australian market and their relationship with Amstrad (Australia).

Microsoft recognise that Amstrad computers account for an ever increasing proportion of PC sales in Australia and were looking for a company that is committed to supporting the Amstrad dealer base.

A company with the necessary expertise in business applications software and the problems associated with supporting new users in this area.

The Microsoft portfolio meshes without conflict with the Reckon packages to form an overall range to suit just about every application. As Amstrad continues to gain a greater slice of the PC market, so Reckon will service their dealer base with more Microsoft products.

Further enquiries can be made with Reckon on (02) 371 9222.

CPC MUNSTERS

A new software house Again Again makes its debut release with an arcade game called The Munsters, based on the television series

currently being shown. It features all the family: Herman (the tall one with the neck problem), his wife Lilly, Grandpa the vampire and little Eddie. It should be arriving soon.

UPTO 50% Off

in our year-end games clearance

Here's a chance to grab a game for your Amstrad CPC in either a disc or tape format at a really low price!

Disc: \$24.95 (normally \$44.95)

Tapes: \$14.95 (normally \$29.95)

We have just five each (in both disc or tape formats) of the following titles:

Arkanoid

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Basil, the Great Mouse Detective

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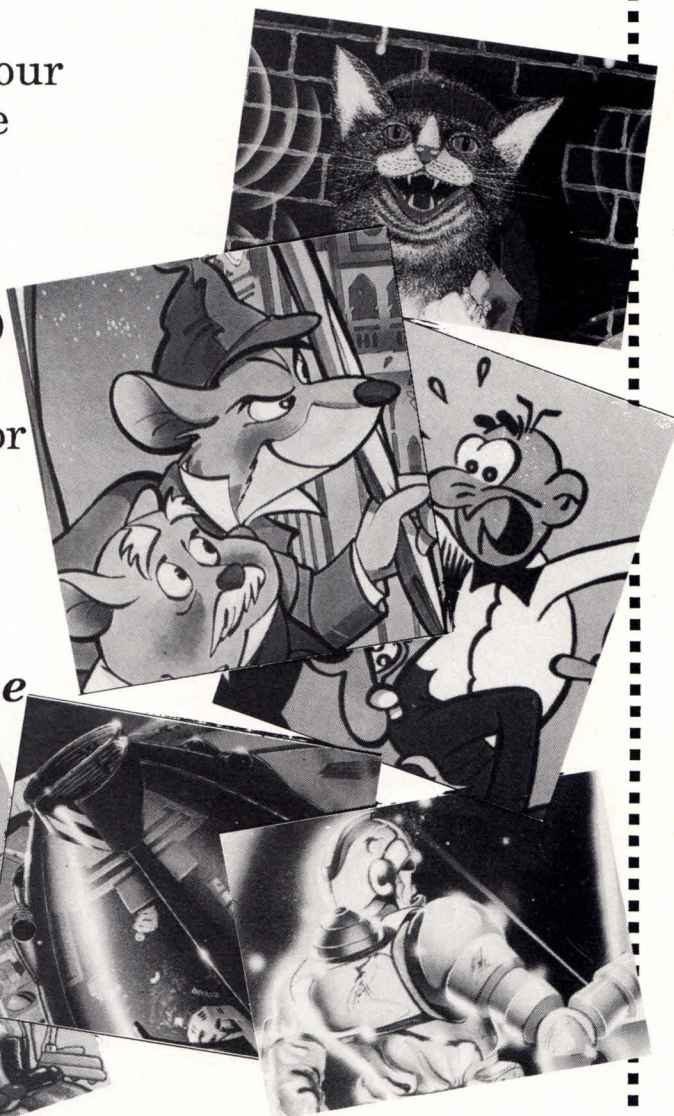
North Star

Rolling Thunder

Side Arms

Terramex

Western Games



Obviously, the quicker you are in ordering, the more chance you have of getting what you want. Orders will be supplied on a 'first come - first served' basis so please make an alternative choice in case the title you want has sold out.

ORDERS SHOULD BE MAILED TO:

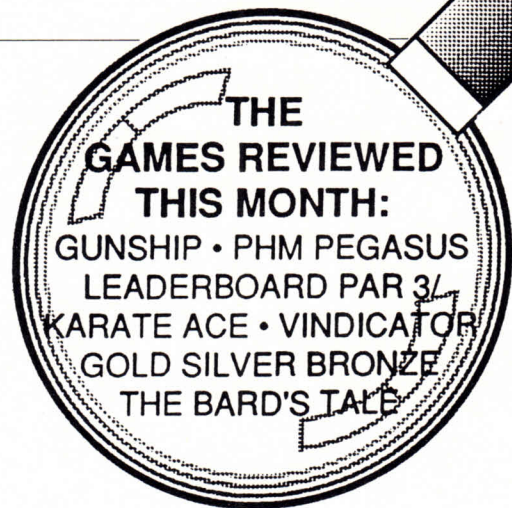
The Amstrad User
1/245 Springvale Road,
Glen Waverley, Victoria 3150
(03) 233 9661

with cheque, money order or quoting
Bankcard, Mastercard or Visa credit card
number and expiry date.

*Offer closes on 31st January 1989.
Please remember that we are closed from
20th December 1988 to 16th January 1989.*

MORE GAMES REVIEWS

The "Joystick Wizard" closes in on another seven recently released games...



GUNSHIP

The best Microprose simulation to date (joystick only)

Tape \$49.95

Disk \$59.95

Microprose, along with Digital Integration, have long been the leaders in simulation programs with Digital marginally ahead. But with the release of Gunship, Microprose jumps into the top spot. Gunship has been a long time coming on the Amstrad but the wait has been worth it.

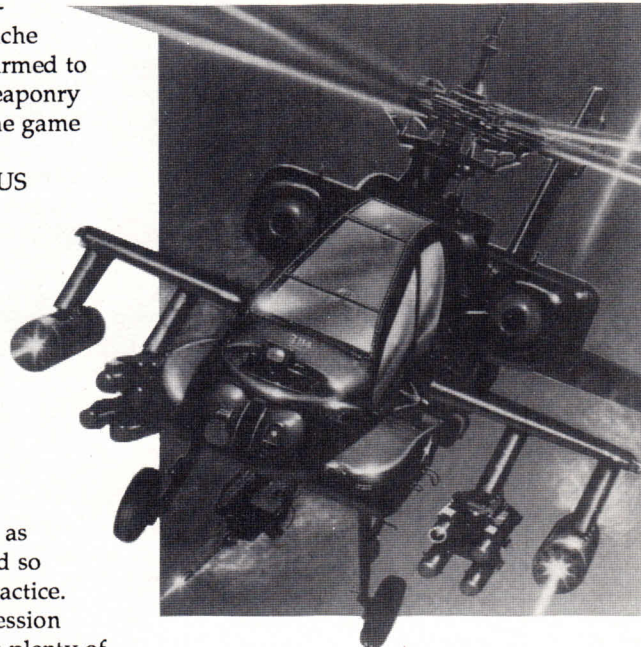
It would be wrong to say however that the game is just a helicopter simulator. OK, there is plenty of gun-diplomacy meted out by the Apache AH-64 helicopter which is armed to the rotors with the latest weaponry (more on those later), but the game also includes a career path challenge. As a pilot in the US Army, you start off on training flights in the USA, move on to tours of South-East Asia, then Central America and the Middle East. Finally, a show down in Western Europe. Every time you complete a mission successfully you get promoted and awarded medals.

Flying a helicopter is not as easy as one would think and so requires a fair amount of practice. This is where the training session comes into its own. There is plenty of flak to avoid but as it is simulated under training conditions (flour bags perhaps) you don't get killed - that is unless you crash into a hill.

Easy (soft) targets are classed as heli-bases, depots, infantry and headquarters. Rather harder targets (hard) to aim for are tanks, infantry carriers, anti-aircraft guns,

surface to air missiles, bunkers and armoured vehicles. A particularly nasty piece of work is the Hind, a Russian attack helicopter which is as heavily armed as yourself and a little faster, but fortunately not quite as manoeuvrable.

Your Apache has four main weapons. The All-Purpose Chain Gun which fires high explosive rounds and is effective against most targets; AIM-9Ls (Sidewinder air-to-air missiles) which home in on heat sources; AGM-114As (Hellfires) laser guided armour-piercing weapons which are very accurate and deadly on hard targets but ineffective on the soft type; and Folding Fin Aerial Rockets (FFARs) which are not so accurate as they are unguided but are effective in dealing with dispersed soft targets. A realistic feature in the game occurs when a cannon or missile is fired - the helicopter will kick and recoil upwards needing fast reactions to bring it



back under control.

So much for the awesome fire-power, but without the most sophisticated electronic devices even the best flying ability is not enough to defeat the enemy. Accordingly, the latest avionics are supplied with the Apache. At the heart of everything is the

Target Acquisition/Designation System (TADS) consisting of a laser, a TV camera and an infra-red sensor. Its main function is to pinpoint and identify targets. You are also provided with radar and infra-red jammers which are used to confuse the enemy tracking systems. Unfortunately they also make you a little more obvious when used so be careful. You can instead launch thousands of aluminium strips to confuse the enemy radar or high burning-temperature flares to confuse enemy heat-seeking missiles.

In the game itself, it is possible to vary each mission. In the first place, the pilot can be changed, loaded or saved. Next, you can choose the type of campaign and thirdly the mission difficulty - regular, volunteer and volunteer hazardous duty. To assist beginners there is a keyboard overlay to help remind you of the special keys to be used. Other options include 'easy' or 'realistic' settings for flying, landing or weather, the choice of enemy and your own equipment. The weather choice is important as the weight that the Apache can carry is effected by the weather conditions.

Once all this has been selected your primary and secondary mission objectives are listed. These are targets that must be destroyed regardless of anything else. You also get intelligence information on enemy troop and equipment.

Flying the Apache is a question of balance between

the cyclic and collective controls and pointing in the right direction. Easily said, but it requires a bit of practice before this part is mastered, and is most important before you try to work out how to handle it in combat conditions and then operate the weapons. The whole thing is very challenging.

I make three minor observations, however. The first is that the tape version is a continual multi-load game. The second is that on a green screen some of the graphics are a little difficult to see making things sometimes tricky. The third is that the manual, exceptional as it may be, is not specific to the Amstrad. This means that a number of features explained are not available on your CPC. In fact, almost to rub salt in the wounds, a card is supplied telling you what's missing. But these gripes are totally outweighed by the plusses which include a cheat mode.

The graphics are three dimensional and in true perspective. The view through the cockpit window is 'true filled' and you can move it around to see either side and even behind you. The chatter of the rotors gets tiresome, but the sound effects of the explosions and the enemy missiles are great. Gunship has everything to keep you wanting to play the game over and over again. It is a simulator par excellence - the best I have seen for a long time.

PHM PEGASUS

A sea warfare winner from Electronic Arts

Tape \$34.95

Disc \$34.95

For those not familiar with nautical abbreviations, PHM stands for Patrol Hydrofoil Missilecraft. Such are the advances in sea warfare that these days far more sophisticated equipment is required to defeat an enemy. PHM Pegasus comes into that class and is one of the fastest vessels skipping across the high seas. The game of the same name can be considered a simulation (perhaps not quite as accurate as, say, Gunship) but nevertheless has plenty of challenging action and strategy.

There are two views provided by the screen: one through the cockpit of the hydrofoil and the second an overall operations map. The cockpit view shows the scene from the bridge, a binocular view, and status information on the weapons, fuel, speed, time, direction and damage. The map screen shows the position of the hydrofoil (a dot inside a white circle) in relation to the surrounding land, and any convoys that may be around at the time. This map is also used to direct helicopters to their targets and shows the time left to complete the particular mission.

There are eight missions in all which are explained in a comprehensive manual. It also describes the different types of weapons carried by PHM Pegasus and a special card for spotting or identifying the enemy. The missions, as you would expect, start at a reasonably easy level

(Battle Training) and progress through to a much more difficult level. Battle Training is really an introduction to Pegasus and is a good opportunity to come to grips with the controls and general handling and strategies required for later levels.

The weapons include shells, Harpoon, Gabriel and Exocet Missiles, Radar and Helicopters. The missiles are of particular interest. The Harpoon can be used up to 40 miles away from the enemy; the Gabriel at a shorter range but is more accurate than the Harpoon; and the most deadly, the Exocet anti-shiping missile.

You could be wandering around the sea for quite a while waiting for the enemy to appear, so a time compression feature is available which effectively speeds up time by anything up to 128 times. It is an excellent idea which avoids any chance of boredom. Having found the enemy, you need to select your weapon and the battle begins. If you are sunk or run out of time the game ends. It also ends when you have completed the assignment successfully and this is where you score points based on the time left and a 'survival' bonus. It also decides whether or not you should be promoted.

The graphics are well drawn, although there is not much that moves. By using the spotter card, enemy ships can be identified (assuming you can see them side-on)

and are dealt with accordingly. Warning sounds are emitted when missiles are locked on or you are in shallow water.

The fact that there are eight missions makes the game

long lasting and each assignment has its good dose of strategy and action. PHM Pegasus is another example of Electronic Arts' skill in producing a high standard game.

HOPPING MAD

Follow the precision ball-bouncing from Elite

Tape \$34.95

Disc \$34.95

What could sound more simple and mindlessly boring than to guide four balls through differing terrain? Certainly not Hopping Mad although that is essentially what the game is all about. It is deceptively difficult, original and in many places quite exciting.

The screen consists of a right to left (unusual) scrolling landscape over which you must guide four bouncing balls. The terrain is scattered with pointed objects either on the ground or in the air which can burst the balls. At the top of the screen is your score, lives and number of balloons so far collected. The balloons float around in the sky and are collected by bumping any of the balls into them. When ten have been collected you move on to the next level. You can also gather extra points by bumping into apples hanging in the trees.

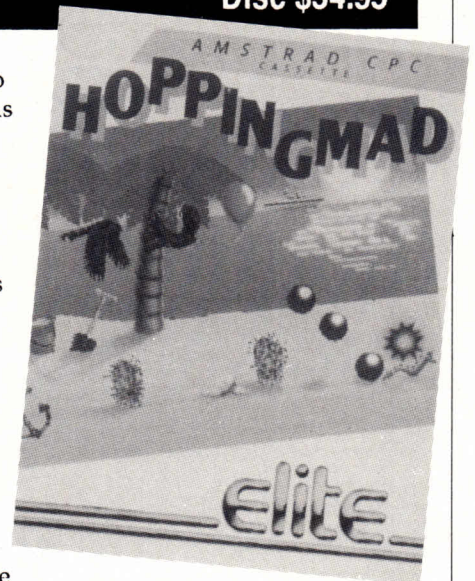
Naturally, there are many 'spikies' to burst your ego along the way. These can be birds and bees which move up and down the screen or hedgehogs and spikey plants on the ground. More bonus points can be earned by squashing the leaves of the spikey plants (avoiding the points of course) or landing on wriggling worms.

The terrain or scenes change from a forest to a

seaside and so too do the 'spikies'. As you go up the levels they increase in number and make things more difficult to negotiate the balls through successfully.

The sound effects are not much to write home about, and the graphics are average, but these are not really noticed once

you get into the game. It does require practise to be able to control the balls and select the right height and speed in order to avoid the spikes. Hopping Mad can be put in the 'sweat inducing' class and will no doubt be a popular title.



THE BARD'S TALE

A complex classic from Electronic Arts

Tape \$34.95

Disc \$49.95

We get a lot of games samples sent to us direct from the UK by the publishers. Unfortunately, not all see the light of day in Australia. At the time of writing, The Bard's Tale is not available which is a crying shame. Perhaps with this review, the importers who have the rights to Electronic Arts products will take note and fly some in for all to share.

The Bard's Tale is a new breed of adventure although the plot is the standard 'free the innocent from the clutches of an evil wizard'. The game starts in the town of Skara Brae at the Adventurer's Guild where a team is created. You can choose a ready made team, but half the fun is building your own. The characters available can come from seven races (dwarf, hobbit, human, elf, half-elf, half-orc and gnome) and ten classes (hunter, monk, bard, warrior, paladin, rogue, conjurer, magician, wizard and sorcerer). Each character has its own strength and weakness. For example, elves can cast excellent spells but

are weaker than humans. Dwarves are strong but a bit dim, yet make good warriors. A warrior is the guy who has the job of fighting the monsters but can use any weapon. A sorcerer can create illusions and use mind-affecting magic. The list goes on!

The screen is divided into three sections or windows. The graphics window indicates your location, the monsters around (if any) and the character which is currently in action or selected. The text window provides details of the selected character with messages and menus. The character window gives a summary of information about the rest of the characters. Here there are five columns indicating their armour class or how difficult they are to hit, the number of hits they have received, their condition and their 'spell points' left.

At the beginning of the game each character starts with no experience points but gains more by killing monsters to a point where its level is increased. Each

character level requires a certain number of points (the second level characters need 2000 experience points for example) and on a 'promotion' the character is also awarded some gold. Some of the characters can advance even further than the common highest level, namely those who can use magic and have to present themselves to a Review Board for training and extra spells. Characters may purchase extra spells (in the case of the magicians) or increase their weapons using the gold. As you only get what you pay for, it is sometimes useful to pool some of the gold to buy a better piece of equipment. These can be purchased at Garth's Equipment Shoppe.

There are other buildings to explore in Skara Brae; taverns for wetting a Bard's whistle (very important because a Bard needs to sing and use his musical instrument to perform magic); temples to get healed or even resurrected; and Roscoe's Energy Emporium where characters with magical powers can have their magic points recharged for a price. Other buildings can be empty or contain monsters and when one is met you are asked if you want to stay and fight or run (although sometimes you may not have the option if the enemy is swifter than your team). If you are brave enough to fight, you are prompted to choose a role for each member of your party. This means that you need to work out who is going to be in the front line doing the hard work and who should be at the back. Only the first three members of the team are allowed to attack so it's normally a good idea to put the strong guys at the front and the weaker

but powerful spell-casters at the back. The fighting normally lasts for three moves; two from the frontal attack and one from the rear-guard before you are asked whether you wish to continue the fight or run. Beware the dragon - the deadliest of the monsters - who can eliminate the whole team with one puff of fire.

You'll also find five dungeons (eventually) with much more treasure, monsters and magical powers. But don't bother going into them until you have built your characters up to at least the fourth level for the Cellars, the fifth for the Sewers and the highest level for Mangar's Towers where Mangar the Dark resides and must be killed to free the town from his control.

Phew! What a game! A shoot-em-up it most certainly is not - it requires a great deal of thinking to build up the skill levels and defeat the baddies. Exceptional graphics it does not have - but everything is easily recognizable (even with a green screen). The game comes on one disc or two tapes containing a loader, main program and seven other programs which I guess are used further on in the game. There is also a comprehensive manual which clearly explains the role and capabilities of the characters. Rather less is spoken about how to use the game, but in this instance it doesn't matter too much. The tunes produced by the Bard are quite pretty, but the rest of the sound is restricted to footsteps.

There is no question that *The Bard's Tale* has set a standard for others to follow - high on content and high on complexity. It's really worth a good look.

VINDICATOR

An all action/maze/flying/platform game from Imagine

Tape \$29.95

Disc \$44.95

Once again, our fair planet is in danger of being lost to a band of hostile alien forces, and you, as the Vindicator, are the only means of saving what remains of the population. In this quest you will battle through mazes, tear across the terrain in a high-powered jeep, find the catacombs and do battle with the Giant Mutoid Guardian and his minions.

Fortunately, you don't have to do this all at once as the game is divided into three sections, nor do you have to go back to the start after a section has been completed (I've moaned about this before) as a password is supplied. Mind you, you will find it tough going to earn it.

The first level features the maze, or to be precise, four levels of a complex maze in which there are various computer rooms hiding a number of components to a bomb. When assembled, the bomb is used to blow up the complex. Each level has a number of doors leading into rooms, some holding ammunition, lift passes, oxy-gum or colour coded computer passes. The latter article allows access to a computer which will provide an anagram to solve in order to obtain a map giving your current position and that of a section of the bomb. You

need the lift passes to move between floors and the oxy-gum to prevent you from being killed by the toxic atmosphere.

Naturally you can't just walk into a room and grab what you want - there are plenty of aliens to make sure you don't. There appear to be two types of alien here; ones that fire at the same height each time and are reasonably easy to duck; the others are more accurate but leave their equipment behind if they are killed. After



finding all sections of the bomb and destroying the complex you move to the next level.

Here you will find yourself in the cockpit of a fighter plane. Legions of mechanical aliens do their best to knock you down as you attempt to clear a path to the catacombs on this vertical scrolling screen. The journey is continued in a jeep with just as much flak thrown at you until you manage to enter the catacombs to do battle with the crab-clawed Giant Guardian. Despatching this guy will give you a password to the third level.

You have just enough time to wipe the perspiration from your forehead before embarking on the platforms

and ladders section. Heaps of nasties leap out at you as you attempt to make your way to the evil Gog's lair. You need to get rid of them before the ultimate battle commences with Gog.

All the action takes place in the middle part of the screen with important information displayed at the bottom. There is plenty of variety which makes the game attractive and not just a two hour wonder. Graphics are quite adequate (no green screen problems) and so too the sound effects. There's plenty of action and a sure fire game to increase the muscle power in your trigger finger.

LEADERBOARD PAR 3/KARATE ACE

A look at two current compilations

Tape \$39.95

Disc \$49.95

I thought it about time I had another look at some of the compilations currently available. They are always good value for money because they rarely cost more than the price of a single game, yet you get so much more.

Leaderboard Par 3 (from US Gold) contains three golf games; the original Leaderboard; the version with supplementary courses, Tournament Leaderboard; and finally World Class Leaderboard. There are four games to play in each, giving a total of twelve different games and all of them have good graphics for a golfing simulation. It is bundled together with score cards and maps. Green screen owners can rejoice in the fact that their screen actually displays the true colour of the playing

surface.

Karate Ace (from Star Games) probably contains the most popular of the martial arts games to be released over the past couple of years. You get seven games: The Way of the Exploding Fist, Bruce Lee, Kung Fu Master, Way of the Tiger, Avenger, Samurai Trilogy and Uchi Mata.

The Way of the Exploding Fist is a traditional kick-em-up while Bruce Lee is nearer an arcade game than a combat. The others vary in quality depending upon which way you look at them (with me, normally lying on the ground). To get all seven games in one hit so to speak is a chance any self-respecting combatant would find hard to miss.

GOLD SILVER BRONZE

Could this be the largest ever sports compilation?

Tape (pack-of-3) \$49.95

Disc (pack-of-3) \$59.95

This compilation from Epyx is a little too late to cash in on the Olympic fever, but as the computer games have always sold consistently well, I doubt the timing would worry Epyx. Gold Silver Bronze is an amalgamation of Summer Games volumes 1 and 2 and Winter Games - in all a massive 23 events. This will be the first time that Summer Games has been seen on a CPC. You may be surprised by the price, but in fact you get either three tapes or three discs, each containing the original sets of events.

Summer Games Volume 1 contains the pole vault, high diving, 4x400 metres relay, 100 metre sprint, gymnastics, free style relay, 100 metres free style and clay pigeon shooting. It uses mode 0 graphics with the full range of colours. Summer Games Volume 2 consists of the triple jump, rowing, kayaking, javelin, high jump, fencing, cycling and equestrian, this time in mode 1.

Some of the games require waggling, others need a more rhythmic approach. For example, the swimming events require you to press the fire button as the swim-

mers arm enters the water so accurate and careful timing will ensure a strong stroke. With the triple jump a smooth sequence of joystick movements (right, right, left, forwards) will give you a good length. Kayaking is great fun, negotiating a number of upstream, downstream and reverse gates while paddling like mad.

The Winter Games set probably has the best graphics, although the other two are also good. It contains the biathlon, speed skating, figure skating, ski jumping, free skating and bob sled. The biathlon is a cross-country ski event with target shooting thrown in to test your accuracy when your are under pressure to finish the race. The ski jump is great fun too.

Gold Silver Bronze must be the biggest compilation of decent sporting titles you are ever likely to find in one place for your CPC. The aim is to break the world record in all events. Due to the number of events, we could get a world record for the time taken to complete the entire compilation! In this respect it is very good value for money.

POKE METHODS FOR TAPE

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

Method 1

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

Method 2

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

Soon you'll get the message FOUND SOMETHING BLOCK 1. It doesn't matter what the something actually is; this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the found message comes up for the last thing you're trying to skip. Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

Your pokes or hints should be sent to:

The Amstrad User (Cheat Mode)
1/245 Springvale Road
Glen Waverley
Victoria 3150

CHEAT MODE

GAUNTLET

A big bonus for original Gauntlet fans - not only pokes for both disk and cassette versions, but a playing tip to give infinite play as well. Start playing with one player and when he is nearing death press the magic button to create a second player. When the first player dies you can carry on with the second until he is close to death, at which point the first player can be reactivated. You can carry on alternating between characters, and consequently between joystick and keyboard control, as many times as you like. Two players can use the tip in exactly the same way, recreating the character indefinitely, but they have to watch out that they don't die simultaneously causing the game to end.

The first of the pokes is from Tony Hoyle and is for cassette version. It's entered using Method 1 and gives infinite energy.

```
1 'Gauntlet Tape
2 'The Amstrad User Jan 89
10 MEMORY &3FFF
20 x=&4000:c=0
30 READ a$
40 IF a$="xx" THEN 120
50 c=c+VAL("&" + a$)
60 POKE x,VAL("&" + a$)
70 x=x+1:GOTO 70
80 READ d
90 IF d=c THEN CALL &4000
100 PRINT"Error in data"
110 END
120 DATA 06,00,11,00,c0
130 DATA cd,77,bc,21,70
140 DATA 01,cd,83,bc,21
150 DATA 1b,6a,22,c9,02
160 DATA 21,24,40,11,70
```

```
170 DATA 01,01,08,00,ed
180 DATA b0,3e,6b,c3,ef
190 DATA 01,3e,c9,32,95
200 DATA 9b,c3,00,84,xx
210 DATA 4033
```

The second poke is for the disk version of the game. Type it in and save it to a disk other than the game disk. Insert the game disk into the drive, with the write-protect tab off. Run the poke and follow the on-screen prompts to load the game.

Note: This poke does alter the game disk, and although the program contains checks to avoid you making any typing errors you should take care typing it in. Having entered the pokes the game will retain the changes when loaded up again, but they can be changed back by running the poke again.

```
1 'Gauntlet disk
2 'The Amstrad User Jan 89
10 MODE 2:INK 0,0:BORDER
0:GOSUB 290
20 PRINT"G A U N T L E T P O K E
S":PRINT:PRINT
30 PRINT"Prevent Generators creating
the enemy? (Y/N)";
40 a$=UPPER$(INKEY$):IF a$ <>"Y"
AND a$<>"N" THEN 40
50 PRINT a$:PRINT
60 PRINT"Stop yourself dying when
health reaches zero? (Y/N)";
70 b$=UPPER$(INKEY$):IF b$<>"Y"
AND b$<>"N" THEN 70
80 PRINT b$:PRINT
90 PRINT"Turn enemy invisible — only
Phantoms will now cause damage (Y/N)
? ";
100 c$=UPPER$(INKEY$):IF c$<>"Y"
AND c$<>"N" THEN 100
110 PRINT c$:PRINT
120 PRINT"Turn yourself invisible — the
enemy is still attracted by you (Y/N) ?";
130 d$=UPPER$(INKEY$):IF d$<>"Y"
AND d$<>"N" THEN 130
```

CHEAT MODE

```

140 PRINT d$:PRINT
150 PRINT:PRINT"Is this to your
satisfaction (Y/N) ?"
160 e$=UPPER$(INKEY$):IF e$<>"Y"
AND e$<>"N" THEN 160
170 IF e$="N" THEN RUN
180 PRINT:PRINT"INSERT THE
GAUNTLET DISK INTO DRIVE A WITH
THE WRITE-PROTECTION OFF"
190 PRINT:PRINT"Press a key when
ready...":CALL &bb18
200 CALL &4000:a=&613a:b=&613d:
c=&611b:d=&611e:e=&cd
210 a=&613a:b=&613d:c=&611b:d=
&611e:e=&cd
220 IF a$="Y" THEN POKE a,0:POKE
a+1,0:POKE a+2,0 ELSE POKE
a,e:POKE a+1,&b5:POKE a+2,&8c
230 IF b$="Y" THEN POKE b,0:POKE
b+1,0:POKE b+2,0 ELSE POKE
b,e:POKE b+1,&20:POKE b+2,&94
240 IF c$="Y" THEN POKE c,0:POKE
c+1,0:POKE c+2,0 ELSE POKE
c,e:POKE c+1,&f0:POKE c+2,&a2
250 IF d$="Y" THEN POKE d,0:POKE
d+1,0:POKE d+2,0 ELSE POKE
d,e:POKE d+1,&13:POKE d+2,&87
260 CALL &401f
270 PRINT:PRINT"POKES NOW
SAVED TO DISC":PRINT:PRINT"Press
a key to play game"
280 CALL &bb18:jCPM
290 FOR z=&4000 TO &4064:READ
y$:POKE z,VAL("&"+y$)
300 x=x+VAL("&"+y$):NEXT z
310 IF x<>7668 THEN PRINT"ERROR
IN DATA":STOP ELSE RETURN
320 DATA 21,5d,40,cd,d4,bc,22,5e,40,
21,61
330 DATA 40,cd,d4,bc,22,62,40,21,00,
60,1e
340 DATA 00,16,18,0e,11,df,5e,40,c9,
21,00
350 DATA 60,1e,00,16,18,0e,11,df,62,
40,21
360 DATA 00,70,1e,00,16,1c,0e,11,df,
5e,40
370 DATA 3e,29,87,32,0c,70,d6,02,32,
0d,70
380 DATA d6,03,32,0e,70,1e,00,16,1c,
0e,11
390 DATA 21,00,70,e5,d5,df,62,40,d1,
e1,0e
400 DATA 12,df,62,40,c9,84,00,00,07,
85,00
410 DATA 00,07

```

Here's a compilation of tips. First up is a list of which monsters you'll encounter on each of the levels and which weapon kills them quickest.

