

The
Aussie Mag
for Amstrad owners

THE AMSTRAD USER

Issue No. 67 \$4.50

August 1990

WIN
A limited edition
copy of Ultima VI
See page 45.

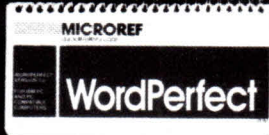
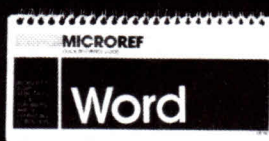
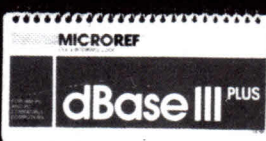
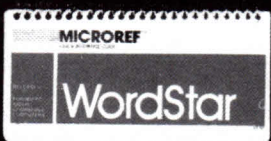
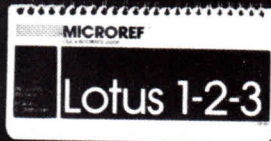
- *Investigating the INSTR command + Screen Saver type-in + more on Artificial Intelligence + new Adventure type-in*
- *Thirteen new games for CPC and PC come under review + Using ASCII files with Locomail + Protext & Mail-merging*
- *Code-name Iceman + look at six new PC publications*

FOR THE NOVICE & EXPERIENCED USER

Registered by Australia Post - Publication No. VBP7017
National Library of Australia ISSN - 1030-4541

MICROREF[®]

QUICK REFERENCE GUIDES ■ KEYBOARD TEMPLATE KITS ■ ON-LINE HELP



Find complete software commands and procedures in seconds with America's #1 reference tool...MICROREF!

"*FAR SUPERIOR to any other guide, cheat sheet, or the original documentation. Excellent guide for all users. Highly recommended!*" John C. Dvorak, PC Magazine

MICROREF PROGRAM TITLE	Quick Ref Guide	Keyboard Template
dBase III Plus	44.95	19.95
dBase IV	44.95	19.95
Excel	-	19.95
Lotus 123 v2.01	34.95	19.95
Lotus 123 v2.2	34.95	19.95
MS Word v5.0	34.95	19.95
Multimate Adv II	34.95	19.95
PC/MS DOS	34.95	19.95
WordPerfect v5.0	34.95	19.95

NEW TEMPLATE DESIGN!

ESSENTIAL COMMANDS are organized into logical sections for easy reference.

FUNCTION KEY DIAGRAM identifies all function key assignments at a glance. **Vertical function key overlay** also included.

TWO-SIDED PLASTIC design fits all keyboards, wipes clean.

INDEX TABS and logical organization assure fast access to procedures.

GUIDELINES, illustrations, and examples aid learning and review.

STEP-BY-STEP outline of commands and procedures is easy to follow.

SPIRAL BOUND pages lie flat, turn easily. Built-in easel, too.

51 HYPHENATE **53 SET PAGE FORMAT** **45 INDENT AND CENTER** **47 INDENT AND CENTER** **49 SET LI SPACIN**

SETTING PAGE FORMAT

GUIDELINES

- Use page format settings to indicate the size and type of paper and to change the size of the top and bottom margins.
- When you change a page format setting, you insert a code in a document at the cursor position. You change the page format of a document from the cursor position to the end of the document or to the next page format setting.
- Insert or delete page format codes on the screen (see USING WORDPERFECT CODES section).
- When you specify the paper size and width of margins, WordPerfect automatically determines the amount of text on each page. If you specify page numbering, headers, or footers for a document, WordPerfect will print them within the top or bottom margins and adjust the amount of text on each page.

SPECIFY PAPER SIZE
(DEFAULT = 8.5 in. by 11 in.)

- Position cursor at top of page where new paper size will begin
- Hold down **SHIFT** and press **F8** (Format)
- Press **2** (Page Format)
- Press **8** (Paper Size)
- When size options appear:
 - To select a listed paper size, press the appropriate number, or
 - Enter a different paper size. WordPerfect uses this size to reformat your document and find the appropriate form in the selected printer's definition to match the paper size.

a. Press **0** (letter o (Other))

NOTES:
New paper size must have a width within margins indicated on the [ALL OTHERS] form. To change maximum width allowed [ALL OTHERS] form, follow DEFINE A PRINTER procedure.
Modify paper size as many times as you need in a document.
If you change paper size, WordPerfect automatically adjusts the text length and width within the current margins.

Available by Mail Order from The Amstrad User 641 High Street Road, Mt. Waverley, 3149 on (03) 803 9661 or retail outlet The Amstrad User Computer Shop

FRONT COVER: The mechanically propelled mining asteroid of Solus corporation is tumbling out of control towards Earth. Taken from Interstel's "Earthrise" game for PCs.

THE AMSTRAD USER

Issue No. 67 - August 1990

Letters - Your views, advice and comments 2

News Break - What's news, the latest software and much more 6

Serendipity - Joseph Elkhorne continues his study of assembly language 8

Artificial Intelligence - After a long break, Paul Gerard has more for your system 12

Investigating INSTR - We examine the INSTR command used on CPCs 14

The Rings of Artek - Barrie Eaton has a fascinating new CPC adventure for you 18

CPC screen saver - We list three screen dump RSX commands for CPC users 20

Protext - John Barlow creates simple letters by merging files 22

LocoMail - An explanation on how LocoMail can access ASCII files 26

Entertainment Centre - Thirteen new CPC and PC games reviewed in this issue:

- Ninja Spirit* 29
- E-Motion* 30
- Crackdown, Wild Streets* 31
- Scramble Spirits* 32
- Castle Master, Space Harrier* 33
- Ballistix* 34
- Blood Money, Nuclear War* 35
- Bad Blood* 36

A breath of Sierra: Part 3 - Code-Name Iceman is reviewed this month 38

Off the shelf - A brief summary of six new PC publications from Abacus books 42

Fax/Phone switch II - Joseph Elkhorne reviews a new line switching device 44

Compatibles Corner - Chris Collins looks at the latest PD software 46

User Groups - Check out our nationwide list of Amstrad user groups, and join in! 50

Classified Ads - Just \$7.50 reaches over 8000 Amstrad users in Australia every month 52

Public Domain Software - PD software for all Amstrad users 53

The Amstrad User Mail Order Service

- Heaps of Software for all Amstrads, plus Consumables, Ribbons, Disks, Disk Drives
- Books and Magazines 56

For tape subscribers, CPC programs appearing in this month's magazine can be found at the following positions:

Side 1: EXPERT - 010 ENQUIRE - 90
 Side 2: KEYVAL - 010 SPLITSEN - 30
 PARSER - 50 TAPE - 70

All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, 641 High Street Road, Mount Waverley, Victoria 3149, Australia. Urgent matters can be phoned through on (03) 803 9661.

The Amstrad User is normally published on the first working day of each month. Reprinting of articles published in The Amstrad User is strictly forbidden without written permission. Copyright 1990 by Strategy Publications. The single copy price of \$4.50 is the recommended retail price only.

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.

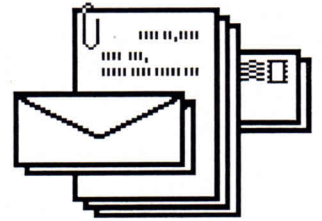
The subscription rate (for Australia) is \$45.00 for 12 issues of the magazine only, or \$80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu please add \$24 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, in no way affiliated with Amstrad or their Australian distributors or any dealer in either software or hardware (The Amstrad User Shop excepted).

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.



Can anybody tell me why Windows Write will not print italics in Roman font even though they appear on the screen?

Microsoft tried to help, but gave up on the problem and Amstrad were too busy.

My system is the PC2086 with the Amstrad printer installed as LQ1500.

Windows selling point of "What you see is what you get" appears to lack credibility.

Also, is there a Monopoly version for this PC?

S.A O'Callaghan, Moss Vale, NSW.

Setting your print configuration to "IBM Pro-Printer 2" should solve your printer worries. As far as we know, Monopoly is not, nor ever has been available for PC compatibles.



We have an Amstrad 1640 PC D.D with a monochrome TV screen with which the family has had tremendous use. But every time my son reads The Amstrad User he asks me why we can't get games like "Universal Military Simulator" (issue 64 May 1990). Is it possible to upgrade our present computer to accept games with specifications such as a CGA card? Would it mean replacing our present screen?

W.A. Colgan, Coolup, WA.

When a customer calls into our

retail shop in Mount Waverley and ask for a PC1512 or PC1640 with mono screen, we generally give them the 'third degree'. "Have you any children?"; "Are you sure that you/they will never want to play games on your computer?" we ask. The reason for the questions is simple - Amstrad sell the PC1512 and PC1640 as a package and the monitors cannot be changed at a later date (rather like the CPC range). The PC2000 series however, does offer a little more flexibility.

So you are stuck with a mono screen system. There are two alternatives. The first and obvious is to sell the system you have and get another (easy to say isn't it). The less expensive method is to invest \$12.50 in PC-Soft #3. This Public Domain disc contains a utility CGA2.COM which offers a CGA simulation to mono screen owners. There is no guarantee that with this utility installed you can run all colour PC games, but it should get you into about 50 - 60% of them displaying shades of grey. In answer to your unwritten next question - no, we cannot tell you which games work with the utility!



I am writing to you regarding the letter from R.T. Wilson in Townsville, Queensland. I have recently had my 464 converted to a 6128 so that I could run Printmaster, CPM+ which is the version of CPM needed to run

Printmaster and Printmaster Plus. I can also now run the educational software available from Satchel Software.

The problem with Printmaster is really very simple, you need to select the correct printer. The first printer on the list of options is the AMS128 which is the correct printer form for the Amstrad 6128. The only other problem I had with Printmaster is that it asks the user for disk drive B. When this happens simply insert side 2 of the Printmaster disk into drive A and press any key, the program automatically reads this as drive B.

Robert Deeley, Ipswich, QLD.

We had to necessarily cut your letter Robert, but thanks for the comments. Perhaps you could let other readers know where and how you upgraded your 464 to a 6128?



I have a CPC 6128 and stacks of software including adventure games such as Time and Magik. However, I would like to have access to IBM & PC software such as Leisure Suit Larry (depending on memory use of course!) and others but as everybody knows these aren't released on 3" disks, so I recently borrowed a spare 5.25" disk drive from a friend and tried using it as a second drive on my computer to get access to this software. I read in the user man-

ual that the CPC should be compatible with IBM format disks and read or write to/from them in CP/M 2.2. After rigging the drive up and experimenting for several frustrating hours with the 5.25" disks I only learnt this: That the CPC will determine the format of the disc in CP/M, but will not read its directory if IBM data is on it ((Drive b:Read Fail) is common). It will copy and format to the disk (also IBM format even though this reduces the usable space considerably) and will read from it perfectly when CPC programs are copied to it; But without being able to read IBM programs what's the use of it since that was my objective in the first place! Any users out there tried the same thing? Is it possible for the CPC to actually understand IBM data? Is there a program or an interface device to allow the CPC to read IBM? Any advice on this would be greatly appreciated.

David Moller, Gladstone, QLD.

If your objective was to run IBM software, why did you by a CPC? It never has, nor ever will be IBM compatible -no matter what anyone else (including computer salesmen) may tell you. You have about as much chance of running IBM software on your CPC as Larry Laffler has of becoming a ladies' man!



Before I get this letter going, I'd just like to say how great your magazine is. I like reading all the information and typing in the type-ins.

In your June 1990 issue I typed in Hexer which is really great and had a lot of fun with it. With the other type-in Galactic Invaders, I believe you have made a few errors. I typed the program in and then ran it. The first thing that came up on the screen was the Base Star blowing up, this is only supposed to happen when you have successfully made it through

all the levels. The error was made in line 280.

```
280 LEU=10:SCORE=0:MEN=3
```

The line should have read:

```
280 LEU=0:SCORE=0:MEN=3
```

That will stop showing the Base Star blowing up at the beginning of the game.

The next error is, well I wouldn't actually call it an error. The alien ships just plot themselves anywhere on the screen, that is making it nearly impossible to get very far because they often plot themselves right on the ground which makes it land. So if you delete line 680 it makes the aliens move down a line at a time, or have you made the program that way so none of us can win the game?

I hope this letter has been of any help to some readers.

Craig Martin, Banksia Pk, SA.



TEENAGE MUTANT NINJA TURTLES

THEY'RE LEAN, GREEN, AND ON YOUR SCREEN!

Join Leonardo, Donatello, Michaelangelo, Raphael, Splinter and April O'Neil in the fight against Shredder and the evil Foot Clan as they fight through screen after screen of awesome arcade action. Kawabunga dudes!

Available for PC compatibles:

\$69.95

+ post and packing
(5.25" or 3.5" formats)

Send your order to:

THE AMSTRAD USER
1/641 High Street Road
Mount Waverley
Victoria 3149 Tel: (03) 803 9661

The 'error' in line 280 was put in there on purpose by the writer, to avoid players having a nervous breakdown trying to complete the game just to see the end. The aliens themselves move down one line at a time, either vertically or diagonally, except for the kamakazi types who die anyway. Sounds fair to us.



My father is soon to purchase an Amstrad PC1640 and whilst reading the mail order section of your magazine I saw that you could buy 720k 3.5" external drives. I believe that I need an external drive as my PC1640 is to have a hard drive and a floppy drive and I can't fit another drive in. My concern however lies with the manner in which they are connected to the unit. Is it by one of the ports? If so will this restrict my future options for purchasing a modem or scanner or installing a joystick games card? I would appreciate any literature you may have, or if this in unavailable could you please answer my questions.

Paul Hayes, Greenwood, WA.

A 3.5" external drive can be installed directly to the internal boards of your PC 1640, leaving your serial and parallel ports free for future use. The job is simple enough, but should be done by a technician.



I have a PC 20 and I recently started reading your magazine. I was looking through the June issue when I saw the review of Hero's Quest 1. It sounds like an excellent game but why can't it be used on a PC 20. HQ1 needs 512k and 8mhz which the PC 20 has got. It also supports CGA screens which is what the PC 20 has got. A hard disk is recommended but are they essential?

There are other games which can't be used on the PC 20 and I would like to know why and if there is any way that they can be used.

Is there a hard disk available for the PC 20? If so, what make is it and how much does it cost? Where can I get one from?

These suggestions might sound silly to experienced users, but I have only recently bought my

computer. Can you please answer my questions as I am anxious to find out the answers.

James Eckland, Magill, SA.

We just can't test all the games we have in stock. We usually rely on feedback as to which games do and don't work on the PC 20. We have only recently discovered that we were given incorrect information, and that most Sierra games do in fact work on a standard PC 20, so the "Δ" symbol (which means not for use on a PC 20) that was against Hero's Quest in the software pages of our June magazine has since been taken out.

Hard drives have been fitted to the PC 20 in the past with rather unpredictable results. Coincidentally, we are currently testing a hard card on a PC 20. If the results are favourable we will report back.

All correspondence should be addressed to:

The Editor, The Amstrad User,
1/641 High Street Road,
Mt. Waverley, Vic 3149.

We regret we cannot give any personal replies.

PEN PALS

If you want to join, write to "Pen Pals" care of The Amstrad User

Chris Bevan (CPC)
9 Blume Terrace
Mount Gambier
S.A. 5290

Craig Bridgman (6128)
22 Atkin Street
Melton Vic. 3337

Deon Cameron
30 Ann Street
Coffs Harbour,
NSW 2450

Thorsten Gehrke (6128)
10 Dillon Street
Redwood Park
S.A. 5097

Richard Jacquemin (464)
177 Railway Avenue
Kelmescott W.A. 6111

Matthew Jones (464)
45 Carlton Crescent
Summer Hill, Sydney
N.S.W. 2130

Chris Maloney (464 & PC)
20 Helena Court
Rye Vic. 3941

Stephen Phillipson (CPC)
16 Julia Drive
Bunbury
W.A. 6230

Corey Powell (CPC464)
24 Campbell Street
Shepparton
Vic. 3630

Damian Roy (CPC464)
PO Box 350
Mansfield Vic. 3722

Jason Sefton (CPC464)
RMB 2087 Lancaster Road
Kyabram Vic. 3620

Andrew Shirzad (CPC464)
16 Harkaway Rise
Doncaster East
Vic. 3109

Shane Stevenson (464)
C/o P.O.
Frederickton
N.S.W. 2440

Vasko Stoyanovski (464)
14 William Street
Preston Vic. 3072

Paul Tacey (CPC)
RMB 5134
Shepparton
Vic. 3631

Kenny Thomas (CPC)
35 Doreen Street
Christchurch 7 N.Z.

Daniel Treacy (CPC6128)
25 Kegworth Street
Leichhardt N.S.W. 2040

Craig Westbury (6128/PC)
30 Addison Road
Hove S.A. 5048

Jonathan Maddox (PCW)
7 Wendo Street
Armidale N.S.W. 2350

Reg Wilson (CPC6128)
41 Albury Street
Townsville Qld. 4812

John McNeil (464, PC-20)
1 Hawkins Street
Chatswood Hills Qld. 4127

Peter Joyce (CPC 464)
1 Frith Place
Goonellabah N.S.W. 2480

Stewart Wicks (PCW8256)
35 Wentworth Road
Strathfield N.S.W. 2135

Hilary Tipping (PC 2086)
59 Ely Street
Revesby N.S.W. 2212

Dan Glass
27 The Cove Road
Marino SA. 5049

PC Globe 3.0

A computerised Atlas detailing over 177 countries

This product is not just for education as one would first suspect, although with its colourful maps, charts, overlays, country fills and comparisons between whole groups of countries, it's a fantastic education tool.

For the travel industry it provides:

Immediate access to time zones

Point to point distances

Currency exchange rates

International dialling codes

Climate, attractions and visa requirements

For business it provides:

A wealth of socio-economic and cultural information allows trending, marketing reports and presentation to be a quick and easy process.

Send your order to:

THE AMSTRAD USER

1/641 High Street Road

Mount Waverley

Victoria 3149 Tel: (03) 803 9661

Available on 3.5" or 5.25"

formats for:

\$125.00

+ post and packaging

News Break



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

LOCOSCRIPT PC

At the time of writing, a review copy has just been received from Locomotive Software. It's a massive package, weighing in at just under 3 kilos and made up of 3 large ring-bound manuals, two smaller manuals and the programs themselves on both 5.25" and 3.5".

LocoScript PC is essentially a completely new version of the PCW word-processor with a wide range of on-screen text layout and styling tools as well as search and replace, headers and footers. It supports every European language (including three varieties of Greek, Cyrillic, Serbo-Croat, Ukrainian and Russian) and an impressive array of scientific and mathematical symbols.

But that's not all. It also in-

cludes a fully integrated card index style Database (like LocoFile); a Mailmerge and Report writing system (like LocoMail) for labels and mailshots in alphabetic, numeric or date order; and a spelling checker (like LocoSpell) with an 80,000-word English dictionary and word count facility. There's also a comprehensive tutorial for newcomers.

The whole package can be run in graphics mode which means that changing text to bold, italic etc. will actually show on the screen

LocoScript PC is an exceedingly comprehensive package and will be available at a cost of \$429 per copy. A full review will appear in this magazine within the next two months.

ON/OFF MERGER

Following the shock announcement that Lotus and Novell were to merge, making the combination the largest PC software company in the world, it was recently announced that the marriage was off.

A Letter of Intent was signed by the two companies in April this year agreeing that Novell should become a wholly owned subsidiary of Lotus. Apparently, while Lotus and Novell had been discussing joint ventures they found they had

a lot in common.

During the ensuing weeks negotiations were carried out but in the final analyses it appears that Novell were not altogether happy with the idea of having a minority representation on the new 'Lotus Novell' board.

The failure of the two companies to agree must bring some temporary relief to MicroSoft who, having the current position as the largest PC software company, must have felt threatened.

PCW GAMES

CDS Software (UK) are well known for their support of PCWs in terms of games (despite the fact that the PCW is not really a games computer!) Their latest release which should be on our own shelves soon has the rather long title of "The Complete Home Entertainment Centre". Heading the list of games are Backgammon, Dominoes and Darts. It also contains a 'video arcade' section with poker royal, high-low and pontoon and a word-search game for one to four players. The graphics are said to be superb, however we will check it out and report as soon as we can.

'AIDS' DISK POSTSCRIPT

Have you wondered what happened to investigation by the British Fraud Squad into the release of a Trojan Horse virus (on a seemingly innocuous AIDS Information disk) as reported in our March '90 issue? Apparently Joseph Popp was arrested at his parent's home in Cleveland and now awaits extradition to the UK. The affair prompted the launching of a Bill into Parliament by Michael Colvin MP, but Popp is expected to be charged with alleged attempted blackmail under existing legislation. If found guilty, he could be looking at 14 years in prison for each offence.

DATAFLOW GO LOGO

Logo is probably the first language children use when starting computer studies at Primary School. This has obviously been recognised by Dataflow, who now distribute Terrapin Software Logo products. For MS-DOS computers (and that means Amstrad PCs of course), there's **PC-Logo**, a fully featured version of Logo which allows the user to combine text and graphics to enhance games, fill graphics with colour, record work on disk, add music and more, all on MGA, CGA, EGA and VGA Amstrad computers.

It costs \$179.00 for a single copy, but is also available in 5-, 10- and 20-packs at \$299, \$499 and \$599 respectively.

Logo Works: Lessons in Logo is a comprehensive logo-based curriculum for years 4-8 geometry and computer literacy. It has over 250 activities in carefully sequenced lessons, points to emphasise, sample answers etc, and provides the student with in-depth understanding of mathematics through hands-on exploration using Logo.

The Logo Project Book is an ideal follow-on to Logo Works and presents a clear and simple introduction to list processing in Logo for those who want to learn about Logo's non-graphic capabilities.

Finally, there's **Logo Probability**, a computer-based probability lab that offers students a creative learning environment for investigation of mathematical concepts.

Now, if Logo is taught on a school Apple, it can be reinforced on the Amstrad at home! The costs are as follows:

Logo Works

Student Book with disk \$45.00
Class Pack (15 st. bks) \$520.00
Teacher Manual \$19.00

Project Book

Student Book with disk \$45.00
Class Pack (15 st. bks) \$499.00

Logo Probability

One book pack \$29.00
Class Pack (15 st. bks) \$79.00

PCW GENEALOGY

You may recall a review of a piece of software called "Personal Ancestral File" in the May issue of The Amstrad User. Although the article covered a version for the PC, we did mention that a PCW version was available from Kintech Computers in the UK. We have since learned that under an agreement between The Church of the Latter Day Saints, Kintech and TRACS, the package will now be marketed by TRACS. The contact name is Tony Reece, and the address is 94 Coombe Lane, Westbury-on-Trym, Bristol BS9 2AP. The full international phone number is 0011 44 272 686321 and remember they are currently 9 hours behind Australian time.

MELBOURNE PC SHOW

There are expected to be nearly 200 exhibitors at the forthcoming event to be held at the Royal Exhibition Building between Sunday, 12th August and Wednesday, 15th August.

Like previous years, the main PC90 show will be held in conjunction with

Office Technology 90 and Communications 90 shows. It's all billed as the largest display of its kind in Australia and will give patrons an opportunity to

see and compare a large range of information technology including the latest generation of laptop computers, facsimile machines and mobile telephones.

The doors open at 10 am and close at 7 pm each day except the last day (Wednesday) when all three exhibitions will close at 5 pm.

As usual, no one under the age of 18 will be admitted unless accompanied by an adult. Admission costs \$10 and gets you in to all three shows.



Tasman

SOFTWARE

Advanced text processing software for the AMSTRAD family of computers

TASWORD

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

TAS-SPELL

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

TASCOPIY

For the 464/664/6128 family, prints out high resolution screen copies (up to poster size). For the PC, provides a graphics editor, graphics/text merge, font designer and screen snapshot to disc.

TASPRINT

Provides additional impressive print styles for dot matrix printers. Adds emphasis and distinction to your documents.

TAS-SIGN

Produces signs, posters or banners, either across or along the sheet. Definable character height, borders, shading.

Title	RRP(\$)
Amstrad CPC 464/664/6128	
Tasword 464 (cass)	59.95
Tasword 464-D/664 (disc)	69.95
Tasword 6128 (disc)	69.95
Tas-spell (disc)	49.00
Tascopy 464 (cass)	39.00
Tascopy (disc)	39.00
Tasprint 464 (cass)	39.00
Tasprint (disc)	39.00
Tasdiary (disc)	39.00
Tas-sign 6128 (disc)	69.95
Amstrad PCW 8256/8512	
Tasword 8000	69.95
Tas-spell 8000	49.00
Tasprint 8000	39.00
Tas-sign 8000	69.95
Amstrad PCs (3.5" on request)	
Tasword PC	99.00
Demo disc (Tasword PC)	5.00
Tas-spell PC	95.00
Tascopy PC	95.00
Tasprint PC	95.00
Tas-sign PC	95.00

Send SAE for more information.
Specify computer type.

Australian Distributor



dolphin computers pty ltd

Unit 2, 7 Waltham Street, Artarmon, NSW 2064
Phone (02) 438 4933 • Fax (02) 438 1480

At discerning computer shops or mail order from Dolphin. Mail \$2.00, o/nite courier \$9.00. Enclose cheque/money order/ Bankcard/Visa card/ Mastercard details. All prices include sales tax. All products guaranteed.

Creating the code...



After some trials and tribulations, Joseph Elkhorne continues his study of CP/M and assembly language.

Last month, I wrote of the problem of Mr. Fred Petchell. Right after I submitted by copy, he sent me a disc with his RESTORE attempts on it. I fired up the 6128, checked the DIR and TYPED the .ASM file he had included. Well!

This was a classic case of not being able to see the forest for the trees. When I'd received his listing, my eye only caught on the Error symbols in the first column. I didn't look further, to examine the entire context.

On receiving his disc, however, the penny dropped. I found the September 1987 issue with the program - which I hadn't checked before - and sure enough, there was the .PRN listing.

What Fred (and his wife) had created for an .ASM file was the literal transcription of the .PRN listing. When I submit my copy to the magazine, I usually provide all the associated files with a given topic, even the .COM file. That's the final proof that a program works as intended.

If space permits, I feel it's better to show the .PRN listing, as the reader can check the code generated against that, to more easily identify errors. What actually appears in print is an editorial decision. Sometimes, it's the .ASM file. I made an automatic assumption in that early article that a reader would know the difference.

Since then, I've gotten a bit wiser and try to explain all the details, step by step. Perhaps I've overcompensated and some of you are muttering, 'Just get on with it, we know "all that" already!' Except for Fred's contact, the only other feedback about this column has been from bulletin board users.

The reason I bring this up is that I recently came to the conclusion that the column I've worked hardest on have paid the least. This is because the criteria essentially is wordage. Planning a program, cutting code, debugging, writing the documentation in the accompanying text all takes a lot of time.

In the case of the 'Fred saga', I grumbled that it had brought me down to about forty-two cents an

hour. To solve his problem, I copied my files from the archive discs and wrote a letter - on the disc, which I returned. He then sent me some postage stamps to cover that return.

But I'll climb off the soapbox now and fill you in on some of the anomalies I've discovered over the past month. Since I started working with the PC20 I've been using PC Write which I got from a PD library. This was Version 2.41 and I just had the opportunity to examine 3.03, courtesy of one of my BBS acquaintances. He rang one day, we reconnected via computer and I downloaded the files. It certainly took a while!

My earlier version, which I'm still using, is small and fast. The current, upmarket example has grown to something like 260K. PCWrite's author has expanded on the original command set, so the re-learning process is not too difficult. The new one even has a wordcount facility.

In the course of editing a new file with 2.41 a couple of weeks ago, disaster struck. Somehow, in going to split-screen and checking a second file, the copy in the upper window vanished. Now, in editing an existing file, one has the option of creating a backup file, in which the terminating character is changed to a dollar sign.

With a new file being worked on, however, no backup exists. You can imagine my surprise when I saw an empty window, dropped to the DOS level and ascertained the new file had shrunk from something like 20K to 28 bytes! This, despite ongoing saves, as the directory filename entry was being updated. Thus, I had no backup available.

Not to be outfoxed by a computer, I went to Norton Utilities and did a string search for a 'unique' word. Indeed, I found all of the copy (except for a few lines) in one set of contiguous clusters. Regular disc housekeeping had paid off.

I could see no way, however, of creating a new file by somehow plugging in the cluster data. What I did to recover from this disaster was to create a dummy file of appropriate length on a floppy, then read the

hardcard clusters into memory with DEBUG. Then I wrote them, again with DEBUG, to the floppy.

This process succeeded, though I was as skittish as a canary at a cat convention. One simple typo, and you can blast your hard disc to kingdom come! I worked through the procedure slowly and carefully, constantly referring to the 'u-beaut' book, PC Magazine DOS Power Tools.

Under CP/M, sector data is held in the directory filename entries. With DOS, however, one byte is a pointer to the first cluster used (for that file) in the FAT, or File Allocation Table. The FAT then holds additional cluster addresses, as required, and/or terminates with FFFF. (I think!) Hard disks, because of their greater capacity, use 16-bit addresses. Floppies, though, store 12-bit data.

The latter are really hard to read, as sequential entries seem rather 'inside out'. I created a work floppy with a few files and used DEBUG to examine the FAT area. It's weird!

Although I have not yet discovered a utility to artificially create files from cluster information, I'm sure there probably is one. I've posted a cry for help on several bulletin boards. If I get an answer, I'll pass it along, as other users have probably encountered this sort of disaster.

Speaking of disasters, after I discovered the problem with the telephone extension lead - referred to in a product review - and a new lead was put in place, I retested the FAX/Phone Switch II Changeover Box (reviewed page 44). The 'phone still didn't ring. I proved this by asking the next door neighbour to ring our number whilst I stood and watched the changeover box. Once again, the relay clicked and the telephone itself remained mute.

If you have an older Telecom instrument, be very wary of any of the new computer products available! My final recourse is to retry both review products in another location.

Now, with the bits and pieces out of the way, we'll turn our attention to more tutorial information on assembly language. Again, considering the FUNCTION.ASM listing which was in the June issue, you see that the Main Program itself is quite short.

The preliminaries take up more space, even, as does the message area. The main program uses Calls to subroutines. By using this sort of structure, each portion can be developed and debugged separately. As you progress with machine code, you find that certain subroutines can be held in 'library' files.

The appropriate subroutines for the task at hand, therefore, need not be a case of re-inventing the wheel. And using CP/M system calls, of course, makes life easier still.

Your main program begins by sending a prompt message to the console (screen). It then stays in a loop waiting for a keypress to continue. Previously, we've talked about 8-bit registers, using MOV instructions and so forth.

The LXI instruction means Load the indeX register

pair with Immediate data. Here, we plug the address of 'msg1' into the 16-bit DE registers. We can also manipulate the BC, HL, and SP (Stack Pointer) in the same fashion.

There are more ways of manipulating 16-bit data, and we'll talk about them in future.

Continuing on in our point-by-point fashion, we see that the next action is the 'user' or wait-for-a-key process. And how does the microprocessor decide to do this? The decision-making by the MPU depends on the Flag register. Once we've called the 'getcon' function, it returns a value in the A register.

Now, the flag register in the 8080, unlike some MPUs, is only updated from either a logical or arithmetic instruction. We thus have to 'trick' the system - and this is done with the 'ora a' step. This performs a logical-OR action on the A register with itself. The value remains unchanged, but NOW the flag register reflects the value.

If we come back with a zero value, it means 'no key has been pressed' and the Zero bit is set. Then we Jump on Zero back to the 'go' label. Once a key is pressed, A no longer equals zero, the Zero bit in the flag register is cleared - and now we can drop through to the 'menu' stage.

The 'clear' subroutine sends the 'cls' message to the console (screen) and the Escape E characters are understood by CP/M as a screen clear code. Escape H then moves the cursor to the upper left hand corner of the monitor screen.

We print a list of user choices in a similar fashion. Now instead of checking on the 'console status', we use the alternative of letting CP/M itself wait for a key entry.

See the difference? The first system call to the console automatically returns a value. The 'wait-in-a-loop' action is provided by yourself. This other console function, however, does not move on until you have pressed a key. The first says: 'This is my status', whether you press a key or not. The second in effect spins in an operating system loop until you respond.

The four user options are now tested sequentially, again with a reference to the Zero bit in the flag register. A valid choice shifts to the appropriate subroutine. The 'x' terminates the example program and returns to the CP/M prompt.

Choices of '1', '2' or '3' call subroutines accordingly. If there's no match, you've pressed an invalid key and the program flow jumps back to 'menu'. In effect, you ignore all silly or deliberate errors. Programs which do not allow for inaccurate responses by the user can lead to strange results or even system crashes.

Sometimes, professional programmers call these anomalies 'undocumented features'.

There's a couple more new instructions in this example code. PUSH (within 'inloop') copies a register-pair value to the stack. This is an area of memory for temporary storage. When you call a subroutine,

for example, the stack remembers where the program should return to.

Manipulating the stack is not without risk. Suppose you PUSH a 16-bit value onto the stack. You've displaced the return address by two bytes. If you forget to POP (or remove) your storage value, the Stack Pointer will set the Program Counter to the 'address' YOU stored as its RETURN. Crash! Either the program bombs out or you're locked in an endless loop that only a Power Down will solve.

Remember - for every PUSH, there should be a POP. You don't even have to use the same register-pair. This gives you an even further way of manipulating data.

The 'psw' that we've PUSHed in the example stands for Program Status Word. This is a fancy way

of saying 'the A register along with the Flag register'. If you yourself did not preserve the A register (or accumulator) value, the system call would corrupt it here. Some functions return nothing; others scramble all manner of things.

It's very instructive to test some of these ideas using SID. Watching the register values changing as a result of instructions gives one a clearer idea of what is occurring. Be careful of trying to Trace into System Calls; horrible things sometime happen. It's best to get around them with a G (goto) 'address immediately after' command.

We'll get to the end of the building blocks soon and you can look forward to manipulating files on disc, inspecting the inner mysteries of CP/M, and who knows what else. ■

YEAR DISK 14 HAS ARRIVED!



**CHECK
THIS
OUT!**

This disk includes all the CPC type-ins published in TAU from issues 61 to 64, while side two contains three bonus graphic adventures!

**CASTLE ADVENTURE
LIGHTHOUSE MYSTERY
TIME TRAVELLER**

Written by Barrie Eaton, these impressive adventures contain graphic descriptions of most locations. *Time Traveller* and *Lighthouse Mystery* have never before been released!

All for \$25.00 (+P&P)

Send your order to:
THE AMSTRAD USER
1/641 High Street Road
Mount Waverley
Vic. 3149 Tel: (03) 803 9661

Blanks for the memory



After a two month break, Paul Gerard is back with more information and code for your expanding expert system.

First, apologies to readers who might have been waiting for this article - for various reasons it is a little late. Two aspects of our subject this time - firstly the question of memory management. Sherlock Holmes fans may remember that (I think in *Study in Scarlet*) the great detective explains how he rigidly excludes irrelevant data from his memory - when Watson expounds some elementary point of astronomy Holmes assures him that he not only did not know anything about the subject before, but will have deliberately forgotten what he has just learned as soon as possible, so as to leave as much room as he can for information strictly relevant to his own calling.

While Holmes is being a bit extreme, most of us recognise that while the human brain has an incredible ability to store data - all but a few rare geniuses either carry information at depth on a limited number of subjects (i.e. are specialists) or superficial information about a good number of subjects (generalists). To paraphrase the old adage, we either know a great deal about very little (and tend to know more and more about less and less as we become more specialised - ending up knowing everything about nothing), or on the other hand we know just a little about a great many things (becoming less and less knowledgeable about more and more as we become more generalist, until we know nothing about everything). I have omitted the obvious third class, who never knew anything about anything and don't want to either, on the grounds that such people would neither buy this magazine, nor read this article if they did!

Now a computer, especially a little computer like our CPC, has a memory that is far less than that of most people. To persuade our computer to emulate a human intelligence, even in a relatively simplistic way, we obviously need to carefully husband our data, to ensure, like Holmes, that it is strictly relevant to our subject, and, specifically, to ensure that we don't run out of addresses in RAM where what we want can be speedily located.

