The Aussie Mag for Amstrad owners

THE AMSTRAD USER

FIFTH BIRTHDAY ISSUE

Issue No. 61 $4.50 February 1990

All this could be yours in our "Winner Takes All" competition!

ALSO IN THIS MONTH'S ISSUE:
Adults Only PC software + Latest games reviews + last Computer Viruses + Artificial Intelligence + lots more

FOR THE NOVICE & EXPERIENCED USER

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

EDUCATION FOR THE 90's

"If there is one simple fact that we must face, it is that the 90's will be the decade when the computer becomes part and parcel of everybody's lifestyle: and most importantly, the computer will become an integral part of every child's education and future. Whether you own a CPC, PCW or PC you must improve your children's education by getting them software from PACTRONICS."

JUNIOR

"SCHOOL" SOFTWARE RANGE

• *PLAYSCHOOL (CPC)*
This is a suite of "Beginners" educational programs for pre-schoolers. Covers simple topics like number recognition and keyboard familiarization.

• *MAGIC MATHS (CPC DISC & TAPE, AND PC) (4-8)*
Introduction to addition/subtraction in entertaining game format.

• *MATHS MANIA (CPC DISC & TAPE, AND PC) (8-12)*
Multiplication/Division presented in an animated game.

FERNLEAF EDUCATION Vols 1,2 & 3 (CPC Disc & Tape)
(N. B. VOL 3, CPC DISC ONLY)
FERNLEAF is attractively presented educational software. It concentrates on re-enforcing logic, planning and predicting skills. Each volume consists of two separate programs.

FUNSCHOOL 2 (UNDER 6) (CPC Disc & Tape, AND PC)
Consists of 8 colourful and exciting programs including shape recognition; introduction to numbers; spotting colours; easy steps to word building; etc.

FUNSCHOOL 2 (6-8) CPC Disc & Tape, AND PC)
Includes enjoyable calculations; intro to co-ordinates; word building; practicing tables; etc.

FUNSCHOOL 2 (8+) (CPC Disc & Tape, AND PC)
Including anagrams; logical thought; mapping; binary arithmetic.

SENIOR

BIRDS 'N' BEES (PC)
Full sex education for your child (of any age!) including information on A.I.D.S.

"SCHOOL" SOFTWARE RANGE

• *BETTER MATHS (CPC DISC & TAPE, AND PC)*
Revisionary mathematics for 12-16 year olds.

• *BETTER SPELLING (CPC DISC & TAPE, AND PC)*
Revisionary package, covering grammar in all aspects of English.

• *MAXI MATHS (CPC DISC AND PC)*
Brilliantly presented geometry program, complete with graphics.

• *BIOLOGY (CPC DISC & TAPE, AND PC)*
The "human animal" explored, in a computerised revision course.

• *PHYSICS (CPC DISC & TAPE, AND PC)*
An introductory course to Physics, suitable for older children.

• *CHEMISTRY (CPC DISC & TAPE, AND PC)*
Revision course suitable for 12-16 year olds.

• *GEOGRAPHY (CPC DISC & TAPE, AND PC)*
The perfect "follow up" to school work, covers a broad range of topics.

• *PRIMARY MATHS (CPC DISC AND PC)*
Ideal for slow, medium or bright students studying on their own, or with adult supervision. The most comprehensive math course using high quality graphics starting with the basics.

• *MICRO MATHS (CPC DISC & TAPE, AND PC)*
59 topics including polygons; algebra; sine and cosine; trigonometry; differential calculus; and much, much more.

• *MEGA MATHS (CPC DISC & TAPE, AND PC)*
105 topics in a highly advanced mathematics revision programme for 8 year olds to Adult; includes polynomials; 3-D geometry; binomials; trigonometry; integral calculus; etc.

• *MICRO ENGLISH (CPC DISC & TAPE, AND PC)*
Comes complete with audio tape, revises structure, punctuation, spelling, vocabulary, irregular plurals, summaries and many other essential topics in the study of English.

ARRAKIS ADVANTAGE EDUCATION SERIES (PC)
Brilliant series of animated graphically presented educational software.

ALGEBRA	5 VOLS
CHEMISTRY	2 VOLS
BIOLOGY	4 VOLS
PHYSICS	2 VOLS
TRIGONOMETRY	1 VOL
GEOMETRY	2 VOLS
STATISTICS	1 VOL

and many more programs on PC for all ages.

Available from: Grace Bros, Myer, Harvey Norman, Computer Spot, Interlink (ACT), Computerbase (Syd), B & B (St. Mary's) or other retailers around Australia

FOR THE NEAREST RETAILER IN YOUR STATE CONTACT
NSW: Pactronics Pty. Ltd., 98 Carnarvon Street, Silverwater. (02) 748 4700
VICTORIA: Pactronics Pty. Ltd., 51-55 Johnston Street, Fitzroy. (03) 419 4644
QUEENSLAND: Pactronics Pty. Ltd., 12 Stratton Street, Newstead. (07) 854 1982
SOUTH AUSTRALIA: Please contact Head Office or Victoria.
WESTERN AUSTRALIA: Pactronics WA, 113 (rear) High Road, Willetton, 6155. (09) 354 1122
MAIL ORDER: The Amstrad User, 1/641 High Street Road, Mt. Waverley, Vic. (03) 233 9661
NEW ZEALAND: Micro Dealer, 68F Greenmount Drive, East Tamaki, Auckland. (09) 274 9300

Pactronics

FRONT COVER: One smart and enterprising programmer will win all this in our fabulous Fifth Anniversary PC-20 Competition. It could be you!

THE AMSTRAD USER

Issue No. 61 - February 1990

Letters - your views advice and comments 2

Bargain Basement - prices are slashed on selected software in this once-only clearance ... 5

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

Action tests on Amstrad games - reviews of FOUR more games:

Eliminator 8

Chessmaster 9

100% Dynamite 10

Stormlord 11

Calculating Interest - CPC type-in by Petr Lukes for calculating mortgage repayments .. 12

Artificial Intelligence - Paul Gerard continues to develop our Expert System 14

Serendipity - Joseph Elkhorne lifts the lid on Pandora and Keyword from Swift Software 20

LocoFile - looking for a database for your PCW? This could be it, says Mike Turner 24

From the Runes - John Barlow explains why he made the move away from LocoScript 28

Programming Competition - prizes totalling over $2400, including a PC-20! 32

Computer Viruses - with more on these computer killers, here's Ralph Burger 34

Batch Bag #3 - PC wiz Bob Waixel is back with more on batching! 37

Adults Only! - PC software strictly for grown-ups. Don't say we didn't warn you! 40

Compatibles Corner - Chris Collins has a special surprise for WordPerfect 5.0 users 44

PC Public Domain - PC-SOFT #4 is here with a heap of great games to play 46

Hint Sheet - if this Hint Sheet for Jinxter is yours, please tell us so you can get the $25! 47

Unknown Planet - Barrie Eaton's back with part two of his great CPC adventure type-in ... 48

Nationwide User Groups - get with the trend and join up today! 52

Classified Ads - just $7.50 and over 8000 people throughout Australia every month 54

Public Domain Software - 30 discs full of PD software for CPC and PCW users 55

The Amstrad User Mail Order Service - EIGHT pages with over 1200 lines of Software, Peripherals, Ribbons, Discs and Books for the Amstrad range of computers 56

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

Side 1: EXPERT - 7

Side 2: ENQUIRE - 7 INTREST1 - 37

ADVERTISER'S INDEX

All Stamps and Services 3

Atlantis Engineering Services 18

Pactronics ..... IFC, 43

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) 233 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.

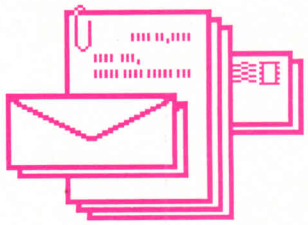
The subscription rate (for Australia) is $45.00 for 12 issues of the magazine only, or $80.00 for 12 issues of the magazine plus tape (for CPC range only) containing programs appearing in that issue. Postage is included in the above prices. For subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu 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).

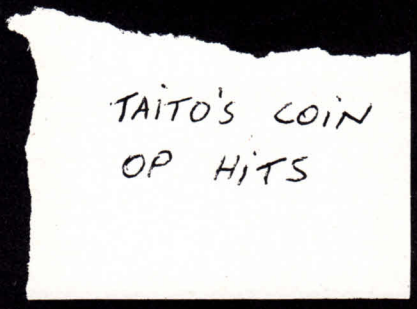
The Amstrad User is an independent Australian magazine, in no way affiliated with Amstrad or their Australian distributors or any dealer in either software or hardware (The Amstrad User Shop excepted).

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.

It never ceases to amaze the ladies in the mail order section what mail they get in the letterbox. Some people go to the trouble of carefully writing a polite and thorough letter detailing their name, address, product details etc. but some other people (usually younger readers) tend to be less wordy, as this note accompanying a money order illustrates. Thank goodness the customer's name and address were on the envelope!



I am the proud owner of the Amstrad PC 2086/30 and now write to you from a distance seeking some help regarding a small programme of accounting for a small Club which needs debit and credits - invoicing and the usual Assets and Liabilities. The other point is that I do not wish to have to pay too much for this.

Do you think that the 'Tait (Everyman)' as listed in the Catalogue of the August issue on page 63 would be applicable? The Invoicing would be ideal if it could be dissected into other credit accounts.

Not sure whether you would have anything like this, but do you have any demonstration discs that could be sent over, or are there any outlets in New Zealand which may have some demonstration discs?

S. C. Hackwell, Christchurch, N.Z.

Tait Accounting is fine for producing invoices or credits on a PC, and keeping a note of your debtors. It does not however, produce a balance sheet (Assets, Liabilites). If you need this you will have to spend more on packages such as TBM ($499) which may initially give you more than you need but you may also find that you will "grow" into the extra features. Desktop Accountant ($450) also falls into the same category.
We are not well placed to tell you about dealers in New Zealand who would be likely to be able to supply demonstration discs. You could ring Amstrad NZ and speak with Peter Blick, c/o Pengelly's in Auckland (09) 798 620.

I have been using SuperCalc 2 on my PCW8512 for more than two years and have found it both comprehensive in its facilities and easy to use. I always load it from an auto-boot disc and use the DATTIM facility to set the system date and time. DATTIM responds by giving a message such as:

"Today is Thursday October 19 1989 at 21:15:00"

Recently, however, on booting up I received a message such as:
"Today is aa@,=?c Nov 29 1989 at 21:15:00"

By trying a series of dates, I discovered that for any date beyond 15 November 1989, DATTIM responds with similar strange hieroglyphics in place of the weekday name. This doesn't affect any of the date functions within SuperCalc.

Can you or any of your readers offer an explanation?

P. G. Croft, Caringbah, NSW

I've only been getting The Amstrad User for a couple of months and I enjoy reading it. I was wondering if you or someone else could help me. I bought a new game (New Zealand Story), I have constantly played it but I can't seem to get past the whale. It says to "let the whale swallow you and then destroy it from the inside" but the whale won't swallow me. I'm getting frustrated with it. Could anyone help me with this problem, and any others that could arise. Also I missed out on getting the September issue of

Amstrad User and I need the first part of the type-in game (CPC Adventure type-in). Any help would be greatly appreciated.