Level 1: Ghosts - fire or water.
Beetles - fire.

Level 2: Killer sacks - fire. Winged demons - lightning.

Level 3: Killer sacks. Birds - water.
Snakes - fire.

Level 4: Winged demons. Skeletons - water.

Level 5: Sorcerers - fire or electricity (2 shots). Skeletons.

Level 6: Winged demons, snakes and skeletons.

Level 7: Skeletons, killer sacks and sorcerers.

Level 8: All enemies.

1. There is only one key on level one; make sure you get it.
2. Visit all the chests you can as it increases your rating and provides essential keys.
3. Avoid water, which saps energy very fast.

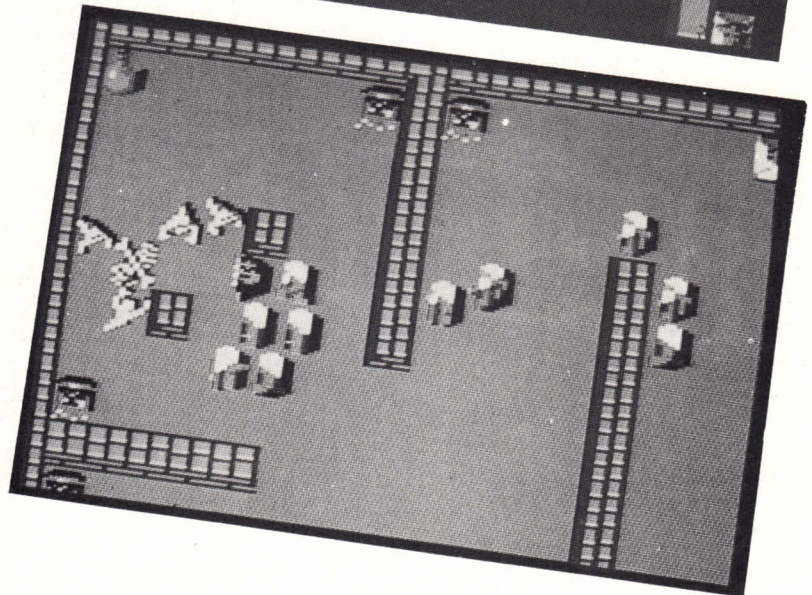
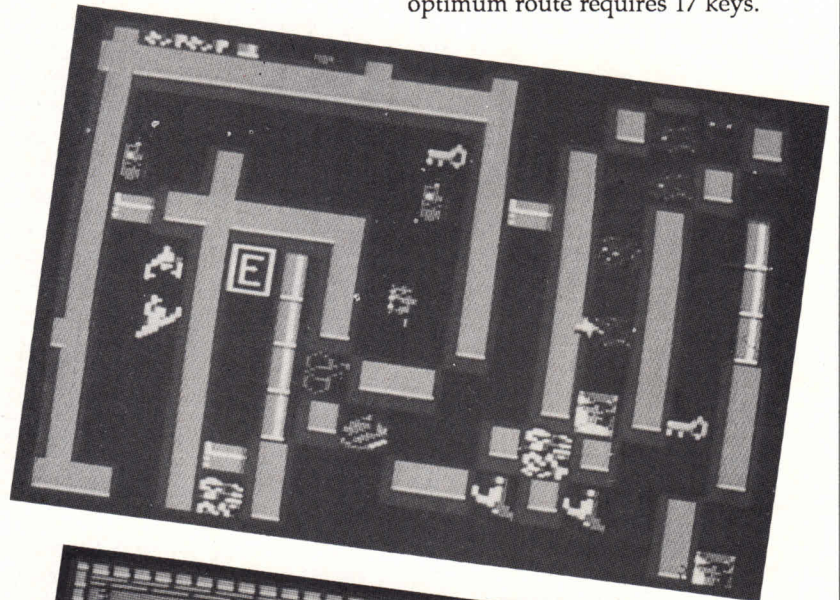
4. Use weapon spells economically or you'll run out.

5. Always keep on the move; the only place you can afford to stand still is on a pentagram.

6. When killing skulls create a Golem and send him in front of you so that he takes the blast of all the fireballs. When the Golem dies get as close to the middle of the skull as possible and cast the chaos spell.

7. If you're a long way from a pentagram and energy is running low then use a chaos spell to replenish it since it's more sensible to survive than to try to save it for killing skulls.

8. Always collect as many keys as possible; you'll need them. The optimum route requires 17 keys.



FAIRLIGHT

This poke is from Tgg Krache (Earlwood, Sydney). He writes: I have a hack I would like to share with those who have Fairlight on der flippen floppen dischken thingen.

No need for checksums on this one; type RUN"DISC as normal, wait for the screen to load. As soon as the screen stops loading press the ESC key a couple of times. You should now have the 'Ready' prompt. Now type:

```
POKE &6F7F,&C9:POKE &68E8,&C9:CALL &9380
```

You should now have infinite lives and be able to see all screen drawing. However you still die if you fall off the Drabridges. Now to get some hacking done before it's time to get up for work.

Sounds like Tgg is a dedicated hacker - burning the pokes at both ends!

SUPER SPRINT

Hop in your car and smash it against the wall. No it is not a smash-up derby game, but a cheat sent in by Sam Aloisi for Oceans classic, Super Sprint. Sam explains: Drive you car into the top left corner of any of the nine circuits. This should give you infinite bonus and a high score. Make sure your car is right near the Lap and Bonus Counter for the Drone Car (yellow). A smashing hint?

FUTURE KNIGHT

The Gremlin's game gets the infinite lives treatment by Darren Ash. Use Method 1 to enter it.

```
1 ' Future Knight -tape
2 ' by Darren Ash
3 ' The Amstrad User Jan. 89
10 MEMORY &1FFF
20 FOR t=&BE00 TO &BE17
30 READ a$:POKE t,VAL("&" + a$):NEXT
40 LOAD "", &2000
50 CALL &BE00
60 DATA 21,5d,21,36,c3,23,36,0e
70 DATA 23,36,be,cd,00,20,e5,21
80 DATA 99,07,36,00,e1,d9,37,c9
90 END
```

SPINDIZZY

Niall Brady has sent in this poke for Electric Dreams old Mastergame. It gives you a teleport feature which is activated by pressing the "M" key and then moving the cursor around until it's in the place that you want to go. Press ESC to return to the game, and now, when you move off the screen, you will go to the place that you selected. It is entered using Method 1.

```
1 ' Spindizzy - tape
2 ' by Niall Brady
3 ' The Amstrad User Jan. 89
10 1n=290:MODE 1
20 FOR addr=&C000 TO &C09A STEP 13
30 chk=0
40 FOR n=0 TO 12
50 READ a$
60 a=VAL("&" + a$)
70 POKE addr+n,a:chk=chk+a
80 NEXT
90 READ b$:b=val("&" + b$)
95 IF b<>chk THEN 350
100 NEXT:CALL &C000
110 DATA 21,40,00,11,C0,B0,3E
120 DATA 6A,CD,A1,BC,3E,80,572
130 DATA 32,72,84,3E,87,32,73
140 DATA 84,32,99,84,3E,D6,579
150 DATA 32,98,84,AF,32,8E,84
160 DATA 3E,C3,32,97,84,3E,5CD
170 DATA 3E,32,8D,84,21,39,C0
180 DATA 11,80,87,01,90,00,444
190 DATA ED,B0,C3,00,B0,21,92
200 DATA 99,56,23,5E,2B,E5,643
210 DATA D5,3E,48,CD,1E,BB,20
220 DATA 1E,3E,49,CD,1E,BB,56C
230 DATA 20,1D,3E,4A,CD,1E,BB
240 DATA 20,1C,3E,4B,CD,1E,41B
250 DATA BB,20,1C,3E,42,CD,1E
260 DATA BB,20,1C,18,DB,D1,51D
270 DATA 15,E1,72,18,17,D1,14
280 DATA E1,72,18,11,D1,1D,4E6
290 DATA E1,23,73,18,0A,D1,1C
300 DATA E1,23,73,18,03,D1,4E9
310 DATA E1,C1,7E,23,46,11,08
320 DATA 00,19,70,2B,77,C9,496
330 DATA CD,09,BB,D2,71,84,FE
340 DATA FC,C2,71,84,C9,00,7D2
350 PRINT "Error in data"
360 END
```

COMBAT SCHOOL

Phil Howard has hacked again. This time Ocean's Rave game gets the treatment. The poke slows the timer down to give you more time. Enter it using Method 1.

```
1 ' Combat School - tape
2 ' by Phil Howard
3 ' The Amstrad User Jan. 89
10 DATA 00,2a,0f,bc,22,1d
```

```
20 DATA bd,21,0e,bc,36,c3
30 DATA 23,36,15,23,36,c3
40 DATA c3,1e,32,3e,01,cd
50 DATA 1c,bd,3a,00,be,3c
60 DATA 32,00,be,fe,02,c0
70 DATA 21,2b,be,22,61,34
80 DATA c9,dd,21,5b,a6,11
90 DATA 00,01,cd,ea,a5,21
100 DATA 3e,be,22,0c,a7,c3
110 DATA 85,a6,3e,05,32,2c
120 DATA 04,c3,c7,0e
130 y=0:MEMORY &3000
140 FOR x=&BE00 TO &BE45
150 READ a$:a=VAL("&" + a$)
160 POKE x,a:y=y+a:NEXT
170 IF y<>&194A THEN 220
180 INPUT "Timer 5-10":t
190 ' 5-normal 10- half speed
200 POKE &BE3F,t
210 LOAD"":CALL &BE00
220 PRINT "Data error"
230 END
```

ULTIMA RATIO

Darren Ash has sent in this poke for infinite lives in the Firebird budget game. It is entered using Method 1.

```
1 ' Ultima Ratio - tape
2 ' by Darren Ash
3 ' The Amstrad User Jan. 89
10 FOR t=&BE00 TO &BE35
20 READ a$:POKE t,VAL("&" + a$):NEXT
30 CALL &BE00
40 RUN"ultima"
50 DATA 21,38,bd,36,1b,21,38,bc
60 DATA 36,c3,23,36,11,23,36,be
70 DATA c9,e5,21,1c,be,22,fd,0f
80 DATA e1,cf,f7,8c,f5,3e,00,32
90 DATA d9,31,f1,3a,70,29,47,3a
100 DATA 6c,29,3c,fe,04,cc,b8,29
110 DATA 10,f8,32,6c,29,c9
120 END
```

MISSION GENOCIDE

Here's another tip from Mark Waring. To start at any level do the following: type QED (in capital letters) then press the number of the level you want. There are nine levels.

ELITE

Mark Varley advises that to get a cloaking device you must destroy a ship which already has one, which appears as a flashing spacecraft. You have to be at least Dangerous before the ship will appear. After destroying it you have to scoop up the cargo canister that remains. The Y key toggles the device on and off, but drains your energy and will switch itself off when energy gets low.

BCD APPLICATION

This month Petr Lukes looks at the wonderful world of Logarithms and Exponents (requires BCD modules 1-4 from issues 42 to 44)

This month we take a look at Logarithms and Exponents. This program must be merged over the top of BCD modules 1 to 4. The basic logarithmic series is:

$$\text{Ln}[(1+x)/(1-x)] = 2*(x + x^3/3 + \dots) = 2*\text{Sum} [x^2 < 1]$$

Chebyshev's optimisation transforms the argument to $a = 2^r * y$, where r is an integer and y is in the range of 0.5 to 1. Let $x = [y - \text{sqr}(.5)]/[y + \text{sqr}(.5)]$, then $\text{Ln}(y) = 2*\text{Sum} - \text{Ln}(2)/2$ and $\text{Ln}(a) = (r-1/2)*\text{Ln}(2) + 2*\text{Sum}$. Not easy to follow, but the evaluation is reasonably fast after the initial reduction of the argument.

Arguments of zero or less present a problem. Their logs are of course imaginary, but in some (not all) instances a valid result is produced by manipulating the logarithm of the positive argument and changing the sign of the result. On the CPC464 a `PRINT SQR(-2)` produces and 'Improper argument' error, but `PRINT -2^*.5` returns -1.4..., which is patently wrong, while `'-8^(1/3)'` returns the correct -2. My solution is to avoid the problem by inhibiting arguments of zero or less.

The exponential series is:

$$e^x = 1 + x + x^2/2! + x^3/3! + \dots$$

The exponent is factored into the integer and fractional parts, so that $x=i+f$. The integral power is evaluated by progressive multiplication and the fractional power by repeated approximation. The result is then $e^x = e^i * e^f$.

We now have the means to deal with all the transcendental functions. Logarithms to any base other than the natural number are simply natural logarithms multiplied by a constant and hyperbolic functions are manipulations of exponentials.

All the transcendentals are very slow to evaluate and BCD would be used only if the extra accuracy was definitely needed. It is possible to switch to and from the resident routines by means of the VAL and STR\$ functions, within certain limits. The a.b routine unfortu-

nately cannot cope with the exponential format, which is a serious limitation. It could be overcome by using DEC\$ instead of STR\$, but it is not very convenient. (Note for 464 users: DEC\$ works if an extra opening parenthesis is used: DEC\$((a,"##")) will not be rejected).

```

80 PRINT"BCD Applications":GOTO 120
90 'Jump table to subroutines
100 f%=INSTR("?ab+*/",f$):IF f%<2 THEN PRINT"Undefined
    function":RETURN
110 ON f%-1 GOTO 3020,3100,3340,3340,3610,3710
120 '
130 PRINT"Application 3: Powers by LOG and EXP LKS 8804
    04"
140 x$="0":f$="a":GOSUB 100:nil$=x$
150 x$="1":f$="a":GOSUB 100:one$=x$
160 x$="2":f$="a":GOSUB 100:two$=x$
170 x$=".5":f$="a":GOSUB 100:hlf$=x$
180 '      0000000001111111112222222222333333333344444
    44444555555555566
190 x$="0.707106781186547524400844362104849039284835937
    68847403658833987"
200 f$="a":GOSUB 100:r.5$=x$'sqr(.5)
210 x$="0.693147180559945309417232121458176568075500134
    36025525412067995"
220 f$="a":GOSUB 100:Ln2$=x$
230 x$="2.718281828459045235360287471352662497757247093
    6999595749669676"
240 f$="a":GOSUB 100:eul$=x$
250 '
260 WHILE INKEY$>"":WEND'clear out buffer
270 PRINT:PRINT"Enter number ( >0 ) whose power you wan
    t ":LINE INPUT x$
280 f$="a":GOSUB 100:num$=x$:f$="b":GOSUB 100:PRINT ex$
290 IF num$=""THEN 260
300 'Lnxp$=num$:GOSUB 770:GOTO 250'test EXP separately
310 IF num$=nil$ OR (ASC(num$)AND &80)=0 THEN PRINT"Ill
    egal":GOTO 260
320 GOSUB 440'Ln
330 PRINT"Number:":x$=num$:f$="b":GOSUB 100:PRINT ex$
340 PRINT"Natural log:":x$=Lnx$:f$="b":GOSUB 100:PRINT
    ex$
350 PRINT"Enter power":LINE INPUT x$
360 f$="a":GOSUB 100:pwr$=x$:f$="b":GOSUB 100:PRINT ex$
370 wr$(0)=Lnx$:wr$(1)=pwr$:f$="*":GOSUB 100:Lnxp$=x$
380 GOSUB 770'exp
390 PRINT"Number:":x$=num$:f$="b":GOSUB 100:PRINT ex$
400 PRINT"Natural log:":x$=Lnx$:f$="b":GOSUB 100:PRINT
    ex$
410 PRINT"Power:":x$=pwr$:f$="b":GOSUB 100:PRINT ex$
420 PRINT"Result:":x$=xpx$:f$="b":GOSUB 100:PRINT ex$
430 GOTO 250
440 '

```

```

450 PRINT"Computing Ln":ti=TIME
460 IF num$=one$ THEN Lnx$=nil$:GOTO 750
470 adj$=num$:red$=nil$'reductions count
480 WHILE adj$>one$'reduce to < 1
490 wr$(0)=adj$:wr$(1)=two$:f$="/":GOSUB 100:adj$=x$
500 wr$(0)=red$:wr$(1)=one$:f$="+":GOSUB 100:red$=x$
510 WEND
520 WHILE adj$<hlf$'reduce to => 1/2
530 wr$(0)=adj$:wr$(1)=two$:f$="*":GOSUB 100:adj$=x$
540 wr$(0)=red$:wr$(1)=one$:f$="-":GOSUB 100:red$=x$
550 WEND'y,r
560 wr$(0)=red$:wr$(1)=hlf$:f$="-":GOSUB 100
570 wr$(0)=x$: wr$(1)=Ln2$:f$="*":GOSUB 100:red$=x$'(r
ed-.5)*Ln2
580 wr$(0)=adj$:wr$(1)=r.5$:f$="-":GOSUB 100:apx$=x$
590 wr$(0)=adj$:wr$(1)=r.5$:f$="+":GOSUB 100
600 wr$(0)=apx$:wr$(1)=x$: f$="/":GOSUB 100:trm$=x$'Lt
=(y-sqr(.5))/(y+sq(.5))
610 wr$(0)=x$: wr$(1)=x$: f$="*":GOSUB 100:c1$=x$'Lt^
2
620 it=1:apx$=trm$'1st term
630 'loop
640 it=it+2:x$=STR$(it):f$="a":GOSUB 100:it$=x$':PRINT"
L";
650 wr$(0)=trm$:wr$(1)=c1$:f$="*":GOSUB 100:trm$=x$
660 wr$(0)=x$: wr$(1)=it$:f$="/":GOSUB 100
670 PRINT:f$="b":GOSUB 100:PRINT ex$
680 IF x$=nil$ THEN 720
690 wr$(0)=apx$:wr$(1)=x$: f$="+":GOSUB 100:apx$=x$
700 f$="b":GOSUB 100:PRINT ex$
710 GOTO 630
720 '
730 wr$(0)=apx$:wr$(1)=two$:f$="*":GOSUB 100:apx$=x$'*2
740 wr$(0)=x$: wr$(1)=red$:f$="+":GOSUB 100:Lnx$=x$
750 PRINT:PRINT(TIME-ti)/300"sec"
760 RETURN
770 '
780 PRINT"Computing exp":ti=TIME
790 loc$=Lnxp$:it=(ASC(loc$)AND &7F)-&40'decimal places
800 red$=one$:IF it<1 THEN 920'no integer part
810 a=(it+1)\2+1:MID$(red$,1)=LEFT$(loc$,a)'fix (red)
820 IF it MOD 2=1 THEN MID$(red$,a)=CHR$(ASC(MID$(red$,
a,1))AND &F0)
830 wr$(0)=loc$:wr$(1)=red$:f$="-":GOSUB 100:loc$=x$'fr
actional part
840 apx$=one$:MID$(red$,1)=CHR$(ASC(red$)OR &80)'abs(re
d)
850 x$=red$:f$="b":GOSUB 100:it=VAL(ex$)
860 FOR a=1 TO it
870 wr$(0)=eul$:wr$(1)=apx$:f$="*":GOSUB 100:apx$=x$
880 'f$="b":GOSUB 100:PRINT ex$
890 NEXT a
900 red$=apx$:IF(ASC(Lnxp$)AND &80)=&80 THEN 920'expone

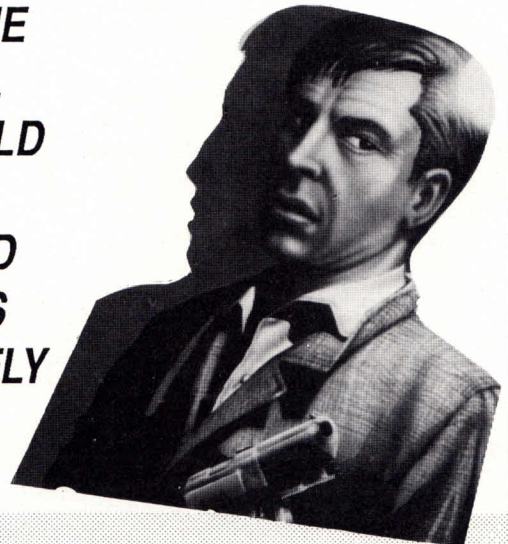
```

```

nt was +
910 wr$(0)=one$:wr$(1)=red$:f$="/":GOSUB 100:red$=x$'in
verse
920 'x$=red$:f$="b":GOSUB 100:PRINT ex$
930 apx$=one$:adj$=one$:it=0
940 'loop
950 it=it+1:x$=STR$(it):f$="a":GOSUB 100:it$=x$':PRINT"
x";
960 wr$(0)=adj$:wr$(1)=loc$:f$="*":GOSUB 100
970 wr$(0)=x$: wr$(1)=it$:f$="/":GOSUB 100:adj$=x$
980 IF x$=nil$ THEN 1030
990 PRINT:f$="b":GOSUB 100:PRINT ex$
1000 wr$(0)=apx$:wr$(1)=x$: f$="+":GOSUB 100:apx$=x$
1010 f$="b":GOSUB 100:PRINT ex$
1020 GOTO 940
1030 '
1040 wr$(0)=red$:wr$(1)=apx$:f$="*":GOSUB 100:xpx$=x$
1050 f$="b":GOSUB 100:PRINT:PRINT ex$
1060 PRINT:PRINT(TIME-ti)/300"sec"
1070 RETURN
1080 '
1090 STOP
1100 '

```

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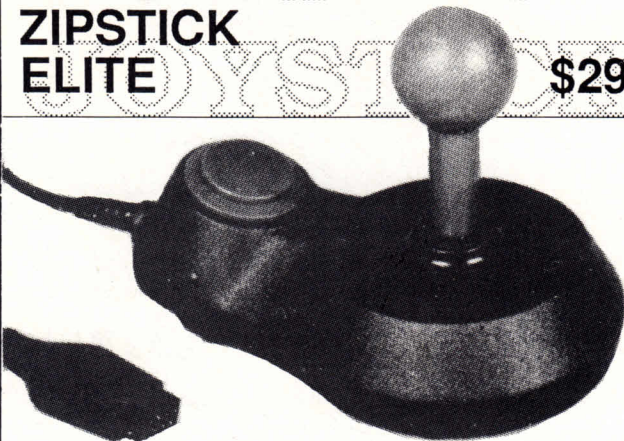
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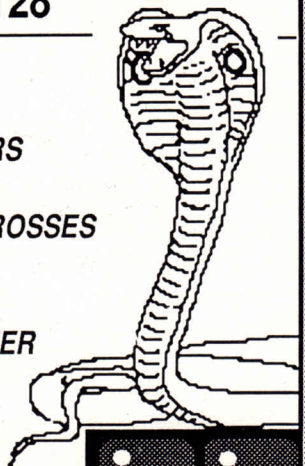
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SID, you may have gathered, is not a person but a program designed to help the user debug programs. SID runs under CP/M Plus and resides on side 2 of the Master Discs package provided with the 6128. SID stands for Symbolic Instruction Debugger and as the name suggests, can be used to create, edit, test and debug programs. SID is designed for programs 'developed for the 8080 microprocessor' but can be used with any programs eg. BASIC, Z80 machine code, 8080 machine code etc. SID can also be used with files that are not programs such as data files.

LET'S HAVE A LOOK

To access SID from CP/M, insert Side 2 of the master Discs package (or a copy) into the disc drive and type SID [Return]. Alternatively, a program/file can be loaded at the same time by typing SID <filename> [Return] where <filename> is the filename of the program/file to load (eg. SID PROGRAM.BAS).

You will then be greeted with CP/M 3 SID - Version 3.0 and then the SID prompt, '#'. If you loaded SID the second way by loading a file as well then extra information will also be displayed. Nearly all the SID commands consist of a letter to identify the command followed by the parameters eg. d100,500.

EASY DEBUGGING

One of the most useful commands is d<s>,<e> (dump) where <s> is the start address (in hex) of the start of the block to be dumped and <e> is the end so to dump the bytes from hex 100 to hex 200 you would type d100,200. The block will be dumped as hex and ASCII, the hex bytes at the left, and the ASCII decimal or greater than 127 decimal are merely printed as '.' as they are not true ASCII characters.

Another useful command is e<filename> which will load the program/file called <filename> into memory beginning at memory address 100 hex (256 decimal). As you would expect, there is also a

command to save a program/file to disc. The syntax for this command is w<filename>, <s>, <e> where <filename> is the program/file name, <s> is the start of the block to be saved and <e> the end. Note that <s> and <e> can be , and often are omitted so as to enable SID to save the program without troubling the user about start and end addresses.

CHANGE OF ADDRESS

So far all we have done is to display the contents of the memory and to save and load files. The next useful command alters the value at a particular address. The s (set) command requires one parameter, the address of the byte to be altered eg. s500. The address will then be displayed followed by the contents of the address. To alter the contents you type the replacement value followed by [Return]. The next address is displayed followed by the byte at the next address. Once again you type the replacement value and [Return]. This continues until you type . [Return] instead of the replacement byte. The s command can also be used to insert strings of ASCII characters into memory. To do this you follow the same procedure as above but instead of typing the replacement byte you type a quotation mark (") followed by the ASCII text. The bytes for the text are then inserted into memory by SID. The next address after the addresses where the text was stored is then displayed, followed by its contents. This repeats until you type [Return].

ASSEMBLY LINES

For assembly language programmers there are two commands that could be of interest. These are *a* and *l*, *assemble* and *list* respectively. The *a* command is not a true assembler but it merely allows you to enter assembly language statements (in 8080 assembly language). To do this type *a* followed by the start address. The addresses will then be displayed ready for you to type the assembly statements and [Return]. The

DEBUGGING WITH SID

Chris Wootton explores the potential of the SID utility found on your CP/M Plus system disc

statements are then assembled and stored in memory. The next address after the end of the code produced by SID is then displayed ready to accept another assembly language statement. Once again in a manner similar to that of the *s* command, this repeats until you type . instead of the assembly language statement. The *list* command is followed by two parameters and disassembles or lists a block of machine code. The first parameter is the start address and the second is the end address eg. l100,200.

ANYTHING ELSE WE OUGHT TO KNOW?

There are many other SID commands like *c* (call), *f* (fill), *m* (move), *t* (trace), *u* (untrace), *v* (value) and *x* (examine), to name a few. Most of these are commands designed to help the user "test 8080 machine code programs running under the CP/M Plus environment". For those who would like to delve further into SID there is information on SID contained in the HELP program (side 3 of the Master Discs). The information includes a listing of all the SID commands and some information on how to use the utilities provided with SID.