BASIC, as a general rule, needs far less careful "memory management" than does C (or even PASCAL, once we get into linked lists) however unfortunately for our present purposes, the Locomotive BASIC of the CPC does need some care in the way we allocate and manipulate string data, in particular ways to "manage our memory" by getting around this tendency have been described in several articles in this series, as well as the structured programming series, and generally we have been fairly careful. There are, however, a few flaws in our programs as they stand in this respect.

The following are changes to our expert system designed to make our little computer more efficient in its allocation of RAM. Note in particular the re-writing of our user-defined functions - these now do not directly access string variables, and hence a residual tendency to consume precious RAM is eliminated.

First, these lines from EXPERT.BAS need changing:

```
110 PRINT#2,TAB(FNcentre(LEN(heading$(head)),0))heading$(head)
430 PRINT#2,TAB(FNcentre(entity.len,0))UPPER$(LEFT$(entity.name$,entity.len))
910 DEF FNcentre(length,offset)=(modewidth-offset-length)/2
920 DEF FNroom.to.print(length,offset,wdw)=(length<(modewidth-offset-POS(#wdw)))
930 DEF FNstarts.with.vowel(a)=((a=64) OR (a=69) OR (a=73) OR (a=79) OR (a=85) OR (a=97) OR (a=101) OR (a=105) OR (a=117))
1140 LOCATE 1,12:PRINT TAB(FNcentre(LEN(comquery$(menu.number)),10))comquery$(menu.number);
```

Teacher.Bas will need the following lines altered:

```
5260 LOCATE FNcentre(entity.len,0),13
6520 IF classing.entity THEN LOCATE FNcentre(LEN(entity$(1,entity)),0),13:PEN 3:PRINT UPPER$(entity$(1,entity)):PEN 1
```

```

6530 IF NOT classing.entity THEN LOCATE FNcentre(LEN(at
trib$(1,attribute)),0),13:PEN 3:PRINT UPPER$(attrib$(1,
attribute)):PEN 1
6620 IF recursing THEN LOCATE FNcentre(LEN(classif$(1,e
ntity)),0),13:PEN 3:PRINT UPPER$(classif$(1,entity)):PE
N 1 ELSE LOCATE FNcentre(LEN(entity$(1,entity)),0),13:P
EN 3:PRINT UPPER$(entity$(1,entity)):PEN 1
6760 PRINT TAB(FNcentre(LEN(attrib$(1,attribute)),0))
attrib$(1,attribute)

```

While ENQUIRE.BAS will need these changes:

```

5175 IF INSTR(entity$(0,entity),classif$(0,class))=1 T
HEN IF FNroom.to.print(LEN(classif$(1,class)),3,0) THEN
PRINT classif$(1,class);" - "; ELSE LOCATE 4,VPOS(#0)+
2:PRINT classif$(1,class);" - ";
5182 IF FNroom.to.print(LEN(entity$(1,entity)),0,0) THE
N PRINT entity$(1,entity) ELSE LOCATE 4,VPOS(#0)+2:PRIN
T entity$(1,entity)
5226 IF FNstarts.with.vowel(ASC(entity$(1,entity))) THE
N PRINT"An "; ELSE PRINT"A ";
5275 IF INSTR(linker$(1,link),attribute$(0,desc))=1
THEN IF FNroom.to.print(LEN(attribute$(1,desc)),3,0) TH
EN PRINT attribute$(1,desc);" - "; ELSE LOCATE 4,VPOS(#
0)+2:PRINT attribute$(1,desc);" - ";

```

"Remembering" raw data is not in itself frightfully meaningful. As far from extreme example, take a few lines of our "linker" file:

"4527382","AC"	"4527382","DAA"
"4527382","RA"	"45277","LA"
"4527768","AD8"	"45293","AD8"
"452934","HF"	"452934","DBC"
"45298","AE"	"45298","AAJ"

In itself, this is pure gobbledygook - it means nothing at all. In conjunction with the other files of our animal expertise it can however, yield various kinds of information. Information is data organised into meaningful form. Our "enquiry" program already deduces two kinds of information from our data - it can classify an animal, and list characteristics we have recorded about both the animal specifically, and about classes of animal to which our animal belongs.

This is not, however, the only information that can be organised from this data. In fact getting meaning out of data, converting it, in other words, into information, is one of the primary functions of intelligence as opposed to mere data storage, and an intelligent program will, like the human mind, be able to organise the same data into many different forms, to yield many different kinds of information.

Our expert system manages this by building up quite a complicated set of relationships between entities and other entities (in a hierarchic "tree" structure implied by the codes) between attributes and other attributes (in a similar way) and finally between entities and attributes. The information

extracted from data depends essentially on ones point of view. This is not the only way data can be translated into information, in fact the currently highly fashionable relational model relies on something much more closely resembling the simple record/field relationship we used in Structured Data. The essential point is that data are related to each other in a meaningful fashion.

Typing the following lines into "ENQUIRE.BAS" will add one more functioning option to the menu - we can now look at a particular class of animals (biologists note, I am using the term "class" in a classification theory sense, simply to mean a group of entities sharing meaningful attributes), and list the attributes characteristic of that class, as well as the animals belonging to it. Note that we have not input any new data in order to obtain a quite different set of information. Once you have this working you will notice a few anomalies in our data - for instance, not all reptiles have four legs! This does give us a few things to edit when we finish TEACHER.BAS (next time) . The "attribute" options we will leave for the moment - as we are going to reorganise the way we look at attributes a little. The same principle will however apply when we come to these options (which will complete ENQUIRE.BAS) - we will be using the same stored data to provide different information!

```

5300 ' "analyse" classification
5310 mde=1:GOSUB 600:GOSUB 100
5315 CLS#3:CLS#1:LOCATE 2,12:PRINT"Which class to analy
se ";
5320 GOSUB 2800 ' classification becomes temporary "ent
ity"
5325 GOSUB 2900 ' find classification
5330 IF NOT class.found THEN LOCATE 1,12:PRINT"I don't
know that class - try again?":GOSUB 500:IF yes THEN 5
315 ELSE end.search=TRUE:RETURN
5340 GOSUB 400 ' draw display screen
5350 LOCATE 4,5:PRINT CHR$(24);"Membership of this clas
s implies the following : ";CHR$(24)
5360 link=0:entity=0:entity$(0,0)=classif$(0,class):LOC
ATE 6,VPOS(#0)+1
5370 GOSUB 5230 ' bad style ! enters suroutine below to
p
5375 LOCATE 4,VPOS(#0)+1:PRINT CHR$(24);"Members of thi
s class include : ";CHR$(24)
5380 member=0:LOCATE 4,VPOS(#0)+1
5385 WHILE member<count(1)
5390 member=member+1
5393 IF INSTR(entity$(0,member),classif$(0,class))=1 T
HEN IF FNroom.to.print(LEN(entity$(1,member)),3,0) THEN
PRINT entity$(1,member);" - "; ELSE LOCATE 4,VPOS(#0)+
2:PRINT entity$(1,member);" - ";
5395 WEND
5397 PRINT STRING$(2,8);"."

```

Investigating INSTR...



The INSTR command used on CPC's, is a little known keyword that can be a great help in validating input.

The INSTR is a useful keyword that gets very little publicity. Some books, including the CPC manuals, describe its use without giving any practical examples, but the great majority of books simply ignore it. This has led to the misconception that it is another of those keywords that only 'experts' or 'specialists' would use. Not so.

For a start, INSTR is extremely useful for validating user input. Take a look at PROGRAM 1.

The subroutine of greatest interest is at 3000. Once entered it cannot be returned from until the user has pressed one of the keys the program wants pressed. The valid keys are held in the variable 'VALID\$'.

At the start of the subroutine 'KEYPRESSED' is initialised to zero, and it will remain that value until line 3040 sets it otherwise.

This line, 3040, tries to match the string 'IN\$' - the key you pressed - with the string 'VALID\$'. If it finds that 'IN\$' is part of 'VALID\$' then it assigns the value equal to the position of the first occurrence of 'IN\$' to the variable 'KEYPRESSED'. In terms of this program, that means that if, for example, VALID\$="YN", then if Y is pressed 'KEYPRESSED' will equal 1, and if N is pressed it will equal 2. If any other key is pressed, 'KEYPRESSED' will equal zero. Some other examples would be:

```
IN$="E":VALID$="ABCDEFGG"
```

```
KEYPRESSED=5
```

```
IN$="B":VALID$="ABCDEFGG"
```

```
KEYPRESSED=2
```

```
IN$="Z":VALID$="ABCDEFGG"
```

```
KEYPRESSED=0
```

When we get back to the main program we store 'KEYPRESSED' away in another variable for future

use; see line 1030 for an example.

In the initialisation subroutine two constants have been set up, YES and NO, to hold the values 1 and 2, and these constants are used instead of numbers in the results subroutine at 2000. They make the program far more readable as it is obvious at a glance what is going on in a line like:

```
IF MALE=YES THEN...
```

whereas:

```
IF MALE=1 THEN...
```

is totally confusing to anyone except the original programmer.

The subroutine can be used for as many valid keypresses as can be held in 'VALID\$' - even numbers from a menu:

```
VALID$="123456789":GOSUB 3000
```

would return with 'KEYPRESSED' holding the exact number the user has chosen and could therefore be used directly in an ON GOSUB statement if wished:

```
ON KEYPRESSED GOSUB 1000,2000...
```

SPLITTING WORDS

What we are going to do now is see how INSTR can be used to split up a sentence into its separate words and do a rudimentary parse,

To isolate a word we need to know its boundaries, or 'delimiters'. Words in English can be delimited by quite a few punctuation marks, but, at the end of the day, each word in a sentence, except maybe the first, will be preceded by a space character. This is the character we will look for to show us where a new word starts.

PROGRAM 2 shows the technique. The splitting subroutine is at 2000. Enter it with the sentence to be split held in 'IN\$', and the routine will exit with

the separate words of the sentence held in the 'WORD\$' array. Note that you should dimension this array to the greatest number of words you would expect the user to use in one sentence. In the initialisation subroutine I've put it at 10, but 30 or 40 would probably be a safer figure.

In the splitting routine the sentence is first assigned to a temporary variable, 'T\$', then we look for a space character in it and set up a counter for use in the WHILE loop.

In the WHILE loop, line 2040 assigns all the characters up to (but not including) the first space it found to WORD\$(count), and then line 2050 knocks this word (and the space) off the sentence before it increments the counter, checks for another 'space' and goes around the WHILE loop again.

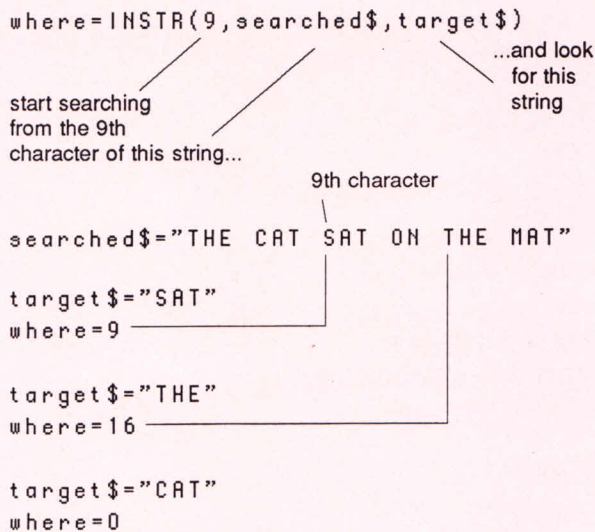
After the loop has executed (or not if 'IN\$' contains no spaces, i.e. a single word), one word is still not assigned to the 'WORD\$' array. This is either the first (and only) word of the sentence, or the very last-line 2090 completes this job.

The routine is still a 'shell' mind you - checks for empty strings and punctuation marks need to be added really - but now you have the basics, I'm sure you can do the rest. Anyway, I want to move on to something else now.

PARSING

So much for detecting single characters, but INSTR can also be used to detect the presence or not of a shorter string within a longer string. Again, the value returned will be the position where the shorter target-string starts within the longer searched-string, or zero if it is not found. This is where INSTR can help us do a bit of parsing.

Before we move on to this though, let me introduce you to the 'extra' parameter in INSTR, the 'start position':



Notice that because we've designated the search to start from the 9th character, when searching for

"THE" it finds the second occurrence, not the first. Had we designated 1 as the start position, the first "THE" would have been found instead. Very useful feature this. Must think of ways to use it some time.

Anyway, back to our programming. Keeping our adventure scenario going, now we know how to split up the sentence, we can make some assumptions; the main one being that the first word 'WORD\$(1)', will be a verb: GET, DROP, CLIMB etc.

If we pack all the words we want our program to understand - or, at least, the first four letters of each word together into one long string, we can use INSTR firstly to tell us whether the word is understood or not, and then to direct the program at a subroutine to deal with that word.

PROGRAM 3's vocabulary - the first four letters of each word - would be held in 'KNOW\$'. If a word is less than 4 letters long, then fill it out with a dummy character; I've used a space for example, to fill out GET in 'KNOW\$', and the second line in the parsing subroutine (3010) does the same thing to the temporary variable 'T\$' so the program doesn't crash when line 3020 lops off the first four letters of the word in order to process it. Obviously, if we hadn't filled the word out, and if the word was only three letters long, line 3020 would crash because it would be looking for four letters in a three letter word.

Line 3030 is the one that checks to see if the word you entered is in the program's vocabulary. If it isn't - i.e. if the variable 'WHERE' comes out equal to zero - line 3030 simply returns from the subroutine. In practice you would deal with this by GOSUBing to a special "I don't understand" subroutine.

The next line (3050) does a calculation on 'WHERE' because in its present form it can't really be used in an ON GOSUB. In the example program, 'WHERE' will be equal to either 1,5,9,13 or 15. We need to convert this sequence to 1,2,3,4,5 for ON GOSUB, and this is done by integer-dividing 'WHERE' by 4 and adding one. If your program's vocabulary consisted of the first five letters of each word, then the division would be by 5; if it was just the first three letters of each word, the division would be by 3. Whatever you divide by, though, you will have to add one to the result.

The variable 'BRANCH' holds the new value (either 1,2,3,4 or 5), and this is the value, in line 3060 that will send control of your program to the subroutine which most closely understands the word under investigation.

In these special subroutines you could use further tests to avoid ambiguity - SPEAK, for instance, could either be SPEAK TO FRED or SPEAR THE PIGMY. The original word is still held in 'WORD\$(1)', so there's no problem there:

```
IF WORD$(1) = "SPEAK" THEN GOSUB...
IF WORD$(1) = "SPEAR" THEN GOSUB...
```

These subroutines are also where you'd want to

programming

begin to investigate the rest of the sentence, you know, the words held in the 'WORD\$' array from the routine that split up the sentence.

If the verb, for instance, is GET, then you know there's going to be noun (an object) somewhere in the sentence, so a second parsing routine to deal with objects needs to be executed if there is more than one object lying around. The technique would be almost identical to that which we have just been through. Away you go.

Oh yes, in passing, don't forget that words like THE and AND are useless, so they can be ignored. And the word IT will always refer to the previous noun in the sentence:

```
"GET THE HAT AND ROCK AND THROW IT"
```

What should get thrown is the rock, not the hat.

And on that violent act I'll leave you to get on and write the next blockbusting adventure.

PROGRAM 1.

```
10 ' SINGLE KEYPRESS VALIDATION
20 '
100 MODE 2
110 GOSUB 4000 ' INITIALISE
120 GOSUB 1000 ' ASK NOSEY QUESTIONS
130 GOSUB 2000 ' PRINT RESULTS
140 PRINT:END
998 '
999 ' ASK NOSEY QUESTIONS
1000 PRINT "Are you:"
1010 PRINT "Male or Female? (M/F) ";
1020 VALID$="MF":GOSUB 3000
1030 MALE=KEYPRESSED
1040 PRINT "Married or not? (M/N) ";
1050 VALID$="MN":GOSUB 3000
1060 MARRIED=KEYPRESSED
1070 PRINT "Bald or Hairy? (B/H) ";
1080 VALID$="BH":GOSUB 3000
1090 BALD=KEYPRESSED
1100 PRINT "Clever or Thick? (C/T) ";
1110 VALID$="CT":GOSUB 3000
1120 CLEVER=KEYPRESSED
1130 RETURN
1998 '
1999 ' PRINT RESULTS
2000 PRINT
2010 PRINT "O.K. You are a ";
2020 IF MARRIED=NO THEN PRINT BS$;"n un";
2030 PRINT "married, ";
2040 IF BALD=YES THEN PRINT "bald and "; ELSE PRINT "ha
iry, ";
2050 IF CLEVER=YES THEN PRINT "clever "; ELSE PRINT "th
ick ";
2060 IF MALE=YES THEN PRINT "man." ELSE PRINT "woman."
2070 RETURN
```

```
2996 '
2997 ' GET SINGLE KEYPRESS
2998 ' ENTER WITH VALID$ HOLDING
2999 ' THE LEGAL KEYPRESS
3000 KEYPRESSED=0
3010 WHILE KEYPRESSED=0
3020 IN$=UPPER$(INKEY$)
3030 IF IN$="" THEN 3020
3040 KEYPRESSED=INSTR(VALID$,IN$)
3050 WEND
3060 PRINT IN$
3070 RETURN
3998 '
3999 ' INITIALISE
4000 YES=1:NO=2
4010 BS$=CHR$(8) ' BACKSPACE
4020 RETURN
```

PROGRAM 2.

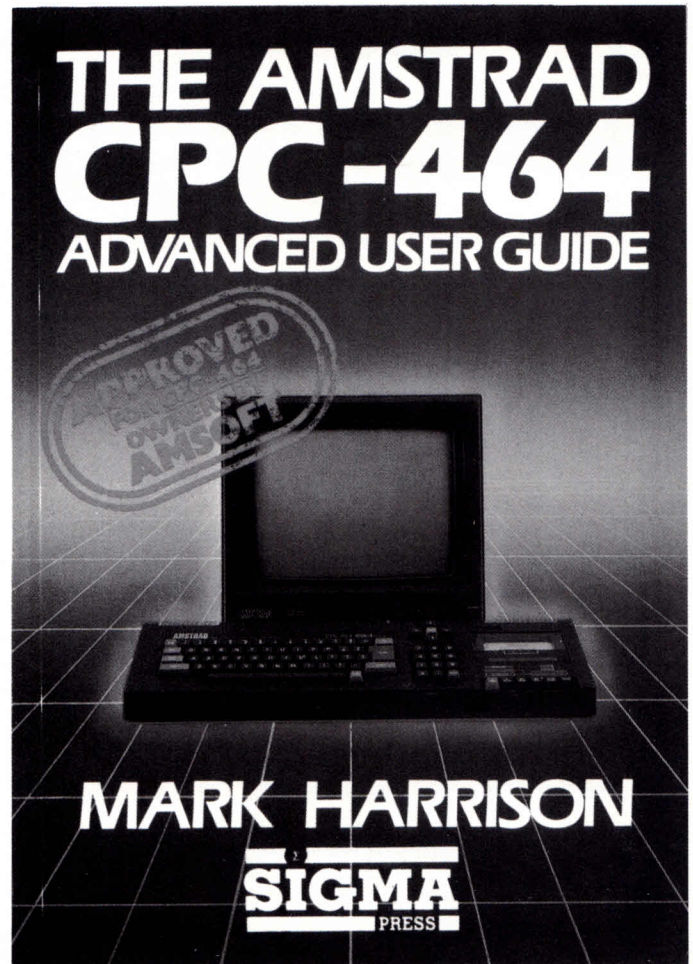
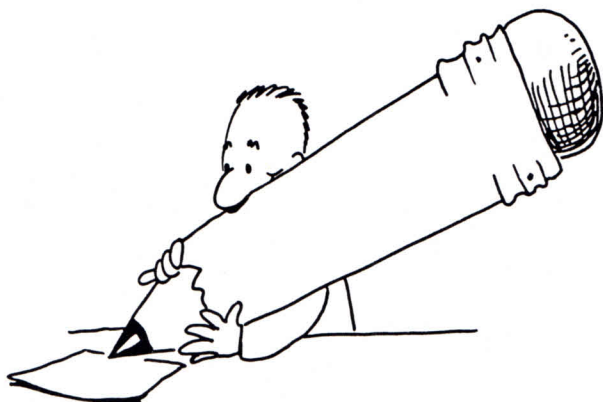
```
10 ' SPLITTING A SENTENCE
20 '
100 GOSUB 1000 ' INITIALISE
110 GOSUB 2000 ' SPLIT SENTENCE
120 GOSUB 3000 ' PRINT RESULTS
130 END
998 '
999 ' INITIALISE
1000 DIM WORD$(10)
1010 IN$="Get the hat and wear it"
1020 RETURN
1998 '
1999 ' SPLIT SENTENCE
2000 T$=IN$
2010 SP=INSTR(T$," ")
2020 COUNT=1
2030 WHILE SP>0
2040 WORD$(COUNT)=LEFT$(T$,SP-1)
2050 T$=RIGHT$(T$,LEN(T$)-SP)
2060 COUNT=COUNT+1
2070 SP=INSTR(T$," ")
2080 WEND
2090 WORD$(COUNT)=T$
2100 RETURN
2998 '
2999 ' PRINT RESULTS
3000 PRINT:PRINT IN$:PRINT
3010 FOR LOOP=1 TO COUNT
3020 PRINT LOOP;WORD$(LOOP);NEXT
3030 PRINT:RETURN
```

PROGRAM 3.

```
10 ' RUDIMENTARY PARSING
20 '
100 GOSUB 1000 ' INITIALISE
110 GOSUB 2000 ' GET A WORD (IN$)
```

```

115 WORD$(1)=IN$ ' FOR EXAMPLE
120 GOSUB 3000 ' PARSE IT
130 END
998 '
999 ' INITIALISE
1000 KNOW$="GET DROPCLIMSPEABAST"
1010 RETURN
1998 '
1999 ' GET A WORD
2000 PRINT "Enter a word";
2010 INPUT IN$:IN$=UPPER$(IN$)
2020 RETURN
2998 '
2999 ' PARSE THE FIRST WORD
3000 T$=WORD$(1)
3010 IF LEN(T$)<4 THEN T$=T$+" "
3020 WHAT$=LEFT$(T$,4)
3030 WHERE=INSTR(KNOW$,WHAT$)
3040 IF WHERE=0 THEN RETURN
3050 BRANCH=INT(WHERE/4)+1
3060 ON BRANCH GOSUB 4000,5000,6000,7000,8000
3070 RETURN
3998 '
3999 ' GET
4000 PRINT "You take it.":RETURN
4998 '
4999 ' DROP
5000 PRINT "OK. Dropped.":RETURN
5998 '
5999 ' CLIMB
6000 PRINT "Wot? Up there?":RETURN
6998 '
6999 ' SPEAK
7000 PRINT "Speak to who?":RETURN
7998 '
7999 ' NAUGHTY WORD
8000 PRINT "So are you!":RETURN
    
```



GET THE MOST FROM YOUR CPC!

This book assumes that you have got your 464 working, and have already done some simple programming. But, even at a simple level, the organisation of the book is attractive as it opens with a description of how the 464 works, how it communicates with external devices, and a quick summary of BASIC. There is a comprehensive reference section for you to find an explanation of any BASIC command or keyword in the Amstrad's repertoire.

The book contains forty complete programs ready-to-run on the 464, ranging from very short ones to demonstrate how your 464 works, through to large, challenging programs that are themselves worth the cover price. CPC 664 and 6128 owners will also find this book a great help.

.....
 • Was \$21.95 •
 • Now \$9.95 •
 • + Post and Packing •
 •.....

Send your order to:
THE AMSTRAD USER
 1/641 High Street Road
 Mount Waverley
 Victoria 3149 Tel: (03) 803 9661

The Rings of Artek - 1



Our adventurer extraordinaire Barrie Eaton, has provided us with yet another marvellous text adventure. Have fun!

In this adventure your ultimate goal is to rescue the fair princess Shareen and destroy the evil sorceress Smyrna. After the old king died, Smyrna usurped the throne and imprisoned the young princess with her black magic. She now rules the kingdom of Eternia unopposed. However the expectation of this happening had already been foreseen by Artek the mighty wizard whom before he died, forged three rings of power strong enough to overcome the black magic of the evil queen Smyrna.

Artek carefully hid the three rings in different locations so that Smyrna could not find them. It is your task therefore to seek out the rings and try to restore the kingdom of Eternia to its rightful heir. There are many obstacles to overcome in fulfilling your quest but help can be obtained from some of the characters that you meet. Smyrna also has her spies in the land and it has been noted that you are searching for the rings. She has therefore sent out her evil "all seeing eye" that will search out and destroy you if it manages to locate you.

The only protection against the eye is the powerful charm that you need to possess. This will give you ultimate protection against everything that could otherwise destroy you. However other charms will be needed to enable you to vanquish some of your foes.

Artek himself also moves around in the game and each time he bumps into you he will give some advice. You can also call upon Artek's name at various points in the game when all else seems lost.

The Rings of Artek is some 35k in length and will be listed in parts each month, and should be completed by November issue.

The game accepts the usual adventure parser such as: inventory, exam (examine object), exam all, save, load, get, get all, drop, drop all, N, S, E, W (directions), score, quit, and so on etc. If the game does not understand a given command, it will tell you so.

For all those adventurers out there who still enjoy a challenge, this game will give you just that.

Your quest begins... Good luck!

```

10 REM *** THE RINGS OF ARTEK ***
20 REM ** AUTHOR: BARRIE EATON **
30 MODE 1
40 INK 0,0:INK 1,26:INK 2,24:INK 3,6:BORDER 0
50 GOSUB 4170
60 CLEAR
70 RANDOMIZE TIME
80 DIM loca$(121,4),loca$(121),obj$(19),obj$(19),get$(30),get$(30)
90 posi%=35:sc=0:ss=0
100 FOR x=1 TO 121:FOR y=1 TO 4:READ loca$(x,y):NEXT y:
READ loca$(x):NEXT x
110 FOR x=1 TO 19:READ obj$(x),obj$(x):NEXT x
120 FOR x=1 TO 30:READ get$(x),get$(x):NEXT x
130 CLS
140 DATA 0,9,0,0,inside the Red Grotto.Its walls reflect the light from its red coloured stones,0,0,3,0,inside a hidden room of the cellar
150 DATA 0,0,4,0,in the cellar.Light from upstairs filter down the steps revealing an exit to the east and a steel door to the west,0,0,0,3,in a storeroom.A desk sits by the wall
160 DATA 0,17,0,0,inside the tower.To the east you can see steps ascending to an upper level
170 DATA 0,0,0,0,at the top of the tower.Steps lead down and a strong wooden door lies before you,0,0,0,6,inside a small room with an open window.Against the wall stands an old cabinet
180 DATA 0,20,0,0,inside the queen's chamber.It is regal but has an air of mystery about it,1,0,10,0,in a small dark cavern.You can see a red light glowing from the north,0,0,11,0,at a dead end of the passage.A solid rock wall bars further progress
190 DATA 0,0,12,10,in a narrow passage running east to west,0,0,13,11,inside a cave both dry and sandy,0,22,0,12,at a small inlet of the beach,0,23,15,0,inside the kitchen,0,0,16,14,in the basement.You see an open doorway with steps leading down
200 DATA 0,25,0,15,inside the main room.It contains som

```

e furnishings and pictures on the wall,5,0,18,0,on a pathway.To the north you can see a tall slender tower with an open doorway

210 DATA 0,27,0,17,in a clearing on the far side of the water cascade.You can go south and west,0,28,20,0,inside the courtyard of the evil queen's fortress.It looks deserted,0,0,0,19,inside the great hall.An exit goes north

220 DATA 0,30,0,0,inside a grotto.It is well illuminated by the glow of yellow light from its wall studded gems.In the centre of the floor sits a low round pedestal,13,31,0,0,on the shoreline of a beach

230 DATA 14,0,24,0,inside the hallway of the dwelling,0,33,25,23,inside the dwelling.A long hallway lies before you running from east to west,16,0,0,24,in the hallway,0,36,27,0,walking through a valley

240 DATA 0,37,0,26,in a valley.Tall cliffs soar upwards with a cascade of water falling from above into a stream beside you,0,0,29,0,outside the mountain fortress of the evil queen Smyrna.An entrance lies north
250 DATA 0,39,0,28,on a winding path that ascends high up into the mountains,0,42,0,0,inside a passage going from north to south.Before you lies a sheer wall of flame preventing any further progress,22,44,32,0,on a sandy beach

260 DATA 0,45,0,31,on a path covered with pebbles and sand,24,0,34,0,on a pathway in the woods.To the north of you lies a deserted dwelling,0,0,35,33,in the woods,0,47,36,34,in a wood.It is lush and green.Exits lead off in different directions

270 DATA 26,0,37,35,in the woods,27,0,0,36,in the woods,0,51,39,38,in the woods,29,52,0,38,in a clearing of the woods.To the north lies a winding pathway ascending into the mountains

280 DATA 0,0,41,0,inside the blue grotto.It is illuminated by the brilliant light that is being emitted from its blue crystals,0,0,42,0,in a passage running from east to west. To the west lies a heavy grilled door

290 DATA 30,0,43,41,inside a cave at the bowels of the earth,0,0,0,42,at the bottom of a very deep shaft.A blue light from the west filters through,31,0,0,0,walking along the shoreline,32,57,46,0,in a clearing of the woods

300 DATA 0,0,46,45,in the woods,35,59,48,47,in the woods,0,0,49,47,in the woods,0,0,0,48,in the woods.A wide river flows before you from north to south,50,62,51,0,in a dark wood quite eerie looking

310 DATA 38,63,52,50,in the woods,39,0,0,51,in a dark wood,0,65,54,0,in a cave,0,0,55,53,in a cavern,0,66,56,54,in a passage running from east to west

320 DATA 0,0,0,55,at the end of a passage.A deep hole lies before you and in the roof above it you see a large hook inserted into the rock.,45,67,0,0,in the woods,0,0,59,0,inside a deserted hut,47,0,0,58,in the woods.A hut lies to the west

330 DATA 0,0,61,0,on a pathway next to a wide river,0,72,0,60,on a pathway in a clearing,0,73,0,0,in a forbidden zone.Protection is needed to be able to enter this place,51,0,64,0,outside a circle of stones like those used by the druids

340 DATA 0,0,0,63,inside the circle of stones.Before you lies an altar covered with a white cloth,53,75,0,0,on a pathway,55,0,0,0,at a dead end of the passage,57,0,68,0,on a pathway that runs between the woods and a mountain pass

350 DATA 0,0,69,67,on a mountain pass,0,0,70,68,in the mountains.A waterfall descends into a valley below you,0,0,0,69,at the edge of a wide mountain lake with a rapid flowing current descending below

360 DATA 0,0,72,0,in an open pasture on the far side of a mountain lake,61,0,73,71,in a clearing,62,84,0,72,in a wood,0,85,0,73,in the woods,65,86,75,75,in the woods,0,0,77,0,on top of a high plateau

370 DATA 0,0,78,76,in a hilly region,0,91,79,77,in a rocky region surrounded by hills,0,0,0,78,in high country both rocky and green,0,0,81,0,on a lower mountain path.Steps lead upwards alongside a waterfall

380 DATA 0,0,82,80,inside a small cave,0,93,83,81,walking along a passage,0,0,0,82,inside a grotto,73,0,85,0,in the woods,74,96,0,84,on a path.To the south lies a village

390 DATA 75,86,87,86,in the woods,87,0,88,86,in the woods,88,0,89,87,in the woods

400 DATA 0,100,90,88,in dense undergrowth,0,101,0,89,in a forest,78,0,92,0,on a footpath,0,102,0,91,outside the castle of the warlocks although deserted at this time

410 DATA 82,0,0,0,in a larger cavern.A green light shines from an exit to the south,0,106,0,0,inside a chamber of the temple.A round pedestal sits in the middle of the floor

420 DATA 0,107,96,0,in a street full of side stalls,85,0,97,95,in the village square,0,108,0,96,walking along Thieves Alley.Shadowy figures watch you closely,0,0,99,0,by a sheer cliff face reaching up into the sky

430 DATA 0,111,0,98,climbing through a rocky region,89,0,0,0,in dense undergrowth with thick vines hanging all round,90,101,101,0,in a forest,92,114,103,0,in the courtyard of warlock castle,0,0,0,102,in the stables

440 DATA 0,116,0,0,in an upper room.A table lies before you,93,0,0,0,inside the green grotto.A vivid green light emanates from the green gems set into the rock face

450 DATA 0,117,0,0,outside a templelike structure.There are no windows just an iron door,95,0,96,0,on a corner street beside a shallow well,97,120,0,0,walking along a twisting street

460 DATA 0,0,110,0,in a cave inhabited by three witches. They stand around a cauldron muttering incantations and stirring the contents,0,0,0,109,in a cave in the

CPC screen saver



TAPE RSX is a handy little program that lets you save and load graphic screens to tape like a professional.

Have you ever wondered how title screens and other graphics used in most commercial games are loaded directly onto the screen? Or have you ever wanted to save your own works of art directly to tape? Well, TAPE RSX's will do just this for you.

When run, this totally brilliant little program will install three RSX commands to memory:

|SAVSCREEN, |LOADSCREEN and |SUPERSPEED (the "|" is obtained by pressing SHIFT @).

|SAVSCREEN will save your current screen as is, directly to tape (you must press REC and PLAY before typing this command, as it saves immediately without giving a prompt). |LOADSCREEN will load the screen back off tape in a familiar raster style pattern (you must also press PLAY before typing this command). |SUPERSPEED doubles the speed in which the screen is saved (pretty fast!). Screens can be saved and loaded in all three graphic modes.

With a few modifications, TAPE RSX's can be incorporated into your own programs to load graphics, title screens etc. It is important that you save this program before running it, as there is a "NEW" command on line 220.

NOTE: Although this program works fine on a CPC 464 (with or without a disk drive attached), it should also work on a CPC 664/6128 providing you have a cassette player attached.

```

10 ' TAPE RSXs
20 '
30 ' THE AMSTRAD USER
40 '
50 ' AUGUST 1990
60 '
70 MEMORY &9CFF
80 A=&9D00
90 S=0
100 FOR D=1 TO 24
110 READ B$
120 FOR C=1 TO LEN(B$) STEP 2
130 F=VAL("&"+MID$(B$,C,2))

```

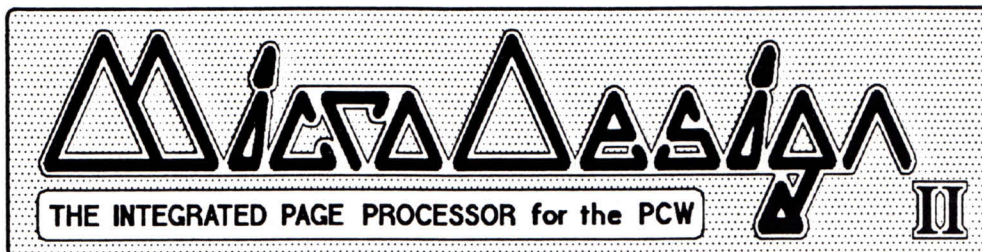
```

140 POKE A,F
150 S=S+F
160 A=A+1
170 NEXT C,D
180 READ E
190 IF E<>S THEN PRINT "SORRY, ERROR IN DATA":END
200 CALL &9D00
210 PRINT "|SAVSCREEN, |LOADSCREEN AND |SUPERSPEED RSX
s HAVE BEEN INSTALLED."
220 NEW
230 DATA 010E9D210A9DCDD1
240 DATA BCC900000000199D
250 DATA C3389DC3779DC3B6
260 DATA 9D53415645534352
270 DATA 4545CE4C4F414453
280 DATA 43524545CE535550
290 DATA 455253504545C400
300 DATA DD21BF9DCD118CDD
310 DATA 7700CD3BBCDD7001
320 DATA DD71020610C5783D
330 DATA CD35BCDD7003DD71
340 DATA 04DD23DD23C110ED
350 DATA 21BF9D1123003E2A
360 DATA CD9EBC2100C01100
370 DATA 403E2BCD9EBC921
380 DATA BF9D1123003E2ACD
390 DATA A1BCDD21BF9DD07E
400 DATA 00CD0EBCDD4601DD
410 DATA 4E02CD38BC0610C5
420 DATA 783DDD4603DD4E04
430 DATA CD32BCDD23DD23C1
440 DATA 10ED2100C0110040
450 DATA 3E2BCDA1BCC9218C
460 DATA 003E32CD68BCC900
470 DATA 20648

```

... at last ... **SERIOUS DTP** on the

AMSTRAD PCW



A NEW GENERATION OF ADVANCED SOFTWARE FOR THE PCW

MicroDesign II provides all the essential features of DeskTop Publishing and Graphic Design on the Amstrad PCW. It operates under CP/M as a self-contained and fully integrated program.