Alison Conran, Mangerton, NSW

We can't help with your fishy problem but the editor notes that in King's Quest IV he can't get swallowed by the whale either!

My name is Bernie Garland and I am an organizing member of a PCW Interest Group which is held monthly in Brisbane.

As regards to the article (Issue 51, April 1989, Page 8) titled PCW TO GO COLOUR. I wish if possible more information on the availability and capabilities of this software or hardware. In particular I would like to know how much this product will cost and where I can purchase it.

For persons interested, there is a PCW Interest Group that holds regular monthly meetings at various locations in Brisbane. For further information write to : P. O. Box 500, Everton Park 4053. (Interested persons need not live in Brisbane).

B. E. Garland, Everton Pk, Qld.

KolorSoft's technical director was called Mr. Joki Sonyu. Say his name about twenty times quickly... Get the picture?

I have been subscribing to your magazine since Feb '86 and have found it very interesting and informing, but I am sorry to say I will no longer be renewing my subscription because I am upgrading from a CPC464 to an Amiga 500. I will leave you with this little tip for Spindizzy. Pressing the keys F and X on the title screen will get you a neat little graphics routine called STIX. There are a few commands you can use to control the STIX- Joystick to move the STIX around, T-Tail on/off, CLR/DEL - to clear the screen, Space- To halt the STIX movement and ESC- to quit STIX. I hope you have some fun with it, I did.

Shannon Neenan, Bayswater, Vic.

P.S. What happened to Cheat Mode???

What do you care now that you're downgrading to an Amiga???

Not all stories finish with a happy ending. Over the past two years I have been seeking answers to two problems regarding my CPC 464. Diligent searching has paid off:

1. Transferring (ASCII) files to the PC (DOS format). Two contributors to ACU have referred to the public domain programs, 22NICE and 22DISK (P.D. CP/M transfer utilities available through FREEWARE in Sydney). Although I spent many hours trying to use

All Stamps & Services

DISCOUNT DISKETTES

ONE BOX of 10 MAXELL CF2 3" DISKETTES for JUST $63.00

RIBBONS (Black)

DMP1	$13.00	DMP2000	$19.00	DMP3000	$19.00	DMP4000	$22.65
PCW8256 ...	$13.90	PCW8512 ...	$13.90	PCW9512 (carbon)	$8.20		

LOCKABLE DISK BOXES

3.5"x40 Capacity	$14.60	3.5"x80 Capacity	$18.00
5.25"x60 Cap.	$16.50	5.25"x100 Cap.	$18.00

We accept Bankcard, Visa and Mastercard. People wishing to use their Credit Card may phone or mail form back to any of the addresses shown below. Allow $6.00 for freight and handling. Please circle: BANKCARD VISA MASTERCARD

Credit Card Number: _____ *Expiry Date:* _____

Amount: $ _____ *Signature:* _____

Name: _____ *Address:* _____

_____ *Post Code:* _____

PHONE AND MAIL ORDERS TO:

All Stamps & Services,
345-349 Canterbury Road,
Surrey Hills 3125
Tel: (03) 836 8011 or 836 1333
Fax: (03) 836 8972

All Stamps & Services,
395 Elizabeth Street,
Melbourne 3000
Tel: (03) 329 6466
Fax: (03) 329 0292

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

these programs the best I could get was a directory of my CPC disc on the PC, however the files were scrambled!!! A friend introduced me to PC ALIEN (available through FBN Software in Canberra) which supports over 150 CP/M to DOS formats and HALLELUJAH!, format No 12 reads 'CPC system' discs and format No 58 reads "CPC IBM' format.

2. Running 6128 specific software on the expanded CPC464 was always a problem. I was told that BANKMAN could be run on the expanded CPC464 and that I should have no problems running CP/M+ software. Both of these matters became the source of great frustration. I did know that STOP PRESS on the expanded CPC464 had a problem loading more than one item of 'clip art' before crashing.

A hardware project in an English magazine earlier this year started a quest that ended in purchasing the 'ROMBARD EXTRA' ROM board from Microstyle which has provision for the 6128 ROM. As a result my CPC464 is switchable to a CPC464/CPC464+ expansion memory/CPC6128 with built in cassette datacorder (which acts totally as a CPC6128) and all the above problems have vanished.

For those interested in converting CPC programs to GW-BASIC (and visa versa) the BASIC commands are very similar (short of POKEs and PEEKs etc.). The major differences I have unearthed for converting CPC BASIC to GW-BASIC are [shown in the box below].

There are a number of GW-BASIC specific commands which do not have a CPC equivalent. For example: SHELL allows temporary access to DOS in order to do such things as displaying a DIRectory or changing directories.

Mike Perry, Oatley, NSW

CPC:	GW-BASIC:
PEN INK	COLOR
LOCATE x,y	LOCATE y,x
PRINT#8	LPRINT
LIST#8	LLIST
OPENIN "filename"	OPEN "filename" FOR INPUT AS #1
CLOSEIN	CLOSE#1
OPENOUT "filename"	OPEN "filename" FOR OUTPUT AS #2
CLOSEOUT	CLOSE#2
(GW-BASIC supports more than two open files; i.e. #1, #2, #3 etc.)	
WINDOW#n,1,r,t,b	WINDOW (x1,y1)-(x1,y2)

I have had my CPC6128 for about three and a half years now, so I know most of its functions.

But in the last Amstrad User you reviewed a game called NEBULUS, and your reviewist was pleading for a cheat for the game.

Well my friend (Craig) and I have known a cheat for that game for some time, and would like to share it with you, and the other readers.

It is for Infinite Lives and it works. (Well it does on my computer anyway).

```
1' NEBULUS CHEAT (disc)
2' by THORSTEN and CRAIG
3' Infinite Lives
10 MEMORY 32768:MODE 0
20 LOAD"nebload.bin"
30 DATA 21,ef,85,36,00,c9
40 FOR i=1 to 6:READ a$
50 POKE &30=(i-1),VAL("&"+A$)
60 sum=sum+(VAL("&"+a$)*i):NEXT
70 IF sum<>2332 THEN 100
80 POKE &8172, &CD:POKE &8173,&30
90 POKE &8174,&0:CALL 33024
100 PRINT "ERROR IN DATA (clever
you)...":STOP
```

Thorsten Gehrke, Redwood Pk, SA

LETTERS TO THE EDITOR:

All letters intended for inclusion in our Mailbag section should clearly be addressed to:

Letters to the Editor
The Amstrad User
641 High Street Road
Mount Waverley Vic. 3149

PEN PALS

Hello to Shane, Andrew and Vasko who have joined us this month. If you wish to join up just write to "Pen Pals" care of The Amstrad User.

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

Craig Bridgman (CPC6128)
22 Atkin Street
Melton Vic. 3337

Deon Cameron
30 Ann Street
Coffs Harbour N.S.W. 2450

Thorsten K. Gehrke (CPC6128)
10 Dillon Street
Redwood Park S.A. 5097

Richard Jacquemin (CPC464)
177 Railway Avenue
Kelmscott W.A. 6111

Matthew Jones (CPC464)
30 Perry Street
Mudgee N.S.W. 2850

Chris Maloney (CPC464 & 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 (CPC464)
C/o P.O.
Frederickton N.S.W. 2440

Vasko Stoyanovski (CPC464)
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 (CPC6128 & PC)
30 Addison Road
Hove S.A. 5048

PC1512

Reflex Analytic Database
$85.00
A powerful way to analyse records and quickly understand the meaning behind the information provided. You can enter formulas with any field for automatic calculation of values, search, sort, list, produce graphs, etc. The package includes a comprehensive manual and three disks - the program, the report and utilities disk and a help disk.

PCW DISK

Pocket WordStar
$45.00
WordStar is probably the world's most widely used word processor. This version has all the features of the original WordStar and has been customised to use the PCW's full screen width and some of the keypad keys. Contains well structured documentation and a mailmerge facility.

Accounting One (PCW8512 only)
$295.00
An ideal package for small, first-time users or companies needing a simple system to record sales, purchases, payments and receipts. For sales it records the order, creates the invoice, debits the customer and adjusts the stock automatically. For purchases it will record the details, update stock levels and outstanding balance due to the supplier. It will also produce credit notes, daily audit trails, bank deposit listings, statements, supplier listings, address labels, stock listings and activity listings. At the end of an accounting period it produces a trial balance, profit and loss statement and a balance sheet. This Australian developed package used to retail at $695.00.

Sage Chit-Chat
$85.00
Software to allow you to communicate with Viatel or other viewdata services. (Requires a CPS8256/RS232 interface.)

CamSoft Stock Control
$45.00
Can accurately monitor stock positions and movements, recording issues and receipts as they occur, providing immediate control. Handles suppliers' orders, receipts, issues, stock adjustments, group price updates. It also produces a wide variety of reports for selected items, such as Stock Valuations.

Poly Print
$45.00
Lets you turn your in-h… dot-matrix printer in… tool capable of … typefaces. P… quality character… x 18 matrix (as or… 6 x 8 in draft mo… CW). It is menu drive… very easy to operate.

SOLD OUT

Iankey - Two Fingers Typing
$45.00
A useful typing tutor that specifically caters for people who can already get by on a keyboard with two fingers. Touch Typing techniques are gradually introduced so your speed doesn't drop while you learn.

CP/M

Catalogue (CPC or PCW)
$25.00
Organises your discs and allows you to locate files rapidly by maintaining an index to your disk library. Runs under CP/M or CP/M Plus.

C-Basic Compiler (CPC6128 or
$45.00 **PCW)**
An enhanced CBASIC with important advantages for software professionals. It's a native code compiler that allows separate modules to be written, tested and then combined to create a complete program. Combines the speed of machine code with the ease of use of the Basic language. CPC6128 and PCW8256/8512 owners can also take advantage of the Graphic extension capabilities.

Pascal Compiler MT/+ (CPC6128
$45.00 **…PCW)**
Is a full ISO standard … extended to provid… comprehensive … programmin… t. Translate… high speed object… ates relocatable obj… has a linker, a run-time … library, a dis-assembler and a debugger.

SOLD OUT

CPC DISK

Purchase/Creditors Ledger
$25.00 **(Soft 1005)**
An open item system allowing suppliers' invoices, credit notes, payments to be posted with balances automatically updating the accounts and Day books. Also allows cash posting and reports including Transaction lists, Day book lists, Audit trails, Remittance Advices etc. Operates as a Stand-alone program or integrates with Soft 1006. Needs 2 disk drives.

Nominal/General Ledger
$25.00 **(Soft 1006)**
A complete, comprehensive balance brought forward General Ledger system where Journal Entries are made via the keyboard to up to 400 analysis codes and 99 sub-analysis codes. Trial Balance, Profit and Loss and Balance Sheets can be printed. Can operate by itself of will integrate with Soft 1005. Needs 2 disk drives.

MicroGraph (Soft 1004)
$25.00
A disc based graphics program producing graphs and charts from data entered through the keyboard, then printed out or saved to disk for a Slideshow.

CPC TAPE

Project Planner (Soft 916)
$25.00
A program to manage your time and organise your effort with the best possible efficiency and teaches you to divide a project into meaningful components and establish a sequence of events. It handles up to 50 different activities showing when the jobs finish and which one cause problems.