Note: SID can be used to modify programs written by other people eg. word processors, databases etc. This is useful if you feel that the error messages don't tell you enough about the 'error' or you wish to change prompts/messages/commands to suit your need.

THE GAME OF SURVIVAL

This was the entry from Geoff Camp which gained the most points in our recent programming competition. It works on all CPC machines

Survival generates bugs, or to be precise organisms, which depending upon a standard set of rules either multiply or die. The game is based on the reasonably well known 'game of life' by John Conway. He was a mathematician at Cambridge University. Geoff's version allows you to play against the computer or another player, and starts with the alternate placement on an eight by eight square grid of four organisms, affectionately called "Deredwuns" and "Bludoodas", which gives you a clue to their colours if you have a green screen. Once the four have been placed, the program takes over and applies the rules in relation to the placements and moves to the next generation. You are then allowed to place another organism (using the joystick/fire button or cursor keys/copy) and after the second player or the computer has placed its organism the program calculates the second generation. The game continues in this fashion until one of the organism dies out completely or a draw is declared. Be careful when typing in the program, and please remember that the program listing printed here is an exact copy of the tried and tested working version. Any errors you might have are sure to be of your own making.

RULES

These are supplied in the game at the beginning and can be called at any time by pressing 'T'. They determine whether an organism survives to the next generation and examines each empty cell on the grid to see if one can be born in it.

1. Deaths occur if an organism has one or no neighbours it dies from isolation. On the other hand if it has four or more neighbours it dies from overcrowding.
2. If an organism has two or three neighbours it survives to the next generation.
3. If an empty cell of the grid has exactly three neighbours then an organism is born in it for the next generation.

```

10 REM SURVIVAL (v2)
20 REM By G. Camp, 1988
30 REM Box 361, Lyndoch, S.A. 5351
40 REM
50 REM Conway's game of life for two persons
60 REM
70 REM (all REM's can be removed!)
80 REM
90 REM
100 GOSUB 1170: REM set all variables
    & sound envelopes
110 GOSUB 1040: REM define characters
120 GOSUB 1920: REM poke machine code
    and clear memory
130 GOSUB 1380: REM intro screen - got
    o instructions if wanted
140 GOSUB 380: REM draw game screen
150 num=num1:GOSUB 570: REM select square for
    first 4 organisms
160 SOUND 129,150,150,15,0,1:SOUND 130,300,150,15,0,1:
    SOUND 132,600,150,15,0,1
170 CALL &A000: REM calculate new board
    and print it
180 p1=PEEK(&A10E): REM get new player 1 score
190 p2=PEEK(&A10F): REM get new player 2 score
200 gen=gen+1:GOSUB 320: REM print generation and scores
210 IF p1=0 OR p2=0 THEN 240: REM test for end of game
220 num=num2:GOSUB 570: REM now get positions for 2 new men
230 GOTO 160: REM do it all again and again!!
240 GOSUB 900: REM pronounce winner
250 GOSUB 1380: REM intro screen - again
260 GOSUB 1320: REM reset game variables
270 GOSUB 1940: REM clear memory block
280 GOTO 140: REM and play again
290 REM
300 REM print scores and generation
310 REM
320 PEN 1:LOCATE 34,14:PRINT USING"###";p1
330 PEN 2:LOCATE 34,18:PRINT USING"###";p2
340 PEN 3:LOCATE 32,10:PRINT USING"####";gen:RETURN
350 REM
360 REM draw screen
370 REM
380 MODE 1:INK 0,0:BORDER 0:INK 1,6:INK 2,11:INK 3,10:PEN 3:PAPER 0:WINDOW 1,25,1,25

```



```

390 PRINT sc$(0);:FOR x=1 TO 7:PRINT sc$(1)sc$(1)sc$(2)
;:NEXT:PRINT sc$(1)sc$(1)sc$(3);:WINDOW 1,40,1,25
400 x=27:y=1:n=14:l=5:GOSUB 510
410 x=27:y=6:n=14:l=5:GOSUB 510
420 x=27:y=21:n=14:l=5:GOSUB 510:WINDOW #1,28,39,22,24:
PAPER #1,0
430 PEN 2:LOCATE 28,3:PRINT"-=";:PEN 1:PRINT"SURVIVAL";
:PEN 2:PRINT"--"
440 PEN 3:LOCATE 29,8:PRINT"GENERATION"
450 PEN 1:LOCATE 28,12:PRINT men$(1):LOCATE 31,12:PRINT
name$(1)"S";
460 PEN 2:LOCATE 28,16:PRINT men$(2):LOCATE 31,16:PRINT
name$(2)"S";
470 GOSUB 320:RETURN
480 REM
490 REM draw boxes - x=xpos y=ypos n=width l=length
500 REM
510 LOCATE x,y;:PRINT CHR$(150)STRING$(n-2,154)CHR$(156
);:FOR yy=y+1 TO y+1-2:LOCATE x,yy:PRINT CHR$(149);:LOC
ATE x+n-1,yy:PRINT CHR$(149);:NEXT
520 LOCATE x,yy:PRINT CHR$(147)STRING$(n-2,154)CHR$(153
);
530 RETURN
540 REM
550 REM choose positions on board - alternate players
560 REM
570 FOR i=1 TO num
580 GOSUB 680
590 turn=2+(turn=2)
600 GOSUB 680
610 turn=2+(turn=2)
620 NEXT
630 turn=2+(turn=2)
640 CLS #1:RETURN
650 REM
660 REM move cursor and select square
670 REM
680 CLS#1:PEN #1,3:IF comp=turn THEN 820
690 PRINT#1," Place your";:PRINT#1,men$(turn); " ";name
$(turn);
700 x=1:xx=1:yy=1:y=1:GOSUB 1500
710 IF INKEY(35)=0 THEN GOSUB 1540:GOSUB 380:CALL &A098
:GOTO 680
720 IF (INKEY(0)=0 OR INKEY(72)=0) AND y>1 THEN yy=y-1
730 IF (INKEY(2)=0 OR INKEY(73)=0) AND y<8 THEN yy=y+1
740 IF (INKEY(8)=0 OR INKEY(74)=0) AND x>1 THEN xx=x-1
750 IF (INKEY(1)=0 OR INKEY(75)=0) AND x<8 THEN xx=x+1
760 GOSUB 1500:x=xx:y=yy:GOSUB 1500
770 IF (INKEY(9)=0 OR INKEY(76)=0) AND PEEK(FNadr)=0 TH
EN POKE FNadr,turn:LOCATE x*3-1,y*3-1:PRINT men$(turn);
:SOUND 7,50*turn,-1,0,1,1:p1=p1-(turn=1):p2=p2-(turn=2)
:GOSUB 320:GOSUB 1500:FOR a=1 TO 500:NEXT:RETURN
780 FOR a=1 TO 200:NEXT:GOTO 710
790 REM
800 REM computer's turn
810 REM
820 PRINT#1," MY TURN":PRINT#1,men$(1); " ";name$(1);:
CALL &A110
830 IF PEEK(&A1DA)>0 THEN 850
840 x=INT(RND*8)+1:y=INT(RND*8)+1:IF PEEK(FNadr)>0 THEN
840 ELSE 860
850 x=PEEK(&A1DA):y=PEEK(&A1DB)
860 POKE FNadr,1:p1=p1+1:GOSUB 320:FOR a=1 TO 4:LOCATE
x*3-1,y*3-1:PRINT men$(0);:FOR b=1 TO 300:NEXT:SOUND 7,
a*30,20,0,1,1:LOCATE x*3-1,y*3-1:PRINT men$(1);:FOR b=1
TO 200:NEXT:NEXT:RETURN
870 REM
880 REM pronounce winner then wait for key or 60 odd se
conds
890 REM
900 SOUND 135,0,1,0:FOR x=30 TO 1 STEP -1
910 SOUND 1,x*40,20,0,1:SOUND 2,x*20,20,0,1:SOUND 4,x*3
0,20,0,1:PEN #1,3
920 IF p1=0 AND p2=0 THEN PRINT#1:PRINT#1," DRAWN GAME"
:GOTO 960
930 PRINT#1," SURVIVOR"
940 IF p1=0 THEN win=2 ELSE win=1
950 PRINT#1,men$(win); " ";name$(win)"S";
960 FOR y=1 TO 150:NEXT:CLS #1:FOR y=1 TO 150:NEXT:NEXT
970 PEN #1,2:PRINT#1,"Press a key to replay":PEN #1,1:
PRINT#1,"--SURVIVAL=-";
980 WHILE INKEY$("<")="":WEND
990 a$="":x=0:WHILE x<13200 AND a$="":x=x+1:a$=INKEY$:W
END
1000 RETURN
1010 REM
1020 REM redefine characters
1030 REM
1040 IF PEEK(&A000)<>&DD THEN SYMBOL AFTER 240:MEMORY &
9FFF
1050 SYMBOL 241,24,100,4,35,85,84,14,63
1060 SYMBOL 242,112,136,128,220,163,32,114,124
1070 SYMBOL 243,114,245,185,131,176,143,96,31
1080 SYMBOL 244,78,175,157,193,13,241,6,248
1090 SYMBOL 245,3,28,126,198,214,76,125,121
1100 SYMBOL 246,192,56,126,99,107,51,190,158
1110 SYMBOL 247,115,35,41,46,23,18,9,6
1120 SYMBOL 248,206,196,148,116,232,72,144,96
1130 RETURN
1140 REM
1150 REM set variables
1160 REM
1170 MODE 1:INK 0,0:BORDER 0:INK 1,26:PEN 1:PAPER 0:LOC
ATE 22,25:PRINT"Please wait...."
1180 RANDOMIZE TIME:DEFINT a-z
1190 DIM men$(2),sc$(3),name$(2)

```

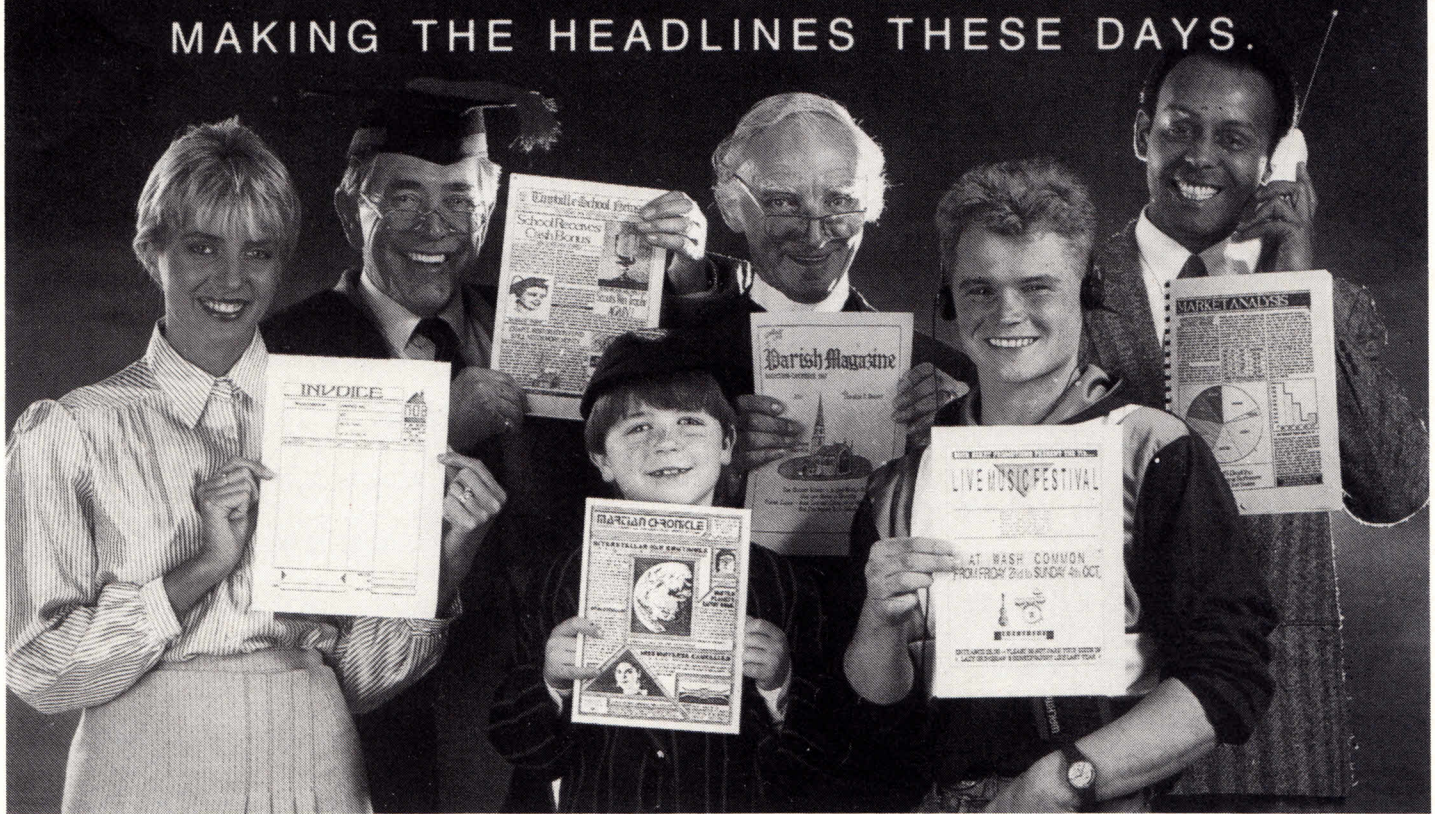
CPC TYPE-IN

```

1200 DEF FNadr=&A20B+(x-1)+10*(y-1)
1210 ENT -1,1,-2,3,1,4,5,1,-6,1:ENV 1,1,15,6,5,-1,3,5,-
1,5,5,-1,10
1220 s$=CHR$(154)+CHR$(154)+CHR$(158):sc$(0)=CHR$(150)+
s$+s$+s$+s$+s$+s$+s$+CHR$(154)+CHR$(154)+CHR$(156)
1230 s$=CHR$(149)+" ":sc$(1)=s$+s$+s$+s$+s$+s$+s$+s$+C
HR$(149)
1240 s$=CHR$(154)+CHR$(154)+CHR$(159):sc$(2)=CHR$(151)+
s$+s$+s$+s$+s$+s$+s$+CHR$(154)+CHR$(154)+CHR$(157)
1250 s$=CHR$(154)+CHR$(154)+CHR$(155):sc$(3)=CHR$(147)+
s$+s$+s$+s$+s$+s$+s$+CHR$(154)+CHR$(154)+CHR$(153)
1260 num1=4:num2=1:name$(1)="DEREDWUN":name$(2)="BLUDOO
DA"
1270 men$(2)=CHR$(15)+CHR$(2)+CHR$(241)+CHR$(242)+CHR$(
10)+CHR$(8)+CHR$(8)+CHR$(243)+CHR$(244)
1280 men$(1)=CHR$(15)+CHR$(1)+CHR$(245)+CHR$(246)+CHR$(
10)+CHR$(8)+CHR$(8)+CHR$(247)+CHR$(248)
1290 REM
1300 REM reset game variables
1310 REM
1320 turn=INT(RND*2)+1:REM select whose turn first
1330 gen=0:p1=0:p2=0
1340 RETURN
1350 REM
1360 REM intro screen
1370 REM
1380 MODE 1:INK 0,0:BORDER 0:INK 1,6:INK 2,11:INK 3,10:
PAPER 0:PRINT CHR$(23)CHR$(1);
1390 PEN 3:x=14:y=4:n=12:l=5:GOSUB 510:PAPER 0:PEN 1:LO
CATE 16,6:PRINT"SURVIVAL"
1400 LOCATE 8,5:PRINT men$(1):LOCATE 5,8:PRINT name$(1)
:LOCATE 30,5:PRINT men$(2):LOCATE 27,8:PRINT name$(2)
1410 PEN 1:x=10:y=13:n=19:l=5:GOSUB 510:PEN 2:LOCATE 12
,15:PRINT CHR$(164)" G. Camp, 1988"
1420 x=5:y=21:n=28:l=5:GOSUB 510:PEN 3:LOCATE 6,22:PRIN
T"Press [I] for instructions":LOCATE 12,23:PRINT "[C] t
o play computer":LOCATE 12,24:PRINT"[T] for two players
"
1430 GOSUB 1820
1440 IF a$="I" THEN GOSUB 1540:GOTO 1380
1450 IF a$="C" THEN comp=1:RETURN
1460 IF a$="T" THEN comp=0:RETURN ELSE GOTO 1430
1470 REM
1480 REM draw box in screen grid box - x,y = grid pos
1490 REM
1500 MOVE 48*x-36,435-48*y:DRAWR 0,-38,turn:DRAWR 38,0:
DRAWR 0,38:DRAWR -38,0:RETURN
1510 REM
1520 REM instructions
1530 REM
1540 MODE 1:INK 0,13:BORDER 13:INK 1,26:INK 2,0:INK 3,4
:PEN 3:WINDOW #1,3,38,6,20:PEN #1,2:PAPER #1,0
1550 x=1:y=1:n=30:l=3:GOSUB 510
1560 x=1:y=4:l=19:n=40:GOSUB 510
1570 x=11:y=23:l=3:n=30:GOSUB 510
1580 PEN 1:LOCATE 2,2:PRINT"SURVIVAL - INSTRUCTIONS..
.":LOCATE 12,24:PRINT"Press any key to continue.."
1590 PRINT #1,"This game is based on Conway's game of l
ife.":PRINT#1
1600 PRINT#1,"In the original game counters, repre
senting organisms, were placed on a grid and then a set
of rules was used to determine whether each organis
m survived to the next generation.":PRINT#1
1610 PRINT#1,"Each empty cell was also examined to see i
f a new organism could be born in it for the next gener
ation.":GOSUB 1820:CLS #1
1620 PRINT#1,"The rules are.":PRINT#1:PRINT#1,"Deaths:"
1630 PRINT#1,"If an organism has one or no neigh
bors then it dies from isolation.":PRINT#1,"If
an organism has four or more neighbors then it dies
from overcrowding."
1640 PRINT#1:PRINT#1,"Survivals.":PRINT#1,"If an organi
sm has two or three neighbors then it survives to t
he next generation.":GOSUB 1820:CLS #1
1650 PRINT#1,"Births.":PRINT#1,"If an empty cell of the
grid has exactly three neighbors then an organi
sm is born in it for the next generation."
1660 PRINT #1:PRINT#1,"SURVIVAL is Conway's game of lif
e for two players, or for one player against the com
puter."
1670 PRINT#1:PRINT#1,"Each person controls the destiny
of a different organism, and the winner is the organism
that survives to completely control the 8x8 playing
grid."
1680 GOSUB 1820:CLS #1:PRINT#1,"The organisms playing t
o survive are the "name$(1)"S and the "name$(2)"S.":PRIN
T#1:PRINT#1,"The computer always plays as the "name$(1)
"S."
1690 PRINT#1:PRINT#1,"Each player first places";num1;"o
rganisms";:PRINT#1,"on the grid, and then Conway's rule
dare applied to calculate the next generation."
1700 PRINT#1:PRINT#1,"When births are calculated the ne
w organism generated is determined by which organism h
as at least two neighbors to the empty grid cell.":
GOSUB 1820:CLS #1
1710 PRINT#1,"If one or both organisms die out then
the game ends.":PRINT#1
1720 PRINT#1,"After each generation has been calcu
lated the players can add";num2;:PRINT#1,"more organism
s to the grid in any empty grid cell."
1730 PRINT#1:PRINT#1,"The process is then repeated unti
l a winner has been found.":PRINT#1:PRINT#1,"Control key
s:"
1740 PRINT#1," Joy stick or cursor keys to move.":PR
INT#1," Fire button or copy key to select an empty
grid cell.":GOSUB 1820:CLS #1

```

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1750 PRINT#1,"Players take turns to set organisms onto the grid, and the first turn is alternated between the p layers.":PRINT#1:PRINT#1,"A message in the bottom right hand of the screen indicates whose turn it currently is."

1760 PRINT#1:PRINT#1,"Hint: Use your turn to add organisms that will result in the birth of more of your organisms or the death of your opponent's organisms.":PRINT#1

1770 PRINT#1,"Press [I] at any time during the game to reread these instructions."

1780 GOSUB 1820:RETURN

1790 REM

1800 REM empty keyboard buffer and get a key - with or without sound

1810 REM

1820 SOUND 1,98,-1,0,1:SOUND 2,100,-1,0,1:SOUND 4,102,-1,0,1

1830 WHILE INKEY\$<>:"":WEND

1840 a\$="":WHILE a\$="":a\$=UPPER\$(INKEY\$):WEND

1850 RETURN

1860 REM

1870 REM poke m/c routine and clear memory block

1880 REM entries are: &A000 - calculate new screen and print it.

1890 REM &A098 - print screen

1900 REM &A110 - computers turn

1910 REM

1920 RESTORE 1950:t!=0:FOR x=&A000 TO &A1DB:READ a\$:a=VAL("&"a\$):t!=t!+a

1930 POKE x,a:NEXT:READ check!:IF check!<>t! THEN MODE 1:PRINT"DATA ERROR":END

1940 FOR x=&A200 TO &A2FF:POKE x,0:NEXT:RETURN

1950 DATA DD,21,0B,A2,01,01,01,21,00,00,CD,3D,A0,7C,85,FE,00,28,62,FE

1960 DATA 01,28,5E,FE,04,30,5A,FE,03,28,5A,DD,7E,00,DD,77,6E,DD,23,04

1970 DATA 78,FE,09,C2,07,A0,06,01,0C,79,FE,09,28,57,DD,23,DD,23,C3,07

1980 DATA A0,DD,7E,01,CD,6A,A0,DD,7E,FF,CD,6A,A0,DD,7E,09,CD,6A,A0,DD

1990 DATA 7E,0A,CD,6A,A0,DD,7E,0B,CD,6A,A0,DD,7E,F7,CD,6A,A0,DD,7E,F6

2000 DATA CD,6A,A0,DD,7E,F5,FE,01,28,05,FE,00,C8,2C,C9,24,C9,3E,00,18

2010 DATA A9,DD,7E,00,FE,00,20,A2,7D,FE,02,38,04,3E,02,18,99,3E,01,18

2020 DATA 95,11,00,A2,21,6E,A2,01,64,00,ED,B0,01,01,01,DD,21,0E,A1,3E

2030 DATA 00,DD,77,00,DD,77,01,11,0B,A2,C5,E1,7C,84,84,3D,67,7D,85,85

2040 DATA 3D,6F,CD,75,8B,1A,FE,01,28,09,FE,02,28,0D,21,F2,A0,18,0E,21

2050 DATA FA,A0,DD,34,00,18,06,21,04,A1,DD,34,01,7E,FE,00,28,06,CD,5A

2060 DATA BB,23,18,F5,13,04,78,FE,09,20,C3,06,01,0C,79,FE,09,C8,13,13

2070 DATA 18,88,20,20,0A,08,08,20,20,00,0F,01,F5,F6,0A,08,08,F7,F8,00

2080 DATA 0F,02,F1,F2,0A,08,08,F3,F4,00,0B,07,DD,21,0B,A2,01,01,01,21

2090 DATA 00,00,DD,7E,00,FE,00,20,48,CD,3D,A0,7C,85,FE,04,30,3F,FE,00

2100 DATA 28,38,FE,01,28,2A,FE,02,28,15,7C,FE,03,28,2E,FE,02,28,2A,FE

2110 DATA 00,28,04,3E,04,18,24,3E,05,18,20,7C,FE,02,28,08,FE,00,28,15

2120 DATA 3E,06,18,13,3E,01,18,0F,7C,FE,01,28,04,3E,02,18,06,3E,04,18

2130 DATA 02,3E,00,DD,77,6E,DD,23,04,78,FE,09,20,A1,06,01,DD,23,DD,23

2140 DATA 0C,79,FE,09,20,95,3E,00,32,D9,A1,32,DA,A1,32,DB,A1,3E,06,F5

2150 DATA 32,08,A1,CD,A6,A1,3A,D9,A1,FE,00,20,07,F1,3D,FE,00,20,EC,C9

2160 DATA F1,C9,01,01,01,DD,21,79,A2,3A,08,A1,DD,BE,00,28,15,04,DD,23

2170 DATA 78,FE,09,20,F0,0C,DD,23,DD,23,06,01,79,FE,09,C8,18,E3,3E,01

2180 DATA 32,D9,A1,78,32,DA,A1,79,32,DB,A1,C9,00,00,00,00

2190 DATA 46787



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We will be closed for business from Tuesday 20th December and will re-open on Monday 16th January 1989.

We will do our utmost to despatch all orders received up to 12th December in time to reach you before Christmas (Australia Post permitting). Any orders received after the 12th may not make it.

If you don't want to pay \$19.50 for a sealed and moulded Joystick Splitter available through this magazine, you could save about \$10 and construct one yourself and by all accounts get your computer to recognise that it has two joysticks fitted which ours is not designed to do. Mr. R.S. Hamilton informs us that his design below costs \$9.70 for all the parts including cable which are available from Radio Parts in Victoria. (We assume that Radio Parts does not have a monopoly on these items and that there are readily available in other states).

WHAT YOU NEED

1 x Female 9-pin 'D' connector
2 x Male 9-pin 'D' connectors
A short length of 6 core cable

THE CONNECTIONS

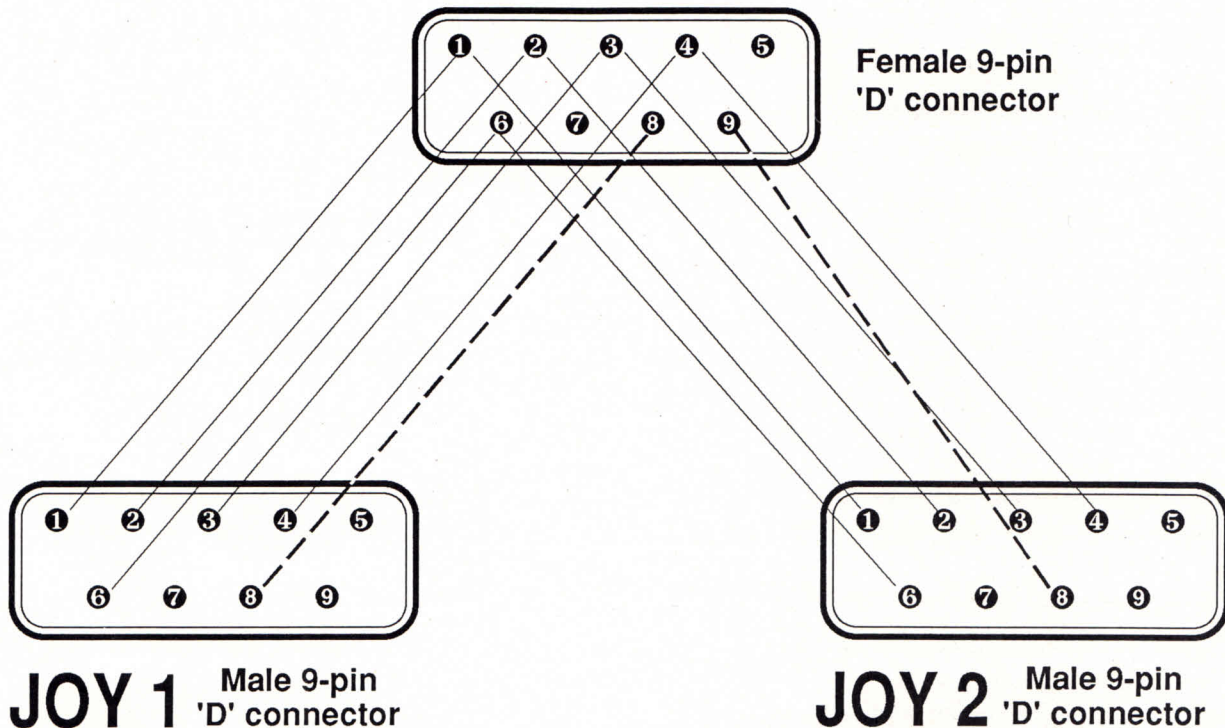
Separate connections are made from pins 1, 2, 3, 4 and 6 of the female connector to the same pins on the first male connector (Joy 1). The same connections are then made from the female connector to the second male connector (Joy 2). The last two connections are from pin 8 of Joy 1 to pin 8 of the female connector and from pin 8 of Joy 2 to pin 9 of the female connector. Note that pins 5 and 7 are not used.