TYPESETTING

Character Size and Line Spacing are adjustable up to 160 points, and the system handles up to eight columns of text on one page including Automatic Margins, Gutters, and Dividers.

Controls are provided for Left & Right Aligned, Centred, and Right-Justified text with Auto-Flow, Word or Character Justification, and variable Tabs & Indents.

The package is supplied with a huge range of Fonts, any of which can be enhanced using any combination of...

Bold, Double, Highlight
Outline, Italic, Underline

Page Templates allow 'stylesheets' to be composed and saved containing settings for Page Format, Columns, Character Spacing, Line Spacing, Type Size, Text Format etc.



CREATIVE TECHNOLOGY

GRAPHICS

An extensive range of Graphic Art and Design facilities are provided, including Lines, Shapes & Pattern Fills; Cut, Copy & Paste; Rescale, Rotate & Reflect.

MicroDesign II includes a library of over 400 patterns and symbols which can be used for diagrams and shading effects.

Clip-Art and other graphic material can be created in MicroDesign II or imported from a wide range of other software products.

FONT DESIGN

The Integrated Font Designer allows the user to create their own typefaces of up to 96 characters. Characters can be copied from each other or from a drawing and edited using features such as Reflect.

PAGE LAYOUT

Both Landscape and Portrait A4 page formats are provided as well as a very high resolution Strip format (512Kb RAM recommended for best results). Full Cut, Copy & Paste operations are provided for perfect layout control.

TEXT EDITING

The integrated Text Editor provides essential word-processing facilities within MicroDesign, and has full Cut, Copy & Paste facilities. It supports controls for Typestyle and Text Formatting features used during Typesetting.

Text files can be merged or loaded from Locoscript, Protext & Wordstar.

PRINTING

Specialised printing software gives the highest quality output (at three different scales) from the PCW's own printer or from an external printer. Most types of 9-pin, 24-pin, and laser printer are supported (serial or parallel interface), and jobs can be queued for unattended printing of multi-page documents.

GENERAL

MicroDesign II is fully compatible with Locoscript 2, Protext, Wordstar, AMX Stop-Press, NewsDesk International, The DeskTop Publisher, Master-Scan...

It is fast and friendly to use with mouse or keyboard, and is compatible with the AMX or Kempston mouse.

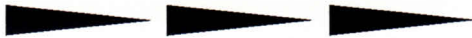
The ability to Undo or Redo the last operation means no fatal mistakes. The menu system has been carefully designed to make it easy to find and control all operations.

MicroDesign was used to design, typeset and print its own 120 page User Manual.

MicroDesign 2
Program only **\$169.00**
With Kempston
Mouse (save \$20) **\$325.00**

The Amstrad User
641 High Street Road,
Mt. Waverley 3149
(03) 803 9661

Establishing relationships



John Barlow explains how to create a simple letter by mixing and merging different Protex files.

Last month we looked at simple, freeform, sequential databases such as alphabetic address files containing names, addresses and telephone numbers. But as we found out, these information storage systems are really no better than the address books most of us have in our briefcases, handbags and beside our telephones. We also found that, like those address books, their usefulness is limited.

With a few basic rules, however, both the manually written address book and the computerised address file make an ideal source file for a relational database. All that's needed is the right key to unlock the information they contain.

The simplest way to see how information stored in one database can be used to build up another of course, is the 'form' letter, where a database management system such as Locomotive Software's LOCOMAIL or Arnor's PROMERGE is used to co-ordinate the mixing - or merging - of data.

As mentioned last time, I am planning a month-long fishing trip to the Top End shortly - in September in fact, and I want to advise my publishers of my intended absence. I also want to advise them of a fact well known to Madam Chancellor, that, although these trips start out with a planned expiry date, they often become open-ended. I may be back at my desk in a couple of weeks, or I may not get back for two or three months. It all depends on how the fish are biting, who I meet along the way, or what adventures or misadventures befall me. (That's one of the advantages of being a freelancer).

At this stage however, I only intend to be away for a month. And, in spite of the fact that I can easily fulfil my writing commitments by submitting two month's work to each editor, I want them to know that although I'll be uncontactable, I'll be on the lookout for interesting stories while I'm away and that I may be submitting additional stories for them when I get back.

Now, let's say I write regular columns for half-a-dozen magazines around the world and I wish to write a similar letter to each. I have two choices.

Firstly, I can draft out the basic letter, copy it five times - inserting the different names and addresses as I go. Or I can draft out the basic letter, leaving spaces for names and address, and use my mail-merging facility to fill the gaps from the information contained in my address file. If I only had one or two letters to write, I would probably use the former option. But, having six - and being lazy - I'll obviously choose the latter.

This is where those basic rules I spoke of earlier become important. It is imperative that, whichever way you decide to set up your address file, you are consistent. The information stored in your databases should be laid out in a uniform way. Record parameters should always be the same. And names, addresses and telephone numbers should always be stored in the same fields within those records. In other words, individual pieces of information should also be on the same line in each record contained in the database.

In the case of the letter to my editors, I will be using PROMERGE to transfer selected data from my address file to the 'form' letter.

Initially, however, I will have to BUILD my address file. But first, a few pointers.

The method used to read data in PROTEXT is similar to that used in most other mail-merge programs in as much as it reads from the beginning of the first field, skipping from field to field until it comes to the end of that particular record. At that time, it jumps to the next record, where it starts all over again. It eventually stops reading when it reaches the end of the file.

In PROTEXT the end of each field is indicated by either a comma or a carriage return; allowing a measure of flexibility when setting out your data record format. Although PROTEXT will recognise either format, to avoid confusion, it is better to establish a regular pattern using either one or the other (see figure 1).

Each field can be enclosed in either double or single quotes if you want PROTEXT to read commas


```

PROTEXT Document tau006 14K Justify Off Word-Wrap ALT-H for Help
Page 4 Line 3 Col 1 No markers set Insert
-----
avoid confusion, it is better to establish a regular pattern; using either
or the other (see figure 1).
+ A data record can be set out like this:
+-----Re
+ | Mr Maurie Jones, 34 Smith Street, Brown Town NSM 2900w
+-----Re
+ Or it can be set out like this:
+-----Re
+ | Mr Maurie Jones
+ | 34 Smith Street
+ | Brown Town NSM 2900w
+-----Re
+
+ Each field can be enclosed in either double or single quotes if you
+ want PROTEXT to read commas as characters rather than end-of-field markers.
PROTEXT v2.23 (c) Amnor 1986 Reading from H Printer: P4W
  )
  
```

• Figure 1.

as characters rather than end-of-field markers.

The end of each series of fields, or each record, is indicated by a blank line so, to avoid the problem of PROTEXT reading an empty line in an address record as an end-of-record message, empty fields should contain a dollar sign (\$). Not only does this allow PROTEXT to correctly interpret an empty field, it helps you to correctly view the layout of each record.

Having pointed out the basics, let's get down to the creation of our magazine editors address file, MAGED.DAT. Before we start, however, let's work out the format we want to use. In my case, I want the editor's name, his title, the magazine for which he works, the magazines address, provision for a couple of telephone contact numbers - because, unlike we mere mortals, most editors have both a central exchange line and a direct line - and a fax number. As I have been dealing with these people for some time and we're on a first name basis, I also want another field for the editor's first name.

Although it isn't necessary in PROTEXT to set up a template - as it is in LocoScript - it doesn't hurt to do so; if only as a reminder of where the various pieces of information should go.

Each of my editor's address records (see figure 2), therefore, would consist of 11 fields (12 counting the blank - dummy - line between records) most of which contain data, some of which don't.

```

PROTEXT Document tau006 14K Justify Off Word-Wrap ALT-H for Help
Page 4 Line 47 Col 1 No markers set Insert
-----
+ The template, in this case would look something like the following:
+-----Re
+ | NAME1-> ;Editor's full name|Mr Joseph Bloggs
+ | NAME2-> ;Editor's first name|Mr Joe
+ | TITLE-> ;Editor's title within the organisation
+ | MAG-> ;The name of the magazine for which he works
+ | CODE-> ;An abbreviated filing code
+ | ADDR1-> ;The first line of the magazine's address
+ | ADDR2-> ;The second line of the magazine's address
+ | ADDR3-> ;The third line of the Magazine's address
+ | TELE1-> ;The Magazine's central telephone number
+ | TELE2-> ;The editor's direct line telephone number
+ | FAX-> ;The magazine's facsimile number
+ | ;A dummy line indicating the end of a record
PROTEXT v2.23 (c) Amnor 1986 Reading from H Printer: P4W
  )
  
```

• Figure 2.

Now for the letter (and this is where LocoScript users will see a difference), we have to define the parameters and let PROTEXT know we are creating a mail-merge document.

In the case of a simple operation such as my form letter, we only require the following three command lines:

```

>CO
>DF MAGED.DAT
>RV NAME1 NAME2 TITLE MAG CODE ADDR1
ADDR2 ADDR3
TELE1 TELE2 FAX DUMMY
  
```

These are the instructions telling PROTEXT to merge one document (the form letter) with another (the magazine editors address file). In other words, they establish the relationship between the files to be used. Once inserted as command lines in the form letter, they will be acted upon automatically.

The first line is merely an instruction line, written to remind me why I created the file in the first place, fulfilling the same purpose as a REM line in BASIC.

The second line Defines the File from which you want PROTEXT to draw the data.

The third line instructs PROTEXT to read the variables in the datafile previously specified. It is important to remember that all the fields should be listed, regardless of whether or not the information they contain is to be used; hence the earlier advice to create a datafile template.

An alternative to using the command RV in the third line is to use RU (Read variable, Unconditionally). For the RU command to be effective, however, not only does each record have to be the same length, it must have no empty fields and the order in which each field of data stored must be the same as the order it is to be used.

For the purpose of this exercise, then, we will stay with the RV command.

Next, we need to set out the letter as we want it printed. This is a matter of preference and will depend largely on individual letter writing methods. I generally start all my business correspondence with an alphanumeric reference code followed, a couple of lines further down the page, by the date.

The reference code used in this case will be the abbreviated code stored in the Magazine Editors address file. MAGED.DAT. followed by a series of numbers. The whole code tells me at a glance who the letter was sent to and when it was written.

The date on the letter is simply for the convenience of the recipient. As all the letters are being sent out on the same day, we can insert a single, common date.

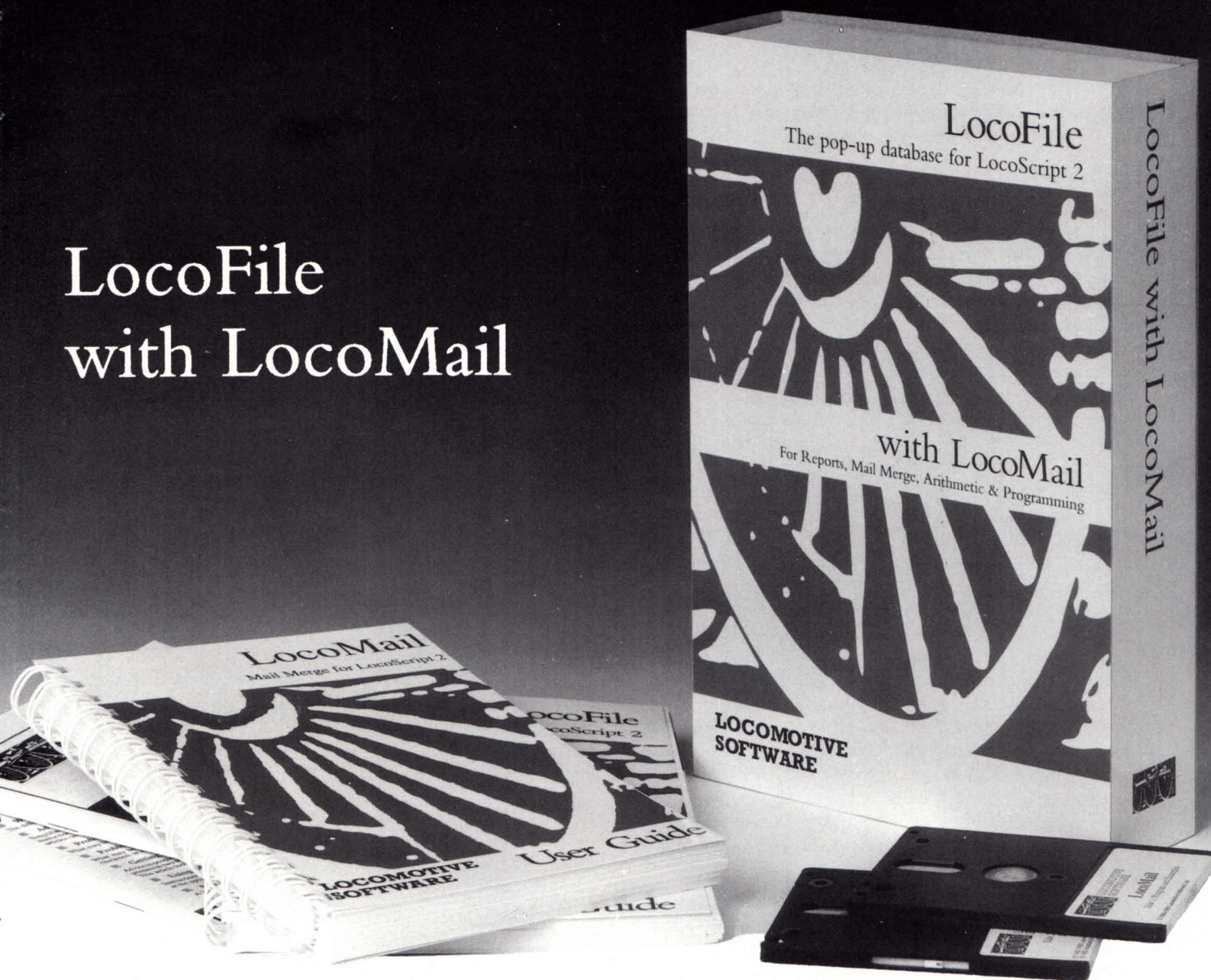
As this is a business letter, the next few lines should contain the editor's name, title and address, as it will be set out on the envelope.

Below that we will insert a line containing brief details of the content of the letter, followed, a line or two further down, by the opening salutation and the text of the letter.

In PROTEXT, there are two methods of instructing PROMERGE how to go about inserting information from the datafile. The first is to enclose field names in an ampersand (&), which has the effect of telling PROTEXT that empty fields should not be included in the text. It also tells PROTEXT that if a field is in fact

A New Powerful Combination for your PCW8256/8512

LocoFile with LocoMail



LocoFile is a pop-up database that organises and maintains everything from names and addresses to books and sales orders. From data stored and sorted on your LocoFile cards, LocoMail lets you create reports, letters and labels.

Together they make a powerful combination to use with LocoScript 2.

Send your order now to:
THE AMSTRAD USER
1/641 High Street Road
Mount Waverley
Victoria 3149 Tel: (03) 803 9661

For only:
\$185.00
+ P&P

Using other data files



Apart from LocoScript documents, LocoMail can work with a wide range of ASCII files created through CP/M programs.

The LocoMail data files we've looked at in previous issues have been LocoScript documents. However, you're not restricted to using LocoScript to create your data files. LocoMail can also work with ASCII data files, created by CP/M programs like Cardbox or by a Mallard BASIC program. There's no need to convert these ASCII files to a LocoScript format before using them with LocoMail. LocoMail can use the file directly, provided it knows how the data is laid out. This article shows you how to provide LocoMail with this information.

Whatever the program, all data files use the same basic scheme for holding information - a series of records, each holding the same type of information. Each record is divided into different pieces, or items, of information which are separated from one another by special markers. The items appear in the same order in every record. Of course, the markers may vary from program to program but the way of organising the information is basically the same.

LocoMail works with data files by reading a record pattern which describes the way the information in the records is divided up into items. The record pattern gives a name to each item of information and specifies the characters that separate the items in the record. LocoMail can then pick out individual items because it knows where one item ends and another starts.

All that LocoMail needs to use another program's data file is a record pattern that describes how this file is split up into records and items. In practice, this is no different from creating one for a LocoScript data file. It's a matter of sorting out how the information is divided up in the existing file and then building a record pattern to match the layout of the records.

To show you how this is done, we'll first create a record pattern for a data file generated by a Mallard BASIC program which used the command **WRITE** *item, item, item...* to write each record in the file.

We begin by looking at the structure of the record. LocoMail expects each item of information to be

separated from the next one by a single non-alphanumeric character such as a comma, a slash or a semi-colon. This character is known as the separator. In other words, what we're looking for is:

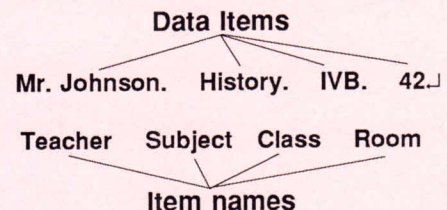
item separator item separator item separator...

Our example data file is a school timetable and a record looks like this:

Mr. Johnson.History.IVB.42.␣

This record has exactly the structure that LocoMail wants. (This is not always the case as we shall see!) So all we need now is a record pattern which matches the data file.

The first thing we need is a name for each item in the record. If you already have master documents that you intend to merge with this data, then the names you use must be the names you use in these masters. Any other items of information must be given suitably meaningful item-names. For example:



Now you need to put these names into your record pattern and separate them by the characters that separate the corresponding items in the actual data file. In this case, the Mallard BASIC program has inserted a comma between each item so our record pattern looks like this:

Teacher, Subject, Class, Room.␣
/␣

Now we need to tell LocoMail how to recognise the

end of each record. Normally we use a special character such as ↓ or (UniT) to mark both the end of the records and the end of the record pattern. However, in our example, Mallard BASIC is dictating how the records are separated. The final ↓ acts both as an item separator and as a record separator. We need to express this in the record pattern so we need a ↓ after the last item name. But we also need a way of telling LocoMail that this is the end of the record pattern. We do this by immediately following ↓ by a Record pattern terminator, which can be ↓ (UniT) or /↓. We've chosen /↓ simply because we can't get Mallard to insert a (UniT) code and files containing ↓'s are inconvenient to print or type on the screen. This is the complete record pattern:

```
Teacher.Subject.Class.Room.↓
/↓
```

INCONVENIENT DATA FILES!

The Mallard BASIC example we've just described is particularly easy for LocoMail to handle because it has just a comma between each data item. Not all data files are so convenient. In particular, it is quite common to find more than one character separating data items in a record.

LocoMail requires you to have a single character separator, so you may think it's impossible to use such a data file without deleting the redundant separators. It requires a little bit of trickery but in fact you don't really have to do anything more complicated than create a record pattern in much the same way as we did for the Mallard BASIC data file. The trick is to design your record pattern in such a way that LocoMail sees a single character separator after each data item.

To show you how it's done, we'll create a record pattern for a data file generated by Cardbox. Cardbox can produce data files in a number of different formats. One of the options produces records where each item is enclosed in quote marks and separated from the next item by a comma. For example, a record from a league table might look like this:

```
"Redfern Racers", "0"."27".↓
```

As with Mallard BASIC data file, we start by assigning suitable item names to each item of information in the records and once again, we note that the records are on separate lines so we will have to put ↓ as the final separator in the record pattern as well.

The problem comes when you notice that putting quote marks round each item of information means that there are actually three characters separating each item -", "- and so the structure is effectively:

```
...item separator-1 separator -2 separator-3 item
separator-1.....
```

In order to use this data file, we need a way of making LocoMail see the structure of the record as *item separator item separator...*

In fact, the problem is easily solved. We pretend that the middle separator in each group of three is itself an item of information. This is done by creating a record pattern where item-names are assigned to the useful pieces of information and dummy item-names are given to each occurrence of the middle separator character.

By introducing the dummy item, we absorb two of the three separators in at one stroke. The first separator continues to mark the end of the real item, but the second separator is absorbed as the dummy data item. The third separator becomes a separator between the dummy data item and the next real data item. In other words, *....item separator-1 separator-2 separator-3 item separator-1...becomes....item separator-1 dummy-item separator-3 item separator-1..*

This provides most of the filtering we need but not quite all, because we have still to deal with the " between the last item and the ↓ at the end of each record. Again, we need dummy item names to solve the problem, but this time the dummy items they refer to are blank.

A record pattern has to start with an item name. So we tell LocoMail that the first " follows a data item which we give a dummy item-name: in fact, this data item will be blank in every record but that doesn't worry LocoMail in the slightest.

Similarly, we tell LocoMail that there is a data item between the last " and ↓ which, once again, will just happen to be blank in every record! This gives us a final record pattern looking like this:

```
dummy1"Team"dummy2"Won"dummy3"Lost"dummy4.↓
/↓
```

The dummy data item trick can be used wherever there's more than one character separating the real items of information. Where the data items are separated by two characters, the dummy data item will simply be blank. Where the data items are separated by three or more characters, the dummy item will hold one or more characters.

LocoMail also works directly with data files produced from LocoFile. In future there be no excuse for you to leave LocoScript to create your data files! The techniques we've described here will help you convert data files for use with LocoFile too.

WHERE TO KEEP THE RECORD PATTERN

When your data is in an ASCII file there are two places you can keep the record pattern. You can either make it the first record in the data file or you can keep it as a separate LocoScript document.

To make the record pattern part of the data file, you would need to get your CP/M program to generate the record pattern as well as the data records. If the data is being generated by a Mallard BASIC program and you're an experienced BASIC program-

mer, you could probably arrange for this to happen quite easily. The only difficulty would be in putting the terminator at the end of the record pattern and this is in fact easier than it might at first appear. LocoMail recognises three record pattern terminators - ↓, the (UniT) code and /↵. True you can't insert a (UniT) code from BASIC but you can insert either of the other two terminators: ↓ is the FF character (CHR\$(12)) and /↵ is "/" followed by the CR character (CHR\$(13)).

If you are using something like Cardbox to generate the data file or you aren't an experienced programmer, creating the record pattern from the Mallard program won't be quite so straightforward a task. We would instead recommend you to set the record pattern up as a separate LocoScript document. In fact, in this case, you don't actually need to include a record pattern terminator at all as the record pattern is already separated from the data records.

When you want to use a data file for which the data file is held separately, you start by merging the master with the document holding the record pattern.

LocoMail recognises that the document only holds the pattern and prompts you for the file holding the data records. We show you the steps involved below.

MERGING WITH A SEPARATE RECORD

With the file cursor over the master document, press "M" for merge. LocoScript prompts you for the data document, but instead of selecting the document holding the data records, move your cursor to the document holding the record pattern and press ENTER.

The usual menu displaying the merge documents you've selected appears. Press ENTER and LocoScript prompts you again for the document holding the data records.

```
Merge documents:
select merge data document
then press ENTER
or CAN to abandon
```

Move your cursor over the data file and press ENTER. The menu displayed allows you to confirm the document you've just picked out. Press ENTER to merge the data file with your master document.

```
Merge documents
Data:  PATTERN.DOC
Group: group 0
Drive: M
Name:  MASTER .1
Group: group 0
Drive: M
✓ High quality
  Draft quality
Number of copies: 1
▶ Manual
  Automatic
```

PCW Machine Code

The best book on programming your PCW

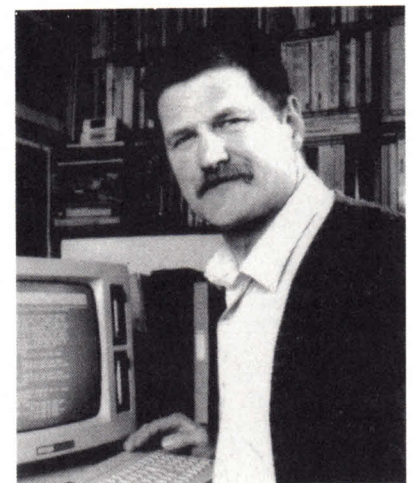
How to control the screen, the printer, disks and the whole of the machine memory.

A full explanation of machine code with dozens of program examples.

With a special section on calculations such as sin, cos, square roots, random numbers, 8-, 16-, and 32 bit arithmetic etc.

Full index on appendices.

Available for \$39.95 + post



Send your order to:
THE AMSTRAD USER
1/641 High Street Road
Mount Waverley
Victoria 3149 Tel: (03) 803 9661

ENTERTAINMENT

Reviewed this month:

- *Ninja Spirit*
- *E-Motion*
- *Crackdown*
- *Wild Streets*
- *Scramble Spirits*
- *Castle Master*
- *Space Harrier*
- *Ballistix*
- *Blood Money*
- *Nuclear War*
- *Bad Blood*

NINJA SPIRIT

Wall to wall Ninjas, and not a turtle to be seen.

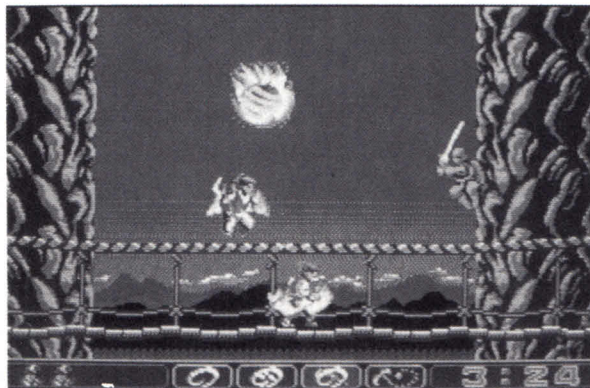
CPC Disk - \$39.95

CPC Tape - \$29.95

Now is the time for you Tsukikage, the spirit of the great white wolf, to take the form of a Ninja and slay the warriors from below the earth and defeat the Evil One.

It seems Ninjas are all the go again, and Ninja Warriors from Irem does nothing but reinforce this fact. Like countless other scrolling beat-em-up's, you must move through the various landscapes, trashing anything that moves to confront the guardian at the end of each level.

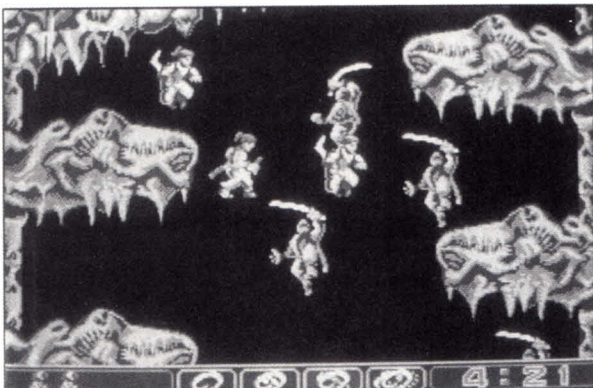
But unlike other games of this type, your Ninja comes pre-equipped with a range of fighting accessories. These are Katana blades (swords), shurikens, axes, and a sort of yo-yo razor blade (don't you just love it!). The background scenery includes ancient temples, rocky outcrops, as well as jungles and dark forests. All are quite detailed, and colourful to the extreme. The enemy consists of Ninjas, Ninjas and more Ninjas. They spring



• Fireballs and rope bridges don't match! (Coin-op version)

out from all directions and come in a few, slightly varied types. The first couple end of level guardians include a giant buddah statue throwing deadly lotus blossoms, and a large demon on an equally large kite. I nearly completed level three, but was slain by a... find out for yourself! You seem to make good use of all your weapons, as the computer highlights the best one for each section. I do have a couple of complaints, as the action gets a bit awkward as the screen starts to fill with Ninjas, but the CPC itself is probably to blame for that as there's a lot moving on the screen at any one time. Your Ninja also has a ridiculous leap that sends him reeling off into places you really don't want to go.

But essentially, Ninja Spirit is a fast and addictive game that is thoroughly enjoyable once you have overcome the initial toughness. A cut above your average Ninja game!



• Ninjas, Ninjas everywhere! (Coin-op version)

ENTERTAINMENT

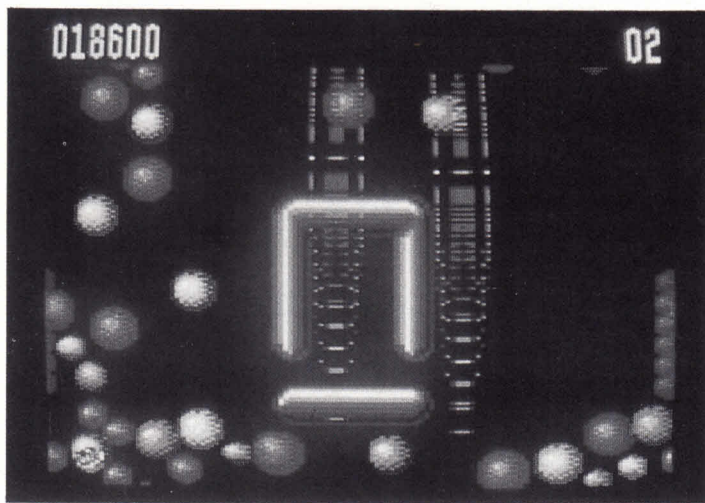
E-MOTION

New age computer game from US Gold

CPC Disk - \$39.95

CPC Tape - \$29.95

Who's heard about Albert Einstein? No, not the one from Tasmania who was responsible for putting the bubble into our own amber fluid, but the world famous physicist who emigrated to America prior to the Second World War. Well, this game is not about him, but rather about the exciting world he helped to discover, that sub-atomic world where particles can be brought into existence, accelerated, collided and destroyed. E-MOTION is here to entertain, not enrage; to expand your mind, not explode it. That sounds okay, but what does it do?



• Our intrepid players have just bitten the sub-atomic dust.

In E-MOTION there are no enemies to shoot, no Ninjas to kick, no platforms to jump. Its a game that takes place in the sub-atomic world. In this world, there exists a number of particles, all of which are unstable. Your job is to pilot a ship around this new world and make the different particles collide with each other. Sounds easy, but be wary. Its not that simple. Particles come in three different colours.

Collide them with their own colour and they are destroyed, but collide them with another colour and they form an energy pod. You can pick this pod up to build up your energy level, but neglect it for a while and it will mutate into a coloured particle, usually of a different colour than the ones left on the screen.

Still, that doesn't sound too difficult. but, what's this, if you neglect the particles for too long, or are simply not quick enough in destroying them, they explode and you suffer a dramatic depletion of energy. Lose too much energy and you lose one of your three lives. Lose all three and that familiar message appears on the screen: "GAME OVER". But it's not simply a case of bumping particles together.

Sometimes, different particles or your ship are joined by an elastic bond, which makes the task of colliding the particles that much harder. An added

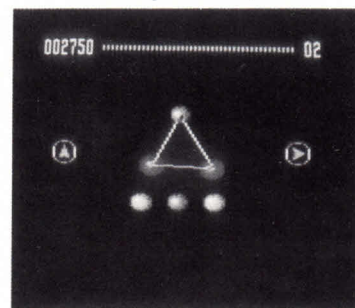
obstacle in some levels are stable structures that always seem to get in the way (I suppose that's why they are there).

Also included is a practice mode, which allows you to play the first four levels and the bonus level, without having to worry about particles exploding. A must before you dive in at the deep end.

E-MOTION has 50 individual levels to master, so it's not a game that can be finished quickly. Additionally, there are three types of bonus levels after every four game levels. You score points for destroying the different particles, the amount depending on the colour. At the end of each level, a bonus is added if no pods are created or no particles explode before you complete the destruction. An extra life is also awarded for every 20,000 points.

Your ship in E-MOTION appears as a green arrow head shape inside a clear ball. Control of the ship is by either keyboard or joystick, and the keys are shown on the title screen when you make your choice. E-MOTION is a one or two player game, with the two player game featuring simultaneous two player action. Options exist to allow both players to use joysticks, so if you have a joystick splitter and two joysticks, grab a mate and bust particles in two player mode. There are two modes of control: normal and alternative. In normal mode, you use left and right, the fire button accelerates your ship and down flips your ship through 180 degrees. In alternative mode, left and right act normally, up accelerates the ship, down slows you down, and fire flips the ship. Both these modes of control are easy to use, and very responsive. I feel that it's easier to use a joystick, rather than the keyboard, but that decision is up to you.

Graphically, E-MOTION is very good. From the loading screen (which is a good representation of the box art) to the particles themselves, a



• This level ain't so hard.

lot of thought and effort has been spend to produce a good product. The music on the title screen is also good, but he in-game effects are limited to the collision of the particles and explosions, but that does not detract from the game. An interesting point is that U.S. Gold include an advertisement on the box for a game called VAXXINE, which is billed as the sequel to E-MOTION. If it's programmed half as well it will be a game to lookout for in the future. Meanwhile, dive into the world discovered by Einstein and bounce some particles around, its great fun!

CRACKDOWN

Ben and Andy lash out in this two-player shoot-em-up

CPC Disk - \$39.95

CPC Tape - \$29.95

In the not so distant future, drugs, sabotage and espionage dominate the world. Well that's what Sega would like us to believe anyway. Not satisfied with this world of crime, Ben and Andy set out to destroy these underground forces, and free the world from their deathly grip.

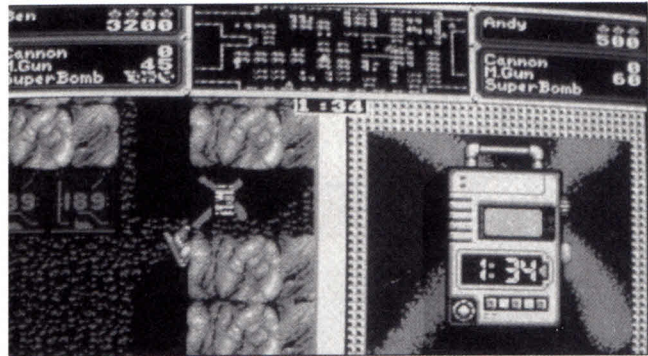
Sega's Crackdown wasn't much of a hit in the arcades, so it is a bit of a surprise to see a conversion appear so soon for the CPC. Although obscure, the coin-op sported some impressive, high-res graphics which made up for it's lack of originality. The aim of the game is to infiltrate the enemy strongholds, plant your explosives, and get the hell out!

Crackdown is set out in a split-screen Gauntlet style display, with an overhead view of the characters as they run frantically about the corridors. As matter of fact, the game throughout has a very Gauntlet style feel about it, right down to the exits at the end of each level.

The action throughout is fast and frantic. You begin the game with a machine-gun and a limited supply of ammunition, but extra weapons such as cannons and grenades can be picked up along the way. A few locations on each level are marked with a red cross, plant your explosives at each location and move to the nearest exit before the whole place goes ka-boom! The sooner you get out, the more bonus points you are awarded.

If you think this sounds easy, the levels are swarming with guards. Some are unarmed and can be easily despatched, while some carry machine guns

and bazookas, and large security droids will take a few well placed shots before they surrender! The graphics throughout are quite impressive. The levels are large and colourful, and surprisingly detailed considering the resolution available. The title tune is OK, and the in-game effects consist of machine gun rattles and explosions, what did you expect?



• Screen-shot from coin-op version.

Progress isn't all that easy to begin with, but continued play will see you blasting baddies well into the later levels. As mentioned, the game is quite fast and playable, and my only gripe is the confusing screen displays on later levels (when six or more guards pile on top of you, it gets a bit hard to see what's going on!).

But that aside, Crackdown is a great game. It's fast, looks good, sounds good and should keep gamers happy for a while to come.

WILD STREETS

You are the C.I.A's only hope.

CPC Disk - \$39.95

CPC Tape - \$29.95

New York, 1998. Drug barons run the city thanks to the enormous profits they make from their drugs and arms dealings, they have succeeded in de-stabilising the country's economy. The U.S. government finds itself in the middle of a terrible crisis, now that they have lost complete control of the city.

John Steven of the C.I.A, a man trying hard to clean up the city, has been kidnapped! Your mission is to travel through the most vicious parts of the city, find our missing hero, and bring him back safely. You will be accompanied by a black panther, especially trained for your protection. You will also carry a 357 Magnum, which can be used in the most dangerous of situations.