Decision Maker (Soft 918)
$25.00
There is a more scientific approach to taking decisions than tossing a coin. This program shows you how to minimise uncertainty and risk by using the decision tree system. It will help you explore all the possible outcomes of a decision and could save you money.

Home Budget (Soft 119)
$25.00
Easy to use and very friendly. Expected monthly expenditure can be entered under 12 headings and the expected income over 6 headings. The results can be viewed by quarters as figures or 3-D bar charts.

BARGAIN BASEMENT

From time to time The Amstrad User mail order department has a fantastic first-come first-served software run-out sale, and that time of year is now! If you hurry you too can cash in on these fabulous once-only clearance prices. But you'll have to hurry. Ring

(03) 233 9661

today or you will miss out forever!

News Break

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

AMSTRAD SLOWS DOWN

Amstrad plc (that's the UK parent company) has been one of the high flyers on the British Stock Exchange and a well documented success story over the last eight years or so. However, based upon their financial results for 1988/89, Amstrad's pre-tax profit has fallen from £160.5 million to £76.5 million - the first fall in their history.

The blame for the drop has been attributed to the 'professional' series of computers, in particular the PC2000 series. Apparently margins have been eroded caused by a high inventory, a shortage and price increase of DRAM chips, and hard disk controller design errors. The latter forced Amstrad to recall about 5000 PC2286 and PC2386 machines for the controller to be replaced with a Western Digital version.

A determined Alan Sugar, Chairman of Amstrad, told shareholders, "I am sure no one has failed to recognise that I personally have 43.7% of this company and I do not intend to see that investment deteriorate again to the levels it has recently." In money terms, he has seen his holding in the company drop from £458 million in August 1988 to £120 million.

SPEECH SYNTHESISER FOR PC and PCW

SM Engineering in East Sussex (UK) have announced the release of a Speech Synthesiser module in versions suitable for PCWs and PCs. The unit comes in a purpose made steel box with a power supply and speaker. It assembles combinations of 64 different phonemes (sounds distinguishing one word from another) in a 'dalek-style' voice.

The PCW version is linked to the computer via a Serial/Centronics interface. It is controlled with Mallard Basic, of which many examples are shown in the manual accompanying the unit.

The PC version plugs into the parallel printer port via a standard printer cable and is also controlled by Basic. If you are rich, you can ring SM Engineering on 001144 323 766262 in England. Otherwise you will have to wait for us to get a unit and report.

PCW BRIDGE PLAYER GALACTICA

Designed for players of all standards, Bridge Player Galactica 2150 from CP Software, gives literally millions of possible hands, simulating the game of Bridge with full realism. The program's bidding routines are comprehensive and versatile, using the ACOL system and the Stayman, Blackwood, Gerber, Grand Slam Force and Unusual No-Trump conventions.

It also contains a Bridge Tutor with 100 hands designed to instruct the intermediate player in a range of hands from straightforward to endplays and squeezes. The package including an 88 page manual costs $69.95 + p&p.

PCW ADVENTURE PACK

Hot on the heels of their PCW Challenge Pack (a compilation of ACE, Sky War, Formula 1 and Strip Poker), Artronic have just released an adventure compilation. It contains Lost Legacy of Xim, A Simple Case of Espionage and Sir Lancelot.

Stocks will arrive some time in February (along with replenishment of the highly successful Challenge Pack) and will retail at $39.95.

LOCOSCRIPT PC

Over a million copies of Locomotive's LocoScript PCW word processor have been sold since the release of the PCWs. Now, Locomotive Software have developed a version for PCs which is due for release shortly. If you have a PCW and a PC (or are thinking of moving into IBM-compatibles), you will be at home with it as it retains its distinctive style and even accepts PCW generated LocoScript files.

LocoScript PC will provide word processing with spell checking and a database with full mailmerging and reporting facilities. It is a networkable product and offers fully multi-lingual capabilities in any European language including Russian and Greek. We'll give you more details when they come to hand.

BASIC2 PLUS

Locomotive have also launched a new version of Basic2 for the Amstrad PC1512 and 1640. The original Basic2 works well under GEM but could not handle large programs. "We have made Basic2 Plus faster, more powerful with more features, particularly in its support for large programs" reports Richard Clayton, Locomotive's Technical Director. Apparently in benchmarked tests runtimes were six times faster than Basic2.

Basic2 Plus will include, not only full compatibility with the previous version, but separately developed modules, enhanced structure and greater speed. It has full GEM3 compatibility including metafile support allowing graphics output to other GEM applications. It also features a new WIMP program editor and tighter syntax checking facilities which enable you to find those 'typos' before you run the program. Again, more details later when we have seen a copy.

HAPPY BIRTHDAY TO US (AND YOU)

From a humble monotone 30 page magazine which first hit about 300 unsuspecting Amstrad owners in February 1985, we celebrate our fifth birthday with a circulation in excess of 8,500 copies each month. In the early days we only had the CPC range (3 machines) to contend with, but now have the PCW series and the huge (and ever growing) PC range of portables, desktops, family units and so on. We have also seen our Mail Order service grow from just 6 titles on offer to over 1200 products - the largest choice in the southern hemisphere, and the opening of our retail shop in Mount Waverley, Victoria.

We estimate that we have published over 3250 pages of information (that's about 2.2 million words) over the last five years. And if all the magazines printed (that's over 425,000) were placed end to end they would stretch from Mount Waverley to .....!

AND TO CELEBRATE...

To mark the milestone in the publication of Issue 61 of The Amstrad User, we are putting up an Amstrad PC20 (512k PC-XT compatible) computer as a prize in a programming competition (see centre pages for full details). And that's not all - a number of major suppliers have also agreed to sponsor the competition by adding some of their products to the "winner takes all" pool making it a very valuable prize.

The competition is open to all readers and involves sending us an original 100 line program written by you in Basic for any Amstrad machine. That means Locomotive Basic for the CPCs, Mallard Basic for the PCWs, Basic2 for the PC1512/1640 or GW-Basic for the PC20 or PC2000 series. You've got about eight weeks to the close, so go for it!

MAKING LIFE DIFFICULT

Amstrad (Australia) really goofed. We ordered a supply of TV modulators in readiness for the low-price promotion in the December magazine. The response to that product was overwhelming. When we tried to get some more (knowing that they had good stocks), we were advised that Amstrad had sent the balance back to England! Just one phone call to us before they shipped them out would have avoided many disappointments around Australian homes at Christmas.

Many software publishers seem to spend a lot of time developing their software and creating eye-catching packaging, but fail to print the correct loading instructions inside. The favourite for CPC disk software is printing RUN"DISC when in fact the loading should be RUN"DISK. If you have had trouble getting software to load from disk (disc), then try the following before returning it to the point of purchase.

RUN"DISC	RUN"DISK
RUN"MENU	|CPM
RUN"name of game	
RUN"initials of game	

Sometimes, if you type CAT, you will get an indication of what to type. If you get a read fail, it could be that you should type |CPM. The bar sign before CPM is obtained by pressing the shift key and the @ key together.

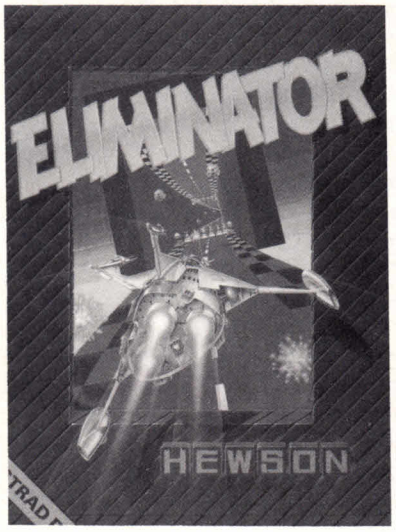
Games Arcade

The Joystick Wizard loved Noosa so much he's gone back! Not to worry, Shane Kelly and Vic Renfrew are doing a fab job.

ELIMINATOR

"Oh what a feeling, dancing on the ceiling!"

CPC Disc - $39.95
CPC Tape - $29.95



The Eliminator is a machine encircled by death, that kills but cannot be killed, and it has emerged from the underground with the self-imposed task of destroying all life forms, travelling from planet to planet, destroying all in its path. It's into this scenario that you are plunged, guiding your spacecraft along a curving highway, shooting aliens, dodging obstacles and picking up weapons and ammo packs. Every so often, you are faced with a wall of fire, but there is usually a convenient ramp nearby to launch you over it. If not, and you lose a life. There are some ramps, however, that are not near any barriers. Go over these and your spacecraft becomes inverted, flying on the ceiling. But the waves of aliens don't stop, and they will follow you to the ceiling so, be careful up there.

The screen display shows the highway in the center, with the weapon icons on the left and ammo level, shield level and number of lives on the right. You start off with a single shot laser, and by collecting a blue pyramid you can upgrade this to a dual fire laser, a side fire cannon, and more. If your ammo gets low you must pick up a red cube, which replenishes your ammo supply. You have to destroy the aliens that approach you, avoid the obstacles and, where necessary blast holes in some of the obstacles to ensure you can go farther. Collision with an alien, an obstacle or the loss of your shield will result in the loss of a life, and you also lose the last weapon you picked up. Once you have completed a number of levels, you are given a pass word which, when typed on the introduction screen allows you access to the corresponding level (so once you've completed two levels you don't have to start at the beginning again). You earn bonus points for the amount of ammo, shields etc. that you have left at the end of the level, and an extra life is awarded for each 10,000 points.

The controls in Eliminator are simply left or right. You use up and down to cycle through your available weapons.

Back in the December issue of TAU, it said:

"One of the smash hits on the Amiga, the Eliminator now comes to the Amstrad CPC".

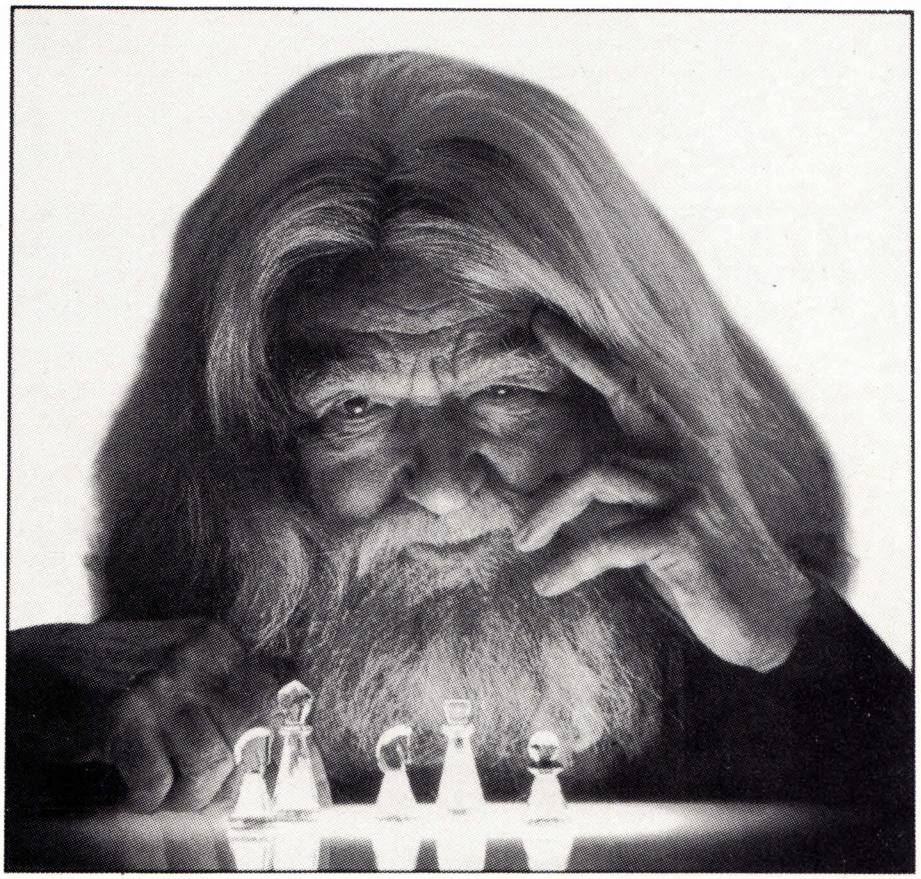
Well, that's true, Eliminator was a great big hit on the 16 bit machines, but, unfortunately on the CPC it just hasn't got what it takes to be a hit. The graphics for your spacecraft are fairly good, as are the aliens. The highway is reasonably well done, with the checkered pattern being effective enough to give an impression of forward speed. Sideways control of your spacecraft is best described as sluggish (it could be said that the ship handles like a cow, but that could be an insult to cows). The approach of the aliens and the obstacles is jerky, and at times unimpressive.