AN EASY WAY TO SPLIT UP

A simple hardware project from R. Hamilton of Melton to provide your CPC with a Dual Joystick Splitter

TESTING

To test Joy 1, attach the completed splitter and a joystick to the relevant connector. When moved up, down etc. the normal characters (pointing arrows and an X) should show on the screen after the 'Ready' prompt. Now attach a joystick to the Joy 2 connector and move it in the same way. This time you should see a 6 for UP, 5 for DOWN, r for LEFT, t for RIGHT and g for FIRE. We haven't tried to build this unit so we must take Mr. Hamilton's word for it that it works. A joystick extension cable can be constructed by ignoring the instructions for the Joy 2 connector.



MASTERFILE III

FOR THE AMSTRAD CPC6128
(ALSO CPC464/664 WITH DK'TRONICS 64K RAM)

FIRMLY ESTABLISHED...

MASTERFILE III is now firmly established as THE filing system for the CPC6128.

For the benefit of newcomers to the CPC machines: MASTERFILE III is a powerful and flexible data filing and retrieval system. All "database" systems require that your data is organised into fields and records. Unlike most, MASTERFILE does not commit you to field lengths or formats, since ALL data is variable-length and optional. Files are not preformatted, and only used bytes are saved to disc. Also, unlike the rest, MASTERFILE allows multiple user-defined ways of viewing/printing your data. And unique in its price range, MASTERFILE offers RELATIONAL FILE options, whereby common data can be entered just once and shared by many records. Maximum field size is 240, maximum fields per record is over 50, and maximum file size is 64K. Room for 1,000 full names and addresses, for example. Only one disc drive is required. It is menu driven throughout, and comes with detailed illustrated manual, and example files.

SO VERY VERSATILE...

Just about ANY kind of information can be handled by MASTERFILE. You can EXPORT the data to other systems (eg. PROTEXT/MERGE and TASWORD). You can even merge your own USER BASIC to MASTERFILE for customised file processing, or build new files from other computer sources. The speed of SEARCH of MASTERFILE is second to none. Records can be sorted ascending/descending, character or signed numeric, even embedded keys such as surnames. Other functions are field-to-field calculations, and several-across label printing. We simply don't have room to list all the features; give us a call if you are still in doubt of the power of MASTERFILE III.

ALL THIS POWER...

This is no toy thrown together in BASIC and half-tested, but real machine-coded computing power professionally constructed. We have had IBM and Apricot users beg us for a MASTERFILE for their machines - when they had seen the earlier CPC MASTERFILE.

MASTERCALC 128

THE MODERN CPC6128 SPREADSHEET SYSTEM

This is the sister program to the famous MASTERFILE III, and is a fast and friendly spread-sheet program with high capacity (over 7,000 cells) and impressive speed. Like MASTERFILE, it is entirely machine coded. Like MASTERFILE, it needs just one disc drive and does not use CP/M and it uses the same optimised RAM bank-switch code. "Another exceptional utility from Campbell" said Popular Computing Weekly of the original MASTERCALC. The "128" edition is more powerful.

All spread-sheet systems allow manipulation of any array of numeric data.

What sets MASTERCALC 128 apart from the rest are these features:

Full-screen or split screen windows; variable column display width; variable column formats, 0-7 decimal places; columns can be formatted individually; ultra high-precision floating point arithmetic; direct totals and sub-totals; up to 99 relocatable formulae (usually 10 is ample!); formulae up to 75 characters, and arithmetic expressions, plus conditions, relative cell references; instant highlight of computed data; store text anywhere;

pop-up help menu; 40/80 column mode; auto cursor-advance; text output to printer or to disc for word processing; fast hi-res histogram of any 3 rows; Epson screen dump; detailed manual with illustrated tutorial.

For the enthusiast, there is even USER BASIC access to the cell data, so that special operations can be performed. For example, it is possible to ship data to/from MASTERFILE III.

MASTERCALC 128 costs just \$99.00 and MASTERFILE III costs \$109.00 including postage and packing, and if you request air-mail within Australia, we'll do that at no extra charge too! (If you live outside Australia please add \$4.00 for air-mail cost. Bankcard, Mastercard or Visa accepted).

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Protonics have an impressive range of Educational software for the Amstrad CPC, PCW and PC. It caters for all age groups from pre-school to HSC and answers any criticism that there is insufficient software of this nature for Amstrad. One of the areas which is sometimes difficult to successfully cover is for the young, where distractions and boredom are more quickly encountered. The Fun School range goes a long way in making the learning process an enjoyable experience.

There are three packages: Fun School 1 catering for the under-fives, Fun School 2 for the 5 to 8 year age group and Fun School 3 for the 8 to 12 year old range - all for the Amstrad CPCs. A description now follows with our comments where necessary. Where we mention 'user' it can mean either the child or parent/supervisor. Each pack comes on a single disc and is loaded simply with RUN"DISC. No instruction manuals are supplied as they are displayed when each unit is loaded. In any case, they are very short and normally not necessary.

FUN SCHOOL 1 (for under-fives)

There are ten units in this package, all very colourful, attractive and in many cases amusing for young minds.

Numbers: a simple test to visually recognise and match numbers with their spelling. From one to 20 questions can be asked (the user selects) with the number range running from 2 to 9. Again, the user can select the highest number the questions will cover. The number is spelt in very large characters and the child is prompted to press the correct number key on the keyboard. If incorrect, the computer will give a short 'grunt' and display coloured boxes at the bottom of the screen for counting purposes. If the correct answer is input a large smiling face is displayed. Up to three attempts are allowed for each number.

Pelican: this unit refers to a 'pelican road crossing' as found in the UK, but there is no difference from an

Australian pedestrian crossing with traffic signals. The object is to safely cross the road using the 'red and green man' as the signal to proceed or not. The space-bar is the means to move the pedestrian up to the crossing and press the 'wait' button. Once the traffic stops the 'man' changes green and the child can press the space bar to move the pedestrian across the road. Attempting to cross on a 'red man' will sound a loud warning and stopping on the crossing will get a few 'toots' from an impatient truck driver. The reward for crossing safely is to visit the Ice Cream vendor.

Counting: a fixed ten questions at counting the number (from 1 to 9) of red diamonds showing on the screen. If the answer is incorrect the diamonds are numbered. Likewise, the diamonds are also numbered to confirm that a correct choice has been made.

House: a simple picture is drawn as the child is asked to select colours for various segments. The program 'suggest' colours but any can be used. The child also has to choose the number of apples to appear on a tree. When completed, the 'B' key is pressed to ring a bell and the occupant of the house emerges.

Magic Garden: a test of upper or lower case letters and numbers in relation to those shown on the keyboard. If the match is correct a flower grows. The aim is to 'grow' ten flowers.

Match Maker: a nine square grid contains either upper or lower case

letters, numbers, patterns, shapes or pictures (the user chooses). One of these will match with the contents of a separate square at the bottom of the screen. The space bar moves a flashing square over the grid and enter makes the selection. If it matches part of a picture is drawn on the right hand side of the screen. An incorrect answer gives a 'grunt'. The final picture has a small cave-man jumping up and down with continuous correct answers, but the test ends with an incorrect answer and a coconut dropping on his head.

Sea Side: similar to "House" in that colours are selected to fill a boating scene with the number of clouds and birds chosen by the child.

Snap: either upper or lower case letters (or both) are tested here. Two very large letters are displayed on the screen separated by a thin line. The child has to press the space bar when the two characters are the same. Three lives (mistakes) are allowed and the user may vary the reaction time allowed. The thin line represents the time allowed and gets shorter the longer the child takes to react.

Colours: this tests for matching of colours. A picture is displayed on the left of the screen and the same on the right except that the colours may differ from the one on the left. The colours will change with time in between for the child to check to see if both are the same. Pressing the space bar indicates that the two look the same and if correct a cute tune

FUN SCHOOL TRILOGY

Some youngsters may be surprised to learn that their Amstrad can do other things apart from play shoot-em-ups

plays.

Alphabet: to test familiarity with the order of letters in the alphabet. This unit can be run with or without prompts, the former displaying the next letter to type on the keyboard. Does the complete alphabet, with small colourful characters lining up the letters as selected then marching off at the completion.

We used three youngsters, aged 3, 4 and 5. The 4 and 5 year olds got the most out of the package and both were pleasantly surprised and happy that they recognised much of what they had seen at kinder. We believe they felt quite proud of their achievements and both were pulled from the computer asking for more. In our books that is a sign of success. The only difficulty they had was translating the upper case letter shown on the keyboard into the lower case shown (in some units) on the screen.

FUN SCHOOL 2 (5 - 8 years)

This package moves up a few notches, but still maintains the colourful approach and the same number of units as the first package.

Derrick: A spider is parachuting down the screen with a number. This has to be matched with a key on the keyboard and, if correct, will activate a rocket to shoot the spider down. The rocket is guided with keys 'Z' and 'X'. An alternative is to select a number which when added to the spider's number produces a total of 10. (This unit had the only spelling error we spotted - in the instructions).

Castle: a ladder connects the edge of a moat with the top of a castle where a princess stands waiting to be rescued. To move the Knight in shining armour an addition has to be performed and a correct answer will move him up a step. An incorrect answer will move him down. The user can choose levels, for example, level 1 can produce very simple sums to perform like 1+1 or 1+0 or level 99 (the highest) will give answers in excess of 100.

Fred's Words: Sentences are dis-

played with the last word missing. A choice of four possible words is shown beneath the sentence from which only one will be correct to complete the sentence. This is not as easy as it sounds as the choice of words are very similar at first glance.

Hilo: a simple 'guessing the number' game. Levels cover numbers under 100, 200, 300 or 400. When a guess is made, the program will advise whether the choice is too high or too low, both visually and by sound. The number of guesses is displayed and once the correct number is found an opportunity is given to enter the score in an 'Honours Table'. Unfortunately, this is not permanently recorded.

Maths Test: a unit to answer as many question as possible in just one minute. The user can choose the speed, range of calculations and whether addition, subtraction



or multiplication should be tested.

Mouser: a 144 square grid hides a mouse. By quoting co-ordinates (A to L and 1 to 12), squares are selected as a guess. The program indicates the bearing of the mouse in relation to the last square entered giving the child a clue as to the direction he/she should move. The user has to specify the number of guesses to be made, which in effect imposes a level of difficulty.

Number Signs: a number of simple equations are displayed on the screen, but with the mathematical signs missing. These have to be inserted to make the equation correct. Fortunately, it is not neces-

sary to press the shift key when selecting the correct sign.

Sea Wall: this unit requires the child to build a sea wall to stop the tide from flooding the town. An additional hazard is a large octopus which is floating just beneath the surface. Answers to simple maths questions will provide the bricks (only five are needed) but wrong answers allow the tide and octopus to rise up one brick height. Failure allows the octopus to devour the builder, but success has the reverse effect.

Super Spell: a word is displayed for a short period then the child is required to type the word in again. User options allow the program to use its own words or those previously entered and saved by the user. The user also has the option to set the time delay before the word is cleared from the screen. A test of up to 84 words can be carried out. At the end of the test an analysis of the child's performance is provided.

Balance: a set of scales shows a mathematical question in the left pan requiring an answer which will go in the right pan. If the answer is incorrect, the scales go out of balance. The user can specify the number of questions to be asked (up to 500!), the highest number to be used in the question and the sign to be tested on. There is no second chance on supplying the answer.

This second set is clearly more advanced and a shade more serious. A nice touch in all units is that the child does not have to worry about using the shift key to type in signs - the program takes care of recognising say, the equals/plus key as just a plus. We used a six and two eight year olds as our guinea pigs this time. The higher levels available for the user to choose made the older two think hard, and the units with timing challenges were most successful. The younger of the three struggled a little with the spelling and logic units which seemed to suggest that probably another year in school would be needed before she could tackle all the units. Maybe

the age range for this package should be pitched at 6 to 9 years old.

FUN SCHOOL 3 (8 - 12 years)

This is the final package in the trio. Rather like Trivial Pursuits for young players, there are a few questions in these ten units which may also tax an adult mind.

Anagrams: jumbled words based on things you would expect to see in a kitchen are presented one at a time for solution. A time limit in seconds is suggested. When the solution has been entered the program advises the time taken. If the answer is correct points are awarded and a 'skill level' displayed. The points scored can go into a negative situation if the time taken exceeds the suggested time.

Code Breakers: a 'Mastermind' clone where the child has to deduce the positions and colours of hidden pegs (4 or 5). Things are made a little difficult in that some pegs can be the same colour.

Hangman: the traditional word guessing game where letters wrongly guessed cause part of a scaffold to be built and eventually hang a poor victim if the word is not found within a prescribed number of turns. Two other variations on the victim's death are provided in Chopman (a guillotine) and Shotman (a firing squad).

Dogduckcorn: a test of logic where a dog, duck and corn must be ferried across a river but the dog must not be left alone with the duck nor the duck with the corn. It can be solved in seven moves.

Towers of Hanoi: another test of logic where 5 rings of different sizes have to be moved from the first of three pegs to the third without placing a larger peg on a smaller one.

Maths Hike: this unit tests mental arithmetic abilities. A number is displayed (the user can determine the highest limit between 10 and 100) then a series of calculations to be performed on that number (the user can specify between 2 and 10) to which the child must provide the

correct answer. The user may also set a level of between 1 to 9 which has the effect of adjusting the speed at which the calculations are displayed.

Guessing: a three character number is hidden and by a process of deduction, the child must discover the number. The test starts with three "?" and the first guess is entered. Under each number (Hs, Ts and Us) a "<" or ">" sign will appear indicating that the choice is either higher or lower than the number to be guessed. An "=" sign is displayed if the number is correct.

Odd Man Out: four words are displayed in coloured boxes on the left of the screen. Using keys A and Z the child moves a truck to the side of the word that he/she considers to be the odd one out and hits 'enter'. While this is going on a small boat is travelling across the bottom of the screen to a boat house. The object is to select the correct word before the boat reaches home. If the program finds that the child is consistently answering correctly, the boat speed increases thereby reducing the amount of time to make the selection.

Nim: a game of logic where the child plays against the computer in removing a selected number of sheep from the screen. The object is to leave the computer with the last sheep.

Pelmanism: a 'concentration-type' game where 20 pairs of cards containing pictures are randomly distributed over a 10 x 4 grid. The child must identify two cards by quoting the co-ordinates of each which will reveal their pictures. The computer

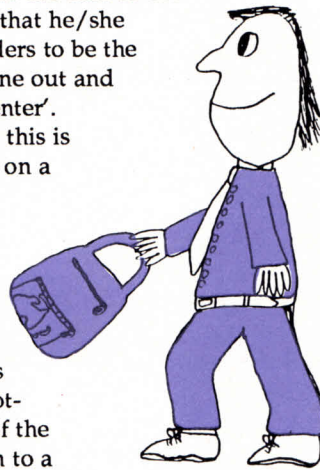
and the child take it in turns to play. The user can determine a level of difficulty from 1 to 6.

Our software-testers this time consisted of three children, one of 8, one of 10 and the other 12. The eight year old struggled a little on some (especially Anagrams) but with the units set at the lowest levels was reasonably happy. The 10 year old naturally did better but still found some areas quite testing. The oldest thought it was going to be a breeze, but with the levels pitched higher soon found that it was not going to be as easy as the youngest's test. This package certainly had them all thinking hard and, fortunately, smiling a lot.

Most people would agree that it is difficult to pigeon-hole a child's abilities. He or she may display above average ability in some areas and less than average in others. An 8 year old may do better than a 10 year old on certain projects yet feel totally overwhelmed in others while the ten year old is waiting to move on. All children will find their own level naturally and must not be pushed on to higher things if they are struggling. This is probably a long-winded way of saying that the age range mentioned for each package is a guide only, and the parent/supervisor must use their own judgement in selecting both the package and the levels where the facility is provided.

When we have looked at educational software in the past, we have always maintained that the software can be brilliant, but unless it keeps the attention of the child it fails. The Fun School range succeeded in most cases to keep our guinea-pigs wanting to play more. The only regret we have is that the range is suitable only for CPCs.

Fun School 1, 2 and 3 are published by Database Software (UK) and imported by Pactronics. They are available at \$29.95 each from retailers around Australia or by mail order from The Amstrad User.



SORCERER LORD

Vic Renfrew peers into "the game where sorcery is a reality" from PSS (cassette or disc)

"Hark listener! In the years since the death of the Shadowlord, some men have searched out the mystic Citadel in the North, and escaped South to become lords; Sorcerer Lords. It was thus that knowledge of the ways of sorcery has been passed to man.

"But lo, a new Shadowlord has arisen; a young ambitious man who, not content with the decadence of his forefathers has gathered the remnants of his forces and gazed with covetous eyes at the World. Craving the power of the Rune Rings, and a longing to make his empire great again, he has bred more Wolf Riders and warriors and reformed his Shadow Legion, under the command of warped and enslaved men.

"Thus the quiet kingdom of Galanor is to feel the impact of this onslaught. Even as the Shadowlord ordered his forces, by force of his will, to invade the South, a Sorcerer Lord has begun to raise the forces of man and elf to meet this threat.

"YOU are that Sorcerer Lord."

Sorcerer Lord is a fantasy war-game which deals with the battle between good and evil. As the Sorcerer Lord, your aim is to mobilize and gather your forces, resist the initial onslaught of the Shadowlord and prevent his forces from holding any Galanor fortress or Rune Rings for a period of twelve

days. Failure to do this means almost certain defeat.

The game is broken up into five phases: Shadowlord movement, Shadowlord combat, Galanor alliance, Galanor movement and Galanor combat. After each game turn there is the chance to continue on or save the game for a later day. In control of the forces of the Shadowlord is the computer. The main action takes place on the 'Tactical Map', which is made up of a series of coloured 'Hex's' which represent the different types of terrain. The map is re-drawn each time one of the forces reaches the edge. Control of movement utilizes the numeric keypad; the control keys and types of terrain are summarised on the 'Ready Reference Card'. There are three levels of difficulty in the game: Beginner, Advanced and Expert.

As the map overlaps several screens, a 'Strategic map' is available which shows at a glance the different types of terrain and the different nations on the map. As sorcery plays a part in the outcome of combat (when and at what strength it is used is decided by the computer) control of the Rune Stones is vital. To form the alliance, forces must be mobilized and this is done by visiting a fortress with one of your units. The inhabitants of that fortress will mobilize on your side. Be

warned: different troops fight better in specific terrain, eg. elves fight better in forests. To get the best out of your force, they should be used in the appropriate terrain.

Sorcerer Lord comes packaged in the same style as other PSS games. The packaging consists of a hard cardboard box, and included is a very detailed Players Guide, the Ready Reference Card and a map of Galanor. Included on the Reference Card is all the information required to play the game, including information about the forces, terrain symbols and map details. PSS appear now to be producing a detailed players guide that covers all formats and providing the Reference Card with the details for each specific machine. This is a great concept as it allows more detail about the game and forces to be included in a reasonable length Players Guide which the player does not have to consult once the game has started, except to gain an insight of a particular type of unit or tactic. All you need to play the game is the Ready Reference Card.

The game itself plays well. In the early stages the forces of the Shadowlord are greatly superior to the forces of Galanor, but as you visit more and more fortresses, the size of your army grows. The computer opponent, even in the Beginner level is tough, and a lot of thought is required to be successful. One piece of advice is to check how many enemy units are in a stack before deciding to attack or not.

Sorcerer Lord is a well produced offering with a lot of good features. The Strategic Map is extremely useful as it allows disposition of forces to be seen without having to scroll the map. The colours are bright and the system of 'Hex's' is retained. Personally, I would have preferred a two-player option or to have the option of changing sides, but the different difficulty levels will produce a variation in the game play. All in all, Sorcerer Lord is a professionally produced package which will keep the strategist engrossed for many hours.

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STRAIGHT FROM THE HORSE'S MOUTH

A remarkable new UK package to predict racing results. Is it the answer to every punter's dream?

It is said that Australians will bet on two flies crawling up a wall. Statistics show that as a nation we do tend to spend quite a bit of money on gambling of one form or another. In Victoria alone some \$1.5 billion passed through the TAB coffers in the year 86/87 and this year on just one race, the Melbourne Cup, over \$50 million was handed over on wagers nationwide. Legislation decrees that around 80% has to be paid back to the lucky punters, but we all know that it is the unlucky punters who have to foot the bill.

There have been a few computer programs in the past which have attempted to make a punter's life more profitable, but many were no more successful than taking a blindfold stab with a pin in the list of horses. Then came Pro-Punter, a program written in England by Dave Atherton of DGA Software.

It is reported to have had some remarkable results which have been verified by none less than The Sporting Life and the Raceform Handicap Book - two publications which no self-respecting punter would be without. Over a six month period a stake of £10 realised a profit of £511.99 using Pro-Punter which had a success rate of 48% by selecting 36 winners from 73 races. In an independent test over a month by a UK Amstrad magazine CPC Computing, the package provided seven out of ten winners.

Pro-Punter has been designed and written primarily as an adviser and at the outset you are advised to take the advice given by the soft-

ware and not trust your own judgement if the program specifically advises "No Bet". You are reminded of the punter who put all his money on a loser and had nothing left for the winner the next day. You are also advised that it may take a period of months to get the high strike rate percentages simply because it may not be apparent which races are best analysed.

"What the bookies fear most", says Dave, "are the punters who have a few selective bets and come out on top. If you use Pro-Punter properly, rigidly following the investment advice, this is what you will be doing".

Pro-Punter is not really a piece of software that a novice (to either racing or a computer) can pick up and see immediate results. On the racing side, it requires a knowledge of how to read the sporting papers and glean the necessary information to extract and feed the database, although the manual does help a little by giving the novice some explanations and translations of racing jargon. The statistical information (form) that Pro-Punter requires for each race ranges from details of a horse's last run through weight and speed rating to breeding. As this can take quite a while to input it is important therefore to make sure you have selected the correct race. Obviously races with just a few runners and for which you have lots of information would be sensible to pick to begin with while you build up your skills in using the program (and if you are in a hurry).

What the program does is to

evaluate the knowledge base (data base) to produce a forecast for a particular race. It looks at a host of information you have given it for each horse: the recent form, position in the betting forecast, weight ratings and weight carried, suitability of course, distance and going in relation to past form, statistical information, class, speed rating and the draw. It then offers "investment advice" based on race conditions and the prices on offer. It is programmed to evaluate race conditions first, before it looks at prices. So, on many occasions it may advise "No Bet" regardless of the price on offer. Pro-Punter is a cautious investor, and will not advise you to risk your money unless there appears to be a very good chance of a return. The final forecast is an evaluation of the finishing order for the race (up to 12 in large fields). You also get a rating for each horse and a program-generated starting price.

As a software package Pro-Punter is technically sound and user-friendly. It has sold extremely well in the UK, despite the price, and most users have apparently recovered their investment in the software and are reasonably "ahead". Interestingly enough, it was originally developed for the BBC Micro and the manual was written for this machine. However, in the notes for PCW users it states "the Amstrad PCW range is very robust and disc operation appear to be very reliable. Ignore notes on error-handling which relate to the BBC computer"! I wonder how many BBC owners have lost their information five minutes before the race starts.

I must admit I have never had much success on the horses. I just hope not too many people will have success with this package, so leaving all the money for me to win.

Pro-Punter is available on disc for the CPC6128 (464 version soon), the PCW8256, 8512 and 9512 and IBM PC and compatibles including the Amstrad PC1512 and 1640 (PPC version soon). The cost is \$199.00 and is available by mail order through The Amstrad User.

DAATAfax

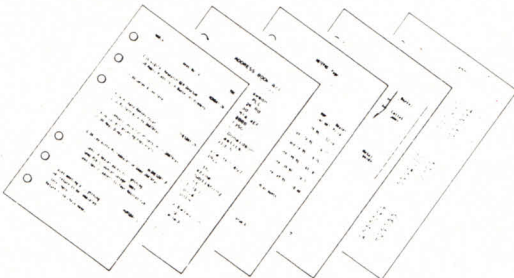


DAATAfax for the AMSTRAD PCW 8256/8512/9512

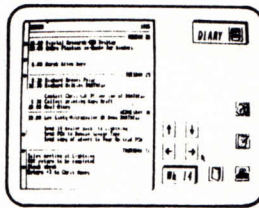
This exciting new product is a computer-based personal organiser that generates Filofax (TM) compatible output using the Amstrad PCW printer, together with DAATAfax computer stationery, which is available pre-punched with six holes either in white or a range of pastel colours.

The program, which consists of four modules, makes use of ICONs for ease of use and can be used either by the keyboard function keys or alternatively via the Kempston Mouse.

The datafiles generated by the program can be backed up on disc so eliminating the heartaches associated with losing your Filofax!

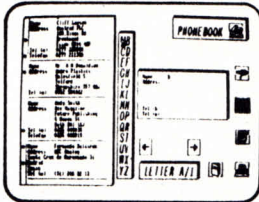


DIARY



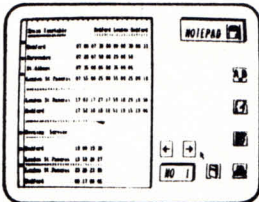
This features six lines per day and four days per page. Printing is selectable for a range of weeks up to a complete year. The powerful on-screen text editing facilities include cut and paste, enabling entries to be moved to other parts of the diary via the clipboard.

PHONEBOOK



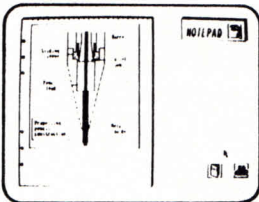
The phonebook allows names, addresses and telephone numbers to be stored in abbreviated one or two line formats, or as full entries. An alphabetic index is provided enabling fast access to the entries. The powerful search facility enables entries to be located by matching phone numbers and/or part of the name and address.

NOTEPAD



This option allows text entry in free format and can be used to hold notes in greater detail than those held in the diary. As well as comprehensive text editing facilities which include word-wrap, cut and copy, cut and paste, tab setting are provided which are particularly useful for printing timetables, expense sheets, bank balances etc.

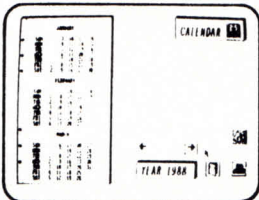
GRAPHICS



A graphics conversion program is provided enabling graphic images generated from within "The Desktop Publisher" (Database) to be read into the Notepad Option, which can then be printed onto DAATAfax paper.

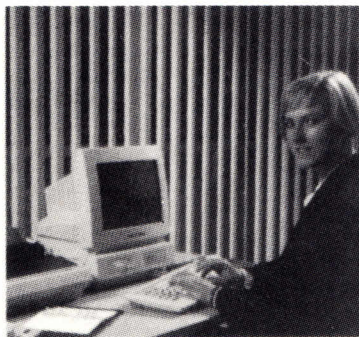
A further conversion program is provided for Locoscript files enabling these also to be read into the Notepad.

CALENDAR

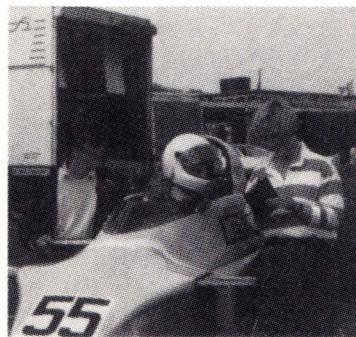


This option prints three months per page for any year. The selected month is also shown whilst in the Diary Option (standard mode).

KEMPSTON



► IN THE OFFICE



► AT THE RACE CIRCUIT



► IN THE STUDIO

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FIGHTING WORDS

Has Arnor's attack with Protex in the PCW WP field poached fans from Locomotive's LocoScript?

The PCW has been sold all along as a word processor, and it might seem silly to try and market an alternative to the LocoScript software. Arnor's approach is somewhat different, however. Their PROTEXT word processor aims to offer most of the features of LocoScript, but with a spelling checker, mail merger and a comprehensive set of utilities thrown in. Is it worth the investment?

Word processing, like typewriting, can be a very subjective thing. There are writers who claim they can't do anything unless they're sitting in front of their trusty Remingtons, others who favour Underwoods. I've known those who

menus.

In most cases, these prejudices stem from the first pen, keyboard or computer the writer used, so it's not surprising there are many fanatical LocoScript users who know nothing else. Well, Arnor would have you think again and consider the virtues of their latest version of PROTEXT.