It's very hard to think of something original to say about Wild Streets, our punch-drunk hero wanders through the horizontally scrolling backstreets as in countless other games. There's some nice pics to be

seen, including a full screen animated graphic of the panther at games end, and there is also a lot of background scenery throughout.

But Wild Streets ain't that much fun to play. While the background graphics are ok, the sprites are dull and blocky. The bad guys range from dopey-looking thugs to heavily geared-up commandos, but all fail to put up much of a fight. One punch is all these guys need to send them reeling, and things don't seem to get much harder as the game progresses. Your panther follows you like a second shadow, and does very little to help you apart from jumping on the odd villain if it gets bored.

Overall, Wild Streets doesn't make the grade. It fails to offer little more than a nice soundtrack and some assorted scenery. The old "Green Beret" conversion would still beat this hands down yet alone Double Dragon II from last month.

SCRAMBLE SPIRITS

Sega's airborne antics are brought to the CPC.

CPC Disk - \$39.95
CPC Tape - \$29.95

The time is the end of the 21st Century, and the human race has committed a colossal error. Although the error is never explained, it must be something big, like another re-run of The Young Doctors or something. Anyway, time passed and some parts of the world were rehabilitated. Suddenly, the world was attacked by a mysterious enemy (perhaps Bay City Rollers fans) and an emergency was declared. A couple of pilots were selected and given the order to "Scramble". So it's into the vintage airplanes and up into the sky to defend truth, justice and Gary Glitter!

Scramble Spirits is a one or two player vertical scrolling game, where you and, if you have any, a friend control a souped-up WWII era attack plane and straf and bomb your way through six missions with the ultimate aim being to destroy the alien command ship. You begin the game with five lives, and five credits. If you lose all your lives, you can keep going while your credits last. In each level, you must destroy planes, tanks and bunkers. Watch out, they all shoot back with directional smart-type bombs which you have to dodge. At times a big helicopter appears. Shoot it and a small bi-plane appears. Fly adjacent to this small bi-plane and he becomes your wingman. You can have up to two wingmen at any one time, and these planes add additional firepower to your own. At first, your wingmen fire straight ahead but, at the press of a key they change formation and commence strafing ground targets, an essential addition when you are

confronted with wall to wall bunkers in the later levels. At the end of each level, you meet with an enemy command ship, which takes numerous hits to destroy. Accomplish this, and its on to your next mission, one step closer to the show-down with the real big baddie.



• Getting help from a wingman.

Well, that's the game. Sounds alright, but that's where the let down starts. The playing area takes up about two thirds of the screen, with the score panel occupying the rest. The game is programmed in mode 1, and therefore colour is not very evident. Sound consists of an acceptable intro tune and in-game spot effects. One thing you'll notice when you examine the box is the detailed score panel on the Amiga and ST screen shots. Well, the CPC score panel is the same, only drawn in mode 1's four colours, but just as detailed. The game is not overly fast, even when your plane is the sole object on the screen, but when the screen is full of aircraft the pace can seem hectic. I don't think this is attributable to the speed of the game, rather there is more for you to look out for and dodge.

Technically, Scramble Spirits is well programmed and put together. Unfortunately, it's a straight port from the Spectrum machine, and therefore doesn't make much use of the graphics capability of the CPC. This type of game has been done before a number of times, and has been done better (see Flying Shark from Firebird for example). The game plays well but, because of the repetitive nature of the six missions, won't hold your interest for too long.

But all in all, not a bad game from Grandslam, but by no stretch of the imagination a great one. It just goes to show that not everything Sega touches turns to gold, a game that will probably appeal to shoot-em-up devotees only.



CASTLE MASTER

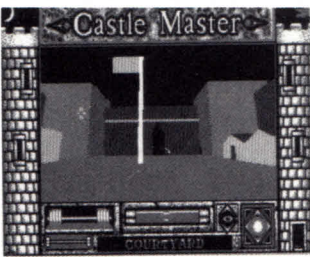
Incentive's new Freespace offering has arrived.

CPC Disk - \$39.95 Tape - \$29.95
PC Dual - \$69.95

"High in one tower of Castle Eternity, time sweeps away for your captive twin. If rescue fails, you are both doomed to become spirit slaves of Magister the Castle Master, who wants to steal your souls!

Open the drawbridge, decipher the clues, maintain your strength against each and every guardian spirit. Three potions, ten keys and a plague of hazards will be encountered as you trespass behind locked doors, explore secret tunnels, descend into caverns or stumble upon treasure and terror. But should you fail... fear is forever!"

Castle Master is the fourth and latest offering from Incentive software. In the past we have patrolled orbiting battlestations in Driller and Dark Side,



• Standing in the courtyard.

explored ancient pyramids in Total Eclipse, and now we have the chance to pit ourselves against the many hazards of castle Eternity.

All these games are known for their advanced "Freespace" movement system, which allows solid 3D objects to be moved

about in a fast and convincing manner. A task which the ol' CPC is particularly good at.

After you have selected your character (Prince or Princess), you are presented with an outside view of the castle. Once you open the castle drawbridge, you can enter the castle grounds. The castle consists of four towers (joined by a series of passages), and a central courtyard where a few buildings (including a chapel) can be seen. Upon entering some rooms, you will be confronted by a guardian spirit which appears in the form of any number of geometrical shapes. Kill them fast as they will drain all your energy if you leave them for too long. Some doors in the castle will also be locked, so you will have to search for the right keys if any progress is to be made. It also pays

to read signs and plaques scattered about the castle, as these will provide you with vital clues later on in the game. In short, there's a lot of exploring to be done. The castle is quite large with plenty of locations to be discovered, including a perilous network



• Dare you enter Castle Eternity?

of catacombs which lie beneath the castle.

The control method is great, as you can rotate a full 360 degrees, run, walk, crawl, look up and down, and interact with most of the objects in the game. The first-person perspective of the Freespace system is more convincing than the most atmospheric graphic adventure, and really does keep non-adventurers exploring for ages.

Castle Master is not much of an improvement over the other Freespace games, which is a compliment as they are all excellent. Adventure purists might wince at this, but everyone else is going to have a heap of fun challenging Magister and his mysterious castle. Overall, a class product that makes other 3D adventures look very shady.

SPACE HARRIER

Sega's coin-op classic gets re-released.

CPC Tape - \$9.95

It seems hard to believe, but Sega's wonderful hydraulic supergame has been around for five years now. And it's still my favourite coin-op (even though you don't see it about anymore). With a sequel due on the CPC anytime now, Encore have decided to flog-off the original conversion as a budget re-release, what a wise move!

In case you don't know, Space Harrier is a brilliant 3D blast in which our hero travels at lightning speed over alien-infested terrain. The graphics are all wire-

frame, and a little dated by today's standards, but the game itself plays as well as it's coin-op predecessor.

Don't let the initial speed of the game shock you, Space Harrier is an essential item for any arcade fan!



BALLISTIX

Blisteringly fast action from Psygnosis.

PC 5.25" - \$69.95

Many many moons ago, there existed a pinball machine called "Hyperball". Far from your average bump 'n' tilt pinnie, it consisted of an electro-magnetic cannon that fired a stream of ball bearings at a series of illuminated lightning bolts as they moved down the table. It was big, black, loud and menacing. I really loved that game.

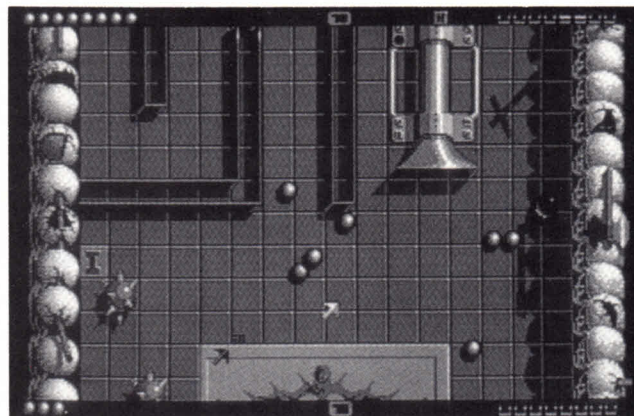
Now ten years down the track, Psygnosis have released Ballistix, which looks as if it has drawn some pretty heavy inspiration from that fabulous pinball classic. Yes, Ballistix is one hell of a ball game.

The competition is set out on an enclosed playfield made up of metal tiles. The area is filled with many pinball-type hazards like bumpers, magnets, pipes, speed-up arrows to name a few. Surrounding your play area is an array of spectators that look as if they have done time on an "Iron Maiden" T-shirt.

The objective of the game is simple, score more points than your opponent by forcing the puck (or ball) into the goals at each end of the playfield. Your "player" consists of a small cursor (arrow to be precise) which can fire a stream of smaller balls, and hopefully give you some control over the direction of the puck. Your arrow can fire up to eighteen balls at a time, and you only receive more when the balls you have fired are collected off the sides of the screen.

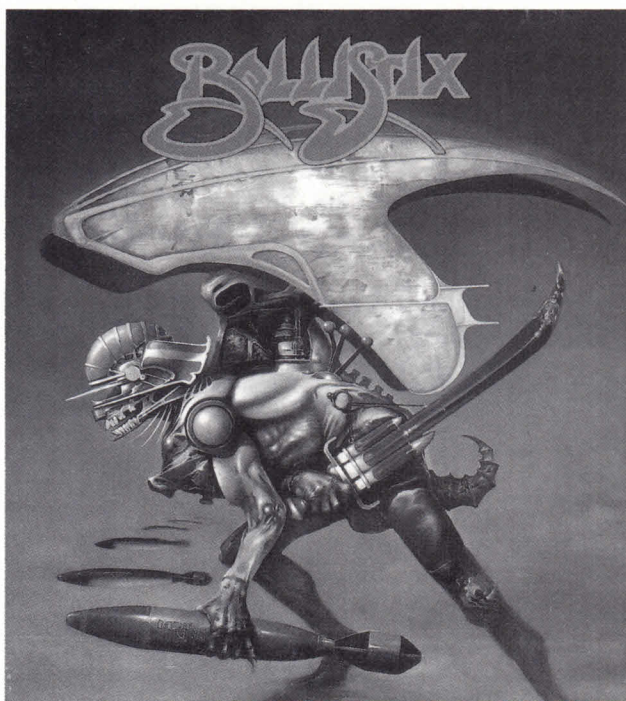
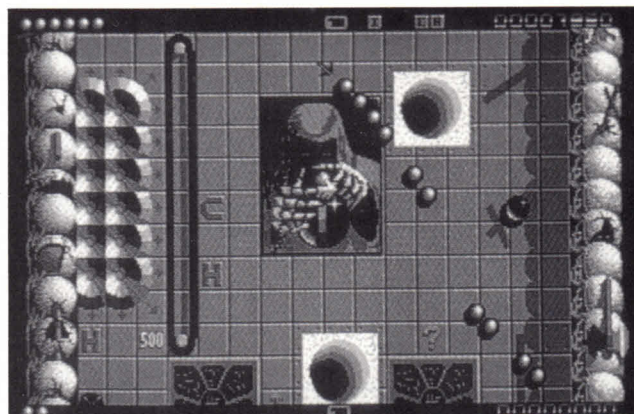
As mentioned, there are many hazards to block the path of your ball. Bumpers are like huge elastic bands, and can send the ball bouncing off in all directions. Electromagnets can suddenly switch-on

and draw the ball out of your reach. Splitters can send out a mass of smaller balls which can cause chaos. Acceleration arrows can send the ball off at a hectic speed (and usually in the wrong direction). There are also many other tokens and bonuses which



appear during the game in the form of small tiles.

Although only EGA, the graphics throughout are excellent. The metal tiles look like metal tiles and there has been an extraordinary amount of detail put into both the on-screen sprites and the surrounding audience, right down to the row of skulls which



enclose the playfield.

I hate to carry on, but the playability of Ballistix will absolutely knock your socks off. The playfield scrolls up and down like glass, and the balls bounce about the screen at a hectic pace. As a matter of fact, the game is so fast and playable, its hard to believe that you are using an IBM compatible business machine, and not a coin-op.

Overall, Ballistix is brilliant. The only other title that plays similarly is the wonderful "Speedball", which still can match up to this. Ballistix must be one of the fastest, most playable PC games around.

BLOOD MONEY

Futuristic safari hunt from Psygnosis.

PC 5.25" - \$59.95

There have been a some great shoot-em-up's appearing on the PC lately. We saw the highly polished "Xenon II" in May, while the fast and challenging "If it moves, shoot it!" graced our pages in June. August sees the arrival of "Blood Money" (the sequel to Menace) from Psygnosis, a game that claims to be "The ultimate arcade game. A maelstrom of death and destruction that makes all the other games you've played seem prehistoric".

You are young Spondulix, holidaying on the planet Thanatopia. It is here on Thanatopia were "Alien Safari Promotions" offer their "Blood Money" safari. For as little as 100 credits, you can be flown to one of four featured planets and destroy everything in sight for the benefit of Holovision Satellite TV Enterprises. Yes, its a sort of alien game show.

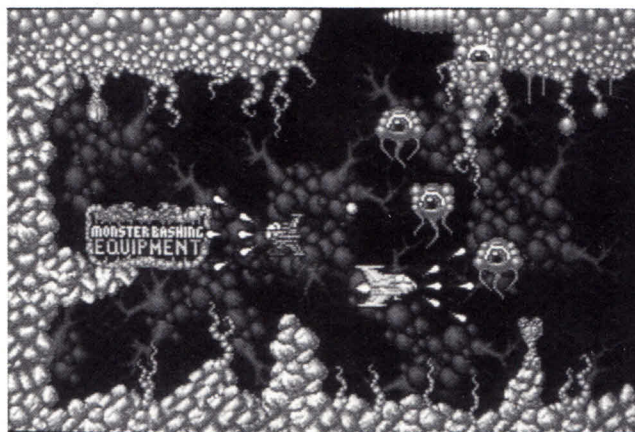
If your mission is successful, you will be the richest and most popular creature around. But as nobody has never returned alive, your chances will not be good.

On paying your money, you have the choice of four planets. For 100 credits you can go trash planet Gibba in a helicopter gunship. For 200 credits you can venture to the undersea world of Grone in a submarine. For 300 credits you can wear a jetpack and terrorise the terrain of Shreek. Planet Snuff is the ultimate in blasting and plundering, 400 credits please.

As you have probably guessed, the game involves your standard shoot-em-up fare. The screen can scroll horizontally or vertically, depending on your current location, and it pays to stay away from the walls as you never know what might be hiding behind them.

The backgrounds throughout the game are quite detailed, and it is obvious that a lot of work has been

spent on getting them "just right". The enemy sprites are also quite detailed and well animated. My favourites are the jellyfish on Grone, which look quite convincing as they swim across the screen in front of you.



• Monster bashing on planet Shreek.

During the game, you will also come across the familiar "Weapons Shop" where you can gear up your ship with a few types of rockets, neuron bombs, and more powerful drive systems.

Blood Money is very nice to look at, but it doesn't rate too highly in the playability stakes. The scrolling is jerky, and although many of the aliens are nicely animated, the game is generally slow and awkward to play.

Although Blood Money isn't such a bad game, it offers nothing new in the shoot-em-up stakes, and there is just too much competition about for it to warrant any special attention.

NUCLEAR WAR

Controversial gaming from New World Computing.

PC 5.25" - \$49.95

We have seen a few games involving nuclear war. There was Sega's "SDI" for the CPC, "Def Con 5" for the PC, and even the old "Missile Command" coin-op from years past. But never have we seen a game that makes it fun to nuke millions.

Banned in the U.S. Nuclear War is a loose adaptation of the controversial sixties board game. You are the supreme leader of a powerful nation armed with a deadly arsenal of nuclear weapons. You must compete against other nations and leaders for complete domination of the world. There are leaders such as Infidel Castro, Mikhai Gorabachef, Colonel Malomar Kadaffy, Ayatollah Kookamamie and Ronnie Raygun. All unintentional of course.

During the game you have the option of launching a nuclear strike, defending yourself with a "lasernet" defence system, sending out propaganda or building more missiles. Each action takes one "turn" of the game. The game will end when only one city is left standing in the world, hopefully yours!

As you may have guessed, the game is treated in a humorous manner, and all the global leaders look like rejects from "Rubbery Figures". The action is decidedly cartoon-like as missiles and mushroom-clouds appear around the globe.

Were not too proud of this game, as you can see from the small review and overall, the plot and theme is sickening, but the game itself is great fun!

BAD BLOOD

Origin's latest roleplaying epic.

PC Dual - \$49.95

Centuries ago, before the great fires, the Ancients - whom the humans call the Pure Fathers - lived in a green and fertile world. Food was plentiful, and fresh water fell from the sky. The ancients built vast cities, far greater than those of the humans of today. These cities allied to form nations, which controlled areas vaster than all the Plains you know.

Yet even in this paradise, the Ancients became greedy and lusted after each-others land and cities. This grew into wars as their armies grew larger and their weapons became more deadly.

In the end, one nation realised that its strength was gone, and it had only one weapon left - the Fire. When that one nation released its weapon, all other nations loosed their own. All that was pure and healthy was banished forever in a cloud of flame,

leaving nothing but death and contamination.

Some survived the fires, but their genes had been tainted by the radioactive fallout. Soon after, mutations began to appear among the children of the survivors, and these mutations became more bizarre with each new generation. The pure humans cast out these hideously tainted children in fear of further generations, while the less mutated were used as slaves.

The plains are a strange and desolate place, littered with 20th century artifacts that lie half buried in the dust.

Most mutants live in the four ramshackle towns that lie scattered across the plains, whilst the remaining pureblood humans lock themselves away in two giant medieval style fortresses, occasionally attacking nearby mutant villages. Far off into the desert lies Zero Town, a crumbling monument to the ancients which is filled with derelict skyscrapers. This area is shunned by both humans and mutants as it still contains a high level of radioactivity.

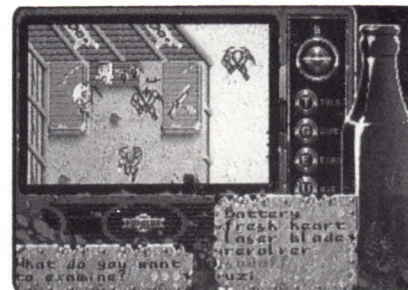
Your aim is to explore the plains and it's scattered townships, and bring unity between the "mutes" and the "humes". Choose between Varigg (a giant green mutant male), Jakka (an female cyclops) and Dekker (a pureblood human male) as your character. Varigg is strong and able to withstand high levels of radioactivity, Jakka is more agile and intelligent, while Dekker can move freely amongst the distrustful humans.



• Attacked by bounty hunters.

Bad Blood shares the usual Origin format in gameplay, but the screen display has changed somewhat. The play area is displayed in an old TV set, while your list of options are presented as channels. Your "health" is shown as a bottle filled with water. When it runs dry, you are no more.

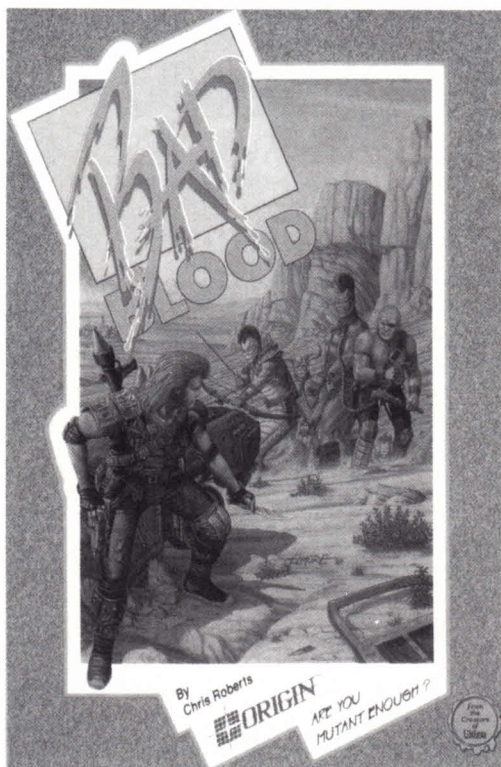
There are many hazardous creatures roaming the plains. Spiny Mantics, snake-like Kejecks, winged Buzzars and giant Bushbugs are a few. All are fear-some products of a post-nuclear age. You can have limited conversations with the more intelligent creatures through the use of a speech window, which works on an option style system. Food and ancient weaponry like uzi's and bazookas can also be collected on your travels (don't ask me why these have lasted for so long!).



• Exploring a Mute village.

The graphics throughout Bad Blood are excellent. From the stunning opening sequence, to the harsh formations that form the plains, there has been a lot of detail put into the look of the game. My only complaint is the size of the play area, as with most Origin games of this type, it's far too small. The only way to reach other villages is to tread aimlessly through the plains, or feel your way along river-banks.

But overall, Bad Blood is a winner. It's less complicated than other Origin games like Space Rogue and the just released Ultima VI, but that is probably a compliment if anything. If you're after a roleplaying adventure that looks good, and is not too hard to get into, then Bad Blood is the game to look out for.



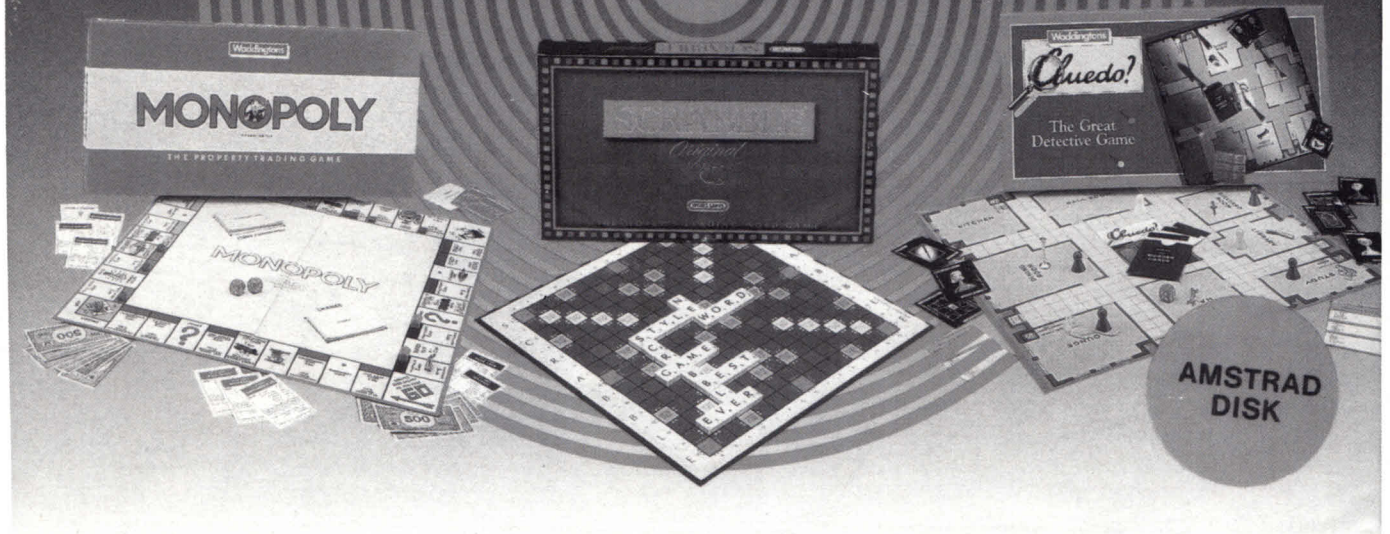


ARE YOU BOARD?

Virgin Leisure Genius

MIND-STRETCHERS

a compilation...



A CLASSIC COMPILATION OF THREE OF THE MOST POPULAR BOARD GAMES OF ALL TIME!



CPC Disk - \$49.95
CPC Tape - \$39.95
+ Post and Packaging

Send your order to:
THE AMSTRAD USER
1/641 High Street Road
Mount Waverley
Vic 3149. Tel (03) 803 9661

A breath of Sierra -3



It's the turn of Code Name Iceman- a Sierra game of political terror and high-tech escapades - to get a critical analysis.

Where in the world do you go, Sierra asks, to find new horizons when you're the author of two of the most exciting and realistic graphic adventures ever written? The author to whom they refer is Jim Walls, designer of the original *Police Quest* and sequel *Police Quest 2*. These two games must have contributed to a rise in energy consumption when they were first released if the



• Designer Jim Walls.

amount of 'midnight oil' burned in my house is anything to go by!

The answer to the question is Code-name *Iceman* and is quite a departure from Jim's previous offerings. Not only does it include the style of Sierra game we have come to enjoy, but also a state-of-the-art submarine navigation simulation.

BACKGROUND STORY

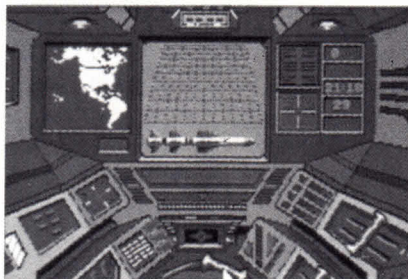
It is a time of global oil shortage yet a certain Middle East country is sitting on a surplus. Tension is high as political and diplomatic moves are made to stabilise supply. Enter the terrorists, who kidnap an American Ambassador in the hope of provoking hostilities between the super powers. The USA and Russia draw closer and closer to inevitable conflict unless a way of releasing the Ambassador is sought, and quickly.

While all this international intrigue is in full swing, Secret

Agent Commander John Westland is lazily sunning himself on an island near Tahiti. This is where the adventure begins.

FROM THE SUBLIME...

With the opening scenes of *Iceman*, you could be fooled into thinking you were playing a derivative of *Leisure Suit Larry*. Stretched across the beach are scantily clad sun worshippers and occasionally unattached (and untalkative) females stroll into view.



• Sitting at the controls of the sub.

There is a bar and dance floor available for patrons to use and it is here that John Westland succeeds where Larry Laffler failed so many times. Mind you, it took a few of my evenings to help him along!

But all good things must come to an end, and alas, John is ordered to cut short his holiday and is summoned to the Pentagon. I managed to get him off the island without too much trouble and (I hope) with all the items necessary to continue the game. A

briefing brings Commander Westland up to date on the international front and he is told that, in view of his exemplary record, he has been chosen to attempt a most critical assignment - the rescue of the imprisoned ambassador. To achieve this, he is temporarily posted to the USS *Blackhawk*, the latest in nuclear submarines.

TO THE SUB...

No sooner is he aboard the submarine than the Captain orders him to put theory into practice and guide the nautical war machine out of the dock to clearer waters. This is the first of a number of sessions at the controls and it is an important part of the game for without the necessary skills to "drive" the sub, you'll have no hope later on. It's not that difficult though as long as you don't over-react.

Sitting in the "driver's" seat, you are confronted with the main control panel. There are heaps of flashing lights, digital displays, knobs and levers, and as the Captain barks out his orders you must respond by hitting the right keys at the right time. It's all good practice!

The control panel as shown in the USS *Blackhawk* Technical Manual is not exactly the same as the panel on the screen, but the differences are not worth worrying about. I can't comment on the accuracy or otherwise of the

layout, but it all look realistic to me. Function keys will perform various task such as lowering the Fire Control Panel, selecting the type of weapon you wish to use, activating the sonar and so on. Guiding a submarine through the water is a totally different experience than, say, driving a car. For a start you can't see where you are going, and the response to changing speed and direction is of course much more sluggish.

Looking around the submarine when the chance presents itself will reveal a couple of characters who are needed for some puzzle solving later on. There's also a 'radio jockey' who has the responsibility of receiving any messages and relaying them to Westland (you). The messages are in coded form and have to be translated by the sub's computer. Assuming the correct code is input, mission directives will be the output.

ON THE MOVE

The plan is to get the submarine from Pearl Harbour round to a location near Gibraltar. Using the map provided with the game, it is necessary to plot a safe course for the navigational computer to follow. Once this is locked in it's full speed ahead, unless the Captain says otherwise.

I failed miserably in my first encounter with a Russian ship and was soon despatched to Davy Jones' locker. There is a terrible feeling of impending doom as torpedoes are closing in and there is little you can do. Of course, I made two 'fatal' mistakes. The first was that I didn't read the manual carefully enough (you'll be surprised how many clues you can pick up from it), and the second was I thought I could outrun the ship above without using any of my weapons. A few 'restores' later and I had sunk the ship! I had even more problems dealing with another submarine, but logical thinking (and the manual again) saw off this menace. It is easy to say, but in fact it took many hours to get my strategy correct to succeed.

The control panel is where the action takes place. The Fire Control Panel is used to select and launch Harpoon missiles, Sting Ray torpedoes or Emerson Electric Mk2 Torpedo decoys.



• Penetrate the enemy harbor.

Special noise eliminating transducers can be switched on to mask the noise produced by the submarine and reduce the possibility of discovery. The Multi-purpose View Screen is used during combat and shows the sub and the enemy along with lines underneath each indicating the number of torpedoes currently heading in their direction. As the

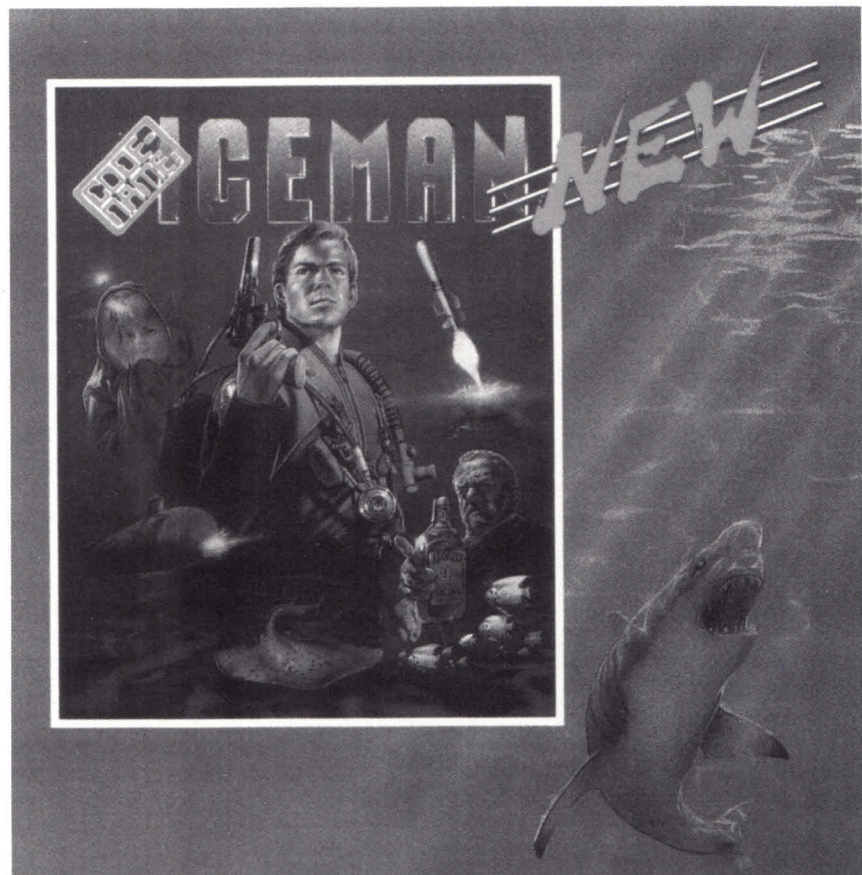
torpedoes get nearer, the lines get longer.

After making contact at Gibraltar, the submarine heads for the Mediterranean Sea and the coast of Tunisia. Again, this is easy to say, but in fact it is a little more complicated as no doubt you will find when you get to this point in the game.

Coming to periscope depth allows you to have a quick 'butchers' at the lay of the land (or sea if you prefer). It is clear that the harbour is heavily guarded and the problem is to penetrate this lot unseen and meet the next contact on land. I could tell you how this is done, but I won't of course. All I will tell you is that you need to use, amongst other things, a special diving vehicle and to make sure you don't run out of air.

BACK ON LAND

There are guards all over the place, and to wander around in a frogman's outfit is a bit of a give-



away. But once you meet the contact the guards won't bother you too much.

You are now quite close to the imprisoned diplomat - in fact you could find yourself in an apartment overlooking the prison gates. Here you can find all the clues necessary (I think) to get you into the compound without capture. But... once again, time has caught me out so I cannot report on the final sequence. At this point I am up to 230 points out of a possible 300, so there is still a fair amount of action to see yet!

PROBLEMS

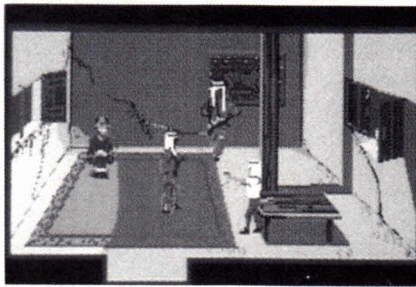
Although you cannot expect the Sierra programmers to think of everything, I have a feeling that *Iceman* didn't get a full workout before release.

In much the same way as in, say, *Leisure Suit Larry 3*, where you can take the change from the glass on the piano repeatedly and score points each time, discovering the contact in Tunisia and giving the correct password, nipping off screen and returning to give the password again also accumulates points. Of course, it doesn't solve anything except makes your score look respectable.

Following a successful navigation through an iceberg field, I saved the game. On restoring later, I had to go through the icebergs again, although I got some extra points. In the sub itself, I managed to lock the game completely when checking out the

torpedo room. The only way out was a 'warm start'.

I'll hazard a guess that the programmers left a piece of redundant coding in the game around the harbour area. There is just one location which if "SURFACE" is entered, a message responds with something like "you surface and just before breaking the surface you hide your scuba gear". Normally you would expect the program to take over here and switch to another screen. But no -



• A hostage waits for rescue.

the diver stays at the same level unless you move him up, in which case he disappears off the top of the screen. It was frustrating to say the least and an unnecessary waste of time.

The manual, too, has some inconsistencies. Whilst it is impossible to complete the game without it (one in the eye for pirates), it has some errors which may mislead newcomers.

For example, it purports to have a 'quick key' (Ctrl-L) which generates "Look at" in the text box. I can't get it to work. The manual would have you believe that

Iceman understands the word RUN, but it doesn't. It also makes a point that the program will automatically move a character to a visible point on the screen by typing WALK TO (the object). All I can get it a message "Go Ahead" and have

to use the keys or joystick to make the move.

I guess all the problems might not amount to much, they didn't worry me unduly, but someone trying a Sierra game for the first time could be forgiven for reacting more aggressively.

(Being ultra-critical, even the '10th Anniversary' product brochure supplied with the game has a picture (page 16) of the control panel upside down!)

SUMMARY

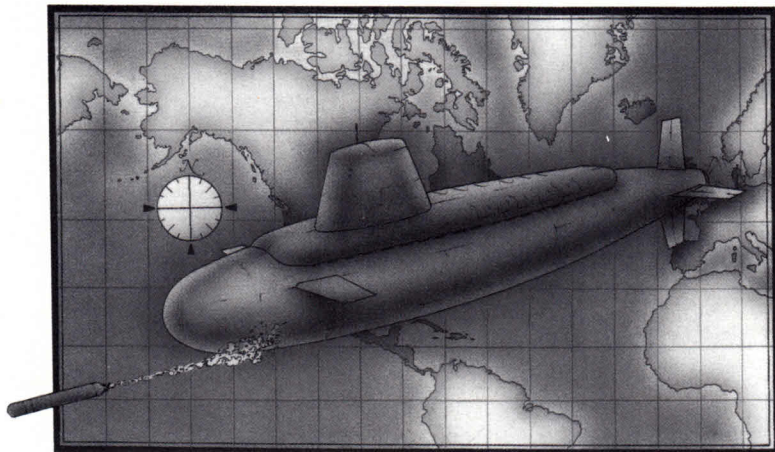
Code Name Iceman is certainly different from other Sierra offerings. It has all the challenging puzzles you would expect, but with the submarine simulator as a bonus. The sub-sim gets more difficult as the game progresses and in some segments (negotiating the icebergs for example) they seem to run for too long and begin to get a touch boring. Nevertheless, there was a certain amount of tension created during combat when everything possible had been done to avoid being sunk and now it was just a question of waiting to see if the enemy would make a direct hit on the sub and watching the ever advancing lines on the View Screen.