All in all, Eliminator on the CPC is not very impressive. The graphics are fair, and there is an impression of forward speed, but that's where it ends. Considering that Eliminator was written by John M Phillips, who also wrote such hits as Nebulus and Impossiball, the conversion of Eliminator is very disappointing. It may have been hot on the 16 bit machines, but on the CPC its more like an ice cube.

CHESSMASTER 2100

A quick look at some new titles

PC dual - $69.95



When I first started playing chess there were only human opponents. First you had to find someone to play, then you either thrashed them or they thrashed you. Later, I joined a chess club and just got thrashed. When it became clear to me that I would never win the club championship, chess became more fun. But the problem of suitable opponents was one that still remained until the advent of the dedicated chess machines. The first one I bought was from Tandy, and within six months my play improved to the point where I could beat it on its highest level 99 times out of one hundred (and took forever to move on its highest level). About this time home computers were coming to the fore and chess programs began to appear but they were worse than the dedicated chess machines. However, I continued to practice and eventually I was able to enter tournaments without being disgraced - my best result was in a tournament in Scotland - 3.5 out of 5 points.

To this day I still play a reasonable game of chess and I still enjoy it. But now I have an opponent who will play me any time I wish, and what's more I can alter the opponent's playing strength to suit me, thrashing it if I want, or being thrashed should I feel masochistic. That opponent is the Fidelity Chessmaster 2100.

To give you some idea of its relative playing strength, I'll compare its play with another popular IBM chess game out at the moment. Battlechess I can beat on its level 5 with ease. It is horrendously slow on its levels above this and I have never been bothered to play a game right through above level five. Chessmaster 2100 beats me easily in its three ply search mode in approximately one fifth of my thinking time!

To describe all the features of this excellent program would take far more than my allotted space for this review, but I will describe what I think are its best features.

To start with, you can have three different views of the board. A 3-d view, which I find confusing, a 2-d view taking the whole screen with a move history on the far right side, or a "war room" view with several windows on the right hand side for move history and thinking and a captured piece display. You can move pieces with the keyboard, joystick or mouse. There is a tutorial on the basics for beginners that covers the mechanical aspects of the game but not the strategy. Adequate help notes are available during play. You can save your games for analysis later, or you can analyze past classic games (several of which are provided). You can practice an opening, deviating from the book at any time (Chessmaster will tell you when you wander from the book) and there are several openings and variations of those openings provided. You can tailor the Chessmaster to play as you would like with adjustments for almost all the parameters. Alas, there is no lose on demand option!

There are clocks for tournament or timed play, a take back facility (but not in tournament mode), three levels of play where the program will randomly pick from the best moves available or always play the best move available or something called coffee-house mode whose purpose was a little obscure. Chessmaster will talk to you or beep at you or be silent.

You can switch board views at any time and even rotate the board so that the opponent's pieces are always at the top of the board.

I have just touched on the features I found to be the most interesting but there are quite a few that I have not mentioned. This program has so many

features and configurable options that the variety of them may be a little bewildering to the casual player, so there is an option to turn off a lot of the more advanced features so that the casual player is also well catered for without being overwhelmed.

I tested this program on my 12mhz AT clone with EGA graphics and hard disc. I found the response time (which is configurable) to be better than any other chess program I have tried.

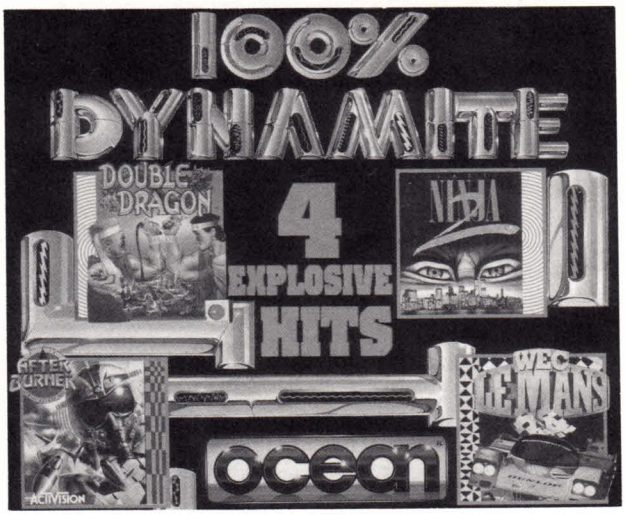
So what is this? A rave review? Well, sort of. I had one niggle with it that I must report. Although the menus allowed me to specify that I wanted every move printed, I kept getting a printer error that I could not fix. So no record of games for posterity. Ah well, they would have just been critical down at the chess club.

If you can play chess, or want to, then get yourself the best opponent to play with – Fidelity Chessmaster 2100, (it's the best because when you are losing you can just hit CTRL-ALT-DEL – the electronic equivalent of throwing the board in the air!). Highly recommended even with the printer problems.

100% DYNAMITE

Four blockbusters in one pack from Ocean. **CPC Tape - $39.95**

Now here's a compilation that is bound to do well judging by the demand for the 'singles'. Two of them have also received a decent wrap in this magazine



last year. The compilation consists of four games.

Afterburner - is a faithfully recreated version of the original arcade game in which you engage in a virtual non-stop dogfight. Equipped with heat-seeking missiles and laser anti-aircraft fire you fight at a fast and furious pace across the sea and land. It's a sweat inducer.

WEC Le Mans - a very good racing simulation which requires some pretty good joystick work. It is based upon the Le Mans 24 hour endurance race, with tricky little corners and other mad drivers to keep you on your toes.

Last Ninja 2 - takes place in modern day Manhattan where the evil Shogun Kunitoki has established a new tyrannical empire.

Double Dragon - combat with the infamous Shadow Boss' street gang through the slums of the city, the factories and then the wooded outskirts. Here the final conflict takes place with the Shadow Boss himself. Double Dragon has been one of the more popular titles of this style of game.

THRILL TIME PLATINUM 1

Ten favourites from Elite. **CPC Disc - $49.95**
CPC Tape - $39.95

Elite have produced some good compilations in the past and this new one is no exception. OK, some of the titles may be a few years old, but at about $4 a game on tape or $5 a game on disc it is extremely good value for money.

Thrill Time Platinum 1 contains five of the games appearing on Story So Far Vol 2, namely Space Harrier (air combat), Live 'n' Let Die (007 action), Overlander (car chase action), Beyond the Ice Palace (arcade adventure) and Hopping Mad (bouncing ball frustration). In addition is has Buggy Boy, Dragon's Lair, Thundercats, Great Gurianos and Ikari Warriors.

There's plenty of action to be had on your CPC screen with this lot. (The tape version is expected shortly.)

STORMLORD

Frantic fairy fun from Hewson.

CPC Disc - $36.95

Remember the old saying, "There are no fairies at the bottom of the garden"? Well, as a kid I always wondered where these fairies had gone (I assumed they were at the bottom of the garden at some time past).Now, the secret has been revealed! I now know where the fairies have all gone! They've gone to Hewson, to star in their latest computer game!

Yes, that's right. Raffaelo Cecco (the writer of Cybernoid 1 and 2 amongst others) and Nick Jones have combined to bring us this latest offering, which puts you in the role of the STORMLORD, tasked with releasing all those fairies previously mentioned so they can once again roam the world. The story goes like this...

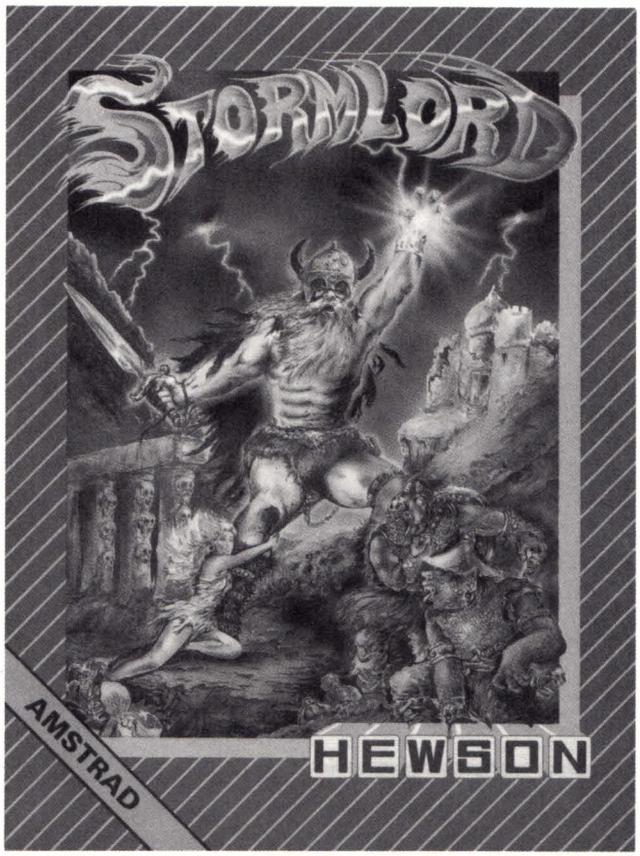
In an effort to conquer the land that the Stormlord inhabits, the evil Queen has captured all the fairies and imprisoned them. In order to defeat the wicked monarch, Stormlord must wander the various levels of the world and free all the fairies. If he fails, the evil Queen will rule forever. Thus the Stormlord wanders the land, avoiding the dragons, pink worms, killer bees and dangerous eggs and endeavour to locate each of the fairies and release them.

There are a number of fairies located on each level (level one has five) and this increases as with each succeeding level reached. Scattered throughout each level are a number of items vital to the successful release of the fairies. There are keys, honey pots, umbrellas and shoes, and it is up to you to find when each of these items should be used. Use one in the wrong place and, Oh no, that's another life lost. Also scattered throughout each level are the Fair Land transportation devices - springboards. Land on one of these and it's off to the next area where you will either find a fairy or an object.

You commence the game with nine lives. You really need every one of these to complete each level in a given time limit. This is indicated at the bottom of the screen by a sun which, as time passes, reveals a moon. When all the moon is displayed, time is out.