PROTEXT first appeared on the Amstrad CPC range and achieved notable success as being a word processor which worked fast and efficiently and without recourse to CP/M. For the PCW version, though, Arnor have had to add many more features to make the transition from LocoScript worthwhile. To this end they've added a spelling checker, mail merger, a useful set of utilities and the ability to work on two text files at once.

INITIAL IMPRESSIONS

Protex is supplied as a single 3" disc, with a thick loose leaf manual, all housed in a robust black slip case. The manual is well written, is sub-divided into four main sections and includes a quick-reference guide, a glossary and an index. The style of writing is informative without being patronizing, and there is commendably little jargon in the text. There is a tutorial section to each chapter as well as reference lists of the commands. It would be nice to have seen a quick reference card listing the commands, as this is still easier than referring to the manual, but the on-screen help facility goes some way to offset this shortcoming.

Setting up PROTEXT is a very straightforward process, nicely automated by use of the program's own EXEC file utility, which is a more sophisticated version of CP/M's SUBMIT program. It allows the EXEC file to pause in mid flow and display prompts for disc swaps and the like. Once you've transferred the files from the master disc to two of your own (one for PROTEXT and its utilities, the other for the spelling checker), you can change the file which holds the initial set up to make use of the RAM disc on a

PCW. This speeds the operation of the word processor.

COMMAND PERFORMANCE

Having set up your discs, you start PROTEXT by 'booting' your PCW with the copy of the master disc. The initial screen is divided in two, with a two line banner at the top of the screen and a command line strip about half way down. When you move into edit mode, the strip disappears and all but the top three lines of the screen are available for text.

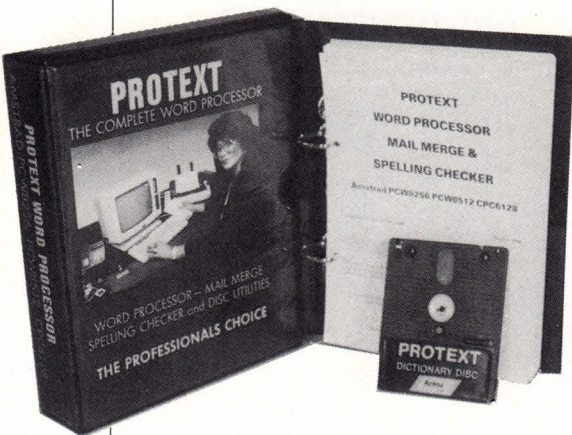
You can do many things from command mode: copy files, format discs, rename your text, count the words, clear the edit screen and print a document, to name but a few. PROTEXT forms a kind of operating 'shell' around the word processor, and most of the jobs you need to do while word processing can be achieved without returning to CP/M.

There are over 60 commands available from command mode. Most have abbreviations to speed typing and many which have variations for slightly different functions. For instance, PRINT will print the current file in draft mode on the printer. You can add a filename to print a file directly from disc, type PRINTQ to print in NLQ, PRINTS to print to the screen (saves a lot of paper) or PRINTF to print to a disc file. All the commands are memorable which makes them easier to learn than WordStar's. Printing can be done in the 'background', meaning that you can print out one document while working on another. This is a very handy facility, particularly if you produce a lot of short correspondence on your PCW.

GETTING AT THE EDITOR

You press [STOP] to move from command mode to edit mode, and the command strip disappears from the screen leaving a two line banner and a single default ruler.

This banner shows several useful pieces of information: current document name and length; justifi-



could only ever write with a stubby 6B pencil, and more recently those who don't believe in any word processor which uses pull-down

cation, insert/overwrite and word-wrap status; page, line and column number and number of markers set. The top line of the banner sometimes changes when particular commands are executed.

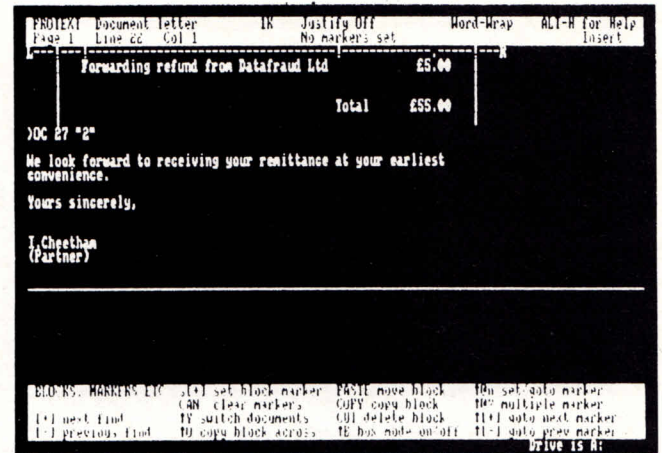
A PROTEXT ruler is much like a LocoScript layout, except that you can have any number in a document and each one is individual. This means that when you alter one ruler to change the format of the text below it, it doesn't affect any other ruler in the document.

The editing cursor is controlled with the arrow keys, and movements are amplified with [SHIFT] and [ALT]. You can also move in blocks of paragraphs or screens, and to the beginning or end of the text. Scrolling the text with the cursor keys alone is quite slow, but when you move through it by the page, PROTEXT redraws the screen very quickly. You can also use the GOTO

with the [ALT]F command, which works fast.

PROTEXT can search your document quickly for any string of characters and replace it with another, using a variety of differing options. There are also useful 'extras', such as transposing case, swapping two characters in one operation and redefining any character on the screen. Hard returns and spaces can also be displayed in much the same way as with LocoScript.

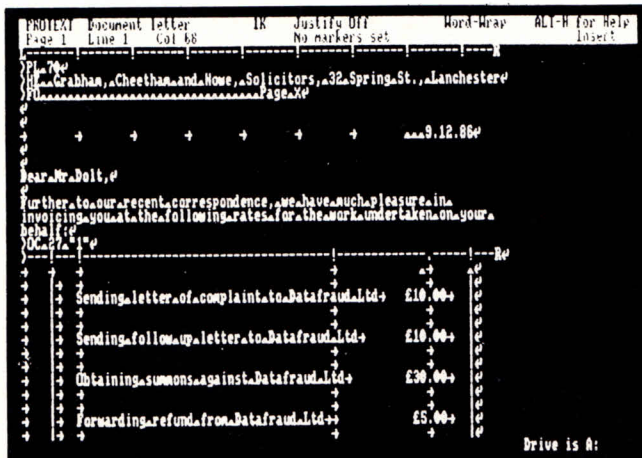
Most of the functions within the editor are controlled using [ALT]



plus one alphabetic character, but occasionally [SHIFT] and [ALT] are used together. Many commands are mnemonic, but you still have to be

insert commands into the text which are executed when the document is printed. These are known as embedded commands, and cover such things as margins, headers and footers (only single line ones), printer control codes and page numbers. They are also used to create control files for mail-merging.

Both embedded commands and short text phrases can be built into 'phrase' files. These can be loaded from and saved to disc separately from the rest of the text. Up to 26 phrases can be used in one document. As an example, the screen shot of a solicitor's letter shows the >PL,>HE,>FO and >OC commands. '>PL 70' defines the page length as 70 lines, '>HE Grabham...' defines the header, '>FO Page %' puts the page number into the footer and '>OC 27 "1"' sends a code to the PCW printer which changes the line pitch to 10 lines per inch.



command from command mode to move directly to a given page number.

You can delete left and right, and to the start and end of a line. Any deletion is transferred into a delete buffer which can be recalled at any other point in the document. This is useful for moving lines of text, but you can also define a block of any size and move, copy, delete and save it to disc. When text is changed in this way, you have to reformat it

prepared to spend some time learning them before you can get the most out of PROTEXT. If you forget any of the commands you can call up four lines of help at the bottom of the screen, and page through a dozen of these mini-screens to find the command you want.

EMBEDDED COMMANDS

As well as the [ALT] controls you use while editing, you can also

MAIL-MERGING

One of the advantages of a word processor is that you can produce endless copies of the same text. It therefore lends itself very well to producing circulars or 'form letters'. All that's needed is a facility to insert different names, addresses, prices etc. into the text. That process is known as 'mail-merging'.

The ruler is set up to ease the

Joined up writing on a PCW8256? Yes, use LocoFont!

LocoFont Set 1 & 2 give you ten distinctive tpestyles on the PCW's built-in matrix printer.

With LocoFont your PCW printer can print in a variety of different tpestyles. A total of fourteen styles are available in Set 1 and Set 2.

A set of LocoFont tpestyles consists of a disc including a "character set" file for each of the extra tpestyles, together with full installation instructions. Except for Old English, all styles include all of the characters provided by LocoScript2. Briefly, all you need to do to access the fonts is to copy the files to the Start-of-Day disc and update the Settings file. To use one of the new tpestyles, simply select the appropriate character set.

The Sans Serif style has been designed with the same character widths as the standard style. So Sans Serif documents lay out identically to the standard style. The other new styles have different character widths and documents using these may lay out in a slightly different way.

The two "Mini" styles are designed for use at eight lines per inch, giving more characters to the page. The rest are intended to be used at six characters per inch.

Note that a document can only use a single style.

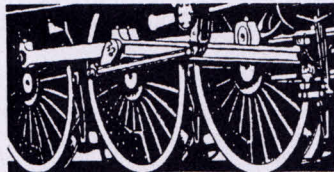
LocoFont Set1 & 2 are available from The Amstrad User at \$75.00 and \$65.00 respectively.

LocoScript2 - New Edition!

If you haven't already, now's the time to move up to LocoScript2 - the better word processor for the PCW.

Not only have we released LocoFont (which only works with LocoScript2), but for LocoScript2 itself now comes with two highly quality tpestyles. And if you want to use a different printer, we now support over 250 matrix, daisywheel and laser printers - but for some, you may need the Printer Drivers Disc

The new edition of LocoScript2 costs \$87.00. Buy LocoScript2 together with our spelling checker LocoSpell for \$130.00 saving \$32 on the combined price. To complete the family, add LocoMail for \$105.00.



LOCOMOTIVE SOFTWARE

Allen Court, Dorking, Surrey RH4 1YL
Phone (0306) 740606

LocoFont - Set 1

Definite

We have been forced to adopt a tougher approach regarding returns of faulty product. We request that you now call our office on the number....
ABCDE abcde aByc ABfAE aBrr ABBf

Modern

After you have disconnected the rear cover, gently remove the card marked screen and place it to one side. You should not attempt to force any of ...
BCDE abcde aByc ABfAE aBrr ABBf

Roman

All amounts are now expressed inclusive of Value Added Tax. The amount still remains payable at the prevailing rate, subject to the....
ABCDE abcde aByc ABfAE aBrr ABBf

Capitals

FOR SALE :
MINI 1000 - GOOD LITTLE RUNNER, NEEDS A LITTLE WORK. TAX AND M.O.T. UNTIL JANUARY 89. NEW SUBFRAME, BRAKES ...
BCDE abcde ABfAE ABfAE ABBf ABBf

Script

We're glad to hear that you enjoyed the little "surprise" party that we threw for you. The flowers were father's idea and he even chose the...
ABCDE abcde ABfAE aByc aBrr ABBf

Deco

Avocado Pear £1.95
Prawn Cocktail £2.50
Paté £1.95
Cantalope Melon £1.95
BCDE abcde aByc ABfAE ABBf aBrr

Copper Plate

You are invited to join in with another of Teds houswarming parties. This time if you want anything other than hotdogs, crisps and beer then...
ABCDE abcde aByc ABfAE aBrr ABBf

Finesse

St David's School - Summer Fête 88
This year's fête will be even bigger than last year's. We hope to exceed last year's fund raising efforts
BCDE abcde aByc ABfAE aBrr ABBf

Standard

Please find enclosed confirmation of your order for an additional 50 brass fittings with screw threads. There is a five percent increase to our....
ABCDE abcde aByc ABfAE aBrr ABBf

LocoFont - Set 2

Penman

This will probably be the longest letter that I have ever written to you. I just haven't had time to put "pen to paper" since I started my...
ABCDE abcde aByc ABfAE aBrr ABBf

Old English

The Old Antique Shop
27 The Square, West Street
Somerset
TA23 4BQ
AMODE abcde

Mini 15/17

The software contained in this package is supplied on the terms and conditions indicated below. Opening of this package indicates acceptance of...
ABCDE abcde aByc ABfAE aBrr ABBf

Mini PS

You should follow very carefully the installation instructions enclosed with this package. Do not start to use the package until you have first...
ABCDE abcde aByc ABfAE aBrr ABBf

Mail your orders to:

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1/245 Springvale Road, Glen Waverley,
Victoria. 3150.

Phone your firm orders to:
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Bankcard, Mastercard or Visa accepted.

COMMUNICATE!

How to eat garlic and still talk to people.
Helen Bradley reports on her experiences on moving into 'armchair' communications via a PCW, and describes the equipment and software required.

There is a whole world of computers and computing beyond your living room that is just waiting for you to join in. It is a world where you can download programs, get help for your computer problems or give help to someone else and even make new friends through an international network of computer users - all without leaving home.

The whole area of Computer communications is surrounded by mystery and a language all of its own. It is confusing at first but when you have taken the time to learn some of the fundamentals you will find that it opens up a whole new and exciting area of computing.

Hopefully this article will be the first of a series of two articles on communications. I will take the PCW owner through the steps to get up and running (or communicating!) and I hope to prevail upon Riccay Schmahl, who is the Sysop (System Operator) of the Sydney Amstrad Bulletin Board, to write the second to tell you about his Board, how to find your way around it and what you will find on it when you get there.

Riccay's Bulletin Board is called AMSTRAD ABBS and can be accessed on (02) 981 2966 at either V21, V22, V22bis or V23. At present access to the Board is limited to Amstrad users although consideration is being given to altering this to allow IBM compatible access too. Any article written by Riccay should be of interest to all Amstrad owners from the humble CPC's to the mighty PC1640's.

Well to PCW owners for now. To get set up to communicate with the outside world you will need the

following items of hardware:

- an RS232 interface
- a modem
- a cable
- a telephone line

THE INTERFACE

The RS232 interface, which is a shallow box about 3cm deep and smaller than an average paper back book, plugs into the expansion port on the back of the PCW and can be secured by simply affixing two screws. When ordering an interface I suggest you get the Amstrad one which is called CPS8256 (this fits both the PCW8256 and the PCW8512) as the instructions in the booklet all refer specifically to your machine and you may need the wiring diagrams in the back of the documentation if your modem's wiring is not standard. The power for the interface is provided by the computer itself so there is no external socket required for it. Your modem will need its own power source though.

When you plug in your interface - even if you have nothing attached to it - you will notice that your CP/M start up message has altered to show that the machine recognises that an interface is attached. The message should look something like this:

```
CP/M Plus Amstrad Consumer
Electronics plc
v 1.4, 61K TPA, 2 disc drives,
SIO/Centronics add-on, 368K
drive M:
```

If your machine doesn't recognise the interface then turn it off, gently remove the interface, refit it and then

reboot CP/M. Until the machine recognises the interface it is useless proceeding further. I had experienced trouble in the past in fitting a light pen to my computer so I was not unduly concerned when it took a couple of goes to get the CPS232 interface fitted to the expansion port correctly.

THE MODEM

The next piece of hardware that you will need is a modem. The modem is the most expensive part of communications, ahead of the quarterly telephone bill. Modems are most readily identifiable by their speeds, their 'whistles and bells' (ie. the things that they do for you) and their command set. Speeds on the common modems vary from 300/300 (V21) through 1200/1200 (V22) to 1200/75 (V23). Some modems also handle speeds 2400/2400 but they are likely to be too expensive for the average hobbyist.

The 300/300 modems are cheaper than the modems that support faster speeds but I find that speed frustratingly slow. If you are using the modem regularly and, in particular if you are using STD links, then the faster modems will be far more economical. You will also find that the faster speeds are in quite widespread use on bulletin boards etc. The speed of a modem is important because (simplistically) computers can only talk to each other via their modems if the modems are operating at the same speeds.

You will need to have some idea of what you want to do in the world of communications before you purchase your modem so that it will fulfill your needs. In particular if you want to use Telecom's Viatel then you will need a modem that will support a speed of 1200/75. It really is a Catch-22 situation - until you get communicating and see what is available you won't know what you want and you cannot see what is available without first getting access to the hardware (and in some cases - the software) first.

By 'Bells and Whistles' I mean the extra things that your modem will do

for you. My modem, the Bit Blitzer 123E, automatically dials my numbers for me, would auto answer my calls if I wanted it to do, redials numbers at the stroke of two keys, automatically disconnects the phone line when I have finished my call and supports the Hayes AT Command Protocol. The latter allows control of the modem from the keyboard and is something of an industry standard set of codes that many (if not most) modems use.

Whilst many modems are a little 'light' when it comes to 'bells and whistles' you will probably be wise to buy the most that you can for your 'modem dollar' as the intelligence of your modem, its ease of use and level of automation can help you, particularly at the start, to get up and running with a minimum of effort and knowledge of the technicalities of how it is all being done.

THE CABLES

The next item on our hardware shopping list is a cable for the modem which will connect it to the RS232 interface. This should be a very simple task (mine was) however this is not necessarily the norm. I found the combination of the Bit Blitzer modem and the Amstrad CPS8256 were very simply joined in

a manner satisfactory to each other by a standard PC cable (ie. if the computer had been an IBM or clone the cabling would have been the same). If your modem has a different wiring configuration then you will have to either make your own cable, ask a dealer to do it and get it running for you or find a knowledgeable friend to work it out for you, either way this can be the most frustrating part of getting started.

Finally you should work through the startup procedures for your modem and get it set up and connected to the telephone line. Each modem will have its own procedures so follow your manual carefully.

THE SOFTWARE

To actually communicate with someone you will need to use communications software. You can buy an expensive commercial package or you can buy public domain software for only a few dollars all of which should do an adequate job. Beware though, if you want to use Viatel, most packages will not support it and you will have to check very carefully that any package that you buy does enable you to log on to Viatel.

For the purpose of this article and to get you up and communicating I

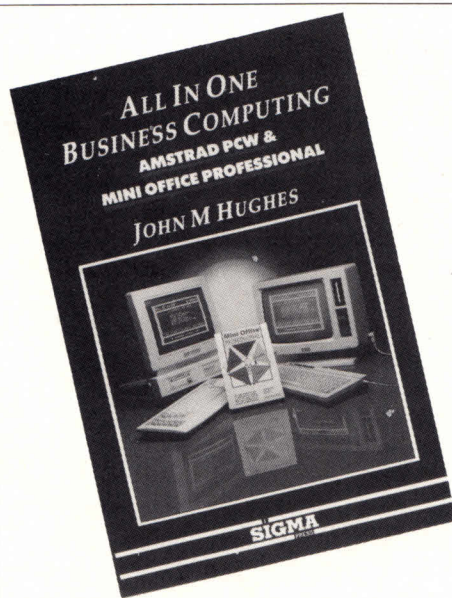
am going to suggest that you do not purchase any software at all and instead that you use the communications package that comes with your machine. On the LocoScript disc hidden away is a program called MAIL232.COM, you should find this by getting a directory of the LocoScript disc in CP/M. I have a separate disc for my communications so I suggest you format a blank A drive disc and copy onto it the following programs:

```
J14CPM3.EMS (or your CP/M
equivalent)
MAIL232.COM
PIP.COM
SUBMIT.COM
SETKEYS.COM
PROFILE.COM
```

The PROFILE.COM file that I have created looks like this:

```
pip m:=mail232.com
setkeys keys.bb
m:
mail232
```

You can see that the disc will auto boot, transfer the MAIL232 program to drive M, run the keys setup program (I will get to this a little later), switch to drive M and put me in the MAIL232 program without any input from me. →



Everything you ever wanted to know about Mini Office Professional but were too afraid to ask...

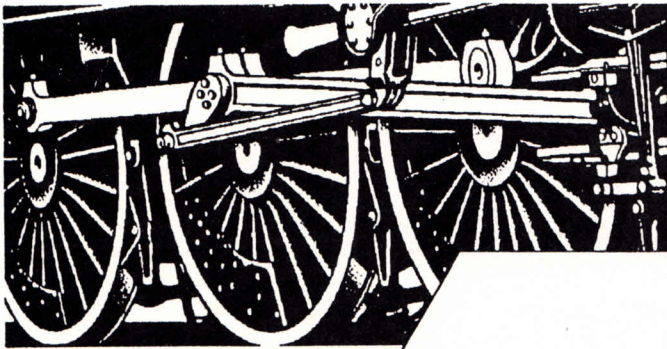
\$37.95

Hot off the press, this well written and easy to follow book by John Hughes takes you through the Mini Office Professional business package for the PCW. Make the most of your PCW, maximise your productivity, and never complain again that you don't understand your computer.

Pick up "All In One Business Computing" by mail order through:

The Amstrad User
1/245 Springvale Rd
Glen Waverley VIC 3150
Phone (03) 233- 9661

(Bankcard, Mastercard or Visa accepted)



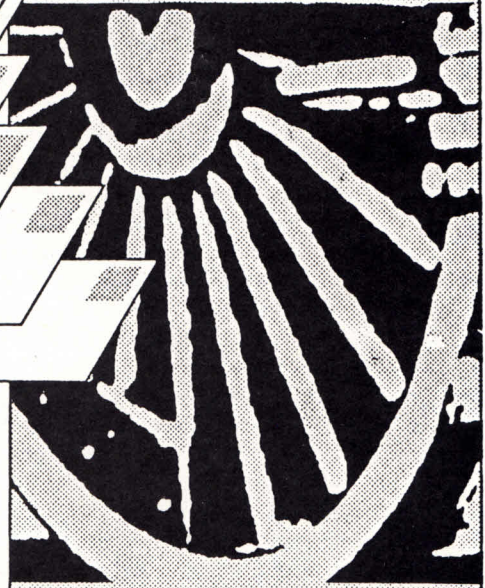
LocoMail for LocoScript 2

Mr J Smith
24 Larches Rise
New Westering
Wessex

Use LocoMail to send letters to everyone on your mailing list. Use its many advanced features to do much more -

- Produce letters for each name or data record, or just for a selection
- Include special text depending on the data to be merged - each version of your text is correctly laid out, whatever special information you insert
- Edit the merged letter before printing
- Save the result to disc if required
- Use LocoScript data files or ASCII data files from a CP/M program
- Prompt for information to be typed at the keyboard
- Perform arithmetic within LocoScript documents
- Add paragraph numbers automatically
- Produce sophisticated LocoMail 'programs' for Invoicing, Credit Control, Enquiries etc.▪

LocoMail
Mail Merge for LocoScript 2



LOCOMOTIVE
SOFTWARE

LocoMail now comes with a completely revised 288 page User Guide - available separately for users of the PCW9512 and earlier versions of LocoMail.

- An extended tutorial section
- Detailed descriptions of the advanced facilities
- Worked examples of "program units", loops and conditional operations
- Descriptions of typical uses of LocoMail - Club Membership, Invoicing, Enquiries, Labels
- A set of "building blocks" to include in your own LocoMail applications
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- Troubleshooting guide

All the examples described in the User Guide are supplied on the LocoMail master disc. In case you're just buying the new User Guide, they are also supplied on the LocoMail Examples Disc, available separately.

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IT'S IN THE BAG WITH T/MAKER

Could T/Maker be the ultimate all-in-one package for PCWs?

Reckon Software publish products that are renowned to be the most powerful stand alone business packages for the Amstrad PCW range. They have, however, never published an integrated product, always maintaining that individual modules in any integrated package can never be as powerful as the stand alone products such as Condor1 for a database or ScatchPad Plus for a spreadsheet. Well, with this one they may just have had to eat their words to some degree.

T/Maker is the new integrated offering from Reckon Software. The program was developed in the USA by the T/Maker Corporation and rather than import the product leaving the end user paying for the shipping and import duty, Reckon has once again secured the publishing rights and is bringing the product to the Australian market a fraction of the normal cost.

T/Maker is a real business software product offering fully integrated Spreadsheet, Relational Database, Word Processor with spell-checker, List processor, Graphics and to top it all off, a programming feature which will allow the heavy duty user to tailor a system to suit their exact requirements.

THE PACKAGE

The packaging is distinctively Reckon and pretty substantial for a product of this price. You get not one but three user manuals and although this may seem daunting there is a purpose behind it. The first manual is called "Your first 45 Minutes with

T/Maker", a self-explanatory title. The second and largest is titled "T/Maker User reference manual". This gets into the very advanced uses of the product and is not really necessary for normal every day use. The third and most used is the "T/Maker Quick Guide" - also self explanatory.

Further to the package are two double sided discs: T/Maker Start disc, T/Maker Demo & Models, T/Maker Help & Command and finally T/Makers Speller disc.

The program takes a unique, visual approach to doing things. The best way to describe this approach is to liken it to an intelligent chalk board. For example, you would write down a list of figures on the chalk board and then command T/Maker to add them up for you. Write a letter and command T/Maker to check your spelling. Write a list and get T/Maker to sort it into alphabetical order and so on. It is really as simple as that.

File management commands form the heart of the program's functionality and are used with any task (they are listed at the end of this article). To do anything with any of T/Maker's files the basic commands are all the same. These are called file management commands and are listed at the end of this editorial for your interest. Once you get to know these commands there are very few others that are peculiar to each of the modules and makes the product simple to get to know and use. A further bonus is the context-sensitive help screens which almost render the User reference manual redundant.

THE RELATIONAL DATABASE

The database is the computer equivalent to a box of cards, each card holding standard information. You establish a database file by using the File management commands and by showing T/Maker what a standard card or "record" should look like. Once the record is described, you may use a variety of commands to manipulate the file.

T/Maker's Database Commands:

UPDATE allows you to enter, revise or delete data.

COMPLETE transfers data in bulk from one file to another.

ORDER sorts files into alphabetic or numeric order.

GROUP makes summary reports from a database file.

SELECT allows you both to select particular records and re-format their appearance.

SET allows you to make mathematical computations and perform logical tests on data in records.

THE LIST PROCESSOR

This is a very handy feature not usually associated with integrated packages. You are able to draw data from any part of the program in the form of a list and manipulate it. For example, inventory. Take this data from your spreadsheet and database and sort it into alphabetical or numerical order, ascending or descending. Count like elements in a list or merge one list with several others.

T/Maker's List Processing Commands:

SORT sorts lists into the orders mentioned above.

TALLY counts like elements in a list and sums up numerical information associated with such counts.

KEEP/DROP prunes lists of lines containing specified strings of characters.

FIND searches for specified character strings.

REPLACE replaces a specified string with another.

ARRANGE moves the columns of a list to another location.

MATCH contrasts the contents of two files.

THE SPREADSHEET

This is where T/Maker's unique chalk board approach really shines. The spreadsheet handles numerical calculation work visually and there are just two steps to this approach.

First you lay out the calculation you wish down on your screen using the edit command, just as you would on a chalk board.

You then use the compute command to carry out the calculation and fill in the results. It is as simple as that, no matter how complex the mathematical problem you pose.

T/Maker's Spreadsheet commands:

COMBINE allows you to carry out calculations simultaneously involving the file you are working with and another file you may have stored on disc.

CLEAN removes calculation symbols from the finished table.

THE GRAPHICS

Once you have the results of all your calculations carried out using the spreadsheet you may then want to represent these results in the form of a bar chart. This is done simply by using the "BAR" command.

A variety of options allow you to shape the bar chart's appearance.

THE WORD PROCESSOR

T/Maker's word processor does all you would expect from a quality product of this nature. It will allow you to merge data from any other file whether it be a spreadsheet to create reports, or from the database of names and addresses for a personalised mail-shot.

The word processor provides an array of "design commands" which are incorporated into the file itself. These allow you to shape the appearance of the finished document in a great variety of ways for example, they let you single or double space text, insert footnotes, provide automatic page numbering, design footers and headers for pages etc.

T/Maker's Word Processing commands:

EDIT lets you enter and revise text.
ALIGN allows you to set margins,

dictate the text's justification, and centre text.

PRINT prints!

THE SPELL CHECKER

As we have found with all the modules so far, even the spell checker is not just your average spell checker.

You start off with a dictionary of 55,000 words. When carrying out a normal spell check T/Maker will compare your written words with these 55,000 and where it cannot find words to match, it will list them and allow you either to correct them, add them to the dictionary or leave them as is.