The graphics were up to Sierra's usual high standard, so too the music and sound effects. Through an Ad-Lib card the sound of bubbles from an oxygen tank were very realistic.

Iceman is not an easy game to play, and I would suspect that the Hint Book will be a big seller now it is released. You will need to save your game more regularly than usual, and you may find it necessary to backtrack, so try to keep some of the previous 'saves' handy.

What are my final thoughts? Most Sierra games are excellent. I would not put *Code Name Iceman* in the same bracket although it is a good game and certainly cannot be considered average.

I guess if they consistently release high quality games, there will always be one or two that do not quite make it. ■



MASTERFILE PC VERSION 3

Integrated Data filing, Document filing, Word-Processing, Mail-Merge

Every business has two kinds of filing requirement: data field-oriented which we call Data filing and free text which we call Document filing. The traditional approach was to have one program for each - a database (DB) and a word-processor (WP). MASTERFILE PC has already established its reputation as a high-power relational DB at a popular price, but now with the version 3 we have added a powerful WP function. And since both DB and WP functions are managed by the one program, only one system of menus and dialogue need be learned, and there is a natural data-merge function to combine data with text into a mail-merge operation.

MASTERFILE-DB

Address lists • Sales Ledger • Bought Ledger • Inventories • Stock Control • Patient files • Job progress • Price lists • Bank analysis • Shares Portfolio • Photographic index • Property Details • Invoices

There are two main kinds of DB system on the market; those that require time and programming skills to set up and those that have virtually instant usability. MASTERFILE with its totally menu-driven approach is of the latter variety; and yet it offers huge flexibility in data presentation and manipulation.

MASTERFILE Data Filing is unusual in that it offers variable-length records within a direct-access file with a capacity of up to 16Mb or 32,768 records. There can be up to 80 data fields per record, each variable-length up to 254 characters, and data can be character, numeric, or date. Up to 32 user-designed screen/print formats can be used, so that from one data file you can present data as a summary index, and index card, mailing label, whatever, and add such effects as heading, boxes, panels. The relational aspect means that any record being displayed can pick up data from up to four other data files on a key-match basis.

An essential ingredient of a DB system is to be able to search the file and pick out records which match a given set of criteria. MASTERFILE's search functions are impressive and it can search on multiple criteria on any data (not just key fields), with speed and ease.

Arithmetic operations can be defined to operate on and derive numeric data e.g. taxes, percentages, price mark-ups. You can

even perform date-arithmetic such as is required for ageing of accounts and subscription renewals. The logic can include IF/THEN/GOTO constructs for the sophisticated user.

Printing is buffered, so that up to 5 pages of printing can be stacked while you use the program to get on with other tasks. Printer controls can be set to control style and pagination.

We could also mention sorting, import, export, encryption, passwords, date-stamping, serialising, and host of other features - but we don't wish to bore you; if you wish to know more, just ask us!

MASTERFILE-WP

• Letters • Reports • Memos • Journal Extracts • Bibliographic references • Your Next Novel.

Just about every PC user already has some kind of WP system, but the chances are that yours is the kind where each document is a separate DOS file. With MASTERFILE, you can keep all your documents in one large DOS file (up to 16Mb), and manage all your letters, memos, journal extracts as individual documents on a private directory basis; except that our directory (we call it an Index) lets you have useful 30-character names and you can search on the basis of document name, date of last change, or on the text contents themselves. In effect MASTERFILE combines the searching power of DB with the free-format text handling of WP.

MASTERFILE WP Document file has its own selective back-up/restore system, and you can also import and export text files from and to other text systems.

MASTERFILE WP allows up to 6 documents to be open at a time, using the same window or different windows, any of which can be adjusted for size, position, style and colour. The basic WP functions are all there, and some novel ones too - such as 'spot' colour to highlight your text. You can tailor your own printer driver and expansion keys simply by editing two specially-named documents. Maximum document size is 64K, about 20 pages.

Printing options include multi-copy, partial print, pagination, headers and footers, left margin, system date/day/time stamps, serial

numbering. And you can arrange selective text insertion from a MASTERFILE DB file for a mail-merge and several-across label operations. Printing uses the same buffer system as DB, leaving you free to do other tasks while a document is being printed.

HELP AND LEARN

The detailed manual is augmented with tutorial and several demonstration files. And, for the new (or the forgetful) user, HELP can be summoned at the press of a key to augment whatever menu you are looking at. There is even a facility for customising your own HELP frames using the WP function. MASTERFILE can learn too! To program a function key, you just press the 'LEARN' key then use the system normally, then press the function key. Or, you can store the function key in the file for long-term use.

How can MASTERFILE combined DB and WP program run in only a 256K MS-DOS environment? The answer is because it is compact, being totally coded in Assembler - unlike most other commercial software. If you have 512K or more, then MASTERFILE will make even better use of the available RAM. And the minimum disc configuration? Just one floppy. But users with hard discs can take fullest advantage of the large capacity. And what about the monitor? Any type from monochrome to VGA, and yes of course you can customise your preferred colour scheme.

MASTERFILE PC will run any PC-compatible, including any Amstrad PC/PPC, and is available on 3.5" or 5.25" formats in two editions:

Standard: DB only, but with read-only/demonstration WP functions.

Full: DB + WP

You can start with Standard and upgrade to Full later. Campbell Systems in the U.K. also offer upgrades to registered users of MASTERFILE PC version 2 or earlier.

Prices, (excl P&P) are **\$199.00** (Standard) or **\$269.00** (Full). All mail order enquiries to:

The Amstrad User
1/641 High Street Road
Mount Waverley 3149
Phone (03) 803 9661

or in Melbourne call at The Amstrad User computer shop, also at the above address.

Off the Shelf...



Abacus are prolific publishers of books to help PC users. Here's a rundown on some of their latest publications.

Would you believe that no less than six new books hit my desk at the same time? If there isn't something for every PC user amongst this lot, I will be very surprised. We have Pactronics to thank for introducing the Abacus titles into Australia, and these latest titles will further strengthen the list.

EXCEL FOR BEGINNERS - \$36.95

Excel is essentially a spreadsheet program with built-in database functions, extensive graphics functions and the ability to store keystrokes and commands in macros and execute them from within the program. With Amstrad bundling Excel free of charge in some of their computer packages (hard drive versions of the 2286 and 2386) this particular book (part of Abacus' Beginner Series) will no doubt create a fair amount of interest. Excel has been around for several years on the Macintosh, so if you've used it before you may not need this publication, but that does not mean you won't learn anything from it.

If you are new to Excel, and have trouble with the documentation supplied (as many do apparently), 'Excel for Beginners' is probably the answer. It's a user guide written in plain English which takes the user

by the hand, so to speak, to unravel the complexities of the program. It's aim is to have the reader creating worksheets, graphics and databases - all running under Microsoft Windows - in the shortest possible time.

The book covers the main spreadsheet application, focussing on the creation of a worksheet, performing calculations and manipulating data. It continues with describing the different graphics options from entered

data and accordingly teaches analysis and arrangement of data based on desired criteria. There's a full chapter on using Excel as a database followed by an explanation on using macros to speed up your work.

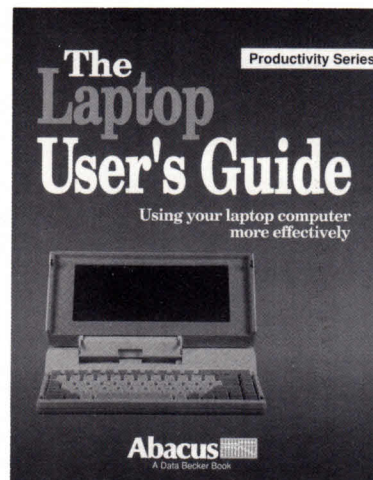
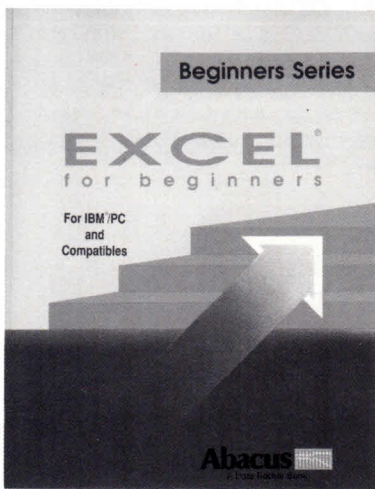
In the final sections of the book you will find additional instructions, helpful hints and tricks followed by an extremely useful set of appendices. The latter contains a collation of information and instructions for Excel, including function key assignments, glossary and error messages with their significance explained. It also has a description of the run time version of MS-Windows and explains some of its features.

THE LAPTOP USER'S GUIDE - \$36.95

There are countless numbers of books dealing with PCs, but few give more than a passing mention to specific problems encountered by laptop users. The Laptop User's Guide fills the gap and concerns itself mainly with laptops without hard drives - in fact much of what is presented in the book can be achieved with just one 3.5" disk. In this regard, the book describes methods and techniques to trim out non-essential parts of programs to run on a single disk.

Other topics covered include extending battery life, using printers, connecting/transferring data to other computers, changing displays and attributes, using as a UNIX terminal and getting the most from applications.

Laptop users will find this book an invaluable source of information.



MS-DOS TIPS AND TRICKS - \$36.95

This book isn't only for people that already know MS-DOS, but also for beginners who have only just begun to get to grips with it. (Rookies should read MS-DOS for Beginners first.) It gives tips to really start using your computer; an introduction to working with batch files and tips you need to use GW-Basic and the DEBUG program to solve problems.

MS-DOS Tips and Tricks is full of good ideas. It teaches, for example, how to find any file on your hard disk quickly and painlessly; how to copy data from a backup without the Restore command; protect your data from unauthorised access, cold start your PC from a batch file and so on. It also contains a few tricks dealing with printers, screens and keyboards and devotes a chapter to MS-DOS 4.0. The final section of the book provides a great assortment of 'quick tips'.

It's a really useful publication if you wish to delve a little deeper into MS-DOS or merely want to become more productive quicker.

TIPS AND TRICKS FOR YOUR PC PRINTER - \$69.95

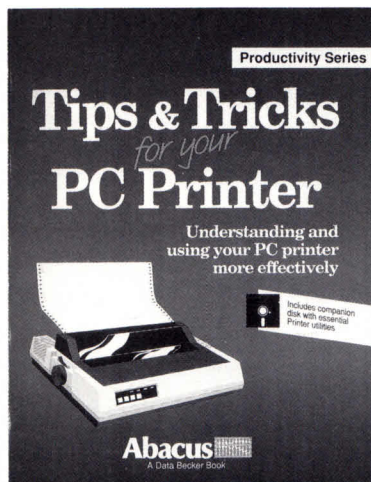
This is another large book with almost 400 pages of information on how to get the most out of your PC printer. If you are bemused by technical jargon, you will be pleased to know that in the main, this book keeps things simple.

The book is written with productivity in mind, giving brief and detailed explanations, practical applications, suggestions for writing printer control programs (printer drivers), and practical answers to many printing problems. The reader will also discover how to use some of those 'built-in' features supplied with their printer but with the instructions buried somewhere in their manual.

The book teaches the use of the printer's different character sets, how the printer's graphics mode works, using DOS for simple printer control and recognising and correcting problems. Both 9-pin and 24-pin printers are covered, as well as daisy wheel and thermal printers.

Supplied with the book is a 5.25" disk containing a number of pre-programmed printer utilities.

These include: Directly transferring commands to a dot matrix printer; Conversion table editor; and an Editor for user-defined download fonts. There are eight programs in all, and each one is also printed in the book with full instructions.



PC TOOLS COMPANION - \$36.95

This is a hardback guide which explains the individual menus and functions of PC Tools. It is essentially a quick reference manual for users who already have already been introduced to PC Tools. (Newcomers see PC TOOLS COMPLETE.)

The book is split into two main sections, PC Shell and Desktop, with all menus and functions described. There are also descriptions of Compress Disk, PC Backup, Mirror, PC Format and PC Secure - all programs which are integrated into PC Shell. At the end of the book can be found a list of error messages and their meanings plus an ASCII table.

PC Tools Companion is in a compact, concise format and organised logically to quickly find the right syntax. It certainly saves ploughing through heaps of documentation.

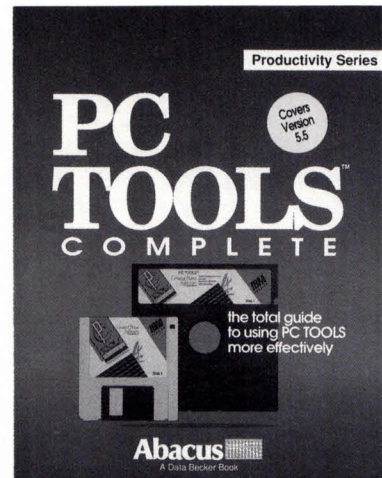
PC TOOLS COMPLETE - \$49.95

PC Tools used to be a collection of programs to make it easier to work with your computer's operating system. With the release of PC Tools version 5 came another nine new sub-programs making life even more easier. The package now includes a word processor, database, outlines, clipboard, appointment scheduler, telecommunications, macro editor and four calculators. All the functions are accessed through pull-down menus and most with a mouse.

PC Tools Complete effectively condenses the three manuals supplied with the package into one logically-structured plain-English volume (although it still stretches to well over 400 pages), and adds information not found in the

originals. It contains information on both Version 5.1 and 5.5 and plenty of practical examples, and starts with a description on how to install the program.

The largest part of PC Tools is PC Shell and much space is devoted to describing the functions and operation of these DOS equivalents. The second part of the book takes the reader through PC Desktop (as an imaginary club secretary), going into detail on word processing, creating a database and managing an appointment calendar. It also covers more advanced features such as macro creation and the integration of data between various sub-programs. PC Tools complete is an impressive book, and whilst the most use to newcomers to PC Tools, contains a fair amount of information to keep the more experienced users happy.



FAX/Phone Switch II



Joseph Elkhorne reviews the FAX/Phone Switch II from Electronic Speech Systems, and is more than pleased.

Residing in my house is a permanent and unwelcome guest named Murphy. It seems I can pound the keyboard for hours, then decide to take a BBS break from word processing - and while the comms program is running up, I switch the phone line to the modem.

Them about the time I'm ready to call out, the modem emits its answer tone from the speaker, and I know someone has just rung me. When other BBS users hear such a thing, they anticipate the mad panic to leap up, unplug the modem, plug the telephone in, grasp the handset and hope the caller is still on.

Your computer illiterate, however, usually slams the handset down in confusion. When I received this hardware add-on for review, I knew it was the answer to the above problem.

Connecting the FAX/Phone Switch II is quite easy. Included in the box is not only a handsomely cased unit, but the modular RJ11-to-Telecom adaptors for the telephone and line connections. A small plug pak for power, a warranty card and a manual complete the ensemble.

The telephone line naturally goes to the LINE jack (wow!), the instrument itself to the PHONE jack and your equipment to the

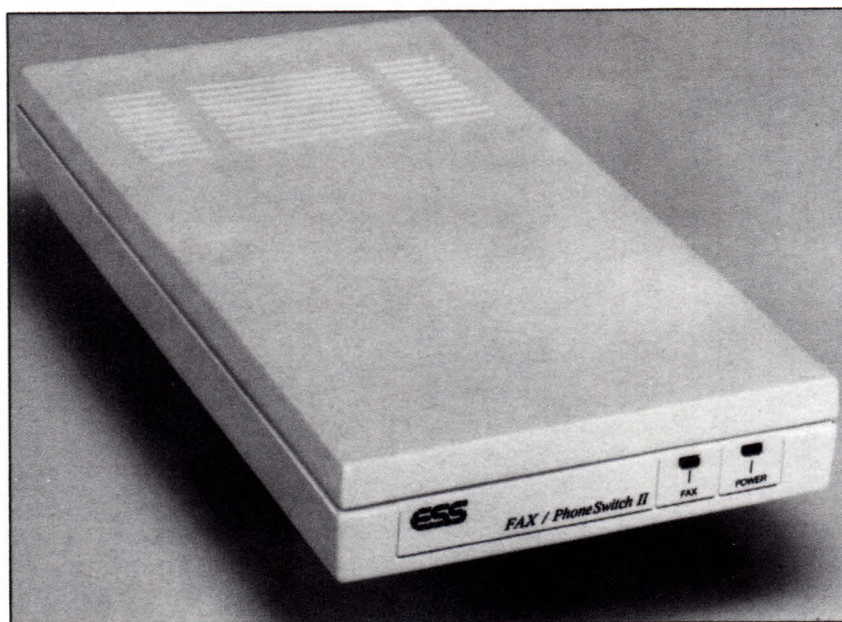
FAX/Modem jack. About 90 seconds after opening the box, I was in business. Naturally, I first verified that I could hear a dial tone when I picked up the telephone receiver.

On the front of the changeover box are two rectangular LEDs. One is for power, the other lights when a FAX or modem transmission is in progress. Should a power failure occur, the unit defaults to telephone-to-line connection.

I ran up the PC20 and connected to one of my favorite bulletin boards. (Hi Sandy!) During this connection, I picked up the telephone handset deliberately. A quite natural sounding voice told me the line was busy. Although the manufacturer of this unit is Electronic Speech Systems, Inc. the voice output is pleasant. It sounds more like HAL than Colossus.

With the unit in line, no problems occurred in modem communication whatsoever. Not long after I had put this little box of tricks into operation, I received an incoming call. As I was standing right beside the telephone and heard the relay in the switchbox click. I instinctively picked up the handset.

Later, however, I learned this reaction had been too swift. The caller said that after a ring, a voice had instructed them to say 'telephone' if they wished to speak; otherwise, with the caller



remaining silent, the logic switches to the FAX or modem attached.

Our call completed satisfactorily, so the unit had passed another test. A couple of days later, though, I had one message waiting on a bulletin board from a friend who'd tried repeatedly to ring me. I began to suspect all was not well.

This proved to be the case. Subsequently, whilst sitting at the computer, I mumbled to myself, 'What's that clicking?'

Realising it was the changeover box, I jumped up and grabbed the telephone handset. I heard a short burst of modem tone, then silence. Fortunately the caller had not hung up and I explained the situation. Obviously, the telephone itself had not rung, though the changeover box was trying its best...

The manual says the unit 'has a rating of five ringer equivalents'. With the mention of FCC Registration Number, and UL Approved Power Supply in the book of words, one could only conclude that the Yank telephones require far less drive than your usual Telecom thunderbox.

Indeed, the troubleshooting section continues: 'Some old phones require more power to ring reliably. The solution to this problem is to replace older phones'. This seems to be the only failing with the FAX/Phone Switch II - and you probably don't have an old-fashioned rotary dial instrument anyway.

The unit can provide cost-effectiveness by eliminating a dedicated telephone line for the FAX machine. It works with single line of PABX systems, handles all fax and modem protocols, provides instant response to all calls - and it has built-in surge protection.

The Fax/Phone switch II is available through Diamond Technology of NSW (tel: (02) 667 4068) and retails at \$299.00. A mark three version is also now available for the same price which allows you to record your own sixteen second message. ■

WIN



A Limited Edition* of Origin's new adventure **ULTIMA VI**

ULTIMA VI is the first version in this very successful series which has been programmed specifically for IBMs and compatible PCs, taking advantage of the full 256 colour MCGA/VGA. It also contains a full-length musical sound track for owners of Ad-Lib, Roland or CMS sound cards.

To celebrate 10 years of production, creators Origin have produced a very special limited edition (not for resale), which has been autographed by the author and chief artist. It contains a cassette recording in which the author speaks about the development of the Ultima series, an "Orb of the Moon" gem stone, a certificate, and a printed cloth "tapestry" depicting Britannia.

HOW TO WIN THE LIMITED EDITION COPY

Simply write your name and address on the back of an envelope with the answer to this question:

Which company distributes ULTIMA VI in Australia?

(If you are really stuck, take a look at the "News Break" in last month's magazine). Then send your entry (only one per person please), to:

THE AMSTRAD USER
ULTIMA VI COMPETITION
1/641 HIGH STREET ROAD
MT. WAVERLEY, VIC 3149

Entries close on Friday 31st August and the winner will be announced in the October 1990 issue (69).

** The Limited Edition copy of ULTIMA VI is one of only six copies in Australia and is not available for purchase. However, a regular version of ULTIMA VI is available in dual format at a cost of \$84.95.*

This competition has been sponsored by
Dataflow Computer Services Pty Ltd.
(02) 331 6153



Computer Services Pty Ltd

Sharing the domain...



Chris Collins looks at some accounting packages and a disk cataloguer, as well as a useful font selection system.

Welcome once again to Compatible's Corner. This month I have been able to find enough time to sit down and look at a few good programs for you to use with your PC's.

4DOS V.31 has been released. This new version has yet to find a place on my hard disk, but that is only because of a lack of time to put it there. Before the end of the column, I will be able to let you know a bit more about it.

Now onto this month's diskettes. First two cabs off the rank are accounting packages. One is a personal system, the other is a business system. Both are from Plano Computer Sales in Texas.

ACCOUNT + PLUS

This is the professional accounting system package available from Plano. To say that I was greatly disappointed with this system is an understatement. It forces you to have your system set up in a specific pattern, and God help you if you don't like it that way.

The two biggest things that it wants are `COMMAND.COM` in the root directory of my hard drive (exactly where I don't want it), and a minimum of 20 files available in `CONFIG.SYS`. The second one is not a major problem, but by using `GRAM` or `QEMM/386` with my computer I can save a heap of memory by doing it differently. I won't go into the details here, but suffice it to say I don't like to be told how to set-up my system just to run a software package. If the software package can't co-exist with my current set-up, I don't want it!

Now that I've managed to get that off my chest, we had better get on with looking at the software itself.

On disk 1 of this two diskette package are two installation files, `HINSTALL.BAT` and `FINSTALL.BAT`. Obviously `HINSTALL.BAT` is for hard discs, and `FINSTALL.BAT` is for floppy discs. According to the documentation, this program will run off floppy discs, but with all the work that it was doing on the hard disk, I wouldn't really like to try. Run `HINSTALL.BAT` with a source and destination drive, such as `HIN-`

`STALL A: C:`, and all of the programs from the first diskette will be put into a directory called `\ACT` on your hard drive. Place the second diskette in drive A, press `F3` and `ENTER` and all of the files from the second diskette will also be copied into `\ACT`. Why the author can't be bothered to write the batch files so that the first will automatically call the second I'll never know. It isn't hard!

Type `ACCOUNT` and press `ENTER` and up it comes, assuming you don't get any errors. First thing onto the screen is a title screen with some legal mambo-jumbo from the author. You are asked to press `ENTER` to continue, but if you don't, it will eventually continue to the next screen all by itself. This would have to be one of the most garish opening menus that I have ever seen. It is a good thing that it can be changed with the configuration option.

On the first time operation of the program, it will come up and ask for a registration number. If you press `ENTER` it will further ask if you wish to remain an unregistered user. If you answer `YES`, you will be asked for your name and the current date. Why? I don't know but I suspect that it will self destruct after a time whilst still unregistered.

First thing that I tried was the `K` option (`HELP`). Guess what? It dumped me right back out to `DOS`. Guess that the shareware version doesn't get the help files. Fine, I thought to myself. We'll start at `A` and work our way through the options. So I pressed `A`. Guess what? Shareware users don't get the payroll option either. Neither do they get the accounts payable option.

At this point I started to wonder how serious this author was. Part of the code of shareware authors states that they will not distribute crippled or incomplete programs. This author is doing exactly that. I started to wonder whether or not it was worth continuing with this review, but I thought that someone out there might find it useful, so let's press ahead.

On the sections that appear to work correctly, the only two bad points to raise are as follows; the colours are very garish, and no menu uses the same

keystrokes to achieve an action. For example, to quit the program you use the X key or eXit. Fair enough. But with the menu system in the program, to go back to the previous menu level, some menus use the 5 key, others use the 9 key. All this seems to depend on the number of options available.

Using Scan mode by pressing the S key seems to me to be the best way to operate this program. This brings up simple screens that look like a very simple journal page. You can do most any of the transactions that you are allowed to do in Scan mode.

Something else that I've just found. You can't print any reports either. This program is stuffed. It has the look of a very useful full accounting system, but it is so hampered by the parts of the program not accessible to the unregistered user, that one cannot make a decision on whether or not it would fit ones needs.

Account+Plus comes on two diskettes, costs US\$69.95 to register, and comes from Plano Computer Sales in Plano, Texas.

FINANCIAL PLANNER SYSTEM

This is the home users version of Account+Plus, except that it does a heck of a lot more. Not only does it do budgeting, it also covers portfolio management, superannuation, taxation (but only the American system, however some adjustment is available), personal asset management and more.

However, Financial Planner System also suffers from the same faults as Account+Plus. Printing is not available to the unregistered user, and many features are disabled. This to me makes it a severely limited program to try out.

Financial Planner System comes on two diskettes, costs \$69.95 to register, and also comes from Plano Computer Sales. They also produce 4 other financial programs, but I won't be looking at them until such time as they are not crippled and incomplete.

FBNCAT

FBNCAT is another diskette catalogue, but with a major difference. I actually like this one. Normally I find it harder to use catalogue programs than I do to keep careful track of my diskettes. But FBNCAT may change all that.

It costs US\$15.00 to register, and this must be done within 21 days. The program is written by Larry D. Miller and uses windows and pull down menus to make life very easy for the user. I believe that it is written in Quickbasic, but I could be wrong.

The first thing that one must do is run FBNSSETUP.EXE. This allows you to select the screen driver for the program. FBNCAT supports up to EGA, but also some oddball computers such as TI Professional, Victor 9000 and NEC APCIII. After running FBNSSETUP.EXE and selecting a display mode, run FBNCAT22.EXE and you are underway.

First off the rank is the need to load a catalogue file. This is the action first suggested by the program. If a catalogue file doesn't exist, the program will

create one. If you don't know the name of the catalogue file that you require, simply pressing INSERT will show you a list of catalogue files in the current directory.

After loading a catalogue file, all of the power of FBNCAT is available for you to use. This includes the ability to sort discs or files, delete discs from the catalogue file, print labels and much more. FBNCAT comes with a documentation file called FBNCAT.DOC on the diskette, but it doesn't require even this file. The on-line help is so excellent, and context sensitive, that any other documentation is superfluous.

If you think that I am sold on FBNCAT, you are right. This is the diskette catalogue that I will be using from now on!

PC PUNCH!

PC Punch is the next program that we will look at this month. It's a time-card cum punch-clock for your PC, it allows you to have people and "CLOCK IN" in the morning, and then "CLOCK OUT" when they leave. The computer will then work out how many hours have elapsed, which parts of it are what type of hours (time and a half, double-time etc.) and give you a printout of the details. It does not appear to have a limit to the number of employees that I could find, and the employee number allows such a wide range of numbers that I don't think anyone will run out of room.

The details of the employees, and the ability to change them are listed as an option behind MANAGEMENT, and this is password protected to protect the information. Some details of the program can also be set at this point.

PC Punch is supplied on one single diskette. It is from Genesoft of San Antonio, Texas. There are a couple of different levels of registration ranging from US\$15.00 and up. Depending on the amount of registration, you will receive only PC Punch Plus or the choice of 6 trivia games. The top level is the profit sharing system, where you will receive a rebate of between 10 and 20% of the value of a registration per unit that is registered with your serial number. A very good incentive to register.

I found PC Punch to be a useful program for a small company that needs to keep track of some employees who may be in and out all day, but remember that you need access to the PC whilst these people are clocking in and out. Otherwise, an excellent piece of software.

USERHELP

Userhelp is a memory resident help system for your computer. However, it is different to all of the other help systems that I have seen in one major point. Userhelp allows you to create some help files that will suit your own applications. However, this appears to be a function of the registered version only.

David Hansen is the author of Userhelp. The registration fee suggested is US\$50.00, and it is supplied

on only one 360k diskette. When you register your copy of the program, you will be given information on how to do the following with your copy, change the hot-key, unload the resident version, use multiple help file, and how to get the resident version to use less memory. Well worth registering for!

To load Userhelp, all you need to do is type USER-HELP at the DOS prompt. This will then load the program into memory. To call it up, simply hold down the CONTROL and ALTERNATE keys down and press the H key. At this point, the program will put a small status line at the bottom of the screen. To go further into the program, simply press the ENTER key.

A menu will pop-up onto the screen and you will be able to select a topic to choose from. Simply use the UP-ARROW and DOWN-ARROW to go through the list to your selected topic, then press ENTER to have a look at the detail page for your topic. If the detail page is larger than the screen available, simply pressing the UP-ARROW or DOWN-ARROW will allow you to move up and down in the detail page. Also the PAGE-UP and PAGE-DOWN keys will move you around in the program itself. A mouse can also be used to operate the program successfully, but it did take me a while to figure out which keys did which. I suppose I should have looked in the manual to find out. However, it was easy enough.

A small point that I nearly missed. The program does allow you to modify the index, as well as the detail pages. But on to registered users is the ability to grab information from the underlying application, and to send information to it.

This is the best help program that I have come across. If you are looking for a help program, with the ability to create your own help files, Userhelp is it!

PCW FONT SELECTOR

This diskette is for all you PC Write owners out there. It has two programs to help you get more use out of your computers, printers and PC Write.

The first program on the diskette is FONT SELECTOR, which allows PC Write owners with Hewlett Packard Laserjets to select the font that they require in a specific document or task, and create a specific PR.DEF file for that purpose. This is necessary because PC Write has a limited number of font letters available to use in a document. This allows you to overcome this deficiency. Font Selector can be used to set-up soft fonts (fonts that are downloaded from disk) or cartridge fonts. This program also creates the necessary .BAT file to download the soft fonts and cartridge fonts in the correct order.

I was not able to find a registration fee for this program, although it is from Quicksoft. They are the authors of PC Write so they should know what they are doing with PC Write.

The second collection of files on the diskette contains a Pagemaker filter for PC Write. This pro-

gram allows you to take your PC Write documents and load them into Pagemaker, with most of the formatting kept intact in the transfer. Some of the things that you lose are things that you don't really need such as page length, top and bottom margins and a couple of others. But most of the fonts and formatting will be kept intact. This will save you a great deal of work.

Very good instructions are given with both programs to help you install and use the two different programs, and I think that any PC Write using a Laserjet, or any PC Write user loading into Pagemaker, should have a copy of these programs. Both are supplied by Quicksoft, but to date I have been unable to find any registration fees. Both programs occupy only one diskette.

WORD-PART DICTIONARY

Word-Part Dictionary is the last diskette of the month. It is supplied by a company called EDICOM SYSTEMS from Southfield. Now Southfield is in either Minnesota or Michigan, I'm not sure which, but the state abbreviation is MI. The requested registration fee is US\$24.00.

Word-Part Dictionary contains 500 word parts and 2000 related words that will fit these word-parts. Word-Part Dictionary can be used for crossword freaks, vocabulary freaks and any others who need to know words that contain a certain syllable. For example, if you type in ACT, Word-Part Dictionary will show you two words that start with ACT. This allows you to study a group of words that start with ACT, rather than just one.

I found it fun to use Word-Part Dictionary, although I did find it a bit slow to respond. The only negative that I could find is that there is no way to enter words of your own into the system. That would really set the program as an excellent piece of software.

Well, that's all for this month. We have covered seven different diskettes covering a wide range of needs. If you require any of the diskette's mentioned, please send your order and cheque or money order to the following address:

**MacroDisk
Unit 2, 47 Vernon Street
South Kingsville Vic 3015**

Please remember that 5.25" 360k diskettes are \$7.50 each including postage and 3.5" 720k diskettes are \$15.00 each, also including postage. Do not forget that with the 3.5" diskettes, it is up to you to ensure that you choose 2 diskettes of programs to fill the diskette. Also remember that all diskettes mentioned in this column are always available, although if you wish to purchase a program from 12 or 15 months earlier it may have been upgraded since then and may now contain more than the original number of diskettes. ■

ACCOUNT FOR YOURSELF

System 3

SALES INVOICING

CASHFLOW CONTROLLER

STOCK CONTROL

3 SIMPLE STEPS TO
COMPUTERISE YOUR BUSINESS

DIGITA
INTERNATIONAL

SYSTEM 3 (PC or PCW)

If you find computerised accounting systems too costly, rather daunting or, if you only wish to computerise part of your existing manual system, then System 3 is for you. System 3 consists of three modules: A stock control module for the evaluation, summary and cataloging of stock. An invoicing/sales ledger module for the preparing of invoices and statements, and a cashflow controller module which forms a debit/credit ledger system as well as handling any number of transactions.

DG CALC (PC only)

Perhaps one of the most practical uses of a computer is the preparation of spreadsheets. Business users will be familiar with the application of spreadsheets for cash flows, forecasting, costings, etc. Computers are ideally suited to this form of application and, using DG Calc, you can calculate and recalculate entire spreadsheets in seconds. DG Calc is the culmination of careful examination and research into the world of spreadsheet applications which is simple enough for the beginner, and yet sophisticated enough for the professional.

DG CALC

9 out of 10

Account	Balance	Debit	Credit	Balance
1. Bank	1000	100	100	1000
2. Accounts Payable	500	500		500
3. Accounts Receivable	200		200	200
4. Inventory	300			300
5. Capital	1000			1000
6. Retained Earnings	1000			1000
7. Dividends	100	100		100
8. Depreciation	100			100
9. Accumulated Depreciation	100			100
10. Total	3200	3200	3200	3200

DIGITA
INTERNATIONAL

WITH PACKAGES FROM DIGITA

HOME ACCOUNTS (PC only)

Designed as a complete home accounting package, Home Accounts allows you to set up a budget for items of household expenditure and compare actual expenditure with your budget. Suggested expenditure categories are provided (such as mortgage, rent, rates, food, gas etc.), however these may be easily deleted or augmented to suit your own needs. Actual statements can be produced for any income account enabling you to accurately reconcile Bank statements, etc. You'll wonder how you ever managed without it!



PC version

HOME Accounts

You'll wonder how you ever managed without it.

DIGITA
INTERNATIONAL



Available for:
DG CALC (PC 5.25") - \$89.95
SYSTEM 3
 (PC 5.25" or 3.5", PCW) - \$129.00
HOME ACCOUNTS
 (PC 5.25" or 3.5") - \$89.95
 Please include post and packing.
 Send your order to:
THE AMSTRAD USER
 1/641 High Street Road
 Mount Waverley
 Victoria 3149 Tel: (03) 803 9661

Have you joined a

NATIONWIDE USER GROUPS

WESTERN AUSTRALIA

AMSTRAD USER GROUP (BUNBURY)

Chairman: Brian Ballard (097 217 199)
Secretary: John Cohen
Venue: 90 King Rd, Bunbury on the 3rd Saturday of every month at 9pm.
Mail: P.O. Box 77, Brunswick Jn, WA 6224.

AMSWEST (Perth)

President: Graeme Worth (09 341 5211)
Vice Pres: Thelma Ardron (09 361 8975)
Secretary: Gerry Atkinson (09 381 5434)
Treasurer: Richard Lang (09 525 4087)
Venue: 293 Bagot Road, Subiaco 6008 on the first and third Tuesdays of each month at 7.30.
Mail: P.O. Box 476, West Perth 6005 WA..

VIC CHIPS USER GROUP

(Amalgamated with Rockingham Quingana Group)
President: Des Nichols
Secretary: Val Hoeksema (09 527 7426)
Venue: Malibu Special School, Malibu Rd, Waikiki every Tuesday at 7.30pm.
Mail: PO Box 540, Rockingham WA 6168

SOUTHSIDE AMSTRAD USER CLUB

President: Brian Purser (09 398 1168)
Secretary: Lynda Blissett (09 459 6448)
Treasurer: Eric Tytherleigh (09 390 8865)
Venue: Huntingdale Primary Sch., 85 Matilda St, Huntingdale every 2nd and 4th Wednesday of each month from 7.00 pm.
Mail: The Sec., Southside Amstrad Users Club, 25 Halfmer Crt, Maddington, WA 6109.

AMSTRAD COMPUTER CLUB TOM PRICE

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

SOUTH AUSTRALIA

AMSOUTH AMSTRAD USER'S GROUP

President: Drew Ames (085 371 0151)
Treasurer: Bob Bleachmore (085 56 2048)
Secretary: Will Vaughan after 6pm: (08 382 8312)
Christies Beach High School, Western Section, Beach Road, Christies Downs (adjacent to Staff Car Park off Mander Road) every 2nd Wednesday at 7.30.
Mail: PO Box 612, Noarlunga Centre, SA 5168.