Lives lost can be regained, during the end of a level sub-game. In this, Stormlord has to blow kisses at fairies that float above his head. If one of his kisses hits a fairy, she drops a tear for Stormlord to collect, and an extra life is awarded for every ten tear drops collected. Again, this is done to a tight time limit and it will probably require much practise before you can benefit from this life giving process.

Well, that's the background to the game, but how is it put together. The answer is very well. Graphically, this is a great product, with a lot of effort obviously being put into it. The sprite for the central character is well drawn and its animation is great. The background graphics are very well drawn (just look at the large fairy coming out of the jar that you see on the first screen of the game). The animation and detail in the evil queens minions is also of the same high standard. Soundwise the game has a very well written title tune, and a pleasant jingle which marks the liberation of each fairy. Other sound effects consist of the explosions as your shots destroy aliens and the occasional background sound (such as the wolf whistle when you jump (over) the large fairy).



Stormlord is not purely a game of frantic alien bashing. There are some screens where that is required, but there are also others where thinking and timing are all that is used. For example, you need good timing to pass the small volcano, but no shooting. Add to this a time limit that is very tight and you are presented with a game that keeps you on the go and lets you exercise your brain as well as your trigger finger.

To sum it all up, Stormlord is great. It is a very well programmed product, which is well up to the same standard as the other games written by Raffaelo Cecco. When you look at some of the other games that have been produced for the CPC recently, this stands out as a fine example of good quality games with great graphics which can be written for the CPC.

Calculating Interest

Petr Lukes provides us with a simple listing to prepare a mortgage repayment schedule.

Unless it is situated on top of an eroding cliff, real estate (land and its improvements) is a good security for borrowing money. Lenders are prepared to grant long term loans on it, at interest rates considerably lower than those demanded for vulnerable items such as cars.

First mortgage loans are made on the reducible rate terms, with interest being charged only on the actual outstanding amount in any one payment period. The principal and interest are repaid by equal instalments (unless the interest rates change) over the life of the loan. (Bridging and second mortgage loans may be a different matter).

The repayments early in the life of the loan cover little more than the interest on the outstanding debt. Many a borrower gets an unpleasant surprise when paying out the loan early: the reduction of the principal owing may be a little more than the cost of establishing the loan. The longer the term of the loan, the lesser the proportion of each instalment going towards reducing the debt.

The program prepares a repayment schedule for a given amount, interest rate, and length of the loan. It assumes a constant interest rate, no late payments, and no extra reductions of capital; not a very realistic assumption, but any variations can be handled by treating each variation as a separate loan. The schedule splits each instalment into the capital and interest components, shows the balance owing at the moment the payment is made, and keeps a running total of interest paid to date. The limited accuracy of 6/7 significant digits produces some discrepancy in the totals, but it should not be great for the normal range of loans (it cannot cope with a 99 year loan at 110%).

The most complicated part is formatting the display, quite important for any business-type program. With the exception of using a window to hold the column headings (not essential), the program is non-specific BASIC. The computations would benefit from double-precision arithmetic which is available in most versions of BASIC, but not on the CPCs. ■

```
1 ' Interest Rates - flat and reducible
2 '          by Petr Lukes
3 '    The Amstrad User, Jan. '89
10 MODE 2:PRINT"INTEREST1: Comparison of flat and reduc
ible rates LKS 880109"
20 DEF FNred(i)=i/(1-(1+i)^-n) 'formula for repayments
at reducible rate: i=interest rate per period, n=number
 of repayment periods
30 PRINT:INPUT"Enter term of the loan in years ";y
40 IF y<1/12 THEN 30
50 n=y*12 'number of monthly repayments
60 INPUT"Enter flat rate of interest as percent per ann
um (e.g. 10) ";r
70 IF r<1 THEN 60
80 PRINT"Term of loan:"y"year(s) @"r"percent per annum,
 repayable monthly"
90 rf=(1+y*r/100)/n 'repayment on flat rate
100 i=r/12/100 'first approx.: reducible=flat
110 rr=FNred(i) 'repayment if reducible=flat
120 i2=i*2 'twice the flat rate
130 rr2=FNred(i2) 'repayment if reducible=flat*2
140 '
150 WHILE ABS(rf-rr)>0.0000005
160 dy=rr2-rr 'difference
170 slope=dy/(i2-i)
180 i=i+(rf-rr)/slope 'interpolate
190 rr=FNred(i)
200 WEND
210 '
220 f=(n*rr-1)/y*100 'check: compute flat rate from res
ult
230 i=i*12*100 'monthly rate converted to yearly rate
240 PRINT USING"Flat rate ###.###% is equivalent to red
ucible ###.###%";f;i
250 PRINT USING"Ratio of reducible to flat: #.####";i/f
260 PRINT"Monthly repayment per $1 borrowed:"
270 PRINT USING"computed on flat rate: #.#####";rf
280 PRINT USING"computed on equivalent reducible rate:
#.#####";rr
290 GOTO 30
```

MASTERFILE III

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

FIRMLY ESTABLISHED...

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

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

SO VERY VERSATILE...

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

ALL THIS POWER...

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

MASTERCALC 128

THE MODERN CPC6128 SPREADSHEET SYSTEM

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

All spread-sheet systems allow manipulation of any array of numeric data.
What sets MASTERCALC 128 apart from the rest are these features:

Full-screen or split screen windows; variable column display width; variable column formats, 0-7 decimal places; columns can be formatted individually; ultra high-precision floating point arithmetic; direct totals and sub-totals; up to 99 relocatable formulae (usually 10 is ample!); formulae up to 75 characters, and arithmetic expressions, plus conditions, relative cell references; instant highlight of computed data; store text anywhere; pop-up help menu; 40/80 column mode; auto cursor-advance; text output to printer or to disc for word processing; fast hi-res histogram of any 3 rows; Epson screen dump; detailed manual with illustrated tutorial.

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

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

Send your order now to:

THE AMSTRAD USER
641 High Street Road
Mount Waverley
Victoria 3149 **Tel: (03) 233 9661**

Your Syllogism is showing!

With a lot of new listings for you to type in, as well as some practical points to ponder, here's Paul Gerard.

You may possibly have studied formal logic at school, and remember the old formula:

- All men are fallible
- Socrates is a man
- Therefore Socrates is fallible

We might express this in algorithmic form as:

- If class of entities "X" all possess attribute "Y"
- And entity "Z" belongs to class "X"
- Then entity "Z" possesses attribute "Y"

This is one type of syllogism, one of the basic building blocks of logic - although it may seem trite and obvious it does lie at the roots of a great deal of human thought, both straight and crooked. To put the basic argument into ordinary, non-mathematical language, we think of things in particular by relating them to a picture of things in general. Provided our original (general) assumptions are sound, and we can accurately determine what general kind or class of thing something belongs to, then we can draw valid conclusions about particular things, which we supplement and modify by particular observation. If the basic assumptions are imperfect the result may be prejudice, on the other hand without some kind of generalisation we cannot even begin to make sense of the world. One of the main functions of the little "expert system" we have been building up over the last three months is an application of this process. Actually we will extend it a little further to something like this:

- All entities belong to a set of increasingly general classes
- Each set possesses a series of attributes
- The sum of attributes possessed by an entity is its own particular attributes plus all the attributes of all classes to which it belongs.

If this seems dauntingly technical the basic idea was explained in the last article, in terms of the attributes of a cat. It has its own particular attributes (e.g. white fur) - the attributes of cats in general (e.g. "hunts mice") - the attributes of mammals in general (e.g. "gives its young milk") - the attributes of vertebrate animals (e.g. a bony skeleton) and so on.

As promised, the rest of this article will be ruthlessly practical, and you should have something actually "up and running" by the end of it.

This first section of code consists of extensions and modifications to the program "EXPERT.BAS" that we built up last month. IT WILL NOT RUN BY ITSELF, because routines that remain unaltered have not been included. If you want a complete version of "EXPERT.BAS" and do not have the earlier, more tentative version of the program there is a complete running version on this month's tape, otherwise work through the earlier version and add, edit, or delete lines as necessary.

```
5 OPENOUT "dummy":MEMORY HIMEM-1:CLOSEOUT
10 ' Main program
20 GOSUB 1000 ' initialise
30 GOSUB 150 ' choose option
50 IF choice=4 THEN 1500
60 MID$(comquery$(1),18)="next "
80 CHAIN MERGE choice$(choice),3000,DELETE 3040-
90 GOSUB 960 ' re-initialise "expert" data
95 chosen=FALSE:GOTO 30 ' loop
```

This is the new "main program" - replace all lines up to 100 with this section - the most important changes are in the removal of the "choose option" section to its own subroutine, and in the deletion of all lines after 3040 in the CHAIN MERGE statement. As before, line 5 is not needed if you have a CPC664 or CPC6128 but is most important for a CPC464 with DDI. Note that this program will not work without a disc drive.

```
150 ' Choose option
160 chosen=FALSE
170 WHILE NOT chosen
175   GOSUB 1100
```

```
177   IF menu THEN GOSUB 2000
179   IF choice THEN chosen=TRUE
180 WEND
190 RETURN
```

This is the new "master" control over user choice in the command (gosub 1100) and menu (gosub 2000) routines. Make sure that the heading routine starting at line 100 has a RETURN statement between it and this at (say) line 120.

```
430 PRINT#2,TAB(FNcentre(entity$(1,entity),0))UPPER$(entity$
(1,entity))
```

Change this line in the input/display screen routine (gosub 400), which otherwise remains unchanged. This prints the name of our entity (in this case, our animal) at the head of the screen.

```
920 DEF FNroom.to.print(st$,offset,wdw)=(LEN(st$)<(modewidth-o
ffset-POS(#wdw)))
930 DEF FNstarts.with.vowel(strg$)=INSTR("AEIOU",UPPER$(LEFT$(
strg$,1)))
950   RETURN
```

Two new functions are added to gosub 900. The first determines if a word will fit on a line, Locomotive BASIC already has something rather like this built in, as you probably realise, but specifying it as a user-defined function simplifies the display of attribute lists. The second function returns a value if a word begins with a vowel - this enables us to do neat things like printing "*A* crocodile" but "*An* echidna".