T/Maker will also allow you to create your own dictionaries. A good use for this feature would be, for example, words that are peculiar to a certain subject, say Australian birds or mammals. You can create a separate dictionary with all these bird names and run a spell check on your thesis using both dictionaries at the same time.

That is not all... there is also an anagrammatic feature allowing you to take a stab at a word leaving out letters you are not sure of and T/Maker will fill them in for you.

PROGRAMMING

For those that really want to get a fully tailored system going and feel they would like to take T/Maker to the extremes, there is a programming function allowing you to set up command files and menu driven integrated systems.

In fact T/Maker is supplied with just such a sample system called T/Maker Models which gives you usable models that can be easily adjusted to suit your own personal requirements. The T/Maker models menu is shown in the box above. Simply by pressing the relevant menu selection you get the adjacent function.

FINALLY

We began by saying that to do anything with any of T/Makers files the basic commands are all the same. These are called file management commands and are listed here.

T/Makers File Management commands:

CREATE creates a working file with a unique file name.

SAVE stores a working file on disc.

DELETE discards a file on disc.

FILES screens a directory of files on disc.

GET retrieves a file from disc, making it the working file.

RENAME lets you give the working file a new name.

DATA sets the default disc drive.

INSERT lets you add the contents of a disc file to a working file.

T/T lets you send the cursor to the desired line and column position in the file.

CLIP discards portions of the working file.

LIST lets you review the contents of a list file without displacing the current working file.

T/MAKER MODELS

- | | |
|----------------------------|--------------------------------|
| 1 ADDRESS BOOK | 14 STOCK PORTFOLIO |
| 2 Print Form Letters | 15 Print Portfolio Summary |
| 3 Print Address Labels | 16 TIME MANAGEMENT (Day Timer) |
| 4 CHEQUE BOOK | 17 Print Daily Schedule |
| 5 Print Cheques | 18 STUDENT RECORDS |
| 6 Print Cheque Register | 19 Print Student Listing |
| 7 INV/SALES ORDER FORM | 20 PATIENT RECORDS |
| 8 Print Invoices | 21 Print Appointment Schedule |
| 9 Print A/R Ageing | 22 PERSONNEL RECORDS |
| 10 PURCHASE ORDER FORM | 23 Print Personal Report |
| 11 Print Purchase Orders | 24 PROPERTY MANAGEMENT |
| 12 INVENTORY MANAGEMENT | 25 Print Availability Listing |
| 13 Print Inventory Listing | |

TABS lets you save tab settings when the file is saved.

NOTABS lets you discard tab settings when the file is saved.

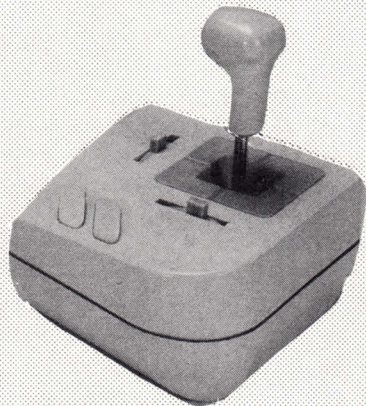
WAIT lets you interrupt a series of T/Maker commands.

STOP terminates T/Maker.

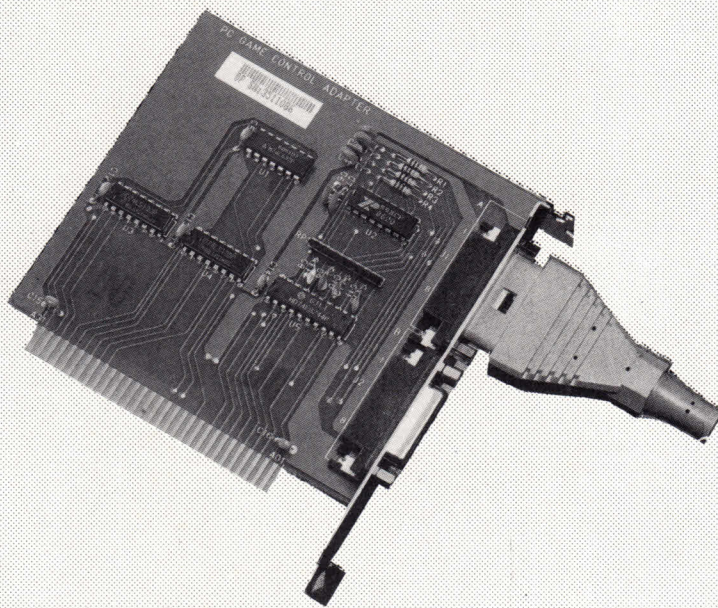
T/Maker is available at most Amstrad dealers or by Mail Order from The Amstrad User for \$149.00

THIS IS A STICK-UP

A brief explanation on the compatibility or otherwise of joysticks for the PC1512 and 1640



Junbo IBM PC Compatible Joystick JB-500



IBM PC Compatibles Games Card GB-101

Both the PC1512 and 1640 have been built as computers which have compatibility with the IBM PC. In most respects this is true, but when it comes to the joystick port, the Amstrads move away from the standard. The port located at the side of the keyboard will take a standard Atari style joystick, the sort commonly used by Amstrad CPC users - you just plug it in and away you go, that is, if you have a CPC. For the PC things are a bit different.

USING THE AMSTRAD PORT

The Amstrad PC joystick port operates in a completely different way to that of a standard IBM games adaptor. The Amstrad port has been designed to expect a switched joystick (this means where each direction is either 'on' or 'off'), whereas the IBM games adaptor has been designed for an analogue device.

When a key is pressed on the keyboard it is read by the operating system (or ROM BIOS), translated into a 16-bit 'key token' and placed in the 'key token buffer'. Being an integral part of the keyboard firmware, the Amstrad port also outputs a unique identifying 'keycode' when the joystick is used but at it is in the range 119 to 124 this is not echoed by the keyboard. Nevertheless, the operating system converts the codes into the relevant cursor key codes. It also converts the 'fire' key to that specified in the NVR table.

In essence, the only programs which can read the joystick port directly are those which run under the resident operating system (ROS) like Basic2 where, for example, the INKEY\$ command will normally not differentiate between the cursor keys and the joystick.

USING AN IBM GAMES ADAPTOR

Most games for the PC1512 and 1640 were originally written to run on IBM PCs using the standard PC-compatible joystick. This is not the Atari-style joystick mentioned above which has a completely different

connector at the end. The PC-compatible joystick must be plugged into a games adaptor card which must be fitted to your PC in one of the expansion slots.

All that is needed to store the analogue position of the stick (either the horizontal or vertical direction chosen) is a single bit of I/O port Hex 201. This provides for the four low-order bits to contain all the information necessary to describe the state of the two joysticks catered for in this design.

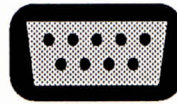
The four bits are set to zero when a read byte is output to port Hex 201. Each is set to one after a certain length of time. The time delay is proportional to the position of the stick at the time and software can use the internal clock to measure this and generate a value to pass on to the program. It's a clever idea but doesn't work with the Amstrad joystick port.

WHOSE TO BLAME?

It has never been clear why Amstrad chose to put their joystick on the keyboard, and it often causes misunderstanding and confusion. While they claim that their PCs are IBM compatible, they do not claim the same about the joystick port. Most games are covered with labels telling us that they are for IBM PC and compatibles. Technically this is correct but when it comes to the Amstrad of course, it's not. That's why you have to fit a games card.

Some games allow you to configure the keyboard, in other words they let you set up your favourite keys to perform the actions instead of those pre-determined in the game. So it is sometimes possible to move the joystick rather than press a key in response to the new selections.

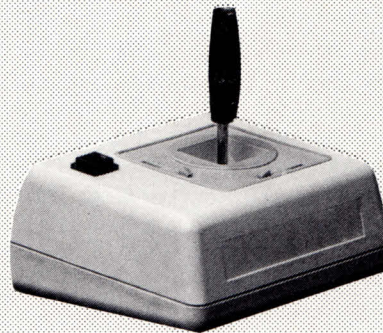
Some games players are not worried about the problem, as they often prefer to use the keyboard which, at least to them, gives a more immediate response. Others, who insist on using a joystick will, without doubt, have a games card fitted to their Amstrad PC and an IBM-style Joystick plugged into that.



The Atari-style connector
with 9 holes



The IBM-style connector
with 15 pins



Anko IBM PC Compatible Joystick AK-GC5A



Anko IBM PC Compatible Joystick AK-GC27

FIFTEEN TWELVE TOPICS

Some points of interest for PC1512 owners

YOU CAN FIT A HERCULES GRAPHICS BOARD...

...which will then drive an IBM compatible monochrome monitor. The Hercules board though has three modes; text, half and full mode. The difference between half and full is that in half mode only one page of graphics is available. The trouble is that it cannot be used in full mode when a colour graphics adaptor or equivalent is present unless the colour adaptor can be switched out under software control. The Amstrad built-in one cannot. This restriction arises because the second page of a Hercules board uses the same memory map address as the CGA video memory.

WITH A CGA PRESENT...

...it should be possible to run the Hercules board in half mode which, according to the Hercules manual, allows graphics but only on one page. However, it also states that to run Lotus 1-2-3 and Symphony you must use full mode. Most other Hercules compatible programs require full mode too.

THERE ARE TWO VERY DIFFERENT JOYSTICKS ON THE MARKET...

...on the one hand home computers have traditionally used a "switch" type of joystick that effectively generates "keystrokes". Most commonly available joysticks found attached to Amstrad CPCs, Ataris and so on will work on the Amstrad PC1512 and will plug into the socket at the back of the keyboard. How-

ever, there are few games on the market that have been written to specifically recognise the use of the 1512 joystick port.

The IBM PC uses a different kind of joystick which incorporates a variable resistance and requires a special adaptor card called a "game control adaptor" or "games card" which converts these resistances into digital signals that the computer can handle. As most games for the PC1512 have been written for the IBM PC as well, the IBM type joystick and "games card" are a necessary extra. *(Both are available through this magazine - Ed.)*

THE "GAMES CARD" IS VERY EASY TO FIT...

... if you know how to use a screwdriver and your hands are up to removing and replacing just one screw. Having turned off all the power to the computer and removed the monitor from its normal position, a cover across the top back of the computer will be revealed. This is removed by sliding it back, and similarly a panel at the back right side if the computer. Inside are three empty slots and three unused retaining screws aligned on the side panel. Merely remove one screw, slide in the "games card" (do this by holding the edges of the card and avoid touching the components), then replace the screw through the locating hole in the card and secure.

You will find that the "games card" will have two joystick ports ready for your IBM style joystick. It is probably better to leave the

joystick connected if you are going to have a games session - removing and replacing it may make the game forget it's there.

TASWORD PC GIVES NLQ ON A DMP3000...

...by defining one of the "^K" printer control characters (see page 34 of the Tasword manual). Page 56 and Appendix 2 give further advice. Other packages such as NewWord as well as the original Wordstar also allow you to redefine printer control sequences, but surprisingly Wordstar 1512 does not.

DUMPING A SCREEN TO A PRINTER...

...can be achieved by using Shift+PrtSc as the manual describes, (but only on an IBM compatible printer - not a DMP-2000 for example), but Ctrl+PrtSc has an interesting feature of making everything subsequently sent to the screen also go to the printer until another Ctrl+PrtSc is entered. ^P serves a similar function as former CP/M users will confirm.

Alternatively, if you want output to go to the printer and not to the screen, you can use "command line redirection": you add to the end of the command ">PRN" the name used for the printer. Similarly, if you want to store output on a file you could add ">filename".

All these methods only works with programs which use MS-DOS standard output calls to send information to the screen: many programs bypass MS-DOS and write directly to the screen themselves and you cannot then use these methods to get printed copy.

"INCORRECT VERSION OF DOS" MESSAGE...

...may occur when using Amstrad MS-DOS utilities TREE, FORMAT, DISKCOPY etc. if you are running anything other than MS-DOS 3.2. This is primarily to protect users against accidentally using MS-DOS utilities when running DOS-PLUS. Most DOS-PLUS utilities produce a similar message when running under MS-DOS.

Certainly, a hard disc is much faster and is capable of holding far more than a standard 5.25" floppy disc, but its organisation is more complex and to some extent it requires learning a different discipline.

FORMATTING

To format a 5.25" floppy is simple, sometimes too simple - hands up those people who have unwittingly formatted a disc containing data! It's done under MS-DOS using the command `FORMAT`. Hard discs, on the other hand, are formatted in two stages. The first stage involves initialising the disc with a series of markers to assist the operating system. These markers form the points which the next stage of formatting will reference and to which future data will be linked. Fortunately, the first stage may well have been done for you by the manufacturer, but if you ever need to reformat your hard disc from scratch, or perhaps are fitting a hard disc card to your machine you will need to format at this low-level first stage. Usually you are supplied with a formatting piece of software (with the Amstrad PC its called `HDFORMAT`) which will do the job. But please remember that running it will wipe everything off the disc, so make sure you have a backup.

PARTITIONING

You can set up a number of separate sections on your hard disc called 'partitions'. The idea behind partitioning is to enable you to run more than one operating system from the same hard disc, like XENIX as well as MS-DOS. Each system will reside in a separate partition. Partitioning is also required for hard discs which are bigger than 32 megabytes (mbs). The minimum required is one partition in any case, and is set up very simply with `FDISK`.

MS-DOS vs DOS-PLUS

Most Amstrad PC owners would have no doubt realised that `DOS-PLUS` is a derivative of `MS-DOS`, and has a few extras that `MS-DOS`

THE HARD FACTS ON HARD DISCS

Many people think that a hard disc is just like a very large and faster floppy disc. It's much more than that...

doesn't. For example, `DOS-PLUS` allows background programs to be run and attributes applied to files can be manually changed. The main disadvantage of `DOS-PLUS` is that not all `MS-DOS` program will run under it. So, many hard disc users prefer to operate with `MS-DOS` only.

One thing `DOS-PLUS` will do however is to allow its system attribute (`SYS`) to be changed to reveal the operating system files (`MS-DOS` won't let you do this), and this is its undoing! You can effectively get `DOS-PLUS` to lose itself so that only `MS-DOS` will be loaded when you restart your PC. Simply load `DOS-PLUS` and type the following:

```
FSET DOSPLUS.SYS [DIR]
```

which will reveal the system files. Then rename `DOS PLUS` to something else like:

```
REN DOSPLUS.SYS
DOSPLUS.OFF
```

As my young boy says, "there it is - gone". Now only `MS-DOS` will be available when you restart your PC.

TREES AND ROOTS

Once you have formatted the hard disc (if you had to, that is) and have copied all the necessary files onto it using the `INSTALL` program that comes with the Amstrad PC, you'll see a number of entries in the root directory with `<DIR>` following

their names. These particular entries are the names of sub-directories used to hold collections of program files, most of them associated with `GEM`.

If you want to create your own sub-directory to keep, say, all your word processing files and call it `WP`, you would use the `MKDIR` command which is shortened to `MD` thus:

```
MD WP
```

Now type `DIR` and your new sub-directory will appear as `WP <DIR>` in the root directory. The next step is to get all your word processing files into that sub-directory. You use the same command `COPY` as you would if copying from floppy to floppy, but this time you have to specify the 'path' through to your new sub-directory by:

```
COPY A:*.* WP
```

If you omitted the '`\WP`' part of the command, all the files would end up in the main root directory of the hard disc. It should be clear then that the '`\`' means 'to the sub-directory'.

An alternative method is to change directories before copying. The command this time is `CHDIR` (or `CD` for short) to move you from the directory you are currently in to the one you specify. So, if you want to move into the `WP` directory and copy all the files from drive A you type:

```
CD WP
```

COPY A:*.*

In a nutshell, a hard disc can store thousands of files, so it is sensible that some kind of structure should exist to keep things organised or pigeon-holed. That's why sub-directories are provided. These form part of the overall hierarchical tree of which the main directory is the root.

SUB-SUB-SUB-DIRECTORIES

It really depends on how deep you want to extend your sub-directories, but the facility exists. For example, you may wish to sub-divide your new WP directory to hold letters and proposals separately. If you are currently in the WP directory then MD LETTERS will create a new LETTERS sub-directory within WP. If you are currently in the main root directory you merely describe the path thus:

```
MD \WP\LETTERS
```

The problem with adding more and more sub-directories is that the disc access speed begins to slow down. This can be avoided if you increase the number of buffers to 30 by including the command BUFFERS=30 in your CONFIG.SYS file.

Another problem is that the deeper you get the more chance of forgetting where you are within the tree structure. A way round this is to force MS-DOS to give you a meaningful prompt rather than just A>, B> or C>. Wouldn't it be better to see C:\WP\LETTERS> than spending time working it out? To get this prompt you use (you've guessed) PROMPT \$p\$.

WHEN THE WORST HAPPENS

Having such an enormous amount of information on a hard disc makes the problem of a failure, in most cases, much more serious than if you had a floppy disc failure. Fortunately, it doesn't happen to many users but everyone should be aware of the possibility and be prepared.

Naturally you should make

regular back-ups, but it really isn't necessary to back-up the whole disc every time. For a start, all the application programs are already backed up on the master floppies that were supplied when you first bought the applications. This leaves the data files and of those the chances are that you will have only worked on about 20% to 30% of them, so there is little point in backing-up files that have not changed since the last time you backed-up. To save you the bother of having to remember which files you have used since the last back-up, a special utility called BACKUP is provided. It also allows selected files to be backed-up. It knows which files to copy by referring to the 'archive attribute' of each file. The attribute (or flag) is set every time the file is saved to disc and cleared when the file is backed-up with BACKUP. The command to copy the changed files only is:

```
BACKUP C: A: /S/M
```

Of course, the first time you use BACKUP you'll get a copy of nearly everything because they will all have their archive attributes set, but next time (using a new set of floppies) the number of files copied will be drastically reduced. If you just need to back-up a particular sub-directory and associated files (our LETTERS example) you can use:

```
BACKUP C:\WP\LETTERS A: /S/M
```

When using BACKUP you will find that it will need formatted discs. It will overwrite any disc you give it that already has data on it (although BACKUP will warn you in this case) but it does not let you format a disc in the middle of its backing-up sequence. So make sure you have enough pre-formatted floppies before you start. It's always a good idea to format new discs as soon as you get them home.

The companion utility to BACKUP is RESTORE, but if you've changed any directories since the

last back-up, RESTORE will not know and will return your files to their original directories. Thus, RESTORE should not be used for switching groups of files from one hard disc to another if the destination hard disc contained a different directory structure.

FLIPPIT

FLIPPIT is an addictive new game from an ALL-AUSTRALIAN company. It requires the same sort of "spatial relationship" logic as Rubik's cube, and it is just as frustrating. It has 105 preset levels, PLUS (if you ever finish those) it has a

FLIPPIT

'randomizer' feature that will change the patterns and relationships for each and every level, giving you a never ending challenge.

Amstrad PC- \$39.95
CPC disc- \$29.95
CPC tape- \$24.95

FLIPPIT

You may be surprised to learn that C is probably the most popular general-purpose language for micros these days. In the old days it was designed for use by systems programmers who wrote operating systems, utility programs and compilers and is a derivative of ALGOL, a mainframe language. But now it is used to write applications such as word processors and databases.

The reasons for its current popularity are probably due to clarity of design of the language, its function-based structure where it is easy to add external libraries (new instructions) and its flexibility in addressing and manipulating data.

WHERE'S THE POINT

C is strictly modular in that it consists of a series of subroutines or functions which can be referred to or called by other functions. Each function can have its own list of variables and parameters and (another surprise) a variable can have the same name as a variable in another function yet manages to keep them separately identified.

Although not relevant to your MS-DOS PC, 80386 based multi-tasking systems can make use of C's dynamic variables which are created every time the function is called.

Older computer buffs will remember the time-consuming assembly language for low-level programming tasks. They will no doubt notice that although C is a high-level language it still retains an assembler feel about it. This is illustrated by its ability to access RAM location by variable names (a la Basic) or by memory addresses using a system of pointers. The latter is where programmers get the flexibility when writing compilers and the former gives simplicity. Newcomers to C may find the pointer system difficult to understand at first, but they are relatively simple when it comes down to it. Having said that, I won't spoil things and give an explanation now, but I am happy to expand later if anyone requires me to do so.

AT THE C-SIDE

The C language is one of the popular alternatives for micros. Robin Nicholas gives the ins and outs with comparisons to Basic.

NO STRINGS ATTACHED

If you are used to programming in Basic, you will find some major differences. For example, C does not have a data type 'string' like Basic's A\$. C treats 'strings' as arrays of characters (a set of bytes one after the other rather than a single unit of 'n' number of bytes long). As this is how a word processor would view a line of text, you can see how C becomes useful in developing this kind of application. However, C compilers are normally supplied with extra functions which let you perform string-type operations such as comparisons and concatenations, but you may still have to treat strings in their correct array fashion in some circumstances.

SHORT AND SWEET

Rather like the name of the language, the source programs tend to be as short and snappy. Where C differs from most other languages is that an assignment and a test can be included in the same statement. For example in Basic you might write:

```
TOTAL = TOTAL + SCORE
IF TOTAL > HISCORE THEN PRINT
"You're the Champion"
```

whilst in C you would write:

```
if((total = total + score) > hiscore)
puts("You're the Champion\n");
```

or in Basic you could write:

```
a = a + 1
TOTAL = TOTAL + SCORE
```

yet in C you would write:

```
++a
total += score
```

It's almost like shorthand compared with other languages, but you do have to be careful not to allow your coding to get too buried!

SUMMARY

There are only 29 reserved words in C plus a few mathematical and logical symbols. You won't find PRINT or INPUT or even a 'clear screen' command but don't worry, you'll cope. I have already said that C was designed to be extended via libraries or pre-written functions. In Basic you may write PRINT "Hello" but in C you say puts("Hello"); which is a call to the pre-written function puts('put string'). C compilers come with essential functions already provided but you can add to them as you wish.

The idea of external libraries makes C quite portable and adaptable. For example, if you wished to run your C program on another computer with a non-standard display adaptor, you merely write your own version of puts to cope with the different display, recompile the source and you're off again on the different machine.

This is where C scores as a 'third generation' language and will maintain its influence for many years to come.

KUMA COMES TO THE WP PARTY

KUMA Software have released four GEM based PC business packages in Australia; KWORD2 is a powerful word processor incorporating window design, a spellchecker and a mailmerge facility. We take it for a spin.

The KWORD word processor from KUMA Software is quite a powerful package incorporating as well as the word processor, a mailmerge facility and a spellchecker. Using Gem, KWORD incorporates windows and drop-down menus for organised, uncluttered and versatile operation. A comprehensive manual is provided which very adequately takes you through all the features.

Initially, all the software provided is on one disc, however for safety you should always make a back-up disc, and the manual recommends that a working disc be made presumably because there is also little space left on the master disc. What's more, the dictionary used on KSPELL (the spellchecker) is stored on the master disc in a compressed form and cannot be used until decompressed. So with a nice, clean and newly formatted disc in drive B, the program DECOMP.EXE will decompress and transfer the dictionary to your work or files disc. From now on this disc should be used for all your file storage, the back-up disc only for loading KWORD and KSPELL, and the master disc should be in a safe place.

A LOOK IN WINDOWS

KWORD is a GEM based word processor and has therefore windows and drop down menus incorporated into its design, making

it quite user-friendly and simple. Up to four windows may be opened at any one time, with only one active. This also means up to four texts can be viewed simultaneously. Cutting and pasting, merging and copying can all be done on the one desktop, simply by working between these windows.

The cursor controls are standard in most ways. Either the mouse or various control keys can be used to manipulate the text, and a large number of control keys are defined. For example, typing [CTRL-I], [CTRL-U] or [CTRL-B] will set the text following the cursor in either italics, bold or underlined script. You have full control over margins, tabs and indents, except the procedures for changing these take a bit of getting used to. Using the mouse in conjunction with the [CTRL] key makes things a bit easier.

The first drop down menu is the file menu. When commencing on KWORD, a new window has to be opened to start typing - the NEW option will get you going. Generally the options on the file menu are the same as on most decent word processors, so there is no need saturating you with details that are normal, but there are a few points of interest to show you what class KWORD is really in. The insert option allows you to insert a file from disc into the active text after the current cursor position. Pasting is therefore not confined to what's

on the clipboard.

Unless all four windows are being used, the LOAD option enables you to call from disc a file and place it onto a window, without having to first close the current active window. KWORD will also store files in ASCII or DIF format using the GIVE and TAKE options from the file menu. Files from other KUMA packages such as KSPREAD, which also uses the DIF format, can therefore be accessed and used on KWORD. ASCII coding enables even further compatibility and transferability of files to other applications.

The edit menu is used where two documents are being referred to at the same time. It enables cutting, copying and pasting between documents on the desktop. The option titled APPEND allows the text to be cut or copied to be added to the text already on the clipboard, rather than having the old text on the clipboard overwritten by the new. The APPEND function is a toggle - like many of the functions on KWORD, so clicking on it again will switch the function off again.

Just a note - other than the available ram memory, there is no limit to the length of text allowed on the clipboard.

Searching for, finding and changing text is made very easy with the search menu options. KWORD will allow you to find and change all occurrences of a specified text string or you can change only those occurrences you chose.

DEFINED FUNCTION KEYS

A particularly useful function of KWORD is the section titled the keys menu. In this section you are able to define the ten function keys with any string of ten characters. So often used words, or difficult control character settings can be stored in sequence as a function key. For instance, you might often need to type the word "sequence" in a particular document. You might also want this in bold, underlined type. So you could define function key #1 as a toggle for the bold and underline type settings and function key

#2 as the word "sequence". Now by typing [F1],[F2],[F1], you would have entered the word **sequence** as shown in bold and underlined type with the rest of the text unchanged. For often used fiddlies, this keys menu option makes things very easy and saves a lot of time.

Also controlled in this section is the use of non-English characters. So you can define the function keys with these if you chose to use foreign language characters and there are in fact twenty function keys to define, because KWORD recognises another ten where the shift key is pressed at the same time as one of the function keys. Sets of defined function keys can also be saved and loaded to and from disc, allowing for even greater versatility.

The print menu handles all printing related functions and it's worth reading the manual carefully here. The manual states that before a correct printed output can be obtained, a configuration file has to be created, using a program supplied on the disc. This file will store the details of your printer, the connections used (serial or parallel), the paper settings, printer features and other information needed by KWORD to ensure what you see on screen is what you get on paper.

As well as the usual functions controlling the page length, pages to be printed, margins and so forth, you can also set headers and footers, set the default for the page number and enter information to appear on every printed page. The printout can either be a hard copy (on paper) or a soft copy saved to disc as an ASCII file, complete with headers, footers and page numbering. This print option can save a selected part of the document only, whereas the GIVE command from the file menu could only have saved the lot.

An impressive option on

KWORD is the mailmerge function. Many word processors have this as a separate program but it is here incorporated into the package. Simply stated, the mailmerge option allows you to print out a standard text with varying text strings within it. The most common application is the standard letter printed with a different address each time.

KWORD holds the constant text in a window while the variable data is held in a DIF file. This means that the variable data can come from other KUMA packages like KSPREAD or KDATA.

The last menu option is titled "options" and is devoted to the

again.

SPELLCHECKER INBUILT

What will perhaps set KWORD apart in your mind is the spellchecking program provided in the package. No matter how good one may think ones spelling is, the truth is we all fluff from time to time. I can see the school or university student really counting KSPELL a blessing.

The spellchecker allows you to sort, correct, mark, list or ignore the errors it finds. What's more, if you're not satisfied with the contents of the dictionary, you can update it too.