AMSNORTH AMSTRAD USER'S GROUP

Organisers: J.T. Clarkin (08 262 6342)
R. Britton (08 258 7861)
Venue: Lacrosse Hall, Terama Street, Gepps Cross every Wednesday at 7.00 p.m.

AMSTRAD COMPUTER CLUB INC. (SA)

President: Ross Barker (08 374 0565)
Vice Pres: David Simpson (08 373 1693)
Vice Pres: Paul Beard
Treasurer: Les Jamieson (08 356 9612)
Secretary: Debra Dienelt (08 339 1314)
Venue: Torrensville Primary School, Torrensville every Tuesday between 6.30 & 9.00pm.
Mail: PO Box 210, Parkholme, SA 5043.

NORTHERN COMPUTING SOCIETY Inc.

President: Valerie Clarke (08 248 4031)
Vice Pres: Tony Mackereth (08 281 3968)
Sec./Treas: Graham Brewin (08 258 5320)
Venue: Drop-In Centre, Salisbury North Primary School, cnr. Bagster & Woodyates Rds every Wednesday from 7.00.
Mail: PO Box 482, Salisbury, SA 5108.

VICTORIA

CENTRAL AMSTRAD USER SOCIETY

President: Fred Gillen (03 580 9839)
Vice-Pres: Dennis Whelan (03 367 6614)
Treasurer: Doug Jones (03 560 8663)
Secretary: Craig Tooke (03 359 3736)
Venue: Bogart's Restaurant on the corner of Victoria and Errol Streets, North Melbourne on the first Sunday of each month starting at 1.00 pm.

EASTERN AMSTRAD USER GROUP Inc.

President: Tony Blakemore (03 890 3116)
Secretary: Stella Muir (03 723 1139)
Treasurer: Les Kovack (056 234 836)
PCW rep: Ron Hawthorn
Venue: St. Ninian's Church Hall, cnr. McCracken Avenue and Orchard Grove, South Blackburn on the 1st Sunday of each month from 1.00pm.

GEELONG AMSTRAD USER CLUB

President: Arthur Pounsett (052 78 2160)
Vice-Pres: Arthur Vienna (052 78 6736)
Secretary: Tony Sowinski (052 78 9418)
Venue: South Barwon Community Services Ctr, 33 Mount Pleasant Rd, Belmont on the first Wed. of each month, from 7.30pm.
Mail: PO Box 583, Croydon, 3136.

GOULBURN VALLEY AMSTRAD USERS CLUB

President: Roger Tacey (058 23 1404)
Secretary: Rod Raven (058 21 9034)
Treasurer: Bev Felton (058 21 2703)
Venue: North Shepparton Community House, Olympic Ave. Every 3rd Thur. from 7.30pm
P.O. Box 1713, Shepparton 3630.
Mail:

MOUNTAIN DISTRICT AMSTRAD USER GROUP Inc.

President: David Jamieson (03 870 1016)
Treasurer: Ian Pearson (059 965 019)
Secretary: Ian Pearson (059 965 019)
Venue: Country Womens Association Hall, 4 Sundew Avenue, Boronia from 7.00 pm. every 2nd & 4th Monday of the month.
Mail: PO Box 132, The Basin, Vic 3154.

SOUTHERN AMSTRAD USER GROUP Inc.

President: Gerry Goody (03 786 3489)
Secretary: Bob Patterson (03 786 6976)
Treasurer: Geoff Wales (03 786 9212)
Venue: Karingal Tennis Club, Gretana Crescent, Frankston every third Tuesday at 7.30pm
Mail: The Sec., PO Box 100, Seaford, Vic 3198.

SUNBURY MELTON AMSTRAD USER GROUP

Contacts: Wayne Urmoston (03 744 2719)
Norman McEntee (03 743 7104)
Venue: Toolern Vale Hall, Toolern Vale every third Saturday of the month at 10.00 a.m.

WENDOUREE AMSTRAD USER GROUP

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

WESTERN AMSTRAD COMPUTER CLUB

Contact: Noel Sutherland (03 369 5480)
Venue: Fairbairn Kindergarten, Fairbairn Road, Sunshine on alternate Tuesdays from 6.30pm.
Mail: PO Box 161, Laverton 3028.

ACT

CANBERRA AMSTRAD USER'S GROUP

Convenor: Paul Kirby (062 86 5460)
Secretary: James Gifford (062 47 5126)
Treasurer: Rod MacKenzie (062 54 7551)

Venue: The Oliphant Building, ANU, Canberra on the first Tuesday of each month from 7.30 pm.
Mail: PO Box 1789, Canberra, ACT 2601.

NEW SOUTH WALES

BLUE MOUNTAINS AMSTRAD USERS

President: Bob Chapman (047 39 1093)
Vice Pres: Dennis Shanahan (047 39 4568)
Treasurer: Peter Traish (047 53 6203)
Secretary: Malcolm Stone (047 51 2791)
Jun. Rep: Nathan Stone (047 51 2791)
Venue: Springwood Neighbourhood Centre, Macquarie Road, Springwood on 2nd and 4th Wednesday of each month at 8.00pm.

BRISBANE WATERS AMS USER CLUB

President: Peter Scammell (043) 676408
Vice Pres: Arthur Bradney
Secretary: Douglas Green (043) 422568
Treasurer: Andrew Perneckner (043) 692430
Venue: Meals on Wheels Hall, cnr Ocean Beach rd and McMasters rd, Woy Woy. Third Thursday of each month at 7.30pm.
Mail: 1/254 Railway st, Woy Woy, NSW. 2256.

CENTRAL COAST AMSTRAD USERS CLUB

President: John Hearn (043) 842 744
Secretary: Don Miller (043) 966 561
Treasurer: Nick Winter (043) 846 766
Venue: Mingara Recreation Club, Adelaide Street Tumbi Umbi.
Meets 2nd and 4th Mondays at 7.30pm.
Mail: Secretary, 15 Crown St, Toukley, 2263

COFFS HARBOUR AMSTRAD COMPUTER CLUB

President: Bruce Jones (066 52 8334)
Secretary: Colin Jones (066 49 2127)
Treasurer: Brian Claydon (066 49 4510)
Venue: Orara High School, Joyce Street from 7.00 on the first Friday of each month.
Mail: 169 Beryl St, Coffs Harbour, 2450.

HAWKESBURY AMSTRAD USER GROUP

President: Terry Webb (045 76 5291)
Secretary: Dave Keen (045 77 5536)
Venue: Richmond Swimming Club Rooms every third Tuesday of the month at 7.30 pm.

ILLAWARRA COMPUTER USERS CLUB

President: Mark Jones (042 29 2109)
Secretary: Neville Dillon (042 56 2642)
Treasurer: Steve Astill (042 71 5462)
Librarian: Peter Platts (042 56 1956)
Venue: AGA Gramania Club, Berkeley at 2.00 pm. every third Saturday of the month.

LISMORE DISTRICT AMSTRAD COMPUTER CLUB

President: Tom Wright (066 291 302)
Secretary: Russell Bell (066 216 888)
Treasurer: Deborah King (066 864 424)
Librarian: Ben King (066 864 424)
Venue: Goonelabah Public School, Ballina St. on the last Tuesday of each month from 7pm.
Mail: PO Box 771 Lismore, NSW 2480.

PARKES COMPUTER USER GROUP

Contact: Eileen Magill (068 643 285)
Mail: North Gunning, Gunningbland, NSW 2876.

S & W MILLER AMSTRAD USER'S CLUB

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

MURWILLUMBAH AMSTRAD USERS GROUP

President: Nick Bruin (066 79 3280)
Vice Pres: Kel Phillip (066 77 1440)
Secretary: Laura Goode (066 72 2499)

user group lately?

Treasurer: Lorraine Montgomery (066 72 1823)
Venue: Murwillumbah High Sch. on the 2nd
Wednesday of each month at 7.00p.m.
Mail: c/o Post Office, Burringbar, 2483.

NEWCASTLE AMSCLUB (USER GROUP)

President: Bill Simkus (049 52 4638)
Secretary: Rex Morris (049 62 1221)
Treasurer: Roy Hannon (049 51 3167)
Venue: Waratah-Mayfield RSL Club (upstairs
room), Hanbury St, Mayfield on the first
and third Tuesday of the month at 7.30pm.
Mail: 36 Teralba Road, Broadmeadow, 2292

PCW AUSTRALIA GROUP

Secretary: Clyde Gittins (02 579 3984)
Treasurer: Geoff Bolton (02 745 2230)
Venue: Burwood RSL Club, 96 Shatesbury Road,
Burwood every second Tuesday of the
month at 7:30 pm.
Mail: PO Box 478, Smithfield, NSW 2164.

SYDNEY AMSTRAD COMPUTER CLUB

President: Tom Caldwell (02 661 7573)
Sec/Treas: Reed Walters (02 560 9487)
Venue: Camdenville Comm. Ctr., Newtown on the
1st Saturday of every month at 2.00 p.m.
For more details contact the Secretary
between 6.00 p.m. and 9 p.m.
Mail: PO Box 423, Matraville, 2036.

SYDNEY PC1512 USER GROUP

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

QUEENSLAND

AMSTRAD AND PC USER GROUP OF LOGAN

President: Michael Toussaint (07 200 5414)
Vice-Pres: Peter Incoli (07 208 2332)
Secretary: William K. Giles
Treasurer: Bryan Carter
Librarian: Carol Watts (07 287 2882)
Newsletter: Rhys Watkins
Venue: Loganlea State High School (in the
Communications Room) every 3rd Sat.
of the month starting at 2.00 p.m. A Basic
programming course is held fortnightly,
10 Carramar St, Loganlea, 4204.
Mail:

BRISBANE AMSTRAD COMPUTER CLUB

President: John O'Connor (07 271 3350)
Vice Pres: John Digby (07 351 2553)
Secretary: Bob Ashe (07 355 5699)
Treasurer: Ivan Dowling (07 269 8795)
Tech. Editor: Franz Hendrickx (07 356 0633)
Venue 1: NEWMARKET: Newmarket State Sch.,
Banks St., Newmarket on the 2nd Sat. of
each month at 1.30p.m. Any executive
member can be contacted for information.
Venue 2: REDLAND BAY: Birkdale State Sch.,
Agnes St, Birkdale 4159 on the 3rd Sat. of
each month from 1.00pm. Co-ordinators
are Paul Peterson (07 206 7214) and
New Taylor (07 207 3435).
Venue 3: SUNNYBANK: Sunnybank State Sch.,
Turton St, Sunnybank 4109 on the 3rd
Sun. of each month from 1.30pm. Contact
Jim Papadimitriou (07 344 2067).
Venue 4: WESTERN SUBURBS: Jamboree Heights
State Sch., 35 Beanland St, Jamboree
Heights 4074 on the 1st Sat. of each
month from 1.30pm. Contact Gordon
Bradford (07 814 4746) or Helda & Jim
James (07 376 1137).
Venue 5: REDCLIFFE PENINSULA: Kippa-ring
State Sch. (library), Elizabeth St, Kippa-
ring 4020 on the 2nd Sun. of each month
from 1.30pm. Contact Ivan Dowling (07
269 8795)
Mail: PO Box 167, Alderley, Qld. 4051.

BUNDBERG AMSTRAD USER'S GROUP

President: Ray Babbage (071 72 1223)
Secretary: Clive Barrett (071 71 3688)
Treasurer: Sheila Coe (071 72 8884)
Venue: The third Tuesday of the month. For more
details contact the above.
Mail: 11 Laack St, Bundaberg, QLD 4670.

COMPUTER USER GROUPS OF AUSTRALIA

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

GOLD COAST AMSTRAD USER GROUP

President: Gary Rosenblatt (075 33 9232)
Treasurer: Greg Sneedon (075 32 0227)
Secretary: Pam Scott (075 32 3334)
Venue: Benowa State High School, Mediterranean
Avenue, Benowa on the first Saturday of
each month at 2.00 pm.
Mail: 46 Musgrave Ave. Southport 4215.

MACKAY AMSTRAD USER GROUP

Contact: Des Mulrealey (551 409)
Geoff Taylor (552 350)
Venue: Meet every second Sunday morning.
Contact the above for location and time.

PENINSULA AMSTRAD CLUB

(amalgamated with BACC)
President: Ivan Dowling (07 269 8795)
Treasurer: Keith Johnston (07 203 2339)
Venue: Kippa-Ring State School Library, Elizabeth
Avenue every thru Tuesday of the month
at 7.30 pm.

TOOWOOMBA AMSTRAD USERS GROUP

President: Tony Carlaw (076 91 6161)
Secretary: David Culliford (076 32 7277)
Asst Secs: Chris & Glen Jones (076 91 2643)
Treasurer: Anglea Gschidie (076 34 1692)
Librarian: Shane Gschidie (076 34 1935)
Venue: Toowoomba Education Centre, Baker
Street, Toowoomba on the 4th Monday of
each month starting at 7.30 pm.
Mail: c/o Secretary, 58 Curzon St, Toowoomba,
QLD 4350.

TOWNSVILLE AMSTRAD USER GROUP

President: Ian Wallace (077 73 1798)
Vice Pres: Doug Selmes (077 79 6011 xt 252)
Treasurer: Chris Nisen (077 79 6299)
Secretary: Allister Buckingham (077 73 3955)
Venue: Science Block of the Kirwan High School
in Thuringowa Drive on the first and third
Tuesdays each month at 7.30pm.

THE WARWICK AMSTRAD USER GROUP

President: Mrs. D. Christensen
Secretary: John Wode (076 61 5176)
Treasurer: Neville Christensen

WEIPA AMSTRAD USERS CLUB

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

TASMANIA

SOUTHERN TASMANIAN AMSTRAD CLUB

President: David Burt (002 44 3385)
Secretary: Lance Brown (002 28 2018)
Treasurer: Cindy Campbell (002 34 8003)
Venue: Glenorchy Regional Library, Glenorchy at

7:30pm on the 4th Wed. of each month.
PO Box 247, North Hobart, 7002.

NORTHERN TASMANIA AMSTRAD COMP. CLUB

President: David Double H (003 444 243)
V. Pres.: Shane Crack H (003 446 525)
Sec/Treas: Enid Baker B (003 431 313)
Librarian: Paul James H (003 273 525)
Junior Del: Jason Donati H (003 316 597)
Tech. Off.: Richard Wilson H (003 931 437)
Venue: Launceston Community College (opposite
Park Street) in Room 27 on the first
Saturday of the month at 5.00 p.m.

N.W. COAST AMSTRAD USER'S CLUB

President: Peter Gibson (004 24 7586)
Treasurer: John Westerhof (004 24 3977)
Secretary: John Westerhof (004 24 3977)
Venue: Don College, Watkinson St Devonport the
third Sunday of every month at 7.30pm.
Mail: Secretary, 7 Bishton St, Devonport, Tas.

NEW ZEALAND

THE AMSTRAD COMPUTER CLUB OF CANTERBURY

Contact: Ian Orchard (524 064)
Venue: Four Avenues School, cnr. Madras Street
and Edgeware Road, Christchurch 1 on
the fourth Wednesday of each month.
C/o 50 Rapaki Road,
St. Martins, Christchurch. 2 NZ.

AMSTRAD USERS GROUP

Contact: John Court H (666 143)
Venue: Oranga Scout Hall, Ferguson Park,
Waitangi Road, Auckland. Between 9.30
am and 4 pm on the third Saturday and
the last Sunday of the month. CPC and
PCW's catered for.

WELLINGTON AMSTRAD USER GROUP

President: Patrick Faury (766 185)
Secretary: Lesley Walker (679 169)
Treasurer: Gareth Purchas (764 111)
Librarian: Dennis Lowe (887 919)
Librarian: Ewen McNeill (784 520)
Mag Editor: Steve Lillis (675 524)
Venue: Cafeteria, NZ Fisheries Research Division,
Greta Point, Evans Bay, on the first
Monday of each month from 7.30 pm.
Mail: PO Box 2575, Wellington, New Zealand.

CONTACT LIST

Victoria:

Brian Ellis, Reservoir
(03) 469 4425 A/H

South Australia:

Dave Green, Port Pirie
(086) 326 834

NATIONWIDE USER GROUPS

CLASSIES

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

Ribbons re-inked \$4.50 plus return postage. Judith Thamm, Box 269, Two Wells SA 5501 (Ph 085 20 2377)

Start Computing on a PC - by Judith Thamm. Learn quickly and easily at home. Hints, tips and traps for DOS and an intro to BASIC.

Book plus 5.25" disc - \$35.

Book plus 3.5" disc - \$38.

Cheque, Money Order, Bankcard, Mastercard accepted.

Ring Judith Thamm, (085) 20 2377. Box 269, Two Wells SA 5501

IBM compatible and CPC 464 software, games, utilities and educational from 40¢.

Write for free catalogue, John McNeil, 1 Hawkins Street, Chatswood Hills, 4127 or Phone (07) 808 2637 after 5 pm.



Classified Ads Order Form

This 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

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

CONTRIBUTIONS

We accept unsolicited articles or program contributions from readers with a view to possible publication, but in the case of programs we must insist that the coding is submitted on either tape or disc. We just do not have the time to key them all in. The tape or disc will be returned if originally accompanied with a stamped and return addressed padded bag.

DISPLAY ADVERTISING DEADLINES

Issue	Booking by	Copy by
OCT'90	09/08/90	17/08/90
NOV'90	10/09/90	21/09/90
DEC'90	08/10/90	19/10/90

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.

NOTE: Classifieds are reserved for readers' use only. Commercial companies or traders are excluded.

Amstrad PCs

The following collection of disks contain compilations of public domain programs suitable for Amstrad PCs (and possibly other IBM clones). With the exception of PC-SOFT #1, all items are available on both 5.25" or 3.5" disk format.

PC-SOFT#1 requires Basic2 (supplied with Amstrad 1512 or 1640s), whilst all others require MS-DOS version 2.1 or above. s.

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

PC-SOFT #1

19 Basic2 utilities or games on one 5.25" disk, with:

3DGRID.BAS

Add an extra dimension to your maths formulae. You can enter your own functions or watch the 9 demonstrations plot.

3D-VIEW.BAS

This Basic2 program takes a series of x, y and z co-ordinates and constructs a picture from them. The three dimensional image can then be manipulated for a view at any angle, size and rotation.

ANAGRAM.BAS

Presents a jumbled word from a store of around 600 for you to unscramble as quickly as possible

ANGLES.BAS

This program provides both instruction and testing of the basics of angles. Acute, right, obtuse and reflex angles are drawn and described, then followed by a tests where angles have to be named or where you try to match a given angle by positioning a point with the mouse.

BASIC2.APP

Along with BASIC2.RSC the files provide an upgrade to version 1.23 with three extra commands - Alert, Inkey and Selector. You can use this version only if you have a licence to do so. If you have bought an Amstrad PC1512 or 1640 then you already have the licence, and this copy is supplied on the same terms as the original.

BAS-INIT.BAT

This batch file prepares a single floppy with enough of MS-DOS, GEM and BASIC2 to run the language from one disk.

BRAHMA.BAS

A version of the old favourite 'Towers of Hanoi' in which discs must be transferred from one pole to another without ever placing a disc on top of a smaller one.

BRAHMA2.BAS

The same as BRAHMA.BAS but with a recursive solution and demonstration.

BUSES.BAS

An educational program teaching number recognition and counting to pre-school children.

ENIGMA.BAS

A game which involves moving and interchanging two blocks of shaped tiles, with the object of transposing two blocks from opposite corners of the playing area.

EUROQUIZ.BAS

A graphic, multiple-choice quiz based around the countries of Europe and your knowledge of its major cities.

MANDEL.BAS

Draws extremely attractive multi-coloured Mandelbrot sets of your choice. Be warned - it takes a long time!

MATHS.BAS

This program offers you five types of test, covering addition,

multiplication, subtraction and division and a random mixture of all four.

OXO.BAS

The thinking machine's noughts and crosses, and an example of one of the programs which can be found in Peter MacBride's book "Advanced Basic2 programs on the Amstrad PC".

ROBOPOST.BAS

A compulsive, simple yet frustrating sliding tile game with a difference - you have to create a pathway for a robot postman.

STYLISER.BAS

Downloads any of three fonts into an Epson-compatible printer, and they may be used with other programs (including non-GEM ones) to add sparkle to your correspondence.

SUNDIAL.BAS

A program for generating sundials on your PC. It takes into consideration your latitude and then calculates the appropriate hour angles and the 'style height'.

TENPIN.BAS

A ten-pin bowling game in which your PC keeps score and resets the pins after each go.

TURTLE.BAS

Based loosely on 'turtle' drawing found in Logo programs, this program allows you to draw and colour squares, circles, pies and ellipses.

PC-SOFT #2

Eight games on one 5.25" or 3.5" disk with:

3DOXO.EXE

A three dimensional version of Noughts and Crosses played on four planes against your computer. Each plane, one above the other, contains a grid of sixteen squares. To win, you must get four of your counters in a row - vertically, horizontally or diagonally. It's not as easy as it sounds and the computer plays a strong game.

BOUNCY.COM

A giant nuclear-power station that orbits the planet Abraxii has gone terminal. You have been raced to the scene, encased in your Ultra-Ball, to stabilise the reactor by colliding with the uridium cooling rods and driving them home one at a time. Your score 10 points for each rod successfully replaced. The only problem with the Ultra-Ball is that it is unsteerable and always travels in a straight line, horizontally or vertically. What you must do is activate the deflector shields that are built into the reactor so that the ball will bounce off them and hit the cooling rods. Within the reactor are anti-matter death stars which will destroy you on contact and inter-spatial gateways which will take you from one side to the other.

DRAGONFLY.EXE

A full colour action arcade game originally designed for the PC1512, but also works on EGA if you don't mind a messy title screen. The games centres on a tract of water patrolled by a

helicopter. Your mission is to blast enemy hydrofoils out of the water before they blast you. The helicopter can be controlled with the numeric keypad (or a nine-pin joystick fitted into the keyboard of a PC1512/1640).

JOIN4.COM

This strategy game is based on the 'board' game Connect4 and involves two players dropping counters alternately onto one of the seven to try and produce a line of four in any direction - but be warned, it plays a mean game! It is self-contained and displays its own instructions. The game can be played against your computer, against another player with the computer keeping score, or the computer can play itself.

MM.EXE

This is the infamous Mastermind game of logic but with some additional features. You can play against a clock and have to keep a watchful eye on an ever dropping thermometer style scale on the right of the display. There's also a digital clock to remind you how long you have been playing. There are four levels - Amateur, Average, Expert or Master and the range of numbers for any sequence can vary from six to ten using any digit between 0 and 9. It also features sound effects and you can alter your guess as many times as you like within a time limit. You get a progress report after every ten moves.

MOLECULE.EXE

A jazzy version of Black Box in which you fire beams into a lattice of squares and determine where the molecules are hidden by analysing the reflections and absorptions. It's a bit like a 3D version of Mastermind but with more information provided.

A ray is absorbed by a direct hit and reflects from any of the corners of a molecule. You mark where you think each molecule is and check your guesses at the end of the game. There is a variable time limit to add tension to the game with sound, level of play and number of molecules also optional. There's also a demonstration mode to show you how it all works.

RACE.COM

Race simulates a six-race meeting at any of four courses. Each race is of a different length and you have to study the form to select the horse most likely to win. You start off with £50 (pretend they are dollars) and can bet up to £99 for a win or place to a maximum of four place bets in any meeting. The race is shown in colour (you must at least have CGA) as the horses come to the last fence, and although form plays a major part, your horse can still fall at the last fence.

REVERSI.COM

A very good version of Othello (for CGA graphics screens) with menu options offering instructions, programming details and a high score table. The object of the game is to have more squares covered with counters of your own colour than your opponent's when the board is full. You must place each counter to trap at least one counter of the opposite colour between your new one and another of yours already on the board. All trapped counters are then flipped over to your colour.

PC-SOFT #3

Twenty-four utilities on one 5.25" or 3.5" disk with:

BEEP.COM

If you compile large Cobol programs or simply want to irritate your neighbours, this is just the utility for you. It produces an attention-seeking alarm and tells you to press 'any key to continue'.

CAL.COM

A perpetual calendar which will display any month from the year 1753 to 3000 - instantly.

CALENDAR.COM

Lets you display and print a calendar for any year between 1900 and 2099.

CGA2.COM

Offers something like a 60% success rate in allowing owners of monochrome monitors to run programs that use CGA graphics in different shades of grey.

CHOICE.COM

A short command file providing a handy way of using multiple-

choice menus in your batch files.

CLEANUP.COM

If you use WordStar (not WS1512) or NewWord you may know they do funny things to the last letter in each word making them hard to read or load into another file. Run them through CLEANUP and most of your troubles are over.

CLICK.COM

A simple program to make your PC 'click' every time you press a key on the keyboard.

CLR.COM

Simply clears the screen to a specified colour.

CURSOR.COM

A utility, most useful for PPC owners, which changes the shape of the cursor to a block or turns it off all together.

DELB.BAT

A batch file which deletes all the files in the current directory which don't conform to a series of specified wildcards.

DOSEDIT.COM

A very handy routine to keep on your MS-DOS work disc. It takes a lot of the pain out of MS-DOS when you are trying to copy a lot of files or work with hierarchical directories on a hard disc. It lets you edit the command line.

DOSMAP.EXE

This program provides complete information about the contents of your PC's memory - which programs are in there, how much of memory they occupy and what interrupts they have taken over.

DRIVE.COM

Mainly for use in batch files, DRIVE checks whether a specified drive is ready for access.

ETIMER.EXE

Can be used to check or measure the time taken to run another program or an MS-DOS command.

FILEDATA.COM

Reads the system clock of your PC and produces a short text file (with the filename DATE) containing the full date in the form 'Monday 25th December'.

FSORT.BAT

This useful batch file takes two ASCII files, adds the second to the end of the first and sorts the result.

FULLDIR.EXE

This displays the directory tree structure of any drive.

GDELEXE

A global deletion program (so be careful!). It deletes all specified files or those with wildcards.

HDFLASH.COM

A useful utility for owners of Hard Disk Cards who can't see when the disk is being accessed. It puts a smiley face in the corner of the screen which is solid when the drive is reading and hollow when it's writing.

KD.COM

A dangerous but useful utility which kills a directory simultaneously removing all files within it.

LOSTFILE.EXE

This searches out files you know are somewhere on your disc.

LYNE.EXE

A great utility which lets you type a short letter or document line by line and saves having to go through a word processor. It sends your text to the printer at the end of each line. It also contains built-in codes for all the normal Epson printer effects.

MEDIT.COM

A neat and fast memory editor which can show you bytes of memory in real time.

NVRSAVE.COM

Enables you to save/store the contents of your NVR area to disk before removing and replacing your batteries. Once the new batteries are in place you can use NVRREST.COM to restore the non-volatile RAM (NVR) area of your Amstrad PC.

PC-SOFT #4

Six games on one 5.25" or 3.5" disk with:

CRIB6.EXE

This is a full version of the popular card game for two players complete with cribbage board and score card. You can use the keyboard or the mouse to play the cards by simply pointing at them. For the uninitiated, each player takes a turn in playing a card to score points as they are laid. When all the cards have been played, they are scored individually and added to each player's accumulating score on the pegboard. The first player to 121 is the winner. There is a cheat mode whereby you can use the reveal option to show you your opponents cards.

GALACTIX.COM

Your crippled spacecraft, the USS Galactix, has crash landed on a planet after colliding with a meteorite. You were trying to get back to Earth at the time and unless you find five specific items to repair your ship, you are doomed. Naturally the planet is hostile being patrolled by robots and guards. You can 'get' objects, 'use', 'drop' or 'examine' them by using icons displayed on the right of the screen. Energy will be lost quickly if you come into contact with the inhabitants. Food and drink will replace lost energy. There are many puzzles and they must be completed in order to complete the game.

JASON.EXE

Trapped on an alien planet and surrounded by mutated plants and animals, you have to guide Jason around numerous obstacles to gather up the heart shaped crystals. Part of the screen gives way under his feet if he dawdles, so planning is essential. Four lives are provided and you lose one if you touch a flower or a hollow head.

RIMTRIX.COM

A real brain teaser, RIMTRIX involves a series of slideable tiles each bearing a pattern of tracks. Coloured balls are collected from the left of the screen and directed to their relevant coloured cups on the right of the screen by moving the tiles and creating a path for the ball. If the ball falls into an areas without a tile, the ball is lost.

Tiles can only be moved if in a position to be moved (ie. next to a black space) and can be moved left, right, up or down and even rotated. Keys can be redefined if required, but the game defaults are the arrow keys and the space bar to rotate. You cannot rotate a tile with a ball in it.

SNAKE.COM

There are lots of 'Snake-style' games around, but this one is different. The aim is to gobble up all the yellow apples, which are replaced elsewhere on the screen with red apples. Eat the red apples and they are replaced with poisonous mushrooms which must not be touched or you're dead. They can, however, be destroyed by spitting venom at them. Steering is different in that the snake will always turn left or right in relation to the direction in which it is travelling. There are many levels.

WEASEL.COM

A demonstration of the power of natural selection with a given alphabetical phrase. The program takes a completely random set of letters and with each generation uses a pre-set probability to decide whether a given letter will mutate to a random one. If this is the case, and the new letter is in the target phrase, it is deemed to more closely suit its environment.

PC-SOFT #5

Twenty-three utilities on one 5.25" or 3.5" disk with:

PEEK.COM

If you need to search through a file containing readable sections of text, this small utility will do the job for you.

POINTER.ACC

A GEM accessory which displays the pixel co-ordinates of the pointer. It is called from the application name menu by clicking on the 'Pointer-Pos' option.

POPTIME.EXE

A compact (only 1k) resident clock display program which not only pops up but also pops back on its own accord. It is loaded into RAM by typing POPTIME.

PRCODES.COM

This utility allows you to send any code through the serial or parallel port of your PC to your printer. Most of the codes are escape characters (beginning with the ASCII character 27). Other can be found in your printer manual. The codes are sent in decimal (1 to 255) or, for some, using the relevant keyboard character.

PRMODE.COM

A very friendly printer mode selector allowing you to select special effects on your printer (like bold, italic and underline) outside an application program (eg. when you use COPY filename PRN:). It can be used in a batch file or from the A> prompt.

PRINTC.COM

Another utility for getting codes to your printer which can be sent in hexadecimal or as the ASCII character.

PSTASH.COM

A useful utility for redirecting any output sent to the parallel printer ports to a named disk file.

RENDIR.COM

Here's a utility which enables you to easily rename a sub-directory. It's particularly useful if you have just created a sub-directory and copied a heap of files into it then decide you have the wrong name.

SCRDMP.EXE

This is a memory resident screen dump utility. It saves a text screen to a named file using the [PrSc] key from your choice of application.

SEE.EXE

A utility for spotting ASCII strings in machine code files and then display them on the screen.

SET UTILITIES

Five useful utilities to set up an Epson printer from the A> prompt. They can also be included in your AUTOEXEC. BAT file for an automatic set up.

SET10.COM

- sets PICA type with ten characters per inch

SET12.COM

- sets ELITE type with twelve characters per inch

SET12M12.COM

- sets ELITE type and a 12 character margin

SETNORM.COM

- cancels any SET commands and resets the printer

SETPOUND.COM

- sets pound and hash signs so that they print as displayed on the screen.

SGR.COM

A utility for setting particular screen attributes. You can change colours, bold characters, reverse video etc.

SIZE.EXE

A fast utility which counts the number of characters, words, lines and pages of a named text file or files.

TSTDATE.COM

This utility, when incorporated in a batch file, provides a simple 'on date goto' function and a 'day of the week' function, a useful feature for automatic backups.

TIMEFIX.COM

A bug-fix exclusively for PC1512 owners who have problems when their internal clock gets to midnight. Apparently (in some cases) the clock continues to 31.00 instead of changing to 00.00 then hangs the machine.

TIMEPARK.COM

A utility for nervous hard disk users worried about disk head crashes. It 'parks' the heads after a pre-determined period of disk inactivity. They are 'un-parked' the moment an access is necessary.

TV.COM

A text view program with many features to display text files. You can scroll through a file in either direction at a line a time, move

back or forwards a page or straight to the start or end of a file. Unreadable symbols in Wordstar files can be converted to alphabetic form. Strings can be searched for with moves to the first or subsequent occurrences. TV also comes with an index facility for up to 16 separate text files accessed through an index screen.

WORDS.COM

A useful word counter which will give you a pretty accurate word count for any ASCII text file.

WYH.EXE

This utility looks at the system parameters and reports on the screen. It shows the number of floppy drives, whether or not a games card or maths co-processor are fitted, the number of parallel and serial ports, the size of RAM available and the number of hard disk drives on board.

HOW TO ORDER YOUR DISCS

Before placing your order, please make sure you have selected the correct item for your computer.

All software for PCs or compatibles have a reference PC-SOFT followed by a number.

Software for CPCs (found on this page) have a reference starting with #4 (for CPC464s with a disk drive and CP/M 2.2) or #6 (for CPC6128 running CP/M Plus).

Software for PCWs have a reference starting with #8. These discs can be converted to run on a PCW9512.

You may either order over the phone quoting your credit card, or by post enclosing a cheque, money order or quoting your credit card number and expiry date.

The cost of each disk is as follows:

PC-SOFT 5.25" disks	12.50
PC-SOFT 3.5" disks	15.00
CPC 3" disks	17.50
PCW 3" disks	17.50

(Please add relevant postage as shown on Pages 56 to 64)

THE AMSTRAD USER
641 High Street Road
Mount Waverley, 3149
(03) 803 9661

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**

CPC and PCW

The following discs contain compilations of public domain programs 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.

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 bulletinboards. 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/M v2.2 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, Biorhythms, 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* (written in Mallard Basic for either PCW or 6128 Mallard users. Standard CPC users see *Adventurer's Attic March 1989*) - 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**

THE AMSTRAD USER

Comprehensive catalogue of Entertainment and Business Software, Books, Add-ons and Consumables for all Amstrad computers.