The new "RETURN" line divides this routine from the new one at 960.

```
960   ' re-initialise "expert" data
970   ERASE entity$,entity.point,attribute$,attribute.point,cl
assif$,classif.point,linker$,linker.point
980   DIM entity$(1,1),entity.point(1,1),attribute$(1,1),attri
bute.point(1,1),classif$(1,1),classif.point(1,1),linker$(1,1),
linker.point(1,1)
985   file.test$=file.iden$
987   MID$(menu$(17),21)=SPACE$(8)
988   MID$(menu$(18),21)=SPACE$(8)
989   MID$(menu$(21),6)=SPACE$(8)
990  RETURN
```

This new routine resets variables used to store the data that our "intelligent" routines manipulate, so memory is freed for a new set. This memory saving also helps the program step more quickly between the various sub-programs, by avoiding lengthy garbage collections.

```
1100 ' command input
1110 mde=1:GOSUB 600 'set mode
1120 head=comhead(menu.number):GOSUB 100 'print heading
1125 mistake=0
1130 choice=1:menu=FALSE
1135 CLS#1:PRINT#1,TAB(8)"Input a command (or HELP)"
1140 LOCATE 1,12:PRINT TAB(FNcentre(comquery$(menu.number),10)
)comquery$(menu.number);
1142 length=10:caps=TRUE:control=11:GOSUB 200:caps=FALSE
1145 IF long=0 THEN 1180
1147 IF INSTR(LEFT$(user.input$,long)," ") THEN GOSUB 1600
1150 FOR i=1 TO menu.length(menu.number)
1160   IF INSTR(command$(i+start(menu.number)),LEFT$(user.inpu
t$,long)) THEN choice=i+(start(menu.number))
1170 NEXT
1180 CLS#1:CLS#3:LOCATE (30-LEN(menu$(choice)))/2,12:PRINT"Con
firm ";menu$(choice);" ?"
1190 GOSUB 500  ' yes/no
1200 IF yes THEN IF choice=1 THEN menu=TRUE:RETURN ELSE choice
=choice-1:RETURN
1210 mistake=mistake+1
1220 IF mistake<3 THEN CLS#1:CLS#3:GOTO 1130
1230 menu=TRUE:RETURN
```

This is a slightly friendlier version of our "command" routine - I have included the whole routine, although several lines remain unaltered.

```
1500 ' End use of program
1510 STOP
```

This exits the program - a "CALL 0" command, and a wiping of any ".BAK" files from the disc, will probably go here in the final version of the program.

```
1600 ' process user input
1610 cut=INSTR(LEFT$(user.input$,long)," ")
1620 WHILE (cut>0 AND cut<6) AND cut<long
1630  MID$(user.input$,1)=MID$(user.input$,cut+1):long=long-cu
t
1640  cut=INSTR(LEFT$(user.input$,long)," ")
1650 WEND
1690 RETURN
```

This little routine splits words in "command" input.

```
2500 ' check disc directory
2510 CLS#3
2520 PEN 0:LOCATE 1,2
2530 |DIR,@file.test$
2540 dir.lines=VPOS(#0)-8
2550 PEN 1
2560 IF dir.lines=0 THEN RETURN
2570 IF dir.lines>10 THEN mde=2:GOSUB 600 ' many files need mo
de 2 display
2580 RETURN
```

This routine has an identical equivalent in "Structured Data".

```
2600 ' display directory
2610 LOCATE 1,4
2620 |DIR,@file.test$
2630 RETURN
```

So has this one - its function should be obvious.

```
2700   get expertise name
2710 caps=TRUE:control=10:length=8:GOSUB 200          'Input rou
tine
2720 IF long<3 THEN CLS#3:LOCATE 4,12:PRINT"Longer expertise n
ame required":CLS#1:t!=500:GOSUB 700:RETURN
2730 MID$(file.name$,1,8)=LEFT$(user.input$,long)
2740 IF long<8 THEN MID$(file.name$,long+1)=SPACE$(8-long)
2745 name.len=long
2750 MID$(file.iden$,1,12)=file.name$+file.extn$
2760 CLS#3:LOCATE (26-long)/2,12:PRINT"Expertise is ";:PEN 3:P
RINT file.name$;:PEN 1
2770 MID$(data.file$(1),1)=SPACE$(8):MID$(data.file$(1),1)=fil
e.name$
2773 FOR i=2 TO 4:MID$(data.file$(i),1)=LEFT$(file.name$,3):NE
XT
2780 CLS#1:t!=500:GOSUB 700
2790 RETURN
2800 ' get entity name
2810 caps=TRUE:control=10:length=50:GOSUB 200         'Input ro
utine
2820 IF long=0 THEN RETURN
2830 MID$(entity.name$,1)=SPACE$(50)
2835 MID$(entity.name$,1)=user.input$
2840 entity.len=long
2845 RETURN
```

These new routines accept specific user input.

```
2850 ' find entity
2860 entity=0:entity.found=FALSE
2870 WHILE (entity<count(1)) AND (NOT entity.found)
2872   entity=entity+1
2874   IF INSTR(UPPER$(entity$(1,entity)),LEFT$(entity.name$,e
ntity.len)) THEN entity.found=TRUE
2876   IF entity.found THEN CLS#3:LOCATE (20-LEN(entity$(1,ent
ity)))/2,12:PRINT"Confirm you mean "entity$(1,entity)" ? ":GOS
UB 500:IF NOT yes THEN entity.found=FALSE
2880 WEND
2890 RETURN
```

This is a simple little sequential search of our list of entities (in this case, animals). "Entity" is the number of the animal found - while "entity.found" returns TRUE (-1) if the animal is on the list. The matching process is if anything a little TOO flexible, so the routine can step through a number of possibilities if necessary.

```
13100 ' Menus
13110 DIM menu$(22)
13120  RESTORE 40100
13130  FOR i=1 TO 22:READ menu$(I):NEXT        Menu options
13140  DIM menu.length(6)
13150  FOR i=1 TO 6:READ menu.length(i):NEXT 'Menu lengths
13160  DIM start(6)
13170  FOR i=1 TO 6:READ start(i):NEXT        'Menu starting po
ints
13200 ' Headings
13210 DIM heading$(13)
13220  RESTORE 40200
13230  FOR i=1 TO 13:READ heading$(i):NEXT 'Heading values
13250 ' Commands
13255 DIM command$(22)
13260  RESTORE 40300
13270  FOR i=1 TO 22:READ command$(i):NEXT '"commands"
13272 DIM comnead(6)
13274 FOR i=1 TO 6:READ comnead(i):NEXT ' command screen headi
ng numbers
13276 DIM comquery$(6)
13278 FOR i=1 TO 6:READ comquery$(i):NEXT ' command questions
13280 ' Sub-programs
13282 DIM choice$(3)
13284  RESTORE 40400
13286  FOR i=1 TO 3:READ choice$(i):NEXT ' sub-programs
13300 ' Current file name
13310 file.name$=SPACE$(8)
13315 keep$=SPACE$(12)
13320 file.extn$=".EXP"
13330 file.iden$=file.name$+file.extn$
13340 file.test$=file.iden$
13350 DIM data.file$(4)
13360  FOR i=1 TO 4:READ data.file$(i):NEXT
13370 entity.name$=SPACE$(50)
13400 ' Dummy dimensioning of data arrays
13410 DIM entity$(1,1),entity.point(1)
13420 DIM attribute$(1,1),attribute.point(1)
13430 DIM classif$(1,1),classif.point(1)
13530 DIM linker$(1,1),linker.point(1)
13800 ' User defined functions
13810 DEF FNcentre(strg$,offset)=(modewidth-offset-LEN(strg$))
/2
13900 RETURN
40000 ' DATA for control$(n)
40010 DATA "YN","123","1234","12345","123456","1234567","12345
678","12345678","123456789","1234567890","ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234
567890","abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ
"
40015 DATA "1234567890.,:;$%'()/-abcdefghijklmnopqrstuvwxyz AB
CDEFGHIJKLMNOPQRSTUVWXYZ"
40100 ' DATA for menu$(n)
40110 DATA Look at the MENU,SETUP a new expertise,TEACH existi
ng expertise,ENQUIRE within on any subject,FINISH with expert,
NAME expertise,DEFINE elements,RELATE elements,CONFIRM experti
se structure,Name ENTITY,Define ATTRIBUTE(s),Code CLASSIFICATI
ON
40111 DATA FINISH this element
40112 DATA SELECT expertise for enquiry,CATALOGUE this disc,AB
ANDON search
40115 DATA "CLASSIFY particular         ","DESCRIBE particular
        ",ANALYSE a classification,FIND particular attribute,
LIST         with attribute,FINISH search
40120 ' DATA for menu.length(n)
40130 DATA 4,4,4,3,6,0
40140 ' DATA for start(n)
40150 DATA 1,5,9,13,16,0
```

```
40200 ' DATA for heading$(n)
40210 DATA Main Menu,Set up new expertise,Teach me !,Enquire h
erein,Enquiry menu,Name Expertise,Welcome to EXPERT,New Expert
ise,Teach me !,Enquire herein,Name Expertise,Define Elements,R
elate elements,Catalogue of this disc
40300 ' DATA for command$(n)
40310 DATA MENU,SETUP NEW START,TEACH OLD INPUT ADD EDIT,ENQUI
RE SEARCH LEARN LOOK,QUIT ABANDON FINISH END GIVE UP LEAVE DEP
ART LOGOFF LOG OFF,NAME EXPERTISE TITLE FILENAME SUBJECT,DEFIN
E TYPE KIND,RELATE RELATIONSHIPS
40312 DATA CONFIRM FIX FINISH,NAME ENTITY THING OBJECT,DEFINE
ATTRIBUTE DESCRIBE DESCRIPTION,CODE CLASSIFICATION ORDER KIND,
FINISH QUIT ABANDON END GIVE UP LEAVE DEPART
40315 DATA YES CONTINUE SELECT CHOOSE EXPERTISE,LIST CATALOGUE
,NO ABANDON QUIT FINISH END GIVE UP LEAVE DEPART
40317 DATA CLASSIFY,DESCRIBE        ,ANALYSE CLASSIFICATION,FI
ND ATTRIBUTE,LIST         ,FINISH QUIT END GIVE UP LEAVE DEPAR
T
40320 DATA 7,8,9,10,10,12
40325 ' data for comquery$
40330 DATA "What shall we do first ? ","Which aspect of expert
ise ? ","Which aspect of entity ? ","Want to go on ? ","What k
ind of enquiry is this ? "," "
40400 ' DATA for choice$(n)
40410 DATA setup.bas,teacher.bas,enquire.bas
40500 ' DATA for separate files
40510 DATA "        .EXP","   ATTRI.ATT","   CLASS.CLA","   LI
NK .LNK"
```

These lines replace all lines after 13100 in the last version of the program. There are several new arrays, and a number of old ones have been changed or extended.