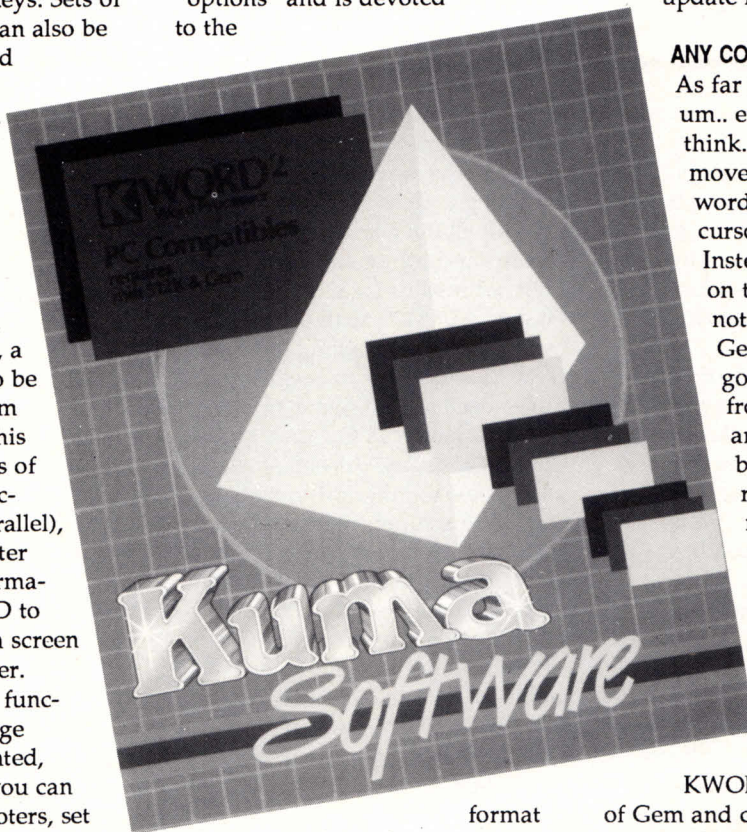
ANY COMPLAINTS?

As far as criticisms go, well... um.. er...give me a minute to think. I found that the cursor movement for deleting a word to the left of the cursor didn't seem to work. Instead I got little houses on the screen (!) That's not the end of the world. Generally the speed was good, I wasn't left with a frozen cursor at any time and nothing got wiped by accident. For some reason I did once lose my mouse arrow and I wasn't doing it deliberately. This wasn't something to lose sleep over though.

Generally I was very satisfied with the performance and features of

KWORD. Making good use of Gem and combining an easy to use word processor with a mailmerge facility and a spellchecker, at a recommended retail price of \$119, KWORD represents a solid software package and good value for money.

KWORD is distributed throughout Australia by Dataflow and is available from most software dealers or by mail order from The Amstrad User for \$119.



format controls on the active window. The word wrap function throws a word to the beginning of the next line if it overlaps, avoiding hyphenation. This function is a toggle so it can be switched on or off. The fill function controls full text justification and is again a toggle. The information section provides the lost and bewildered user with a bit of useful advice - mine would be to read the manual

CHRISTMAS PC GOODIES

Chris Collins brings us the latest on updates and releases in the world of the PC. Some goodwill and good offers are thrown in for good measure...

Merry Christmas and Happy New Year to all of my readers. Well, once again it is the silly season of the year. This is the time of the year when quite normal people go absolutely crazy, and do things totally out of character. And all this in the name of enjoyment. What can you do?

Because it is that time of year, and because not everyone wants to spend the time reading the magazine, I will be brief and to the point.

BUTTONWARE UPDATE

Continuing from last month, we have some more news for you. All of you Buttonware registered owners (PC File+, PC Calc+ and PC Type+) will have received the latest news-letter from Jim Button. This is to inform us that PC File+ has been updated yet again, and has been released as a new product. PC File:db is faster, bigger and better. The new version has risen in price to a registration fee of US\$89.95, but from my perusal of the news-letter, it appears to be well worth it. The only problem that I can see is that PC File:db needs two 720k floppy disc drives or a hard disc to function properly, so all you two floppy owners will miss out.

However, you will be pleased to know that they will still be supporting PC File+ v2.00, so you won't

miss out. A rumour was also floated about upgrades to PC Calc+ and PC Type+ in the new year. It's worth becoming a registered user to keep up with all the gossip.

Also to continue from last month, I offered readers legal copies of PC File+ at AUS\$100, with only the registration card needing to be sent off to the States for full registration. I have been able to find a supplier who also handles PC Type+ and PC Calc+ at the same price. So for all of you people out there who haven't wanted to send off money to an address in the States, you now have no reason not to register. All three major Buttonware programs are available at a price of AUS\$100 each, delivered to your door. All you have to do is fill in a registration card, and post it away. Delivery time appears to be approximately four weeks.

BONUS COMMUNICATIONS PACK

Also still available for all you readers is the communications special. This package includes a modem, cable and three pieces of shareware communications software for you to try. The software was to be Telix v3.00, Qmodem SST and Procomm v2.42. However, I have been able to update two of these to the newest version possible. Telix has now been updated to v3.11, and

Procomm has now been updated to Procomm+. This has meant that the package now contains 6 diskettes, but in agreement with my boss, I convinced him not to raise the price. And if you knew my boss, you would realise that it wasn't easy to do. However, if you want the communications special, drop me a cheque for \$439, and I will get it out to you as quick as I possibly can.

For all of you that were interested in last month's little discussion of communications, I will be getting into that area again next month, and probably a little deeper, but it will have to wait until next month.

GETTING THE MOST OUT OF EGA

For PC1640 owners I have a special for you this month. We have a three diskette package available that is broken down as follows: 2 diskettes of games that fully exploit your EGA screen, and a diskette that contains a whole heap of EGA demonstrations. This will cost you \$22.00 for all three diskettes, and is described below.

The first diskette is called EGA Games 1, and contains the following games:

EGAROIDS - Asteroids in EGA.

Very good.

MAHJONG - Australian shareware version of the true Mahjong game. You play three computer opponents. Very good, and according to my Mahjong playing friends, very accurate. Suggested donation is AUS\$25.

MAHJONGG - Not really Mahjong, but very similar to the commercial game Shanghai. Really excellent, and can use a mouse. Suggested donation is US\$8.

OMEGA - 3 dimensional chess game. Excellent graphics.

TRISKEL - Triskellion - a weird game with three rotating coloured rings.

The second diskette is called EGA Games 2, and at the moment contains the following games: ALDOZ - A donkey kong clone with very good graphics. Really requires an AT to perform properly, but an

Amstrad PC appears to work reasonably well.

BREAKOUT - The old brick, bat and ball game, but enhanced to work with EGA.

EGABOMB - EGA artillery game.

Not bad, but very difficult to play.

EGARISK - EGA graphics version of the board game RISK. Slightly different from the board game, but similar enough to make it accurate.

EGATREK - Star Trek game in enhanced graphics. Best graphical version of this game that I have seen. Excellent.

The last diskette for this month is called EGA Demonstrations. This diskette simply contains a bunch of demonstration programs that show off some of the power of the Enhanced Graphics Adapter. The diskette contains the following programs:

BIOFLAV - Shows a bunch of approximately 10 cubes, bouncing around the screen. They use the edge of the screen to bounce back.

EGADEMO - Excellent demonstration that takes part inside a GEM style of environment. Can use a mouse to view some of the sub

demonstrations.

KAL - Simple kaleidoscope demonstration.

PANSCRN - Shows how the EGA allows panning across a logical screen that is actually larger than the physical screen. Very impressive.

POWEREGA - Victor V286 demonstration. Really requires an AT, but seems to perform reasonably, if a bit slow.

PYRO - Fireworks demonstration.

We use this one in the shop a lot.

RAX - Totally weird demonstration that I don't understand.

ROSES - Draws excellent pictures on the screen, simply by plotting points in colour. Also used in the shop.

Can operate in a timed delay sequence, or on one picture continually.

SPLAT - Unusual demonstration. If I describe it, you probably won't watch it.

HOW TO ORDER...

That's our three diskettes mentioned for you to peruse. If you require any of the diskettes, you should all know the routine.

However, for anyone new, simply send me a cheque for \$10 for the first diskette, and \$6 for any extra diskettes in the same order. They should be returned to you within 14 days. The address is as follows:

C.J. Collins

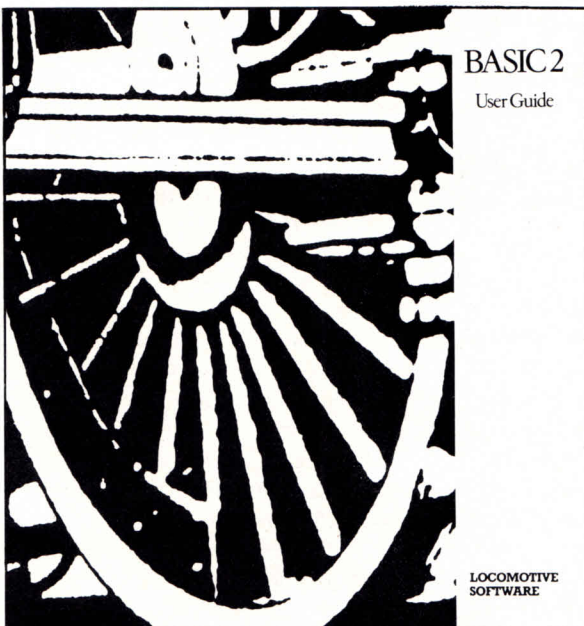
1 Woods Street, Newport 3015.

Well, that appears to be about all for this month. As you are reading this, it should be approximately the first week in January. So you have already enjoyed Christmas. As I write this column, it is only the third week of November, so it is very difficult to get totally into the Christmas spirit. However, Christmas/New Year is the time of year when we are all supposed to be of good cheer, and think good thoughts about all of the people that we know.

Let me leave you with a thought. For the next year, go out of your way to make your enemies feel good. They won't understand why, and it will drive them crazy.

Until next month, enjoy life and be happy!

The definitive book on Basic2 from Locomotive Software



- detailed description of Basic2 utilities
- tuition in programming for beginners
- advanced facilities for serious users
- full appendices and index

Available from:

The Amstrad User,
1/245 Springvale Road,
Glen Waverley, Vic. 3140
Phone: (03) 233 9661

for only

\$39.95 + p.p.

(Subscribers' price \$37.50 + p.p.)

ADVENTURER'S ATTIC

Philip Riley has compiled a plethora of queries, quandries, solutions and tips for all you incorrigible adventurers

We are only able to bring the questions and answers to you this month but don't worry, we will be back to normal next month with the full column.

QUESTIONS

The first three questions are from Darren Bruggeman and concern Bastow Manor. He has gone into the garden shed and through a trapdoor into a dark place, but whatever he tries to do the computer says "you should not move in the dark" and he dies. What can he do? (It sounds as though he needs a lamp to me.) He would also like to know if the dark room is useless? and if so should he try to get into the house through the front door, the second storey window or the jammed door under the window? While talking about Bastow Manor, Darren would like to thank Scott Barker for his answers and I would like to thank John S. McVey who also sent us the answer to Darren's last problem, unfortunately John's letter arrived after the column had already been written.

Rhonda Cook is having trouble with a stupid game (*sic.*) called Royal Quest. She cannot find anything to light the lamp with. Joanne Glover is also having a Royal problem, she would like to know where the flint and steel are? She has to know as it is driving her nuts.

John Dawson is having trouble killing all of the black riders in LOR.

Firstly, he runs out of his 5 elfstones then everyone either drops dead from starvation or from having their skulls cleaved when he types "KILL RIDERS WITH SWORD". John would also like to make a slight adjustment to the hint sheet provided. When in the marshes or bogs if you are not following Strider then always go SW and you will emerge by the gates.

Finally some questions from James Green concerning Lancelot - the new release from Level 9. How do you defeat Phelot in part 2? What do you do to the sails on the *sessonines (sic.)* ships? How do you get past the army at Tintagel Castle? How do you get Sir Gawain without betraying Guinever? How do you kill Nebib the giant? And how do you enter Corbin Castle? Sorry. As yet I cannot supply you with any answers of my own.

ANSWERS

Steven Orr has the first answers this month for Hitch-Hikers. Once you have collected all of the fluff (4 pieces), put it into the pot that you will find in the sperm whale. Then while carrying the pot enter the sauna. Now you will be able to eat the fruit that grows, which you can use to see which tool Marvin requires. Ford & Co. never come out of the sauna to help you. Once you have convinced the screen door just type in the direction to move

through it (East or West). There are no real mazes in the game only a section that is randomly generated and thus cannot be mapped.

If you wish to spread the butter in the torpedo tube in Subsunk, type "SPREAD BUTTER" and then "ON TUBE" as two separate commands. This answer was sent in by John Dawson and Barry Hoole.

To get to the high place in Knight Tyme, John Dawson recommends you drop the advert and jump onto it then onto the high place. To reach the Tyme Lords John says collect three pieces of the sundial, drop them all in the same place without moving, then with 100% magic, cast a lightning spell and take the sundial, with this and the standard boots, invisibility coat etc., you can reach them.

Answering a really old Warlock question, John says the three objects you give to the statue are the ankh from the forest, the hunting horn from near the swamp and the bottle from in the forest.

How do you get out of Tylon's castle in Kentilla? Barry tells us to go to the metallic alcove, turn the dial to any number from 1 to 35 then press button. The device will teleport you to the location that you have selected.

Barry has also shed some light on the finish for The Pawn. The game does not actually tell you that you have finished, you can actually finish the game with as little as 245 points out of a possible 350. Do not cross the dotted line as this is a one way trip with no return and also it plays no real part in the game. So if you have not scored 350 points you know that you can continue back through the game and try to pick up the other points.

More answers from Barry - this time for Infidel. Examine the book and translate the hieroglyphs (which mean in this case "Insert the book in the queen's large recess and the scarab on the queen's small recess). At the queen's bed chamber door, wedge the beam under the lintel, hit the seal with the pick and open the door.

Rhondda Cook and John Dawson both sent in this answer for Castle Dracula. Instead of opening the oak door you chop it down, and John says that he completed this adventure and did not need to examine any cracks in any floors.

More answers from Barry concerning Smugglers Cove this time. Wear the cloak to pass the mermaid, hit the pirate with the sword, and the ring is in the casket held by the statue.

Barry has also given us these answers for Ashkerin. To get the floating orb use the white witch spell, but note that the orb cannot be picked up again if dropped. To open the portcullis say to serf "HAVE WINE" then say to serf "OPEN PORTCULLIS" then say to serf "LOWER DRAWBRIDGE".

Steven and Barry have both sent

in various answers for Zork II. Once the demon is out Barry tells us to say to the demon "give me wand" while Steven says give him ten treasures and he will grant you a wish (I say take your pick). If you enter the light curtain you will enter one of the four rooms, depending on the direction you entered the depository. This is the way to reach the small room and the vault, and to find the banknotes (not to mention getting the painting). Put the brick into the box, put string into brick, light match, burn string, and you get another treasure after the explosion, but don't forget to get well out of the way before the big bang! If you hit the aquarium with the sword or the club, the glass will break and the serpent will suffocate.

James Green has received some letters without stamps and so has sent the answers in to us. Firstly for

Aftershock, to transfer the oil from the bottle to the sluicagate mechanism you have to fit handle to mechanism, lubricate mechanism with oil and open sluicagate.

In Message from Andromeda, the explosives are in the storeroom and to use them, place them in the eastern end of the cavern, go to the western end of the cavern and then press the detonator button.

Barry Hoole has also pointed out that he is not getting many stamped self addressed envelopes from people using the contact list. The rules state you must send an SAE or you may not get a reply. Likewise anyone receiving a letter without an SAE does not have to answer it.

And that is it for another month. I hope you all have or had a good Christmas, and happy adventuring through the New Year.

ADVENTURER'S CONTACT LIST

(Please don't abuse the help being offered)

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W.A. 6430

The Hobbit, Forest at
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Rhondda Cook
MS 231, Laidley
Q.L.D. 4341

Time Search, Trials of
Arnold Blackwood
Arnold goes Somewhere
Else, Castle Dracula,
Mountain Palace Adventure

Steve & Robyn Ballard
126 Lyndhurst Road
Boondall, Q.L.D. 4034

Warlord, The Experience,
Escape, Forest at World's
End, Phoenix Mission,
Message from Andromeda,
Heroes of Karn, Jewels of
Babylon

Karla Slack
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N.S.W. 2777

Adventure Quest , The
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Neverending Story (1)
Wishbringer

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Jewels of Babylon, The Trials

of Arnold Blackwood

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Seabase Delta, The Trials of
Arnold Blackwood, Colossal
Adventure, Dracula (pts1&2)

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ing Story

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Forest Land

Dave Weatherhead
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Nth. Dandenong Vic 3175

Aftershock, Imagination,
Seabase Delta, Necris Dome

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Enchanter, Gremlins, Infidel,
Midshadow, Message from
Andromeda, Wishbringer,
Heavy on the Magick.

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RSD 557, Cygnet
Tasmania 7112

Ground Zero, Curse of
Sherwood, Pyjamarama,
Down the Mine, Warlock,
Exchange, Castle Dracula,
Time Search, Subunk,
Mountain Palace Adventure,
Mayday, Sorcery+

Scott Barker
88 Elsie Gve, Chelsea
VIC. 3196

The Hobbit, Jewels of
Babylon, Imagination,
Mordon's Quest

James Green
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Rathmines N.S.W. 2283

Adventure Quest, Time &
Magik Trilogy, Aftershock,
Mind Shadow, Sorcerer, The
Neverending Story, Red
Moon, Enchanter,
Imagination, Message from
Andromeda, Mural.

Steven Orr
17 Garong Close, Edgewater
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CPC Games; Forest At
Worlds End, Bored Of The
Rings, Warlord, Necris
Dome, Zork
I & II, Hitchikers Guide To
The Galaxy, The
Hobbit, Swords And
Sorcery. PC Games; Zork I,
Hitchhiker Guide To The

Galaxy, Kings Quest I, II &
III, Police Quest, Space
Quest, Land Of The Lounge
Lizards, The Hobbit, Castle
Adventure, Crime Adven-
ture, New York Adventure,
Buckaroo Bonzai.

Bobby Lockett
5 Wendy Place
Prospect. Tasmania. 7250.

The Hobbit, Zork 1,
Enchanter, Tau Ceti,
Sorcerer, Planetfall,
Mordons Quest, Jewels
of Babylon, Forest At Woods
End, Neverending Story,
Swords and Sorcery, Buggy,
Seabase Delta. Message
From Andromeda, Leather
Goddesses of Phobos,
Everyones a Wally,
Pyjamarama, The Boggit,
Robin of Sherwood,
Sorcery+, Shogun, Academy,
Knight Tyme, The Wild
Bunch, Jack The Nipper.

Barry Hoole
4 Dobson Road
Shepparton Vic 3630

Acheton, Adventure Quest,
Arnold goes Somewhere
else, Aftershock, Ashkeron,
Black Crystal, Brawn Free,
Castle Advent., Castle
Blackstar, Circus, Classic
Adventure, Colossal

Adventure, Countdown to
Doom, Crystal Quest, Desert
Island, Dun Darach, Dun-
geon, Adventure, Emerald
Isle, Enchanter, Espionage
Island, Eye of Bain,
Feasibility Experiment,
Forestland, Golden Apple,
Golden Baton, Ground Zero,
Guild of Thieves, Heavy on
the Magick, The Hobbit,
Inca's Curse, Infidel,
Invincible Island, Jewels of
Babylon, Kentilla, Last Will
and Test-ament, Leather
goddesses of Phobos,
London Adventure, Lords of
Time, Mansion Quest,
Marsport, Mission X,
Moonmist, Mordons Quest,
Murder at the Manor, The
Neverending Story, The
Pawn, Pharaohs Tomb,
Philosophers Quest, Planet
of Death, Return to Eden,
Return to Ithaca, Rifts of
Time, Sherlock, Ship of
Doom, Smugglers Cove,
Snowball, Starcross,
Subunk, Ten Little Indians,
Terrormolinos, Time
Machine, Time Quest, Tir Na
Nog, Traveller, Trials of
Arnold Blackwood, Valhalla,
Volcanic Dungeon, Warlord,
Wise and Fool of Arnold
Blackwood, Wishbringer,
Worm in Paradise, Zork II,
Zork III

CPC & PCW PUBLIC DOMAIN SOFTWARE

The following discs contain compilations of public domain programs put together by the Advantage Computer User Group (in England) and which have been tested under CP/M Plus. Unless otherwise stated, programs will run on the PCW, 6128 and 464/664 with extra memory and CP/M Plus. Programs for the 464/664 are on the CP/M 2.2 Collection. The discs are supplied in

Data format and contain documentation files to help the user get started and provide instructions on running the programs plus useful sorted directory and MENU systems.

But remember, as Public Domain programs they are supplied on an as-is basis.

CP/M 2.2 COLLECTION

For 464/664 disc drive users with CP/M 2.2. Contains File Manager, Compare, Find, Disc sector editor, Key definer, Bad sector eliminator, Grep, Full Screen text editor, Easy lister, File transfer utility, Unerase erased files, erased files catalogue and many more.

CPC Ref: #430

FULL SCREEN TEXT EDITOR

This machine code editor offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap and formatting, pagination, find/replace, undelete and many user options.

The editor, which is less than 10k in size, is fast because it edits a file entirely in memory. It produces ASCII text files and has enough features to be used as a word processor. A comprehensive on-disc manual is included together with keyboard configuration files for the CPC and PCW.

CPC Ref: #601 PCW Ref: #801

DATABASE

A small relational database suitable for storing simple data and producing reports and forms letters from the data. Offers free format query language with macros and commands plus on-line help. The disc also contains an Inventory Database. Whilst these databases provide a useful introduction and you can use them to set up a full operational database system they are not meant to replace commercial packages for professional or business use.

CPC Ref: #602 PCW Ref: #802

COMMUNICATIONS

Programs to allow data transfer between computers (local and remote), access databases and bulletin boards. UKModem7, New Kermit, MEX and various communications utilities. The disc also contains software for Prestel (Viatel) emulation (PCW only).

CPC Ref: #603 PCW Ref: #803

VIDEO CLERK

Keep track of your video collection. With four Sort options and Forms Management system for printing out the data in order of title number, video number, global alphabetic or unique. Includes extensive on-disc documentation.

CPC Ref: #604 PCW Ref: #804

FIXED ASSETS LOG

Allows you to keep a record of all your assets and their value. For example, at home, you may wish to

keep a record of how much money you are spending on your computer or the value of a stamp collection etc. In business you can use it to keep a record of how much money you have tied up in land, buildings, office equipment, cars etc. It can also be used as a stock-taking program.

CPC Ref: #605 PCW Ref: #805

COMPLETE UTILITIES

- *Newsweep* - one key erase, copy, rename and print, plus many other features. Ideal for sorting out your disc collection quickly and efficiently
- *Superzap* - disc sector editor - edit by track/sector or filename. Fully menu-driven with cursor key SETKEYS file
- *DisckitA* - multi-choice disc formatter, offers 178k data format for PCW discs and 5.25" second drive formatting
- *Unerase* erased files
- *Read/write* PCW discs on a CPC
- *CP/Mv2.2 emulator*
- *Make* - allows you to copy files across user areas
- *Cleanup* - useful for speedy file deletion
- *Lookat* - speedily lists any file in Hex and ASCII
- *Screen Dump* (CPC only)
- *Password*
- *Easy Lister*
- *Password Protection*
- *File Scrambler*
- *File Splitter*
- *Directory check*

CPC Ref: #606 PCW Ref: #806

TEXT PROCESSING UTILITIES

- *Sideways* - prints text file sideways on an Epson-compatible printer. Ideal for those wide spreadsheets
- *Sort* any ASCII list into alphabetical order
- *Word count* - can be used on any ASCII file
- *WSClean* - removes higher order bits from a text file and converts it to straight ASCII
- *Calendar Generator* - prints out calendar for any year
- *Simple Spell Checker* - with starter dictionary and dictionary editor
- *Scoring card generator*
- *Banner printers*
- *Typewriter emulator*

CPC Ref: #607 PCW Ref: #807

DISC ORGANISATION

Catalogue your disc collection and produce a printed index. Useful for speedy location of files and for keeping your discs in order. Library utilities for archiving and saving disc space. File dating system. Squeeze and unsqueeze for saving up to 40% disc space. Menu system - allows menu-driven access to programs on a disc. Completely and easily user-definable.

CPC Ref: #608 PCW Ref: #808

Z80 PROGRAMMER

A complete Z80 Assembler which is capable of converting an ASCII assembler file into a fully executable machine code .COM program. Plus Z80 Disassembler, Z80 Debugger, Z80 Library, 8080 Disassembler, Z80 to 8080 Translator and associated utilities.

CPC Ref: #609 PCW Ref: #809

'C' PROGRAMMER

The Small 'C' Compiler by Mike Bernson. Includes source code and 25k of documentation. Produces executable .COM programs.

CPC Ref: #610 PCW Ref: #810

'C' TOOLBOX

A disc full of 'C' source code examples together with the corresponding executable .COM programs. Useful to those wishing to see some practical examples of 'C'. As a bonus, the programs are quite useful too. The 'C' source was written for a variety of compilers and may need modifying to compile on MIX or Small 'C'.

CPC Ref: #611 PCW Ref: #811

FORTH, STOIC AND 'C' INTERPRETER

For experimenters interested in using these languages. Documentation is included on disc.

CPC Ref: #612 PCW Ref: #812

GAMES COMPENDIUM

A varied selection of the best machine code programs available for CP/M. Includes Pacman, Snake (PCW only), Chess, Othello, Mastermind, Spellit, Awari, Life, Golf, Polish Pong, Maze, Bio-rhythms, Word Search puzzle maker, TicTacTo.

CPC Ref: #613 PCW Ref: #813

ADVENTURES

- *Colossal Cave Adventure* which originated on main frame computers. With game save and re-load
- *Bestiary* - you play the part of a young prince, your greatest love being to read the ancient bestiaries about strange and often legendary animals. Your task is to find a solution to the terrible blight which, one year, destroys both crops and animals in the kingdom. Includes game save and re-load
- *Return from Arg* - a short but interesting new adventure written in 'C'.

CPC Ref: #614 PCW Ref: #814

PCW GRAPHICS (PCW only)

Simple user-designed graphics drawing program. Enables you to create, save, edit and print pictures on your PCW. Plot lines, points, boxes, four fill patterns, easy to use and wholly interactive

- *PCW Screen Font designer* with several ready-to-run font sets
- *Biomorph* - fascinating, graphic demonstration of natural selection - develop your own bugs!
- *Readme* - program to display any ASCII text file in 45 character format on the 90 character screen - makes it easier to read.

PCW Ref: #815

How to order your discs

You may either order over the phone by credit card or by post. *It is very important that you get the reference number correct. CPC and PCW discs are different.* (Software contained on 3" discs only). The cost per disc is \$17.50. • **BANKCARD, MASTERCARD & VISA accepted** •

• Price includes postage in Australia, overseas add A\$2.00 •

Send Your Order to:

The Amstrad User,
1/245 Springvale Road,
Glen Waverley, Victoria. 3150.
Phone: (03) 233 9661

THE AMSTRAD USER MAIL ORDER SERVICE

For details on how to order please see the last page of this list.