— CPC —
464 - 664 - 6128

CPC GAMES

	Discs	Tapes							
3-D Pool	49.95	39.95	Flippit	29.95	24.95	P-47 Thunderbolt	39.95	29.95	
500cc Grand Prix	-	24.95	Forgotten World	39.95	29.95	Panic Stations	39.95	29.95	
1942	24.95	-	Fury, The	-	34.95	Passing Shot	39.95	-	
After the War	39.95	-	Galactic Conqueror	49.95	39.95	PHM Pegasus	34.95	-	
Action Fighter	49.95	29.95	Galaxy Force	44.95	29.95	Pictionary	39.95	29.95	
Adventure 4-Pack	32.95	27.95	Garfield	34.95	-	Pipe Mania	39.95	29.95	
After the War	-	29.95	Gazza's Soccer	39.95	29.95	Powerdrift	39.95	29.95	
All Points Bulletin	-	29.95	Gemini Wing	49.95	34.95	Professional 4 Soccer Simulator	34.95	24.95	
Altered Beast	39.95	29.95	Ghostbusters II	44.95	29.95	Rainbow Island (Bubble Bobble 2)	39.95	29.95	
Alien Syndrome	24.95	-	Ghouls and Ghosts	39.95	29.95	Rally Cross	39.95	29.95	
Australian Rules Football (tape only)	-	29.95	Gm. Gooch's Cricket	29.95	-	Renegade 3	39.95	29.95	
Bard's Tale, The	39.95	-	GunShip	59.95	49.95	Rodeo Games	39.95	-	
Batman - The Movie	39.95	29.95	Hammer Fist	39.95	29.95	Run the Gauntlet	-	29.95	
Beach Volley (volley ball)	39.95	29.95	Hard Drivin'	39.95	29.95	Scapeghost (Level 9 adventure) 128 only	49.95	-	
Black Tiger	39.95	29.95	High Steel	39.95	-	Scramble Sprits	39.95	29.95	
Bloodwych	39.95	29.95	Hot Rod	39.95	29.95	Shinobi	49.95	34.95	
Bobo	39.95	29.95	Impact	49.95	-	Silk Worm	49.95	-	
Bomber	44.95	29.95	Impossamole	49.95	39.95	Skate Crazy	-	29.95	
Cabal	39.95	29.95	International 3-D Tennis	39.95	29.95	Snoopy	39.95	-	
Carrier Command (128k only)	49.95	-	Italy 1990 (World Cup Soccer)	-	29.95	Sonic Boom	39.95	29.95	
Castle Master	39.95	29.95	Jaws	39.95	-	Sorcerer Lord	44.95	29.95	
Chase HQ	44.95	29.95	Jack Nicklaus Golf	44.95	-	Space Harrier 2	39.95	29.95	
Chuck Yeager's Adv. Flt. Trainer	54.95	45.95	Klax	39.95	29.95	Space Racer (Space jet bikes)	32.95	-	
Crackdown	39.95	29.95	Knighforce	39.95	29.95	Spherical	39.95	29.95	
Crossbow - Legend of Tell	-	29.95	Lancelot	49.95	39.95	Storm Lord	36.95	-	
Cyberball	39.95	29.95	Last Duel	-	29.95	Strider	39.95	29.95	
Dan Dare 3	39.95	29.95	Licence to Kill	39.95	29.95	Super Scramble	39.95	29.95	
Double Dragon 2 (6128 only)	42.95	-	Mercenary Compend. (2 games)	-	29.95	Super Puffy's Saga	39.95	29.95	
Dragon Spirit	39.95	29.95	Microprose Soccer	49.95	39.95	Super Trux	39.95	29.95	
Dr Doom's Revenge	39.95	29.95	Moon Walker (Michael Jackson film)	39.95	29.95	Super Wonderboy in Monsterland (6128 only)	39.95	29.95	
Dynamic Duo	39.95	29.95	Mr Heli	39.95	29.95	Teenage Queen (Strip Poker)	39.95	29.95	
Dynamite Dux	39.95	29.95	Myth	39.95	29.95	Test Drive 2 - The Duel	44.95	29.95	
Eliminator	39.95	29.95	Navy Moves	-	19.95	Thunderbirds	39.95	29.95	
Emlyn Hughes International Soccer	34.95	29.95	Nebulus	39.95	29.95	Tintin on the Moon	39.95	29.95	
E-Motion	39.95	29.95	Ninja Spirit	39.95	29.95	Titan	39.95	29.95	
Fairlight	49.95	-	New Zealand Story	39.95	-	Toobin	39.95	29.95	
Fighting Soccer	39.95	29.95	Operation Thunderbolt	44.95	29.95	Trivial Pursuit - a new beginning	45.95	35.95	
						Turbo Cup	39.95	29.95	
						Turbo Outrun	39.95	29.95	
						Tusker	44.95	29.95	
						Untouchables, The	39.95	29.95	
						Vendetta	-	29.95	
						Vindicators	39.95	-	
						Wanderer 3-D	39.95	29.95	
						War in Middle Earth	39.95	-	

Unless stated otherwise, please add the following P and P charges to your remittance:

	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

HOW TO ORDER

By Mail: Send a cheque, money order or quote your credit card number and expiry date (Mastercard, Bankcard or Visa) with your order to the address shown below.

By Phone: Have your credit card and expiry date ready and ring our Mail Order number (03) 803 9661.

The Amstrad User,
641 High Street Road,
Mount Waverley, Victoria 3149

MAIL ORDER: (03) 803 9661 - SHOP: (03) 803 9211

(No Mail Order enquiries at Shop please)

Please Note:

1. Add up the total value of the items you are ordering, then add the postage and packing charge from the table shown at the bottom of each page. Don't forget that some hardware items carry a special freight charge.
2. When ordering by mail, if possible, always quote one or two alternatives. Otherwise call us first to check availability.
3. Most orders can be reserved for up to 7 days pending payment after which they will be released for others to buy.
4. This list is prepared over 4 weeks before publication and reflects the stock holding at that time and anticipated releases advised by producers. The latter are often optimistic.

Please allow 14 - 21 days for receipt of goods.

CPC continued

Wild Streets	39.95	29.95
World Cup Soccer	39.95	29.95
Xenaphobe	49.95	-
X-Out	39.95	29.95
Xybots	39.95	29.95
Yes Prime Minister	49.95	-
Zombie	39.95	29.95

CPC BLOCKBUSTER BUDGETS

Advanced Pinball Simulator	-	11.95
BMX Simulator	-	9.95
Fantasy World Dizzy	-	9.95
Frankenstein Junior	-	9.95
Fruit Machine Simulator	-	9.95
Grand Prix Simulator	-	9.95
Hydrofool	-	12.95
Jet Bike Simulator	-	21.95
Light Force	-	12.95
Little Puff	-	9.95
Ocean Conqueror	-	12.95
Olli and Lissa 3	-	9.95
Professional BMX Simulator	-	21.95
Professional Ski Simulator	-	9.95
Shockway Rider	-	12.95
Space Harrier	-	9.95
Super Stuntman	-	9.95
Tanium	-	12.95
Technician Ted	-	12.95
Uridium	-	12.95
Wizard Willy	-	9.95

CPC COMPILATION PACKS

100% DYNAMITE (tape only) with Afterburner, Last Ninja 2, WEC Le Mans and Double Dragon	-	39.95
BIZ, The (tape only) with Double Dragon, R-Type, Batman, the Caped Crusader and Operation Wolf	-	39.95
CLASSIC GAMES FOUR with 3-D Chess, Bridge Player, Draughts/Checkers & Backgammon	49.95	39.95
CLASSIX 1 with Bobby Bearing, Brian Bloodaxe and Palitron (plus 2 free games demos)	29.95	-
COIN-OP HITS with Thunderblade, Spy Hunter, Road Blasters, Bionic Commandos and Outrun	49.95	39.95
EPYX ACTION with 4x4 Off Road Racing, Streets Sports Basketball, Impossible Mission 2, California Games and The Games (Winter Edition)	49.95	39.95
HOUSE MIX, THE with Night Raider, Dark Fusion, TechnoCop, Skate Crazy, Motor Massacre and Artura	49.95	39.95
LEADERBOARD PAR 3 with Leaderboard, Leaderboard Tournament, & World Class Leaderboard	52.95	42.95
MINDSTRETCHERS with Monopoly, Scrabble and Cluedo	49.95	39.95
MEGA MIX with Dragon Ninja, Operation Wolf, Real Ghostbusters and Barbarian 2	-	39.95
SPECIAL ACTION Daley Thompson's Olympic Challenge, Driller, SDI, Captain Blood and Vindicator	49.95	39.95
STAR WARS TRILOGY with Return of the Jedi, Star Wars & The Empire Strikes Back	39.95	29.95
STORY SO FAR Vol 2 Space Harrier, Live 'n let die, Hopping Mad, Beyond the Ice	-	-

CPC continued

<i>Palace & Overlander</i>	39.95	34.95
STORY SO FAR Vol 4 <i>Ghost Busters 1, Aliens, Wonder Boy, Eidolon (not on disc), Back to the Future and Quartet</i>	49.95	34.95
STRAIGHT SIX <i>Loricel's compilation with 3D Fight, Billy, Soccer, MGT, Flash and ZOXT099</i>	29.95	-
THRILLTIME GOLD 1 (tape only) with Ghost & Goblins, Bombjack, Turbo Esprit, Paper Boy and Batty	-	39.95
THRILLTIME GOLD 2 (tape only) with Airwolf, Scooby Doo, Battleships, Saboteur 1 and Frank Bruno's Boxing	-	39.95
THRILLTIME PLATINUM 1 <i>ten game compilation with Ikari Warriors, Thundercats, Buggy Boy, Beyond the Ice Palace, Hopping Mad, Overlander, Live and Let Die, Space Harrier, Great Gurianos & Dragon's Lair</i>	49.95	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	-
TIME AND MAGIK TRILOGY (disc for 128k only) <i>Lords of Time, Red Moon and Price of Magik</i>	49.95	39.95
TOLKIEN TRILOGY with The Hobbit, Lord of the Rings and Shadows of Mordor	44.95	34.95
WINNERS with Blasteroids, Thunderblade, Indiana Jones & the Temple of Doom, LED Storm & Impossible Mission 2	49.95	39.95
WORLD CUP COMPENDIUM with Gary Lineker's Hot-Shot, Track Suit Manager and Kick Off	49.95	39.95

CPC YEAR DISCS

Containing all the monthly type-ins published		
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	-
Year Disc 10 - Issues 45 to 48	25.00	-
Year Disc 11 - Issues 49 to 52	25.00	-
Year Disc 12 - Issues 53 to 56	25.00	-
Year Disc 13 - Issues 57 to 60	25.00	-
Monthly magazine tapes: each	-	5.00

CPC SERIOUS SOFTWARE

ADVANCED ART STUDIO (Rainbird) Graphics package (128k only)	69.95	-
BRAINSTORM - ideas and reporting system (6128s only)	79.00	-
CARDBOX - card filing style database (6128s only)	99.00	-
EXTRA EXTRA - a disc of ready made graphics, fonts and clip art compatible with Stop Press	69.95	-

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

CPC continued

MASTERFILE III - the best relational database system (128k only)	109.00	-
MASTERCALC 128 - spreadsheet program for 6128s (or 464 with disc drive and expansion)	99.00	-
MATRIX - spreadsheet with text editing facilities, database, mail merging etc.	59.95	-
MINI OFFICE II - a comprehensive value package which includes six different modules enabling you to write letters, prepare reports, create computerised files, compile mailing lists, set up financial records, carry out complicated calculations, draw graphs, print out labels and communicate directly with other computers over the phone	59.00	-
MODEL UNIVERSE - 3D rotating drawing	54.95	-
MONEY MANAGER - powerful cash book program	59.95	-
PERSONAL EXCELLENCE PACKAGE - High quality Mental performance analyser	109.00	-
PLAN-IT - desktop organiser	39.95	-
PRINT MASTER PLUS - create your own Banners, Letterheads, Signs, Calendars or Greeting Cards with graphics or borders supplied. (Runs under CPM Plus only)	59.95	-
PRINT MASTER ART GALLERY 1 - 140 pictures of holidays, animals, sports office etc.	50.95	-
PRINT MASTER ART GALLERY 2 - 140 pictures of ornamental letters, flags, people	0/s	-
PROTEXT - high speed w/p	79.95	-
PROTEXT FILER - pop-up database for Protex. (Requires Promerge & Protex)	59.95	-
PROTEXT OFFICE - pop-up add-ons for Protex including mailmerge and invoice generator. (Needs Promerge & Protex)	0/s	-
PROSPELL - spell checker	69.95	-
PROMERGE - mail merger	69.95	-
STOCKMARKET - monitors shares etc.	49.95	-

STOP PRESS

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 needs 128k)	
Stop Press (disc only)	129.00
With AMX Mkill Mouse	259.00
Extra Extra clip art	69.95
Mouse only	169.00

Tasword 464	-	59.95
Tasword 464/D	69.95	-
Tasword 6128	69.95	-
Tas-spell	49.00	-
Tasprint	39.00	39.00
Tascopy	39.00	39.00
Tasdiary	39.00	-
Tas-sign	69.95	-
Touch 'n' Go - Typing tutor (6128s only)	69.00	-
Ultrabase - easy database	69.95	-

CPC EDUCATIONAL

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

mail order

CPC continued

From Satchel Software (Education Dept. of SA)

For 6128s only		
Abscoded Convicts	40.00	-
African Farming Game	40.00	-
Anna	55.00	-
Artworks	40.00	-
Catastrophes	40.00	-
Chart Buster	40.00	-
Convict Ships	40.00	-
Cordial Stall	40.00	-
Cross Whiz	40.00	-
Disasters	40.00	-
Dragon World	50.00	-
Find-a-book	40.00	-
First Fleet	40.00	-
Granny's Garden	40.00	-
Guess the Word	40.00	-
Hammurabi	40.00	-
Jara Tava	40.00	-
Kadimakara - Creatures of the Dreaming	50.00	-
Logo Screen Dump	30.00	-
Mathbooster	40.00	-
Math Games 1	40.00	-
Math Games 2	40.00	-
Math Hopper	40.00	-
Mosaic	40.00	-
News Writer	40.00	-
Omicron	40.00	-
Pathweaver	40.00	-
Picture Book	40.00	-
Picture Book Companion	40.00	-
Point Puer Lads	40.00	-
Print Machine, The	40.00	-
Sailing South	40.00	-
Settlement	40.00	-
Soft Word	40.00	-
Step Inside	40.00	-
Story Paths	40.00	-
Tree of Knowledge	40.00	-
Where's Baby Bear?	40.00	-
Which way Words	40.00	-
Word Hunt	40.00	-
Word Hunt Companions		
Volume 1, 2 or 3 ... each	40.00	-
Word Processing Pack	40.00	-
World Wide	40.00	-

From LCL SOFTWARE

Micro Maths (Grades 9-11)	49.95	-
Mega Maths (Grades 9-11)	49.95	-
Micro English (Grades 9-11)	49.95	-
Primary Maths (Ages 7-11)	69.95	44.95

From FERNLEAF SOFTWARE

<i>(Developing Reasoning, Logic, Estimating and Forward Planning skills).</i>		
1. Treasure/Perfume Hunter (7-10)	49.95	39.95
2. Fletcher's Castle/Raider(8-12)	49.95	39.95
3. 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	-

(All reviewed Issue 48 - Jan '89)

From DATABASE EDUCATIONAL SOFTWARE:

<i>A Fun School 2 series of three discs or tapes each containing 8 educational programs (Rev'd Jul 89).</i>		
Fun School 2 - Under 6	34.95	24.95
Fun School 2 - 6 to 8	34.95	24.95
Fun School 2 - Over 8	34.95	24.95

THE MAGIC SWORD - Full colour reading book and complementary child's adventure 39.95

THREE BEARS - graphic adventure to improve logic, deduction and reasoning 34.95

CPC PERIPHERALS

AMX MOUSE Mk III - with superior ball technology and high resolution movement this updated mouse from Database

CPC continued

gives total control and flexibility, and compatibility with Stop Press. Comes with an interface for CPC owners 169.00

CPC CENTRONIX PRINTER CABLE (PL/1)
Suitable for linking a CPC to most printer with centronix ports, eg. DMP2000, 3000, 3160 etc.
(Note: Pin 14 may need removing) 22.95

JOYSTICK SPLITTER
Allows you to use two joysticks at the same time and take advantage of games which have two player options (eg. Gauntlet) 17.50

MOUSE MATS - keeps Mouse clean 19.95

MEGADEATH 1
A unit which attaches between your CPC and joystick to provide rapid or autofire feature. It must be used with a joystick which has an autofire capability. o/s

64k MEMORY EXPANSION (464/664)
Converts the 464 into a 6128 (except for the ROMs) and gives 128k of memory. Is supplied with bank switching software in the form of RSXs to use the second 64k RAM as storage for screens, windows, arrays and variables. Allows the use of CP/M Plus as supplied on the 6128. 159.00

256k MEMORY EXPANSION (464/664)
Converts the 464 into a 6128 (except for ROMs) and gives a total memory of 320k. Supplied with bank switching software in the form of RSXs. The 256k can store 16 full 16k screens or four extra banks of 64k. Allows the use of CP/M Plus as supplied on the 6128. 289.00

256k SILICON DISC SYSTEM (464/664)
Provides 256k of RAM disc accessible many times faster than the conventional drive and with a greater disc capacity. It can be logged on as drive B or in a two drive system as drive C. Data can be transferred onto the silicon disc from a normal disc or from RAM, application programs can then work on the data at vastly increased speed. Will accept all normal disc commands such as LOAD, SAVE, CAT etc. 329.00

256k MEMORY EXPANSION (6128) 289.00

256k SILICON DISC SYSTEM (6128) 329.00

JOYSTICKS

CHAMPZON ECP200 - arcade quality joystick with metal shaft, micro-switches, two base fire buttons and two shaft fire buttons and suction cups. Also has optional auto-quick fire to be used with the Megadeath 1 attachment (extra) 39.95

NEW KONIX NAVIGATOR - hand-held joystick with microswitch precision control, steel shaft and autofire feature to be used with the Megadeath 1 attachment (extra) 39.95

STAR CURSOR - very tough, all Australian designed and manufactured joystick with three year guarantee. Fully micro-switched, fire buttons on base and handle. Adjustable 4- or 8-way action. 54.95

WINNER 220 - a really robust joystick with built-in precision control. Fully micro-switched with two fire buttons on the base and two on the stem for fast and furious action 34.95

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. 39.95

ZIPSTICK ELITE - a smaller, specially designed hand-held model with similar specifications to the Superpro, but with just one forward centrally located fire button. Has rubber pads on base for flat surface use. 29.95

CPC MISCELLANEOUS

SCREEN FILTER 29.95

DUST COVERS - Australian made vinyl fabric dust covers in

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

CPC continued

light grey colour for:
6128 monitor and keyboard 35.00
6128 monitor and keyboard 35.00
DMP2000/2160/3160 Printer 17.00

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 7.25

6128 'SEAL 'N' TYPE' KEYBOARD PROTECTOR
Stops damaging spills etc. 29.95

PCW

8256 - 8512 - 9512

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

PCW GAMES

Academy (Tau Cet II) \$	65.95
Armageddon Man	o/s
Bridge Player 2150	69.95
Catch 23	o/s
Clock Chess '89 (strong game) - all PCWs	59.95
CP Compilation - with 3-D Clock Chess, Backgammon, 3-D Draughts and Bridge 2000 - all on one disc	59.95
Double T Patience - compilation of six frustrating games including Kuala Lumpur, Poker Patience and Fourways	64.95

Fairlight (graphic arcade adventure) 39.95
Graham Gooch Cricket (Ltd. Overs & Test Match featuring full animation of bowler, batsman and fielders) 49.95
Gnome Ranger 59.95

Heathrow ATC (Air Traffic Control Simulator) Southern Belle (Steam Train Simulator) - both on same disc 57.95
Ingrid's back 59.95
Knight Orc 59.95
Lancelot 39.95
Mindfighter 65.95

Return to Doom (Topologika adventure) 54.95
Scapeghost (Level 9 adventure) 49.95
Steve Davis' Snooker 54.95

Time and Magik Level 9 trilogy:
Lords of Time, Red Moon & Price of Magik 54.95
Tomahawk: helicopter simulation 49.95

World of Soccer - international Soccer management simulation 59.95

PUBLIC DOMAIN DISCS (see Page 55) 17.50

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 EDUCATIONAL

Better Maths (12-16 yrs)	29.95
Better Spelling (12-16 yrs)	29.95
Biology (12-16 yrs)	29.95
Chemistry (12-16 yrs)	29.95
Giant Killer - maths adventure 10 to adult	54.95
Magic Maths (4-8 yrs)	29.95
Maths Mania (8-12 yrs)	29.95

PCW PUBLISHING

Desk Top Publisher	59.95
MicroDesign 2 - new superb integrated Page Processor compatible with AMX or Kempston mouse	169.00
Newsdesk International	89.00
Stop Press (program only)	149.00
Stop Press (program + mouse and interface)	299.00

PCW continued

PCW DATABASES

Cardbox Plus	99.00
Condor One	149.00
Masterfile 8000	119.00
TAIT Database and Labeller	29.95

PCW MISCELLANEOUS

BRAINSTORM - tool for structuring raw ideas in a logical manner	79.00
DATASTORE II - menu-driven customised report generator, mailing list and label printer. Can be used with type styler Supertype II.	89.95
FLIPPER 2 - splits your PCW (8256, 8512 or 9512) memory into two environments and lets you flip between them, eg. between CP/M and Loco2. Not suitable for LocoScript 1.	89.95

GRAPHICS, THE UNIVERSE AND EVERYTHING...

This latest version (2.0) provides the means to create professional graphics output and more. Source code included (All PCWs)	75.00
LIGHTNING BASIC PLUS - turbo charge your Mallard Basic (All PCWs)	75.00
MASTER PAINT - deluxe graphics program, for use with either mouse or keys	49.95
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 - PCW WordStar equivalent	100.00
PCW TOOLKIT - allows you to examine and alter data on any PCW disc as well as copy part or all of a damaged or corrupted disc for repair. Full instructions provided.	69.95
PERSONAL EXCELLENCE PACKAGE - High quality mental performance analyser	109.00
PRINT MASTER PLUS - create your own Banners, Letterheads, Signs, Calendars or Greeting Cards with graphics or borders supplied. (Runs under CP/M Plus only)	59.95
PROTEXT FILER - pop-up database for Protext	59.95
PROTEXT OFFICE - as Protext Filer but with mail-merge and invoice generator module	79.95
PROTEXT PCW	149.00
PROSPELL PCW - spellchecker for most word processors incl. WordStar and LocoScript	79.95
SCRATCHPAD PLUS spreadsheet	99.00
STARTRACK - tracks you through 88 constellations and more than 600 stars	54.95
SUPERTYPE II - 8 new different typestyles for use with all CP/M, LocoScript 1/2, LocoMail and Mini Office Professional files	39.95
TAIT ACCOUNTING SYSTEM - small business Debtors, Creditors and Invoicing	99.00
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
TOUCH 'n' GO - typing tutor	69.00
WORDDISC - a disc full of approximately 35000 synonyms divided among 5930 main words. Used with LocoFile on B drive of 8512 or A drive of 9512	49.95

PCW 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
CPS8256 SERIAL INTERFACE for PCWs for communications or adding extra printers	145.00
AMX MOUSE plus interface - the most popular and sought after peripherals for your PCW, especially with Stop Press	165.00

PCW continued

KEMPSTON MOUSE plus interface - new style two-button mouse supplied with Jeeves (memory resident desktop accessories) and Daatafax personal organiser program. Mouse can be used with Stop Press, Desktop Publisher or the new MicroDesign 2 package. **175.00**

PCW JOYSTICK INTERFACE from Kempston **49.95**

SCANNER - Master Pack - a scanning device which attaches to a PCW printer head to copy photos or other art work, Master Scan software and MasterPaint, a powerful graphics package. Compatible with Desktop Publisher, FSE and Newsdesk International (8256 and 8512s only) **279.00**

SCA RAMPAC 512k EXPANSION UNIT - simply plugs into the expansion port of any PCW. Adds an extra 512k to the 'M' drive allowing LocoScript2, Locomail, LocoSpell and more to be loaded at the same time. Through-connector allows other peripherals (eg. a mouse interface or serial/parallel interface) to be used at the same time. **299.00**

SCREEN FILER **29.95**

PCW DUST COVERS

Australian made vinyl fabric dust covers complete for the following PCWs:

8256/8512 monitor, keyboard and printer	55.00
9512 monitor, keyboard and printer	60.00

PCW TASMAN RANGE

Tasword 8000	69.95
Tas-spell 8000	49.00
Tasprint 8000	39.00
Tas-sign 8000	69.95

PCW CONSUMABLES

PCW 8000s PRINTER RIBBONS	
Black Carbon/Multistrike or Nylon	19.95
Coloured Nylon - Blue, Red or Green	24.95

PCW 9000s PRINTER RIBBONS	
Black Carbon/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 7.25

PCW LOCOMOTIVE PRODUCTS

LOCOSCRIPT 2 (latest) with manual	87.00
LOCOSCRIPT2 (latest) Disk only	49.95
LOCOSCRIPT 2 + LOCOSPELL2 pack	130.00
LOCOMAIL2	105.00
LOCOSPELL2	75.00

The following are for PCW 8000s using LocoScript 2.12 and above (Please state 8000s):

24 PIN PRINTER DRIVER - suitable for most 24 pin printhead printers attached to 8000s **64.95**

PRINTER CHARACTER SET DISC for defining new character sets **59.95**

EXTRA PRINTER DRIVERS DISC containing a Printer File 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**

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

PCW continued

LOCOFILE/8000 - the resident 'pop-up' database for LocoScript2	110.00
LOCOFILE/LOCOMAIL 8000 - the 'pop-up' database with mailmerging program in one pack	185.00
LOCOFONT SET 1 nine extra fonts for your printer	75.00
LOCOFONT SET 2 further five fonts for your printer	65.00
LOCOKEY to customise your keyboard	59.95
LOCOMAIL SORTING PROGRAM	39.95
LOCOMAIL2 EXAMPLES DISC	17.50
LOCOMAIL2 NEW USER GUIDE	54.95

The following are for PCW 9512s (Please state 9512 when ordering):
24 PIN PRINTER DRIVER - suitable for most 24 pin printhead printers attached to the 9512 **64.95**
PRINTWHEELS DISC allows the correct printing of the characters from any printwheel supplied for the built-in printer. **59.95**

LOCOFILE/9000 - the resident 'pop-up' database for LocoScript2 on the 9512	110.00
LOCOFONT 24 - Text Set for 24-pin printers	64.95
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
PRINTER DRIVER AND CHARACTER SETS supports a wide range of printers and printwheels used as an alternative to the built-in printer	59.95
LOCOMAIL SORTING PROGRAM	39.95
LOCOMAIL2 EXAMPLES DISC	17.50

PC

PC20 - PC1/2000 series PC1512/1640 - PPCs and compatibles

Items marked with a "Y" symbol are also available in 3.5" disc format.
 Items marked with a "W" symbol are supplied with both 5.25" and 3.5" discs.
 Items marked with a "A" symbol are not suitable for a PC20.

COMPILATION GAMES PACKS

Adventure 12 Series: 12 adventures + hint book	59.95
Cinemaware Bundle: with SDI, King of Chicago, and Defender of the Crown	59.95
Classic Arcades 2: with Pengo, Arnold & Grand Prix	59.95
Cosmi Top: with Super Huey, Def Con 5, Nav Com 6, Doodle Corporate Raider, Inside Trader, Munch, R-R-Ribit, Sanction, and Invaders †	49.95
Epyx on PC Vol 1: with Winter Games, Piistop 2 and Summer Games 2	49.95
Epyx on PC Vol 2: with World Games, Street Sports Basketball and Impossible Mission 2	49.95
Thrill of Winning: with John Madden Football, Zany Golf, Budokan, and Ferrari Formula One	64.95
Ultima Trilogy: with Ultima 1, 2 and 3 + hint book	69.95
Wide World of Sports: with California Games, Winter edition Games, and Summer edition Games	49.95
Zork Trilogy: with Zork 1, 2 and 3 #	69.95

PC & COMPATIBLES GAMES

2000 leagues under the sea	39.95
3-D Helicopter Simulator #	52.95
688 Sub Attack #	49.95
A-10 Tank Killer (flight sim.) Δ	69.95
Abrams Battle Tank	49.95
ACE 2	33.50
Action Service	54.95
AD&D series - Champions of Krynn †	49.95
AD&D series - Curse of the Azure Bonds #	49.95
AD&D series - Dragons of Flame #	59.95

mail order

PC continued

AD&D series - Dungeon Master's Assistant Vol 1	49.95
AD&D series - Dungeon Master's Assistant Vol 2	49.95
AD&D series - Heroes of the Lance #	49.95
AD&D series - Hillsfar #	59.95
AD&D series - Pools of Radiance #	49.95
African Raiders	49.95
Afterburner (VGA compatible)	59.95
After the War	54.95
Airball (now supports EGA and VGA)	59.95
Airborne Ranger †	59.95
Ancient Art of War #	74.95
Alf	39.95
Alien Syndrome	59.95
All Point Bulletin	59.95
Amazon	32.95
Annals of Rome #	64.95
Arcade Bonanza Pack - 18 games	29.95
Armada	49.95
Attack Chopper †	69.95
Austerlitz (War Game) #	69.95
Auto Duel	59.95
Backgammon	24.95
Bad Blood (640k required)	59.95
Balance of Power 1990 † Δ	69.95
Ballistix	69.95
Barbarian 2	59.95
Bard's Tale Vol 1 #	49.95
Bar Games †	59.95
Batman, The Caped Crusader †	59.95
Battle Chess (needs 640k) # Δ	61.95
Battle Hawks 1942 #	61.95
Battle Tech #	61.95
Battles of Napoleon	49.95
Beyond the Black Hole #	69.95
Beyond Zork	59.95
Beverly Hills Cop	49.95
Black Cauldron #	49.95
Blade Warrior	61.95
Blockbuster	48.50
Blockout #	49.95
Blood money	59.95
Blue angels (flight sim.)	59.95
Bomber	69.95
Bombuzal	59.95
Borodino	49.95
Bruce Lee Lives	59.95
Budokan #	59.95
Buffalo Bill's Rodeo Games	49.95
Cadaver	61.95
California Challenge (Test Drive 2 add-on) †	o/s
California Games †	49.95
California Raisins	49.95
Capone	69.95
Captain Blood †	69.95
Captain Power	29.95
Carrier Command †	59.95
Cartooners	59.95
Castle Master #	69.95
Caveman UGH-lympics †	64.95
Charlie Chaplin	69.95
Chase HQ	61.95
Chessmaster 2100 #	69.95
Chronoquest 2	89.95
Chuck Yeager's Advanced Flight Trainer †	54.95
Chuck Yeager's Adv. Flight Trainer + audio tape	59.95
Circus Games †	59.95
Classic Quest Adventure Series:	
Forestland	39.95
Witch Hunt	39.95
Catacombs	39.95
Cornucopia	39.95
Classic Invaders	29.95
Cloud Kingdoms #	59.95
Club Casino - 4 gambling programs	19.95
Codename Iceman (Sierra) #	69.95
Computer Yahtzee #	29.95
Colonel's Bequest (Sierra) #	61.95
Colorado †	69.95
Concentration	49.95
Conqueror †	59.95

PC continued

Conquest of Camelot (Sierra) #	61.95
Convoy - road and transport games	19.95
Corruption	59.95
Crazy Cars 2 † Δ	59.95
Crime Wave (with RealSound) †	69.95
Crossbow #	59.95
Crossbow - the Legend of Tell	59.95
Crossword Magic (for XT's only)	69.95
Cycles, The †	64.95
Dark Century #	59.95
Dark Side	54.95
David Wolf Δ	69.96
Day of the Viper †	59.95
Days of the Pharaoh	49.95
Death Trak #	69.95
Decision in Desert	59.95
Def Con 5 (American 'Star Wars' defence)	59.95
Defender of the Crown #	69.95
Demon Stalkers	54.95
Destroyer †	49.95
Die Hard #	59.95
Doctor Doom's Revenge †	59.95
Doctor Ruth's Game of Good Sex (AO)	35.95
Don't go Alone †	64.95
Double Dragon 2 #	59.95
Dragon Wars #	59.95
Dragon's Lair (13 x 5.25" disks)	99.95
Dragonstrike †	59.95
Dragonworld	32.95
Drakken #	79.95
Dream Warrior	29.95
Driller	59.95
Earl Weaver's Baseball #	49.95
Earthrise (graphic adventure)	59.95
Echelon	54.95
Elite	49.95
Emmanuelle (AO)	39.95
E-Motion	59.95
Escape from Hell †	49.95
European Challenge (Test Drive 2 add-on) †	39.95
Eye of Horus #	69.95
F-15 †	59.95
F-15 Strike Eagle II †	69.95
F-16 Falcon #	62.95
F-16 Combat Pilot †	59.95
F-19 Stealth Fighter †	109.95
F-29 Retaliator	61.95
Face Off (Ice Hockey) #	59.95
Faery Tale Adventure #	49.95
Fahrenheit 451	32.95
Fallen Angel #	54.95
Family Feud	49.95
Fantasy Pak - arcade, war and mazes	19.95
Ferrari Formula One #	49.95
Fiendish Freddie †	59.95
Final Frontier, The	59.95
Fire and Forget	59.95
Fire Brigade †	49.95
Fish	69.95
Flight Simulator (MicroSoft new version 4) †	95.00
Flippit	39.95
Friday Night Poker †	59.95
Full Metal Planet #	59.95
Galactic Conqueror	69.95
Games, The - Summer Edition † Δ	49.95
Garfield Trivia Game †	39.95
Ghostbusters II	61.95
Ghosts and Goblins †	59.95
Gnome Ranger	59.95
Gold Rush †	52.95
Grand Prix Circuit #	52.95
Grave Yardage	59.95

PC continued

Greg Norman Ultimate Golf #	59.95
Gunboat	59.95
Gunship †	69.95
Hardball 2 (Baseball) †	59.95
Hard Drivin' †	59.95
Harley Davidson Δ	59.95
Harpoon † Δ	69.95
Heat Wave (Poweboat racing) †	59.95
Heros Quest (Sierra) #	69.95
Hitch Hiker's Guide to the Galaxy	61.95
HKM (Human Killing Machine) - CGA & VGA	59.95
Horse Racing - strategy game	69.96
Hoyle's Book of Games #	52.95
Hunt for Red October #	49.95
If it moves - Shoot it †	59.95
Indiana Jones and the Temple of Doom	69.95
Indiana Jones - Last Crusade (arcade) #	49.95
Indiana Jones - Last Crusade (graphic adv.) #	79.95
Indianapolis 500 †	59.95
Ingrid's back	59.95
Inside Trader	59.95
International Team Sports - five Olympic events - coach	
<i>and select the team then play the Games</i>	59.95
Into the Eagle's Nest	48.50
Jack Nicklaus Golf	52.95
Jack Nicklaus Courses Vol 1	39.95
Jack Nicklaus Courses Vol 2	39.95
Jaws (from the movie)	59.95
Jet Fighter	69.95
Joan of Arc	52.95
Journey (adventure) #	89.95
Karateka †	19.95
Keef the Thief #	49.95
Keys to Maramon (adv) †	69.95
King Arthur #	59.95
Kings Quest 1 #	44.95
Kings Quest 2 #	44.95
Kings Quest 3 #	44.95
Kings Quest 4 (9x5.25" and 4x3.5") #	69.95
Knight Force †	59.95
Kristal, The	69.95
Kult	59.95
LA Crackdown †	39.95
Lancelot	59.95
Laptop Computer Chess 3.5" only	52.95
Leisure Suit Larry (AO) #	49.95
Leisure Suit Larry II (AO) #	49.95
Leisure Suit Larry III (AO) #	59.95
Licence to Kill †	59.95
Life and Death #	59.95
Lode Runner †	19.95
Lombard R.A.C Rally	59.95
Loom (graphic adventure) †	69.95
Low Blow (Boxing with cheating) †	49.95
M1 Tank Platoon # Δ	89.95
Magic Candle (adv) †	69.95
Man Hunter - New York #	61.95
Man Hunter 2 - San Francisco#	59.95
Maniac Mansion # (adv)	59.95
Maze Adventures - four on one disc	19.95
Mean Streets: adv. + arcade segments, supports VGA with	
<i>256 colours, superb graphics & digitised sound † Δ</i>	79.95
Mech Warrior #	59.95
Microprose Soccer †	59.95
Might and Magic 1	49.95
Might and Magic 2	49.95
Millenium 2.2 (superb in CGA)	59.95
Mind Games	18.95
Mines of Titan (space adv) #	52.95
Mini Putt	49.95
Moonwalker (Michael Jackson film)	59.95
Moto Cross # Δ	59.95
Murder Club †	89.95
Murder on the Atlantic	29.95
Mystery of the Mummy	49.95
Nebulus	49.95
Neuromancer	49.95
Never Mind	69.95
Night Raider	59.95
Nine Princes in Amber	32.95

Unless stated otherwise, please add the following P and P charges to your remittance:

	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

PC continued

North and South †	59.95
Nuclear War	49.95
Oil Imperium	59.95
Omicron Conspiracy #	79.95
Ooze	49.95
Paperboy	49.95
Pawn, The	69.95
Personal Nightmare †	69.95
Perry Mason - Mandarin Murders	32.95
PHM Pegasus †	59.95
Pictionary #	59.95
Pipe Mania †	59.95
Pirates	59.95
Police Quest 1 #	52.95
Police Quest 2 #	52.95
Populous #	49.95
Powerdrome #	49.95
President is Missing	59.95
Presumed Guilty	59.95
Prince	49.95
Professional 4 Soccer Simulations	49.95
Prophecy #	61.95
Pro-Tennis Tour †	49.95
Psychic War	79.95
Psycho - the trail to the Bates Motel	49.95
Quadralien	59.95
Railroad Tycoon #	89.95
Rainbow Warrior	59.95
Red Lightning	64.95
Rendezvous with Rama	32.95
Resolution 101 (3D vehicle sim) †	59.95
Rick Dangerous	59.95
Road Runner	69.95
Robocop	59.95
Rodeo Games #	59.95
Safari Guns †	49.95
Santa Paravia - 15th century strategy	29.95
Sapiens	69.95
Savage	59.95
Scapghost # (Level 9 adventure)	49.95
Scavengers #	54.95
Schultz Treasure	18.95
Scrabble de luxe	59.95
Scruples	43.95
Search for the Titanic	49.95
Second Front (Germany turns East)	59.95
Secret Agent	69.95
Serve and Volley	52.95
Sherlock	61.95
Sherman M4 (tank simulation)	49.95
Shinobi	69.95
Shogun #	69.95
Silent Service	59.95
Silicon Dreams	59.95
Silpheed #	59.95
Sim City #	89.95
Ski or Die †	49.95
Skweek †	59.95
Skyfox 2 #	49.95
Sleeping Gods Lie	59.95
Snow Strike †	39.95
Slots and Cards - casino simulator	59.95
Solomon's Key	69.95
Sorcerian # (ATs only)	61.95
Sorcerer Lord	59.95
Space Harrier	59.95
Space Max	69.95
Space Quest 1 #	49.95
Space Quest 2 #	52.95
Space Quest 3 #	52.95
Space Rogue †	59.95
Sports Spectacular: golf, gridiron, archery	19.95
Spitfire Ace	59.95
Star Breaker	49.95
Star Command	79.95
Star Flight 2 #	49.95
Star Glider 2 †	49.95
Star Quake (Amstrad j/stick port only)	59.95
Star Ray	59.95
Star Trek: Promethian	49.95

PC continued

Star Trek 5: The final frontier †	69.95
Star Trek: The next Generation	59.95
Station Fall	44.95
Steel Thunder	49.95
Stiegar	59.95
Street Rod #	49.95
Street Sports Baseball †	39.95
Strider	61.95
Strike Force - airborne arcade action	19.95
Stryx	54.95
Stunt Car Racer #	69.95
Sub Battle Simulator †	49.95
Super Cars (Test Drive 2 add-on) †	39.95
Superman	69.95
Sword of Aragon #	59.95
Sword of the Samurais #	89.95
Takedown (Wrestling) #	59.95
Tank #	69.95
Teenage Mutant Ninja Turtles †	69.95
Teenage Queen (Strip Poker) AO	49.95
Temple of Apschai Trilogy	39.95
Test Drive 1	44.95
Test Drive 2 #	59.95
Test Drive 2 (add-on) Muscle Cars	39.95
Tenth Frame	59.00
Terrarium	61.95
Tetris #	62.95
Their finest hour (Battle of Britain sim.) †	69.96
Thexder #	49.95
Third Courier, The †	64.95
Thud Ridge	49.95
Thunderchopper †	89.95
Time and Magik	59.95
Times of Lore	59.95
Tin Tin on the Moon †	59.95
Titan	59.95
Tomahawk (helicopter sim)	49.95
Tongue of the Fat Man # (wrestling)	59.95
Total Eclipse	49.95
Trivial Pursuit - Genus Edition #	49.95
Tunnels of Armageddon #	49.95
Ultima V	79.95
Ultima VI	84.95
Ultimate Golf	59.95
UMS (War game simulator)	59.95
Untouchables, The	59.95
USS Stinger - submarine simulator	29.95
Usurper, The	59.95
Vegas Gambler #	49.95
'Vette (Corvette simulator) # Δ	69.95
Volleyball Simulator	59.95
Voyager	61.95
Wall Street	59.95
War in Middle Earth	57.95
Wargame Construction Kit #	49.95
Wayne Gretzky Ice Hockey	69.95
Weltris # (Tetris style puzzle)	69.95
West Phaser (Wild West game +Light Gun)	89.95
Wheel of Fortune	44.95
Where in Europe is Carmen Sandiego †	84.95
Where in Time is Carmen Sandiego †	84.95
Where in theWorld is Carmen Sandiego †	84.95
Where in USA is Carmen Sandiego †	84.95
Where time stood still	61.95
Who framed Roger Rabbit † Δ	52.95
Wibarm - puzzle solving arcade action #	69.95
Wierd Dreams	59.95
Windwalker	59.95
Wizardry 5	59.95
World Cup Soccer	59.95
Wolf Pack #	69.95
Wordsearch 2000	18.95

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

PC continued

World Class Leaderboard Golf value pack	o/s
World Class Leaderboard with real sound #	59.95
World Class Leaderboard Courses 1,2 and 3	99.95
World Tour Golf †	49.95
Xenomorph † (3-D space station game)	69.95
Xenon 2 #	69.95
Zac Mcracken & alien mindbdrs (Hi-res) #	61.95
Zombie	59.95
Zork Trilogy (Zork 1, 2 and 3) #	69.95
Zork Zero #	69.95

PC HINT BOOKS

Champions of Krynn	29.95
Codename Iceman	13.95
Gold Rush	13.95
Heroes Quest	13.95
Kings Quest 1	13.95
Kings Quest 2	13.95
Kings Quest 3	13.95
Kings Quest 4	13.95
Leisure Suit Larry 1	13.95
Leisure Suit Larry 2	13.95
Leisure Suit Larry 3	13.95
Manhunter - New York	13.95
Maniac Mansion	14.95
Neuromancer	13.95
Police Quest 1	13.95
Police Quest 2	13.95
Space Quest 1	13.95
Space Quest 2	13.95
Space Quest 3	13.95
Zac Mcracken & the alien mindbenders	14.95
Zork Trilogy (Zork 1, 2 and 3)	24.95

PC BUDGET GAMES

Arcade 1: Pitfall, Artillery, Goob and X-Wing †	15.95
Arcade 2: Munchman, Bowling and Depth charge †	15.95
Arcade Bonanza: Frog, Pac-em, Tank & Red Alert †	15.95
Board Games	15.95
California Golf	19.95
Enterprise	19.95
Frank Bruno's Boxing - 3.5" only	19.95
Ikari Warriors - 3.5" only	19.95
Knight Games	19.95
Master Blaster: Paratrooper, Round 42 & Rockets †	15.95
Mind Challenge: Concentration, Magie, Hide-away and Mindsan	15.95
Motobike Madness	19.95
Pub Pool	19.95
Sink the Bismark: Battleships & Naval Trivia †	15.95
Space Battles: Space War, Meteor Shower, Moon Lander and Space Zombies †	15.95
Space Games	15.95
Strategy Games: Ruler, Killer Bees, Engineer, Sabotage and Vampire †	15.95
World Darts	19.95

PC EDUCATION

Alphabet Zoo	59.95
Better Maths (12-16 yrs)	39.95
Better Spelling (9- Adult)	39.95
Biology (12-16 yrs)	39.95
Birds 'n' Bees	39.95
Bugasaurus (6-9yr) - reading/vocab. development †	19.95
Build a Book	39.95
Chemistry (12-16 yrs)	39.95
Computerease - tutorial on PC	19.95
COMPUTEREASy EDUCATION SERIES:	
Maths Climbers	19.95
Mr. DOS	19.95
Read Easy	19.95
Spell Castle	19.95
Type and Learn	19.95
Create with Garfield - design posters, cartoons or labels with 200 pieces of Garfield and friends art †	69.95
Delta Drawing	52.95
Dinosaur Days (6-12yr) - graphic writing program	59.95

mail order

PC continued

Dinosaur Discovery #	49.95
Fraction Action	69.95
FUN SCHOOL 2 SERIES (Reviewed Jul 89)	
Under 6	49.95
6 to 8	49.95
Over 8	49.95
<i>The above FUN SCHOOL 2 items are also available in 3.5" format if requested. The cost of each unit is</i>	
Grammar Examiner	53.95
In search of the most amazing things	59.95
Joshua's Reading Machine: for ages 4 to 7 with parent participation - also includes three adventures in Joshua's Tinker Tales	79.95
Kid's Collection: three educational games - Babinours, Memorise, and Associated	59.95
Kid's Time: for 3 to 8 year olds with Dot-to-Dot, Kid's Notes (music), AB Key (letter recognition)	69.95
Lex, Wizard of Words (Ages 10 to 99) #	39.95
Magic Maths (4-12 yr) CGA	39.95
Math Blaster Plus (6-12 yr) - 750 math problems	69.95
Maths Mania (8-12 yr) CGA	39.95
Manhole, The (6 x 5.25" disks) primary level	89.95
Maxi Maths (12-16 yrs)	39.95
Micro Maths - advanced for Years 9-11 students	59.95
Mixed up Mother Goose #	49.95
Number Fun 1 (5 to 15 yrs) #	o/s
ONCE UPON A TIME SERIES: for children (6 - 12) to write, edit and print their own book.	
Volume 1	79.95
Volume 2	79.95
Physics (12-16 yrs)	39.95
PC Globe 3.0 - more than a computerised atlas †	125.00
Playroom, The # (Pre-school to Year 2: teaches letters, numbers and time: comes with soft toy mouse) #	79.95
Puzzle Story Book #	49.95
Race Car 'rithmetic	69.95
Reading and Me - suitable for ages 4 to 7 containing three modules: Letters and Phonics, Words and Sentences, and Reading Readiness	59.95
Rhyming Note Book #	49.95
Sesame Street series - covers problem solving, predicting, logic & reasoning	
Ernie's Big Splash (4-6 yrs)	39.95
Astro Grover (3-6 yrs)	39.95
Grover's Animal Ad (4-6 yrs)	39.95
Big Bird's Delivery (3-6 yrs)	39.95
Ernie's Magic Shapes (4-6 yrs)	39.95
Pals around Town (4-6 yrs)	39.95
Science & Engineering - examples	49.95
Ships Ahoy	59.95
Spelling Fun 1 (5 to 15 yrs) #	39.95
Stepping Stones Series	
Level 1 - ages 2 to 4 - letters, number & words	69.95
Level 2 - ages 5 to 7 - words, maths & sentences	69.95
Study Mate - grade booster †	84.95
Ten Little Robots	49.95
Typing Tutor 4 #	62.95
World Atlas - 240 EGA/VGA maps with printing #	89.95
Word Fun 1 (5 to 15 yrs) #	39.95
Where in Europe is Carmen Sandiego †	84.95
Where in Time is Carmen Sandiego †	84.95
Where in the World is Carmen Sandiego †	84.95
Where in USA is Carmen Sandiego †	89.95

PC BUSINESS

Ability Plus †	299.00
Upgrade to Ability Plus for existing Ability users (Original disks and manual required for proof)	224.00
Ability †	149.00
AutoSketch (CAD system) †	249.00
Bankmate - manages personal finances and reconciles your bank account. Includes pop-up calculator. #	59.95

PC continued

Bookkeeping (to Trial Balance)	199.00
Brainstorm †	99.00
Business Dynamics - primer	39.95
Capital Budgetting †	199.00
Cardbox Plus Standard †	895.00
Chartman - business graphics	99.00
Condor 1 Jnr †	149.00
Contactmate - productivity package which controls personal & business contacts #	69.95
Corporate Finance †	199.00
Desktop Accountant †	399.00
DGCalc - 512 rows x 52 column spreadsheet performing essential functions and more	89.95
Dream House Professional - floorplan drawing †	129.95
Financial Accounting for non-Accountants †	199.00
Home Accounts - 60 expenditure categories and 10 income accounts with budgetting & bank/cash reconciliation †	89.95
Home Office Plus - word processor, database, desktop publisher, drawing, diary, mailing list, rolodex and dictionary all in one package †	129.00
Home Office Publisher - complete desktop publishing with WYSIWYG display † (requires dual drives)	129.00
In-house accountant †	299.00
Masterfile PC version 3 standard - the most popular database for Amstrad PCs & compatibles #	199.00
Masterfile PC version 3 full - the standard version with an integrated word processing module included #	269.00
Mini Office Personal - integrated database, wordprocessor, Spreadsheet and label printer	99.95
Money Manager PC - cash book including graphics	79.00
Moneymate - a well organised personal finance management package handling up to 10 bank accounts and 25 credit cards, 200 income/expense categories, budgetting, cash flow etc. (can use mouse) #	119.00
My Accountant - personal and small business record keeper with up to 100 user defined accounts †	39.95
Personal Excellence Package - a serious approach to assessing your thinking skills, IQ, mental performance and aptitudes	109.00
Personal Cardbox Plus †	349.00
Protex PC #	169.00
Protex Filer PC	59.95
Protex Office	79.95
RAM JET EXECUTIVE - gives PC1512 only a disc cache, print buffer, screen accelerator	69.00
Scratchpad Plus †	99.00
Sage Series (fully supported in Australia) †	
Bookkeeper	299.00
Accountant	449.00
Accountant (network version)	900.00
Accountant Plus	749.00
Accountant Plus (network version)	1200.00
Financial Controller	1149.00
Financial Controller (network version)	2500.00
Payroll (up to 999 employees)	599.00
Sales Force Management †	199.00
Stockmarket - watch your shares	79.95
Swiftcalc - Spreadsheet & sideways printing †	69.95
System 3 - Invoicing, stock control and cashflow †	129.00
Tait Accounting - small business accounting with Debtors, Creditors and Invoicing	129.00
TBM (formerly ABC Business Pack) - an Australian supported integrated accounting and stock control package with many extras	499.00
TRIO - Word Processor, Database and Spreadsheet	99.95

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

PC continued

Top Copy - word processing with spell checker and mail merge	69.00
Twin Advanced - integrated spreadsheet (like Lotus), graphics and database	159.00

PC UTILITIES

3-D GAME MAKER	49.95
AWARD WARE - certificates, banners, cards Designer	49.95
BACK-UP PRO #	89.95
BANK STREET WRITER PLUS - famous Word Processor including 60,000 spell checker & Thesaurus #	110.00
BANNER MANIA # (for colour printers too)	69.95
CREDIT CARD ACCOUNTING SYSTEM	29.95
CROSSWORD MANIA †	34.95
DISCO HARD DISK MENU SYSTEM - creates personalised menus, runs common DOS commands with one keypress.	99.00
DOS-RX - disk management utilities and tools	64.95
EXPERT SERIES:	
Disc Tools	39.95
Filer	39.95
Money Power	39.95
PC Protection	39.95
Perfect Typing	39.95
Personal Finance	39.95
Personal Forms	39.95
Personal Publisher	39.95
Personal Skills	39.95
Writer	39.95
FILE RESCUE PLUS	69.95
GO! SERIES (all contain Computer ToolBox utility)	
GO! START - four function calculator, letter writer and typewriter, computer toolbox, address filer, notepad, maze game, print function for printing envelopes and address lists	29.95
GO! WRITE - prompts for business letters, memos, reports, invitations, calendars, banners and address forms	29.95
GO! FILE - fully functional database, just fill in the blanks in ready made file forms	29.95
GO! PLAN - fully functional spreadsheet, just fill in the ready made forms for planning retirement, savings, car expense, loans, etc.	29.95
HOME ORGANISER - with Inventory, Shopping list, Librarian and Planner †	15.95
IANKEY TYPING TUTOR - crash course #	59.95
IANKEY TYPING TUTOR - for 2 finger typists #	59.95
LOTTERY WHEEL †	34.95
LOTTERY TREND - analysis †	34.95
MAIL SHOT PLUS - with graphical layout	99.00
MASTERING YOUR PC - a DOS & Typing tutorial	39.95
PAINT SHOP - graphics with label feature †	39.95
PERSONAL BANKING RECONCILER	29.95
PERSONAL POSSESSIONS INVENTORY	29.95
PERSONAL WEDDING PLANNER †	69.95
PIC TRIVIA †	34.95
PRINT MAGIC †	49.95
PRINT SHOP (NEW) - over one million copies sold of this eas to use personal graphics package. 8 type styles, 9 borders, dozens of pictures to create personal cards etc. †	99.95
ADD-ONS FOR NEW PRINTSHOP	
Sampler disk - graphics covering holidays, birthdays, School, Sports and more †	59.95
Party disk - graphics for Weddings, Welcome Home, BBQs, Parties, Valentine's Day etc. plus borders †	59.95
School & Business Edtn - over 100 eye-catching pictures for the office or student environment †	59.95
ADD-ONS FOR OLD PRINTSHOP	
PrintShop Companion - adds a calendar to old Print Shop (monthly and weekly formats) plus facility to edit existing old Print Shop graphics †	89.95

PC continued

Disk 2 - symbols for hobbies, occupations, travel, music and health †	54.95
Holiday Edtn - 70 graphics for Christmas, Hanukkah, New Year, 10 new typefaces, 14 borders & 12 full panel designs †	54.95
UPGRADE FROM OLD TO NEW PRINTSHOP †	34.95
PRINT POWER - multi fonts & borders	69.95
PUBLISH-IT - a fully integrated, full featured desktop publisher with page layout, word processing, typesetting and graphics all in one package. Accepts imports from Word, WordPerfect, Lotus 1-2-3 graphic files. Over 1200 possible typestyle to choose from. #	299.95
PUBLISH-IT LITE - a simpler version of Publish-It having all the main features for those wanting to do straightforward publishing for practical purposes. (3.5" swap facility)	99.95
PUBLISH-IT PORTFOLIOS	
People, Places and Things (over 250 pics) #	59.95
Symbols and Slogans (over 450 pics) #	59.95
Educational Graphics (over 200 pics) #	59.95
Design Ideas (over 85 layouts) #	59.95
SPLASH - a VGA paint program with over 256000 colours which makes full use of the incredible high quality VGA graphics. 60 pattern and brush sizes, flip, stretch, fill, zoom, merge. Compatible with most DTP programs #	199.00
Tasword PC - word processor †	99.00
Tas-spell PC - spell checker †	95.00
Tas-print PC - style writer †	95.00
Tas-sign PC - sign maker †	o/s
Tascopy PC - graphics editor †	o/s

PC PUBLIC DOMAIN

PC-SOFT #1 - 19 Basic2 utilities and games-	5.25"	12.50
PC-SOFT #2 - 8 games for all Amstrad PCs -	5.25"	12.50
	3.5"	15.00
PC-SOFT #3 - 24 utilities for all Amstrad PCs -	5.25"	12.50
	3.5"	15.00
PC-SOFT #4 - 6 games for all Amstrad PCs -	5.25"	12.50
	3.5"	15.00
PC-SOFT #5 - 23 utilities for all Amstrad PCs -	5.25"	12.50
	3.5"	15.00

PC JOYSTICKS

ANKO PRECISION JOYSTICK: top of the range - with free floating or auto centring operation modes, dual axis trim controls for accurate control of cursor/aiming/movement, two fire buttons on base and one on stem and rubber feet for surface grip	49.95
ANKO STANDARD JOYSTICK: mid-range priced joystick with fire button on base and one on the stem, dual axis trim controls for accurate movement, and rubber feet for surface grip	39.95
JUNBO JOYSTICK: the smallest in the range but just as accurate, with auto return centring and fine tuning to adjust movement control, long life variable resistor control, two fire buttons, suitable for hand held control	29.95
KONIX SPEED KING - hand-held (in the left hand) for a natural grip and total control. Microswitched twin fire buttons positioned under trigger fingers. Free or self centring solid steel shaft. Autofire feature.	49.95

Please note that with the exception of the Amstrad PC20 all other Amstrad PCs require a joystick card to be fitted

MISCELLANEOUS

DISKS	
Verbatim "Valulife" 3.5" (packs of five) per pack...	17.50
KAO "Amstrad User" 5.25" (packs of ten) per pack...	22.50
KAO "Amstrad User" 5.25" (packs of two) per pack...	4.50
DISK DRIVE HEAD CLEANERS	
3.5" for PPC, PC20 or PC2000s	17.95

PC continued

5.25" for PC1512/1640	17.95
IBM PARALLEL PRINTER CABLE	29.95
JOYSTICK GAMES CARD: Easily fitted - allows the use of an IBM style joystick on your Amstrad PC.	49.95
PC1512/1640 'SEAL 'N' TYPE KEYBOARD PROTECTOR	34.95
Stops damaging spills and dust	
MODEM - Amstrad's MC2400 (V21, V22, V22 bis and V23 2400 bps). Works with any IBM compatible and comes with communications software.	399.00
SCANNER - GS4500 Geniscan includes 400 dpi scanner and controller. Scanedit 2 software, Prodigy OCR software and Dr. Genius software. Features auto merge function for large size images and direct scanning	499.00

DUST COVERS

Australian made vinyl fabric dust covers in light grey for the following equipment: (please state your printer)

PC1512 or PC1640 monitor and keyboard	36.00
PC20 system/keyboard	18.00
PC2086 monitor/system and keyboard	39.00
PC2286/2386 mon/system and keyboard	39.00
DMP3160 or LQ3500	17.00
DMP4000 or LQ5000	30.00
Epson LX-800 or Star NX-1000	17.00
Epson LQ500	17.00

PRINTER RIBBONS

Epson: MX/FX/RX 100, 100+, 105, 105+	10.95
Epson: LX80, 86, 90	8.95
Epson: LQ500, 800, 850	15.95
Epson: FX800, LX800, 850	10.95
Star: NX1000, LC10	10.95
Star: LC24/10, NX 24/10	15.95

DISK DRIVES/CARDS

FOR PC1512 or PC1640	
(The PHDs also suit PC2086s without hard disks)	
20mb Portable Hard Drive on a card *	849.00
30mb Portable Hard Drive on a card *	929.00
20mb Internal Hard Disc *	725.00
30mb Internal Hard Disc *	789.00
* Add \$15 for certified post and insurance (\$25 overseas)	
720k 3.5" int. disc drive **	289.00
720k 3.5" Ext. disc drive **	385.00
360k 5.25" Disc drive kit **	375.00

FOR PC20 and PC2086	
360k 5.25" External disc drive **	339.00
720k 3.5" External disc drive **	339.00
FOR PC2286 and 2386	
1.2 mb 5.25" External disc drive **	395.00
1.44mb 3.5" External disc drive **	395.00
** Add \$10 for certified post and insurance (\$20 overseas)	

MATH CO-PROCESSORS

8087-2	XT - 8MHz	369.00
80287-8	AT - 8MHz	595.00
80287-10	AT - 10MHz	689.00
80387-16	16MHz	1145.00

MICROSOFT RANGE

Chart †	550.00
---------	--------

Unless stated otherwise, please add the following P and P charges to your remittance:		
	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

PC continued

Excel for Windows #	849.00
Learning DOS †	95.00
Multiplan #	345.00
Project #	695.00
QuickBasic Compiler †	185.00
QuickC †	185.00
Windows 286 †	195.00
Windows 386 #	345.00
Word †	675.00
Works #	299.00
Word Exchange †	119.00

BOOKS

CPC TITLES

Advanced User Guide	21.95
Childs' Guide to the Amstrad Micro	13.95
Computer Games Guide (400 Hints, Tips & Pokes)	29.95
Disc System, The Amstrad CPC 464	28.95
Filing Systems and D/Bases for the CPC464	30.95
High Energy Programs for the Amstrad	9.95
Ins and Outs of the Amstrad	23.95
Machine Language for the Absolute Beginner	23.95
Practical "C"	29.65
Ready made Machine Language routines	23.95
Starting Basic - Bk 1	19.95
Sound, Graphics & Handling - Bk 2	24.95
Watson's Notes Series (for younger readers)	
Book 1: First Steps in Basic	17.95
Book 2: Exploring Basic	17.95
Book 3: Computer Games	17.95
Whole Memory Guide - 464	30.95

LOGO TITLES

LOGO Pocketbook	17.95
Practical Logo on the Amstrad	27.95
Using DR Logo on the Amstrad	37.95

PCW TITLES

Advanced LocoScript on the PCWs	39.50
All in one business computing with the PCW and Mini Office Professional	37.95
Locomail User Guide - new version	54.95
LocoScript Pocketbook	17.95
LocoScript2 and the Amstrad PCW Computers - a complete guide	43.00
LocoScript2/LocoMail/LocoSpell: assignments and solutions	32.95
Mallard Basic - Introduction and Reference by Locomotive Software	39.50
Mastering the Amstrad PCW 8256/8512	32.25
Pocket Wordstar	30.95
PCW Machine Code	39.95
Program your PCW	32.95
Using Databases on the PCW	35.95
Word Processing with the PCW	27.95

CP/M TITLES

CP/M Plus Handbook - Operator's and Programmer's guide for the Amstrad CPC6128 and PCW 8256 and PCW 8512 (Soft 971) by Digital Research Inc. Over 500 pages of everything you need to know about CP/M Plus. Includes a GSX supplement	52.95
Choosing & Using CP/M Business Software (for PCWs)	35.95

mail order

BOOKS continued

PC TITLES

Abacus Books for Beginners:	
Cobol for Beginners	36.95
Excel for Beginners	36.95
GW-Basic for beginners	36.95
Lotus 1-2-3 for beginners	36.95
Microsoft Works for beginners	36.95
Microsoft Word for beginners	36.95
MS-DOS for beginners	36.95
Unix and Xenix for beginners	36.95
Ventura for beginners	36.95
Abacus Quick Reference Guides	
dBase III	24.95
GW-Basic	24.95
Lotus 1-2-3	24.95
MS-DOS	24.95
MS Word	24.95
Word Perfect	24.95
Amstrad PC1512 - User's Guide	32.00
Amstrad PPC Companion	42.50
Adv. Basic2 Programs on the Amstrad PC	35.95
Basic2 User Guide by Locomotive Software	39.95
Business Computing with the PC1640	44.00
Business Presentation	
Graphics on the PC1512	55.00
Communications with the Amstrad PC	44.00
DOS Plus Reference Guide for PC-DOS, MS-DOS and CP/M Programmers from Digital Research	75.00
Exploiting MS-DOS on Amstrad	
PC and IBM compatibles	46.65
Laptop Users Guide	36.95
Lotus Agenda	39.95
MS-DOS Tips and Tricks	36.95
PC System Programming for developers: <i>an encyclopaedia for DOS programmers</i>	69.95
PC1640 Technical Reference Manual	49.50
PC File Formats & Conversions (with 5.25" disk)	49.95
PC Tools Companion	36.95
PC Tools Complete	49.95
PPC Technical Reference Manual	54.95
Program your PC	32.95
Simple Basic2 Programs on the Amstrad PC1512/1640	29.95
Step-up Systems Quick Reference Guides	
dBase III Plus	44.95
dBase IV	44.95
Lotus 123 vers 2.01	34.95
Lotus 123 vers 2.2	34.95
MS-Word vers 5.0	34.95
Multimate Adv II	34.95
PC/MS-DOS	34.95
WordPerfect 5.0	34.95
Step-up Systems Templates	
dBase III Plus	19.95
dBase IV	19.95
Excel	19.95
Lotus 123 vers 2.01	19.95
Lotus 123 vers 2.2	19.95
MS-Word vers 5.0	19.95
Multimate Adv II	19.95
PC/MS-DOS	19.95
WordPerfect 5.0	19.95
Tips & Tricks for your PC Printer (with 5.25" disk)	69.95
Using the Amstrad PC 1512/1640	29.95
Using Ability on the Amstrad PC	34.95
Using DOS Plus on the Amstrad PC1512	39.95
Using desktop publishing on the Amstrad PC	29.95
Using GEM on the Amstrad PC1512	55.00
Using MS-DOS on the Amstrad PC1512/1640	29.95
Using Printers on the 1512/1640	29.95
Word Processing using GEM Write	45.95

BOOKS continued

OTHERS

Computer Viruses	49.95
Computers and the Law	65.00
Creative Printmaster Book	29.95
Introducing dBase	o/s
Managing your Computing: a practical handbook	50.00
Microcomputer - troubleshooting & repair	48.95

— COURSES —

Complete introductions comprising audio tapes, disks and text

MACHINE SPECIFIC

Amstrad PC 1512 and 1640	59.95
Amstrad PPC 512 and 640	59.95
Amstrad PC20	59.95
Amstrad PC 2086	59.95
Amstrad PCW 8256/8512 with LocoScript 1	59.95
Amstrad PCW 9512 with LocoScript 2	59.95

OTHER COURSES

CP/M Computing on the PCW	59.95
Complete intro to IBM PC/XT/AT & compats.	59.95

— MAGAZINES —

THE AMSTRAD USER

Iss. 01 - Feb 85	Iss. 03 - Apr 85	Iss. 04 - May 85
Iss. 06 - Jul 85	Iss. 07 - Aug 85each 3.00
Iss. 10 - Nov 85	Iss. 11 - Dec 85	Iss. 12 - Jan 86
Iss. 13 - Feb 86	Iss. 14 - Mar 86	Iss. 15 - Apr 86
Iss. 16 - May 86	Iss. 17 - Jun 86	Iss. 18 - Jul 86
Iss. 19 - Aug 86	Iss. 20 - Sep 86	Iss. 21 - Oct 86
	each 3.50
Iss. 22 - Nov 86	Iss. 23 - Dec 86	Iss. 24 - Jan 87
Iss. 25 - Feb 87	Iss. 26 - Mar 87	Iss. 27 - Apr 87
Iss. 28 - May 87	Iss. 29 - Jun 87	Iss. 30 - Jul 87
Iss. 31 - Aug 87	Iss. 32 - Sep 87	Iss. 33 - Oct 87
	each 3.75
Iss. 34 - Nov 87	Iss. 35 - Dec 87	Iss. 36 - Jan 88
Iss. 37 - Feb 88	Iss. 38 - Mar 88	Iss. 39 - Apr 88
Iss. 40 - O/P	Iss. 41 - Jun 88	Iss. 42 - Jul 88
Iss. 43 - Aug 88	Iss. 44 - Sep 88	Iss. 45 - Oct 88
Iss. 46 - Nov 88	Iss. 47 - Dec 88	Iss. 48 - Jan 89
Iss. 49 - Feb 89	Iss. 50 - Mar 89	Iss. 51 - Apr 89
Iss. 52 - May 89	Iss. 53 - Jun 89	Iss. 54 - Jul 89
Iss. 55 - Aug 89	Iss. 56 - Sep 89	Iss. 57 - Oct 89
Iss. 58 - Nov 89	each 4.25
Iss. 59 - Dec 89	Iss. 60 - Jan 90	Iss. 61 - Feb 90
Iss. 62 - Mar 90	Iss. 63 - Apr 90	Iss. 64 - May 90
	each 4.50

Unless stated otherwise, please add the following P and P charges to your remittance:

	Australia	Overseas
Order value under \$20	\$1.00	\$2.50
Order value from \$20 to \$50	\$3.50	\$6.00
Order value over \$50	\$5.50	\$10.00

MAGS continued

AMSTRAD COMPUTER USER

(English imported mag.)

Jan/Feb 85	March 85	April 85
June 85	November 85	December 85
January 86	February 86	May 86
September 86	November 86	January 88
February 88	March 88	April 88
	each 4.50

— BINDERS —

BINDERS - in white vinyl with THE AMSTRAD USER logo in silver on front and spine. Protects twelve copies. 12.95

MISCELLANEOUS

MINI SUPER CLEANER - a small hand-held vacuum and/or blower to clean out difficult to reach areas such as a keyboard. Small brush and pipette attachments supplied. Requires 2 x 1.5 volt batteries - not supplied 27.95

— VOUCHERS —

Gift Vouchers are an ideal gift for birthdays (or any other occasion for that matter) which allows the recipient to make his or her own choice of computer merchandise.

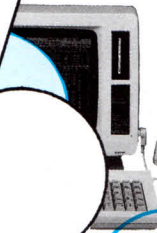
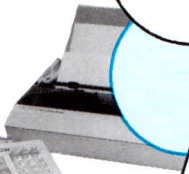
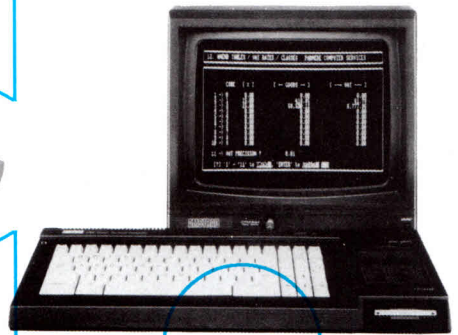
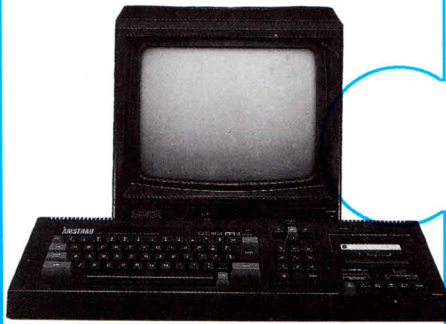
Any value of voucher (over \$20) can be purchased, but must be used through The Amstrad User Mail Order service or The Amstrad User Computer Shop, our retail outlet in Mount Waverley.

To order by mail, send your cheque, money order or credit card number with expiry date, along with your name and address (this is to where the voucher will be posted) to our address shown below.

THE AMSTRAD USER
641 High Street Road,
Mount Waverley,
Victoria
3149

Phone: (03) 803 9661

Bankcard, Mastercard or Visa accepted.



THE AMSTRAD USER

Completes the picture every month.

Why trudge to the newsagent every month when you can receive twelve monthly issues of Australia's largest selling Amstrad magazine for the price of ten? Get in touch. Get The Amstrad User.

Please send me 12 monthly issues of The Amstrad User. I own/intend to own a _____

I would like: the Magazine only at \$45.00 Magazine plus cassette of programs appearing in that issue at \$80.00 (tapes are not suitable for PCW or PC owners)

I wish my subscription to start with the current issue or Please start at Issue No

I enclose a cheque or please charge my Bankcard, Mastercard or Visa for \$ _____

The number is _____ The card expires on _____

Name _____ Phone number _____

Address _____

_____ State _____ Post Code _____

Return this form to: THE AMSTRAD USER, 641 High Street Road, Mount Waverley, Victoria 3149 or ring (03) 803 9661 for further information.

For subscriptions to Papua New Guinea, New Zealand, Solomon Islands, Vanuatu or New Caledonia please add \$24 airmail. For Fiji, Brunei, French Polynesia, Indonesia, Kiribati, Malaysia, Nauru, Niue, Samoa, Singapore, Tokelau Islands or Tonga please add \$30 airmail.

MASTERFILE 8000

FOR ALL AMSTRAD PCW COMPUTERS

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

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

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

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

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

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

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

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

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

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

Megaglomerate Ltd				
Sales Contact : Martin McManic			Mega House	
Telephone : 0245 654321			143-145 London Road	
Reference : MCL			Chelmsford	
Date of last order : 14 Aug 86			Essex CM12 5DC	
Value to date : £31,455.00				
Ref	Maker	Model	Specification	Price ex VAT
		FX85	100cps 40x114 90col	£310
		FX105	100cps 40x114 132col	£410
		FX100	100cps 132col	£195
		LX30	100cps 220x114 90col	£435
		LX100	100cps 50x114 90col	£575
		LX1000	100cps 50x114 132col	£275
		EX1000	100cps 45x114 90col	£335
		AS0	100cps 45x114 132col	£225
		AS5	100cps 45x114 90col	£240
		AS10	100cps 45x114 90col Colour	£410
		SS10	15cps daisywheel	£250
		SS20	30cps daisywheel	£280
		6100	35cps daisywheel	£390
		6200	280cps 50x114 90col	£1,795
		6300	220cps 50x114 132col	£2,700
		DK	8 page min M	£2,590
		DP	8 page min M graphics	£285
		LJPSA1	8 page min M	
		LJPSA2	8 page min M graphics	
		Laser	8 page min M	
		MP	100cps 50x114 90col	
		MP-910		
		Taxan		

Customer Details and Invoices				
British United Freight		Tel: 0452 G		
493 Western Avenue		Contact: Mike M		
Gloucester		Ref: BUF		
GL9 5JN				
Invoice	Tax point	Amount	Date paid	Co
12004	20 Aug 87	£235.00	02 Oct 87	
12399	29 Aug 87	£38.00	02 Oct 87	
12450	01 Oct 87	£305.00	---	re
12453	21 Oct 87	£133.00	---	
12533	03 Nov 87	£1,004.50	---	
12598	10 Nov 87	£355.65	---	
12703	11 Nov 87	£200.00	---	
12782	11 Nov 87	£39.20	---	
12839	04 Dec 87	£083.55	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 (excluding postage and packing).

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

Send your order now to:

THE AMSTRAD USER
 1/641 High Street Road
 Mount Waverley
 Victoria 3149 Tel: (03) 803 9661