Finally, what follows is a new version of the sub-program "ENQUIRE.BAS". This completely replaces the little "stub" we originally typed in to test the CHAIN MERGE function. It has two of its main functions quite complete, and we can "CLASSIFY" and "DESCRIBE" any animal from our list. If you are using a CPC464 with DDI then this must be saved as an ASCII file so that it will merge, (it is in this form on the tape). You can save both disc space and "merging" time on a CPC664 or CPC6128 by saving it as an ordinary BASIC file.

```
3050 menu.number=4:GOSUB 150
3060  ON choice-12 GOSUB 3200,3100,3080
3065  IF mistake THEN GOSUB 12000 ' error routine
3070 IF choice<>21 THEN 3050 ' loop
3080 menu.number=1
3090 GOTO 90   ' return from sub-program
3100 ' catalogue routine
3110 GOSUB 3300 ' check directory
3130 GOSUB 800
3140 RETURN
3200 ' get files for expertise
3210 GOSUB 3300 ' check directory
3240 GOSUB 3400 ' get filename
3250 IF mistake THEN RETURN ELSE GOSUB 3500 ' load data
3260 GOSUB 5000 ' process enquiry
3290 RETURN
3300 ' check directory
3310 MID$(file.test$,1)="*       "
3320 CLS#3:GOSUB 2500 ' directory
3330 IF dir.lines THEN GOSUB 2600 ELSE CLS#1:PRINT#1,TAB(7)"No
 expertise files on this disc !":t!=500:GOSUB 700
3340 RETURN
3400 ' get file name for load
3410 CLS#1:PRINT#1,"   The above expertises on this disc"
3420 LOCATE 2,MAX(13,VPOS(#0)+3):PRINT"Type your expertise her
e > ";
3430 GOSUB 2700            ' file name
3440 IF long<1 THEN mistake=TRUE:RETURN
3450 MID$(file.test$,1)=file.name$:GOSUB 2500 ' check if file
in directory
3460 IF dir.lines THEN RETURN
3480 CLS#1:PRINT#1,TAB(7)LEFT$(file.name$,name.len)" not on th
is disc !":t!=500:GOSUB 700
3490 MID$(file.test$,1)="*       ":mistake=TRUE
3495 RETURN
3500 ' load data
3510 FOR i=1 TO 4
3520  MID$(file.test$,1)=data.file$(i)
3530  GOSUB 2500 ' check file
3540  IF dir.lines=0 THEN mistake=TRUE ELSE GOSUB 3600
3550 NEXT
3590 RETURN
3600 ' input data from files
3610 PRINT "Loading data from file ";file.test$
3620 OPENIN file.test$
3640  INPUT#9,count(i)
3680  ON i GOSUB 3700,3800,3900,4000
3690 RETURN
3700 ' entity data
3710 ERASE entity$
3720 DIM entity$(1,count(1))
3740 FOR j=1 TO count(1)
3750  INPUT#9,entity$(0,j),entity$(1,j)
3760 NEXT
3770 CLOSEIN
3790 RETURN
3800 ' attribute data
3810 ERASE attribute$
3820 DIM  attribute$(1,count(2))
3840 FOR j=1 TO count(2)
3850  INPUT#9,attribute$(0,j),attribute$(1,j)
3860 NEXT
3870 CLOSEIN
3890 RETURN
3900 ' classification data
3910 ERASE classif$
3920 DIM classif$(1,count(3))
3940 FOR j=1 TO count(3)
3950  INPUT#9,classif$(0,j),classif$(1,j)
3960 NEXT
3970 CLOSEIN
3990 RETURN
```

```
4000 ' link data
4010 ERASE linker$
4020 DIM linker$(1,count(4))
4040 FOR j=1 TO count(4)
4050  INPUT#9,linker$(0,j),linker$(1,j)
4060 NEXT
4070 CLOSEIN
4080 RETURN
5000 ' enquiry
5010 IF MID$(file.name$,name.len,1)="S" THEN singular$=LOWER$(
LEFT$(file.name$,name.len-1)):plural$=LOWER$(LEFT$(file.name$,
name.len)) ELSE singular$,plural$=LOWER$(LEFT$(file.name$,name
.len))
5020 MID$(menu$(17),21)=singular$
5030 MID$(menu$(18),21)=singular$
5050 MID$(menu$(21),6)=plural$
5060 menu.number=5:GOSUB 150
5065  ON choice-15 GOSUB 5100,5200,5300,5400,5500,5080
5070  IF choice=21 THEN RETURN ELSE GOSUB 800
5075 GOTO 5060 ' loop
5080 menu.number=4
5090 RETURN
5100 ' classify entity
5110 mde=1:GOSUB 600:GOSUB 100
5115 CLS#3:CLS#1:LOCATE 2,12:PRINT"Which "singular$" do you wa
nt ? ";
5120 GOSUB 2800 ' get entity name
5130 GOSUB 2850 ' find entity
5140 IF NOT entity.found THEN LOCATE 1,12:PRINT"I don't know t
hat "singular$" - try again ?":GOSUB 500:IF yes THEN 5110 ELSE
 RETURN
5150 GOSUB 400
5155 LOCATE 4,5:PRINT CHR$(24);"This "singular$" may be classi
fied as follows :";CHR$(24)
5160 class=0:LOCATE 6,7
5165 WHILE class<count(3)
5170  class=class+1
5175  IF INSTR(entity$(0,entity),classif$(0,class))=1 THEN IF
FNroom.to.print(classif$(1,class),3,0) THEN PRINT classif$(1,c
lass);" - "; ELSE LOCATE 4,VPOS(#0)+2:PRINT classif$(1,class);
" - ";
5180 WEND
5182 IF FNroom.to.print(entity$(1,entity),0,0) THEN PRINT enti
ty$(1,entity) ELSE LOCATE 4,VPOS(#0)+2:PRINT entity$(1,entity)
5190 RETURN
5200 ' describe entity
5205 GOSUB 5100  ' get entity name and classify !
5210 LOCATE 4,VPOS(#0)+2:PRINT CHR$(24);"From which we can dec
uce the following :";CHR$(24);
5220 link=0:LOCATE 6,VPOS(#0)+2
5226 IF FNstarts.with.vowel(entity$(1,entity)) THEN PRINT"An "
; ELSE PRINT"A ";
5227 PRINT entity$(1,entity);" ";
5230 WHILE link<count(4)
5240  link=link+1
5250  IF INSTR(entity$(0,entity),linker$(0,link))<>1 THEN 5290
  ' poor style !
5260  desc=0
5265  WHILE desc<count(2)
5270  desc=desc+1
5275  IF INSTR(linker$(1,link),attribute$(0,desc))=1 THEN IF
 FNroom.to.print(attribute$(1,desc),3,0) THEN PRINT attribute$
(1,desc);" - "; ELSE LOCATE 4,VPOS(#0)+2:PRINT attribute$(1,de
sc);" - ";
5280  WEND
5290 WEND
5295 PRINT STRING$(2,8);"."
5299 RETURN
5999 RETURN
12000 ' error routine
12010 CLS#1:PRINT#1,"Sorry, data for expertise not on disc :"
12030 t!=1500:GOSUB 700
12090 RETURN
```

That is quite a lot to type in at one go - but the results are quite fun! The next time we do some programming we will have a look at inputting data so that we can describe a few more animals, and add more "attributes" to the ones we have got. Eventually we will be able to make the computer into an expert on more or less any simple subject, with the "setup" subprogram. ■

ATLANTIS ENGINEERING SERVICES

AUTHORISED
AMSTRAD SERVICE AGENT.

SERVICE RATES:

- CPC-PCW *$45* p/hr.
- AMSTRAD PC RANGE *$80* p/hr.
- AUDIO EQUIPMENT *$45* p/hr.
- VIDEO EQUIPMENT *$80* p/hr.

Atlantis also service other brands of computer & audio visual equipment including:

INSTRUMENTATION • COMMUNICATIONS
ROBOTICS • INDUSTRIAL ELECTRONICS

ADDRESS: 6/585-587 Blackburn Road
Notting Hill, Vic. 3168

TEL: (03) 561 1133 • FAX: (03) 561 5572

If you use *Mini Office* or *LocoFile*, here's what you've been missing:

"FLIPPER is an invaluable tool, and really is like having an extra PCW."
Rob Ainsley, *New Computer Express*

"I am completely sold on it"
Paul Hendy, *Your Amstrad PCW*

"FLIPPER is one of the most impressive utilities I've seen for the PCW"
John Minson, *Computer Shopper*

FLIPPER could do some pretty surprising things. It could split you PCW in two, letting you run LocoScript 2 in one half and a CP/M program in the other. Or it could let you load two CP/M programs at once if you preferred, one in each half. It could flip you from one half to the other in under three seconds, any time you wanted. And it wouldn't lose your place.

Unfortunately, there were a few things it couldn't do. In particular, it couldn't load either *Mini Office Professional* or *LocoFile*. Serious shortcomings indeed.

Now **FLIPPER 2** is here. It can do everything FLIPPER could, but it works with *Mini Office* and *LocoFile* too (it can even manage both at once if you want). What's more, we've added more options and made it easier to install. Oh, and you can FLIP in as little as 2 seconds now!

FLIPPER 2:
at $89.95, it's essential.

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

THE AMSTRAD USER
641 High Street Road
Mount Waverley
Victoria 3149

Tel: (03) 233 9661

A peek into Pandora's Box

Joseph Elkhorne lifts the lid on Pandora, Swift Software's games programming utility. What does he discover?

Well, for a short month, we take a short break from the thorny subject of assembly language. Our esteemed Editor had two programs from Swift Software for review. Swift is a UK software house, one I hadn't heard of. Nice of them to provide material, so the least we can do is "give it a go!"

The first package is called KEYWORD, defining itself as The Dynamic Word Finder for home and business use. Inside the rather unusual cover is one disc and a user guide. The latter is printed on heavy stock, is short and to the point.

I installed the program, following the directions, and it performed as promised. KEYWORD is an RSX which can work with other programs. The user guide refers to the situation of installing the RSX and working with Protext in ROM. As this is not my working procedure, I could not try it. As their RSX takes up a great deal of space - and needs their "dictionary" disc (side two) in the A drive, it does seem somewhat limited for many users.

The process of working with Pandora is a lot like that of assembly language under CP/M, albeit easier.

I tried loading Tasword after installing the RSX and, as suspected, was unsuccessful. Not a great deal of user memory is left after installing the utility. I did prove that the RSX installation, followed by loading a small BASIC program, still allowed "dictionary" access - so I assume the operation to be bug-free.

KEYWORD is essentially an electronic version of a thesaurus - like a computerised Roget's. As an aid in composition and writing, it would have a definite use. The user guide remarks that the program was written by a professional journalist for his own use.

Obviously, he uses Protext in ROM. With over 10,000 synonyms and antonyms in the dictionary - and over 1,000 subject headings - KEYWORD can be handy in roughing out a draft in the pencil-and-paper mode.

I did note a couple of spelling errors in the User Guide, so perhaps its use could be recommended to Swift...

They make a point of saying the program is not copy protected, and hope users will do the right thing. I think they deserve credit in this regard. A clever pirate can rip anything off, given time. All too often, software houses are paranoid about potential financial damage, and end up with products the legitimate user cannot use flexibly, if at all!

Now on to the real offering for the month. The second Swift package is called PANDORA. On opening the "envelope" containing the disc and user's guide, one notes the same packaging technique as for the other product: a heavy card stock with double, self-locking tabs, probably designed by an Origami enthusiast.

The contents are one disc and one manual, the latter a small offering in a stapled binding. A quick perusal of it leads to a "swift" conclusion that the software people ought to farm the writing out to a professional. Obviously, they are saving money on overheads. The cover ostensibly takes the place of the title page, and the table of contents springs out at you when you open the booklet. The first page of text, right hand side on turning the page, is page two. A minor quibble, but definitely not the way real publishing is done.

The major gripe is one that is all too common in high-tech books: no index. Thus, finding specific references is a case of flipping back and forth, back and forth.

What is Pandora? (That's their introduction phrase, by the way). They let you know it's "up to 200% faster than in Basic," speak of Sprite handling commands, and say that "all Pandora programs are semi-compiled before they are run." What they don't tell you precisely is what it is. They rabbit on about how it

works, differences from the BASIC you're accustomed to, and about how to drive it.

It's sort of a turbo mode in software. Wow, you say, will it let me write arcade style games in Basic that run as a challenge to do something more than a snail? Maybe.

On the disc, you'll find 14 files when you do a CAT. Some of these are for a demo program, and also there are two games - simple, but they exhibit the end result of Pandora's twice-as-fast BASIC.

Handing out software for evaluation by magazines is surely a good idea - but presentation is a major factor in the eyes of the reviewer. The manual refers to Pandora Version 1.00, whilst the review disc was Version 1.01. The differences? Well, this letter looked at the table of contents for any mention of the "editor" program on board the disc. None.