Amstrad CPC Range 464, 664 and 6128

(unless otherwise stated)

GAMES

	Discs	Tapes
720° (Skateboarding)	44.95	29.95
1943	44.95	29.95
Academy (Tau Ceti II)	49.95	-
Activator	30.00	16.00
Adventure 4-Pack	32.95	27.95
Andy Capp	34.99	29.99
Arkanoid	SEE PAGE 9	-
ATF	-	29.95
Bad Cat	SEE PAGE 9	-
Ball Breaker	44.95	29.95
Basil, the Great Mouse Detective	SEE PAGE 9	-
Batman - new version	44.95	29.95
Bedlam	-	29.95
Beyond the Ice Palace	34.95	34.95
Bionic Commando	44.95	29.95
Black Tiger	44.95	29.95
Blood Brothers	44.95	29.95
Blue War	44.95	-
Bobby Bearing	22.00	11.00
Book of the Dead	44.95	-
Brainache	-	11.00
Brian Bloodaxe	20.00	-
By fair means or foul	44.95	29.95
Captain Blood	44.95	29.95
Charlie Chaplin	44.95	29.95
Classic Quest Adventures:		
Catacombs (hard)	49.95	-
Goblin Towers (mod.)	49.95	-
Forestland (hard)	49.95	-
Witch Hunt (very hard)	49.95	-
Cluedo	44.95	35.95
Combat School	44.95	29.95
Core	-	16.00
Cyberoid	SEE PAGE 9	-
Cyberoid II	44.95	29.95
Darkside	49.95	-
Defcom	-	13.00
Desolator	44.95	29.95
Dragon Ninja	44.95	29.95
Druid	-	20.00
Eddie Edward's Super Ski	39.95	29.95
Empire Strikes Back	49.95	34.95
Espionage	44.95	29.95
Fernandez must Die	44.95	29.95
Firezone	44.95	29.95
Flippit	29.95	24.95
Flying Shark	-	29.00
Fury, The	34.95	34.95
Future Knight	-	16.00
Garfield	44.95	29.95
Gary Lineker's Soccer	44.95	-
Gauntlet II	44.95	29.95
Gee Bee Air Rally	39.95	29.95
Glass	25.00	-
Gnome Ranger	44.95	29.95
Gothik	39.95	29.95

Gm. Gooch's Cricket	29.95	-
Gryzor	-	29.95
Guerilla Wars	44.95	29.95
GunShip	59.95	49.95
Gunsmoke	44.95	29.95
Handball Maradonna	-	13.00
Head over Heels	SEE PAGE 9	-
Hopping Mad	34.95	34.95
Hot Shot	37.95	29.95
Hunt for Red October	-	39.99
Impact	49.95	-
Impossible Mission II	39.95	29.95
Indiana Jones and the Temple of Doom	44.95	29.95
Ingrid's Back	49.95	34.95
Jinxter	69.95	-
Karnov	39.95	29.95
Knight Orc	49.95	34.95
Krypton Factor	49.95	-
Lancelot	49.95	39.95
LED Storm	44.95	29.95
Living Daylights	49.95	32.95
Madballs	44.95	29.95
Mach 3	39.95	29.95
Marauder	44.95	29.95
Mask II	44.95	29.95
Masters of the Univ.	44.95	29.95
Mega Apocalypse	34.95	34.95
Metal Army	-	10.00
Metrocross	44.95	-
Mickey Mouse	44.95	29.95
Monopoly	44.95	35.95
Nigel Mansell's Grand Prix	49.95	35.95
Night Raider	44.95	29.95
North Star	SEE PAGE 9	-
Not a penny more...	49.95	39.95
Operation Wolf	44.95	29.95
Outrun	44.95	29.95
Pacland	44.95	29.95
Pacmania	44.95	29.95
Pegasus Bridge	34.95	29.95
Platoon	44.95	39.95
PHM Pegasus	34.95	34.95
Rambo III	44.95	29.95
Ramparts	44.95	29.95
Road Blasters	44.95	29.95
Robocop	44.95	29.95
Rocky Horror Show	22.00	11.00
Rolling Thunder	SEE PAGE 9	-
R-Type *	44.95	29.95
Rygar	-	29.95
Salamander	44.95	29.95
Sapiens	39.95	29.95
SDI	44.95	29.95
Scalextric	-	35.95
Scrabble de luxe (6128)	44.95	-
Scrabble (standard)	44.95	35.95
Shackled	44.95	29.95
Slaine	35.95	-
Side Arms	SEE PAGE 9	-
Skate Crazy	44.95	29.95
Sorcerer Lord	44.95	29.95
Star Wars	49.95	35.95
Storm	-	11.00

CPC - continued

Street Fighter	44.95	29.95
Tanium	-	10.00
Tank	44.95	29.95
Target Renegade	44.95	29.95
Tau Ceti	22.00	11.00
Technocop	44.95	29.95
Tenth Frame	39.95	29.95
Terra Cognita	-	11.00
Terramex	SEE PAGE 9	-
Tetris	34.99	29.99
Thunder Blade	44.95	29.95
Tiger Road	44.95	29.95
Tour de Force	44.95	29.95
Trailblazers	-	20.00
Trivial Pursuit		
Young Players edition	27.95	22.95
Baby Boomer edition	27.95	22.95
Typhoon	44.95	29.95
Untouchables	44.95	29.95
Venom Strikes back	44.95	39.95
Vindicator, The	44.95	29.95
Vixen, The	34.95	34.95
WEC Le Mans	44.95	29.95
Western Games	SEE PAGE 9	-
Wizard Wars	44.95	29.95
Wizball	44.95	29.95
Wolfman	44.95	29.95
Yes Prime Minister	49.95	39.95
Zynaps	44.95	29.95

DOUBLE GAMES

Battle of Britain/Dynamite Dan I	22.00	17.00
Bruce Lee/Zorro	22.00	17.00
Cerberus/Guzzler	22.00	-
Dizzy Dice/Joe Blade	22.00	-
Fairlight/Saboteur	22.00	17.00
Riding Rapids/Nuclear	22.00	-
Theatre Europe/S. Davis Snooker	22.00	17.00
Who Dares Wins/Spitfire 40	22.00	17.00

COMPILATION PACKS

Arcade Force 4		
with Road Runner, Metrocross, Gauntlet and the Deeper Dungeon, and Indiana Jones and the Temple of Doom	49.95	39.95
Daley Thompson's Olympic Challenge (not 664s)		
10 Decathlon events	49.95	39.95
Elite Collection		
with Bomb Jack I and II, Frank Bruno's Boxing, Commando, Airwolf, Paperboy, Ghost 'n' Goblins, Battleships	39.95	34.95
Elite Six-Pack - Vol 1		
with Shockway rider, Eagle's Nest, ACE, Batty, Int. Karate and Lightforce	39.95	34.95
Elite Six-Pack - Vol 3		
with The Living Daylights, Ghost 'n' Goblins, Paper Boy, Dragon's Lair, Escape from Singes Castle and Enduro Racer	39.95	34.95
Game, Set and Match I		
Incl. Baseball, Tennis, Squash, Pool, Ping Pong, Hyper Sports, Soccer, Boxing, Basket Ball, Super Tests	-	39.95
Game, Set and Match II		
Incl. Super Hang-on, Winter Olympiad, Match Day II, Nick Faldo's Open etc.	49.95	39.95
Gold, Silver, Bronze		
Three discs or tapes containing Summer Games 1 and 2 and Winter Games	59.95	49.95
Karate Ace Compilation		
with Way of the Exploding Fist, Bruce Lee, Kung		

CPC - continued

<i>Fu Master, Avenger, Samurai Trilogy, Uchi Mata etc.</i>	49.95	39.95
Konami Arcade Collection		
<i>with Shao-Lin's Road, Jail Break, Mikie, Yie Ar Kung Fu I and II, Hypersports, Green Beret, Nemesis, Jackal and Ping Pong</i>	49.95	39.95
Leaderboard Par 3		
<i>with Leaderboard, Leaderboard Tournament, and World Class Leaderboard</i>	49.95	39.95
Live Ammo Compilation		
<i>with Green Beret, Rambo, Top Gun, Army Moves & Great Escape</i>	49.95	39.95
Magnificent Seven Compilation		
<i>with Wizball, Short Circuit, Arkanoid, Head over Heels, Great Escape, Cobra, Franki goes to Hollywood + FREE Yie Ar Kung Fu</i>	49.95	39.95
Straight Six		
<i>Loriciel's compilation with 3D Fight, Billy, Soccer, MGT, Flash and ZOXX2099</i>	39.95	29.95
Taito's Coin Op Hits		
<i>with Rastan, Arkanoid 1, Arkanoid 2, Flap Fight, Bubble Bobble, Legend of Kage, Renegade etc.</i>	-	39.95
TAU Games + (6128s only)		
<i>Dominoes, Snakes and Ladders, Mah-Jong, 3-D Noughts & Crosses, Trucking, Tycoon plus Graphic Designer and Sprite Designer</i>	32.95	-
Ten Great Games Vol III		
<i>with Iridis Altha, Tenth Frame, Firelord, Ranarama, Fighter Pilot, Leaderboard, Rebounder, Alley Cat, Eagles and Last Mission</i>	-	39.95
Time and Magik trilogy		
<i>Lords of Time, Red Moon and Price of Magik</i>	49.95	45.95
We are the Champions		
<i>with Renegade, Barbarian, SuperSprint, Rampage and International Karate</i>	49.95	39.95

AMSTRAD USER YEAR DISCS

Containing all the type-ins appearing in each month of The Amstrad User

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	-
Year Disc 5 - Issues 25 to 28	25.00	-
Year Disc 6 - Issues 29 to 32	25.00	-
Year Disc 7 - Issues 33 to 36	25.00	-
Year Disc 8 - Issues 37 to 40	25.00	-
Year Disc 9 - Issues 41 to 44	25.00	-

Separate tapes for each issue's type-ins are also available: each

	-	5.00
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SERIOUS SOFTWARE

Advanced Art Studio (Rainbird)		
Graphics package (128k only)	69.95	-
Brainstorm - ideas and reporting system(6128s only)	99.00	-
Cardbox - card index system (6128s only)	129.00	-
Cardbox Plus - enhanced version of Cardbox (6128s only)	199.00	-
Expendiport - cheque management and analysis system	39.95	-
Extra Extra - a disc full of ready made graphics, fonts and clip art compatible with		
AMS Stop Press	89.00	-
Instant Recall - database with very fast search facility	59.95	-

CPC - continued

Masterfile III - the best relational database system	109.00	-
Mastercalc 128 - spreadsheet program for 6128s (or 464 with disc drive and memory expansion)	99.00	-
Matrix - spreadsheet with text editing facilities, database, mail merging etc.	79.95	-
Mini Office II	59.00	49.00
Money Manager - powerful cash book program	59.95	-
Personal Excellence Package - High quality Mental performance analyser	109.00	-
Plan-It - desktop organiser	39.95	-
Protex - high speed w/p	89.95	-
Protex Filer - pop-up database module for Protex. (Requires Promerge & Protex)	69.95	-
Protex Office - pop-up add-ons for Protex including mailmerge and invoice generator. (Needs Promerge & Protex)	99.95	-
Prospell - spell checker	79.95	-
Promerge - mail merger	79.95	-

STOP PRESS from AMS

The ultimate Desktop Publishing package for CPC owners. Combine text and graphics with 'what you see is what you get' facilities. The ideal publishing software solution for home enthusiasts, schools, societies and small businesses.

Stop Press (disc only)	159.00
With AMX MkIII Mouse	289.00
Extra Extra clip art	89.00

Tasword 464	-	59.95
Tasword 464/D	79.00	-
Tasword 6128	79.00	-
Tas-spell	56.00	-
Tasprint	45.95	32.95
Tascopy	45.95	32.95
Tasdiary	45.95	-
Tas-sign	89.95	-
Touch 'n' Go - Typing tutor (6128s only)	69.00	-
Ultrabase - easy database	69.95	49.95

EDUCATIONAL

From SCHOOL SOFTWARE

Play School (3-7)	29.95	22.95
Magic Maths (4-8)	29.95	22.95
Maths Mania (8-12)	29.95	22.95
Better Maths (12-16)	29.95	22.95
Maxi Maths (12-16)	29.95	-
Physics (12-16)	29.95	22.95
Better Spelling (9-99)	29.95	22.95
Chemistry (12-16)	29.95	22.95
Biology (12-16)	29.95	22.95
Weather/Climate (12-16)	29.95	22.95

From LCL SOFTWARE

Micro Maths (9-11)	59.95	49.95
Mega Maths (9-11)	59.95	49.95
Micro English (9-11)	59.95	49.95
Primary Maths (7-11)	79.95	49.95

From FERNLEAF SOFTWARE

(Developing Reasoning, Logic, Estimating and Forward Planning skills).

Vol1. Treasure/Perfume Hunter (7-10)	49.95	39.95
Vol2. Fletcher's Castle/The Raider(8-12)	49.95	39.95

CPC - continued

Vol3. Thorn Sea/Ferry Captain (9-13)	49.95	-
From FUN SCHOOL: three discs in the series each containing 10 educational programs.		
Vol 1 - ages 2 to 5	29.95	-
Vol 2 - ages 5 to 8	29.95	-
Vol 3 - ages 8 to 12	29.95	-

The Magic Sword - including full colour reading book

	39.95	-
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Three Bears - graphic adventure to improve logic, deduction and reasoning

	34.95	-
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PERIPHERALS

AMX MOUSE Mk III - with superior ball technology and high resolution movement this updated mouse from AMS gives total control and flexibility, and compatibility with AMS Stop Press. Comes with an interface for CPC owners

	150.00
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KEMPSTON MOUSE - comes complete with Blueprint, a comprehensive graphics package

	199.00
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COMPUTER/TV MODULATOR CONVERTER

This Amstrad unit (MP3) allows a CPC colour monitor to be used as a colour television - all you need to connect is a TV aerial to watch your favourite stations

	149.00
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(Please add \$7.50 for certified post & packing)

UTILITIES

Animator - animation utility	-	30.00
Disc Demon - comprehensive menu driven disc utilities	69.95	-
Fido - unique disc catalogue and menu maker program	-	29.95
Locksmith - unlock the secrets of your discs and tapes	69.95	49.95
Model Universe - 3D rotating drawing program	54.95	-
Rampak - nearly fifty machine code subroutines	44.95	37.95
Rembrandt - multi mode icon driven drawing prog.	69.95	-
Supersprites - sprite designing and control program	29.95	19.95
System X - adds over 40 new Basic extension commands	29.95	19.95
Toolkit - the most advanced Basic extension for the CPC	69.95	49.95
Zedis II - machine code monitor and disassembler	29.95	19.95

JOYSTICKS

TURBO - with six high performance micro-switches, 2 fire buttons, suction feet, a solid steel break resistant shaft, and a very fast response trigger.

	34.99
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ZIPSTICK SUPERPRO - 90% British made quality moulded high impact plastic with self-centring actuator & eight-way micro switches. 1.4m of cable. Left and right hand fire buttons, steel shaft, non-slip rubber pads

	39.95
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ZIPSTICK ELITE - a smaller, specially designed hand-held model with similar specifications to the Superpro, but with just one forward centrally located fire button. Also has rubber pads on base for flat surface use

	29.95
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CPC - continued

MISCELLANEOUS

Screen Filter	29.95
Ribbons	
Black Nylon for DMP 2000/3000/3160	19.95
Black Nylon for DMP4000	19.95
3" drive cleaning kit	19.95
CF-2 3" discs each	7.00
Joystick Splitter Cable - to allow the use of two joysticks through the single joystick port of the CPCs (not simultaneously) 19.50	
CPC6128 'Seal 'n' Type' Keyboard protector	29.95
Stops damaging spills etc.	

Amstrad PCW Range
8256, 8512 and 9512
 (unless otherwise stated)

GAMES

Academy (Tau Ceti II) §	65.95
Armageddon Man §	57.95
Batman §	57.95
Catch 23 §	57.95
<i>Classic Quest Adventures:</i>	
Goblin Towers (moderate)	49.95
Forestland (hard)	49.95
Witch Hunt (very hard)	49.95
Corruption	59.95
CP Compilation - with 3-D Clock Chess, Backgammon, 3-D Draughts and Bridge 2000 all on one disc 59.95	
Distractions: 3 graphics games compilation: On the Run, 2112 AD and Nexor § 59.95	
Double T Patience - compilation of six frustrating games including Kuala Lumpur, Poker Patience and Fourways 64.95	
Graham Gooch Cricket (Limited Overs & Test Match)	49.95
Guild of Thieves	69.95
Gnome Ranger	59.95
Head over Heels §	57.95
Heathrow ATC/Southern Belle	57.95
Ingrid's back	59.95
Jinxter	69.95
Knight Orc	59.95
Lancelot	59.95
Living Daylights	49.95
Mindfighter §	65.95
Pawn, The	69.95
Scrabble de luxe	65.95
Silicon Dreams	59.95
Starglider	69.95
Steve Davis' Snooker	54.95
Tetris: mind/strategy puzzle	59.95
Time and Magik Level 9 trilogy	
Lords of Time, Red Moon and Price of Magik	54.95
Tomahawk: helicopter simulation	57.95

PUBLIC DOMAIN DISCS 17.50

(The games above marked with a § symbol are known to work only on the 8256/8512)

PCW YEAR DISC

Containing all the PCW type-ins published in The Amstrad User for issues shown	
Year Disc 1 - Issues 25 to 40	27.50

PCW - continued

EDUCATIONAL

Magic Maths (4-8 yrs)	39.95
Better Spelling (12-16 yrs)	39.95
Maths Mania (8-12 yrs)	39.95
Chemistry (12-16 yrs)	39.95
Better Maths (12-16 yrs)	39.95
Biology (12-16 yrs)	39.95

PUBLISHING

Desk Top Publisher	99.00
Newsdesk International	125.00

STOP PRESS from AMS

The ultimate Desktop Publishing package for PCW owners. Combine text and graphics with 'what you see is what you get' facilities. The ideal publishing software solution for home enthusiasts, schools, societies and small businesses

Stop Press (disc only)	179.00
With AMX Mk III Mouse	299.00

DATABASES

Cardbox	129.00
Cardbox Plus	199.00
Condor One	149.00
Masterfile 8000	119.00
TAIT Database and Labeller	49.95

MISCELLANEOUS

Brainstorm - tool for structuring raw ideas in a logical manner	99.00
Daatafax Personal Organiser Gift Pack from Kempston - with soft-ware, stylish binder, subject tabs, and starter stationery	149.00
Master Paint - deluxe graphics program, for use with either mouse or keys	59.95
Mini Office Professional - the PCW version of the highly successful Mini Office II with Spreadsheet, Wordprocessor, database, graphics and communications	149.00
Money Manager Plus - cashbook/personal accounting	99.00
NewWord2 - only one available just	150.00
Personal Excellence Package - High quality mental performance analyser	109.00
Plan-it - desktop organiser, plan budgets, sort files etc.	39.95
Protect Filer - pop-up database module for Protect	69.95
Protect Office - as Protect Filer but with mail-merge and invoice generator module	99.95
Protect PCW	179.99
Prospell PCW - spellchecker for most word processors incl. Wd/Star and LocoScript	89.95
Scratchpad Plus spreadsheet	99.00
Tait Accounting System - small business Debtors, Creditors and Invoicing	129.00
Tempdisc - a disc full of instant templates exploiting LocoScript to the full. Provides a wide range of heading styles, agendas, invoices, borders and documents:	
Tempdisc 1 (needs Loco1)	59.95
Tempdisc 2 (needs Loco2)	59.95
Tempdisc 8.2 (needs Loco2, Locomail and 8512)	67.95
Tempdisc 9 (for 9512)	67.95
T/Maker - Relational database, Spreadsheet,	

PCW - continued

Word Processor, Spell Checker, Graphics, List processor - for 8000s and 9512	149.00
Touch 'n' Go - typing tutor	69.00

PERIPHERALS

8256/512 'Seal 'n' Type' Keyboard protector	
Stops damaging spills etc.	29.95
9512 'Seal 'n' Type' Keyboard protector	
Stops damaging spills etc.	29.95
AMX MOUSE plus interface from AMS - the most popular and sought after peripherals for your PCW, especially with StopPress	165.00
PCW Joystick Interface from Kempston	59.95
SCANNER - Master Pack - a scanning device which attaches to a PCW printer head to copy photos or other art work, Master Scan software and Master Paint, a powerful graphics package. Compatible with Desktop Publisher, FSE and Newsdesk International	279.00
SCREEN FILTER	29.95

TASMAN RANGE

Tasword 8000	79.95
Tas-spell 8000	56.00
Tasprint 8000	52.00
Tas-sign 8000	89.95

CONSUMABLES

PCW 8000s Printer Ribbons	
Black Carbon or Nylon	19.95
Coloured Nylon - Blue, Red or Green	24.95
PCW 9000s Printer Ribbons	
Black Carbon or Multistrike	15.95
Black Nylon	19.95
Daisy Wheels for 9000s	
Prestige Pica 10; Prestige Elite 12; Courier 10; Cubic Pica 10; Mini Gothic 15/Micro; Orator 90%/10; Letter Gothic 10/12; Script 12 each	19.95
3" disc drive cleaning kit	19.95
CF2 3" discs each	7.00

LOCOMOTIVE PRODUCTS

LocoScript 2 (v. 2.16 - N/E)	87.00
LocoScript 2 + LocoSpell	130.00
Locofile (please state model)	110.00
LocoMail2	105.00
LocoSpell2	75.00
Locomail1 to 2 upgrade	18.50
LocoSpell1 to 2 upgrade	18.50
LocoScript2 upgrade to v2.16 (N/E)	18.50
<i>(Original disc must be returned certified mail for all upgrades. Please note that upgrades are not available/necessary for 9512 owners)</i>	

The following are for PCW 8000s using LocoScript 2.12 and above:

Printer Character Set Disc for defining new character sets	59.95
Extra Printer Drivers Disc containing a PrinterFile for every LocoScript2 compatible printer	59.95
Keyboards Disc to configure LocoScript2 to use American, Canadian, Danish, English, French, German, Italian, Norwegian, Spanish or Swedish keyboard layouts with any nationality of LocoScript2.	59.95
LocoFont SET 1 adds nine extra fonts to your	

PCW - continued

matrix printer	75.00
LocoFont SET 2 adds a further set of five fonts to your matrix printer	65.00
LocoKey to customise your keyboard	59.95
Locomail Sorting Program	39.95
Locomail2 Examples disc	17.50
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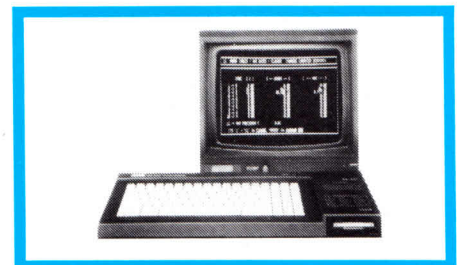
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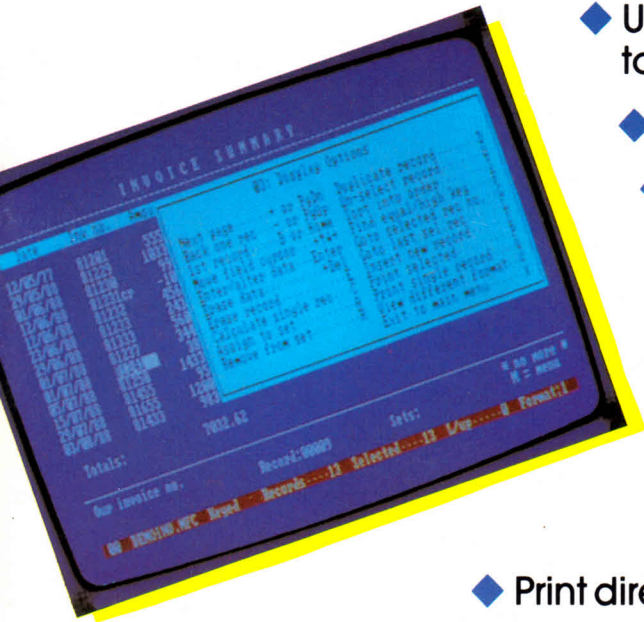
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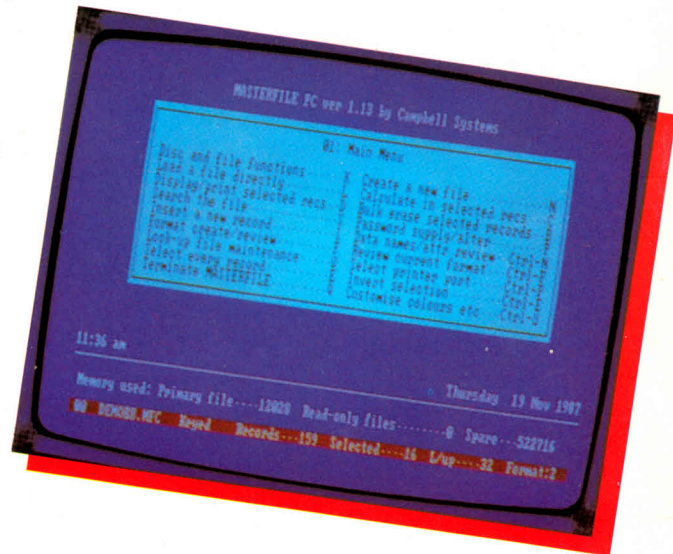
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OCEAN Competition,
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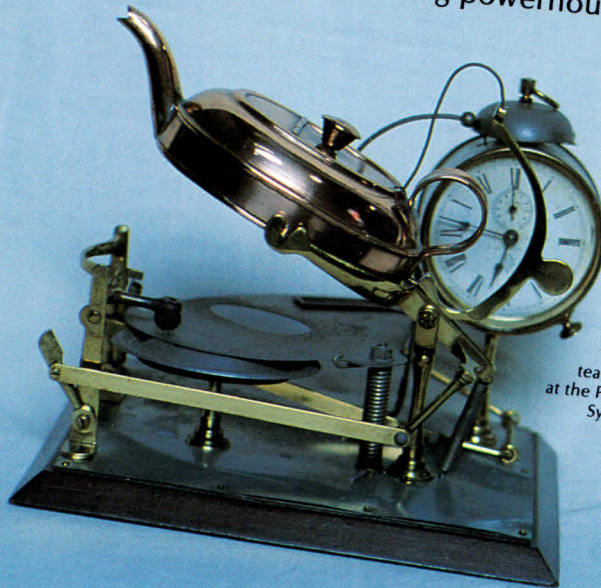
-to reach us no later than January 31st, 1989.

- 1 In which future city is ROBOCOP set?
- 2 Who is kidnapped by the Russians in Rambo III?
- 3 Which famous arcade game manufacturer makes Operation Wolf?
- 4 Name any Ocean game distributed by Ozisoft.

Winners will be announced in Issue 50 (March '89)

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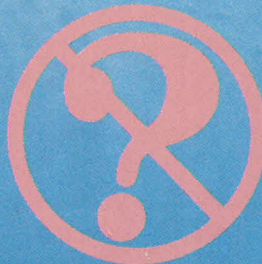
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All screen work is done graphically - and hence we offer unique panel, box, and ruled line options. Choose the line spacing at pixel resolution - you will be amazed how much clearer 9-pixel lines are than the usual 8-pixels. (Study the picture.) And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

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

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

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

Megaglomerate Ltd				
Sales Contact : Martin McManic		Mega House 143-145 London Road Chelmsford Essex CM12 5DG		
Telephone : 0245 654321				
Reference : MGL				
Date of last order : 14 Aug 86				
Value to date : £31,455.00				

Ref	Maker	Model	Specification	Price ex VAT
C5001	Epson	FX85	100cps 40x114 90col	£310
C5002	Epson	FX105	160cps 40x114 132col	£410
C5003	Epson	FX100	100cps 132col	£195
C5004	Epson	LQ1000	100cps 60x114 90col	£435
C5005	Epson	LQ1000	100cps 60x114 132col	£395
C5006	Epson	EX3000	300cps 60x114 90col	£275
C5007	Epson	EX3000	300cps 60x114 132col	£325
C5008	Canon	AS5	100cps 45x114 90col	£370
C5009	Canon	AS5	100cps 45x114 132col	£240
C5010	Juki	5520	100cps 45x114 Colour	£630
C5011	Juki	6100	15cps daisywheel	£250
C5012	Juki	6200	30cps daisywheel	£350
C5013	Juki	6300	35cps daisywheel	£1,795
C5014	Fujitsu	DX	200cps 50x114 132col	£240
C5015	Fujitsu	LPPS01	8 page min 64	£1,900
C5016	Canon	LPPS02	8 page min 64 graphics	£550
C5017	Canon	Laser	8 page min 64	£2,700
C5018	HP	Laser+	8 page min 64 graphics	£2,650
C5019	HP	KP-810	100cps 50x114 90col	£285
C5020	Taxan			

Customer Details and Invoices				
British United Freight 493 Western Avenue Gloucester GL9 5JN		Tel: 0452 6 Contact: Mike H Ref: BUF	03: Display Options	
Invoice	Tax point	Amount	Date paid	Co
12004	20 Aug 87	£235.00	02 Oct 87	
12399	29 Aug 87	£98.00	02 Oct 87	
12450	01 Oct 87	£305.00		re
12453	21 Oct 87	£133.00		
12533	03 Nov 87	£1,004.50		
12538	10 Nov 87	£355.65		
12703	11 Nov 87	£200.00		
12782	11 Nov 87	£39.20		
12839	04 Dec 87	£883.55	04 Dec 87	Cash with order
Totals:		£3,253.90		
Date of invoice				
Drive:A File:INVOICES Records:00017 Selected:00009 Key: Format:1				

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

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

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

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

Send your order now to:
THE AMSTRAD USER
 Suite 1/245 Springvale Road,
 Glen Waverley,
 Victoria 3150

Tel: (03) 233 9661