The manual says the Pandora system is just one program made up of two separate parts, the Compiler and the Supervisor. Well, there is a compiler file on the disc, according to CAT. And an editor file; no super. Guess it's really part of the main system. As an example of clear writing, the book leaves something to be desired. Ah, well.

Being one of those pessimistic souls, I loaded the "disc" program and listed it. Lo, it loads Pandora. CAT didn't see it, so I booted up CP/M and used the SDIR utility to inspect the directory for the real story. Two system files, EDITOR.BIN and PANDORA.BIN of 5K and 18K size respectively.

Next step was to run up the README program, which gave the difference between the manual instructions and the current operation. Incidentally, they remark that Version 2.00 is due out in November 1989. Let's hope the sale copies have an up-to-date book along with the disc!

The newer version will offer a sprite editor for all screen modes; a music designer and sequences, with envelope and sound effects creator, and other goodies. Upgrades are available at a modest cost. You'd be advised to use your word processor to format and print this text, for you'll surely need it. And you have to have a word processor, for this is the key to writing Pandora programs. The book says so. Later, however, they contradict themselves and tell you how you can use Pandora without a word processor. Aha, this is the purpose of COMPILE.BAS.

Essentially, this program pre-processes Pandora style BASIC statements, created as DATA statements. Somehow, I don't think I'll bother doing it that way. You may, however wish to inspect Appendix IV, which describes the technique.

The process of working with Pandora is a lot like that of assembly language under CP/M, albeit easier. You write a "source" file using the word processor. The first major difference that will strike you is the lack of line numbers. So, how do you do a GOTO, that command oft sneered at by so-called professional programmers? Simple, you use labels.

Now, not only do the source files have to be straight ASCII format, they must not have any invisible word processing format commands within them, else the operation will give you error messages.

Using the Pandora variants of Locomotive Basic, as well as the additional commands for sprite handling and animation, you write a new style of BASIC file and save it to disc. You load Pandora, compile the source, and then you can run it. You'll agree that it

...frequently you'll feel like throwing the manual against the wall.

seems similar to CP/Ms ED, MAC and HEX approach.

Pandora programs can exist in stand-alone mode, or can be used from within conventional BASIC programs. You might be tempted to save an existing file with the ,A option and handle the ASCII text in your word processor. It would probably be easier to start from "square one", in my estimation.

With all the variations from Locomotive BASIC, no line numbers AND new commands, adapting an old program would be time consuming, to say the least. The biggest limitation of working with this package is the opening message once Pandora is loaded:

```
System installed with 7822 bytes free.
```

Before trying to work with it, you'll probably run out of patience in trying to understand the manual, and load up a game, as I did. The demo, "birds", simply gives you a screen of bird-like sprite flapping around. Ho hum.

Well, how about the games? There's a "coke", a simple shoot-em-up and "game" (original, eh?) which is like a poor man's version of Asteroids. One wonders, whilst looking at the red and white can one is expected to shoot in the first little gem, if the soft drink manufacturers were consulted. "Game" is obviously included as a bad example ... it smells like every poor arcade game ever encountered, and even includes a few bugs, like the occasional inadvertent debris left on screen. But if you want to be a "sprite cowboy", then this is a good model of poor programming to work from.

Besides, Swift offer a free competition, mentioned in the README file, which could earn you a royalty on a good game! They intend to produce a compilation disc of user's games; if you want to "see your name in lights", give it your best shot.

The start address of any Pandora program is always &3000; yet the book states the first line of a user's BASIC program should be: 10 MEMORY &1FFF. If you think this is a misprint, think again. A perusal of the (obsolete) memory map in Appendix III says the compiled program resides in 2000-2FFF,

```
.intro
        max 31:mode 0:ink 0,0:border 0:ink 1,24:clear
.kill
        off a:a=a+1:if a<32:goto kill:endif:pen 1:paper 3:locate 6,1
        text "          ":locate 6,2:text " ROCK RUN ":locate 6,3
        text "          ":pen 8:paper 0:locate 10,5:text "by":pen 4:locate 5,7
        text "Chris  Nixon":pen 11:locate 2,12:text "Written in PANDORA";
        pen 2:locate 2,25:text "Press FIRE to Play":a=0
.start
        cls:call setup:call screen1:call game:if w=1:goto dead:endif
        call screen2:call game:if w=1:goto dead:endif:pen 4:locate 1,10
        text "MISSION ACCOMPLISHED":a=200


.tune
        sound 1,a,2,8,0,0,0:a=a-1:if a>50:goto tune:endif
        call pause:goto intro
.game
        call moveship:drive:call bullets:call movebullet:call checkhit
        call checkdead:if w=1:return:endif:inkey 66,i:if i=1:goto alldone:endif
        if u=v:wipe j,k:j=35:k=170:d=2:return:endif:goto game
.checkhit
        if f=2:return:endif:xpos 31,l:ypos 31,m:check 31,i:if i=255:return:endif
        if r=1:goto killbaton:endif:if i>9:goto killsmall:endif:read i:wipe x,y
        f=0:off i:wipes l,m:i=i*2:i=i+10:l=i+1:xpos i,x:ypos i,y:x=x+2:y=y+8
        xpos l,x:ypos l,y:call rnddir:ydir i,x:call rnddir:ydir l,x:xdir i,-1
        xdir l,1:wrap i:wrap l:speed i,0:speed l,0:on i:small i:small l:on l
        box i,0,73,10,180:box l,0,73,10,180:animate i,12,1,0,250
        animate l,12,1,0,250:sound 129,120,30,0,1,1,15:s=s+25:call score:return
.setarray
        x=0:y=-1:call fix:x=1:y=-1:call fix:x=1:y=0:call fix:x=1:y=1:call fix
        x=0:y=1:call fix:x=-1:y=1:call fix:x=-1:y=0:call fix:x=-1:y=-1:call fix
        j=35:k=170:d=2:put d,j,k:return
.frame
        rnd x:if x>5:goto frame:endif:animate a,42,6,x,2
        on a:a=a+1:if a<16:goto set2:endif:return
.moveship
        inkey 71,a:inkey 63,b:inkey 21,c:inkey 74,x:inkey 75,y:inkey 72,z
        if a=1:call rotateleft:goto checkSH:endif:if x=1:call rotateleft
        goto checkSH:endif:if b=1:call rotateright:endif:if y=1:call rotateright
        endif
.rotateright
        d=d+1:if d=8:d=0:endif:return
.rnd
        rnd x:if x>72:goto rndx:endif:return
.alldone
        mode 2:ink 1,26:end
stop
```

with the Supervisor above it.

In addition, other data like sprite descriptions and variables and arrays are stored in upper memory, also. All these overheads make it clear why there's little room for your BASIC program. Obviously, if your source is too big, it won't fit into the area provided by Pandora. Despite the Appendix with copious error messages described, I could see no discussion of what happens if the compiled code grows too large. Surely, some indication of an impending diabolical situation must exist.

Shown above is a sample of "game.src" from the disc, just to let you know what you're in for. There, whata lotta fun!

The first thing I discovered about their .SRC files is that they have TAB characters embedded, which Tasword thinks are block markers. After some time in fumbling around with the manual, I decided to have a bash at one of my short old programs. I loaded the file and resaved it using the ,A option. Then I proceeded to erase the line numbers and modify the text to the format Pandora wants.

Three times into Tasword to correct a minor mistake, then clear the machine and reload Pandora. I finally got tired of this and abandoned my attempts to be an instant games master.

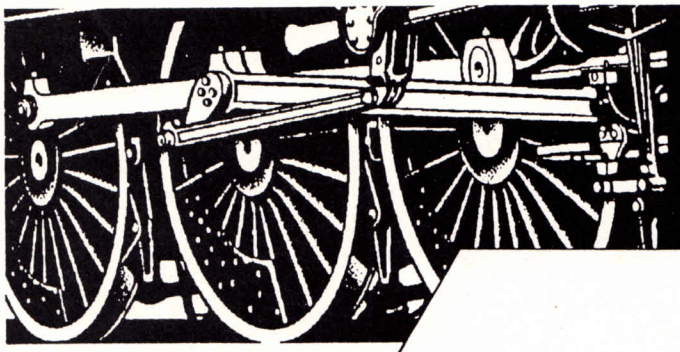
The first lurk is that Pandora variables are single letter names from a to z. The values range from -32768 to 32767. Say, this isn't Forth, is it? [There's also a stack - two, in fact: data and return.] There can be up to 13 single-dimension arrays, a through m, and taking the form a#z. A maximum of 128 subscripts per array is allowed.

No string handling facilities exist, though one can print text to the screen with the TEXT command. Input is limited to numeric variables. There is, however, a GET command which can be made to accept ASCII values, and store them character by character in an array. Well, you don't need all the bells & whistles in an arcade game, do you?

Essentially, Pandora is an abbreviated form of BASIC, with minimum facilities. The sprite designer is convenient, and incorporates an animation capability. Thirty-two sprites can be created and manipulated. Sound generation has also been catered for, and the 2.00 version will have a music editor.

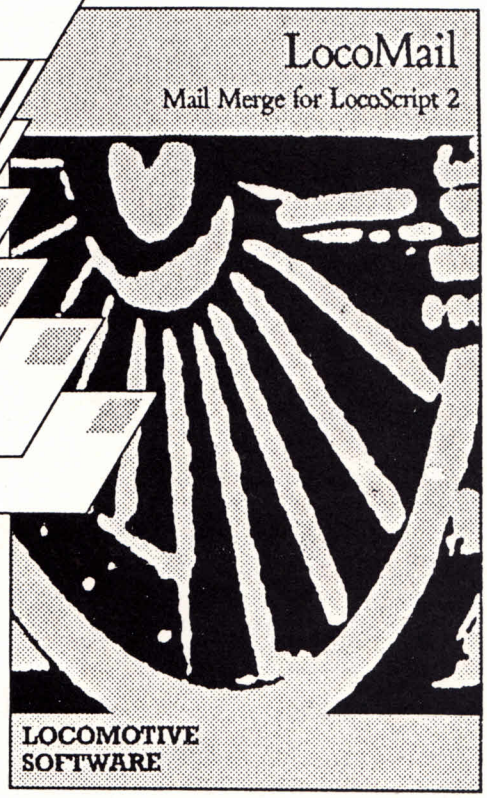
If you want to design your own arcade games, Pandora is an adequate beginning. Be prepared to burn the midnight oil while you're writing your masterpiece, though. And frequently you'll feel like throwing the manual against the wall.

Don't say I didn't warn you! ■



LocoMail for LocoScript 2

Mr J Smith
24 Larches Rise
New Westering
Wessex



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

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

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

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

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

• LocoMail	$105.00
• LocoScript2 with LocoSpell	$130.00
• LocoMail User Guide	$54.95
• LocoMail Examples Disc	$17.50

Mail your orders to:
THE AMSTRAD USER,
641 High Street Road,
Mount Waverley, Victoria. 3149.
Phone your firm orders to:
(03) 233 9661
Bankcard, Mastercard or Visa accepted.

LocoFile: has it got guts?

Mike Turner decides if LocoFile, the pop-up database module for LocoScript users, has what it takes to make a winner.

Have you ever wondered why more commercial programs like spreadsheets and databases don't work within LocoScript? It seems that everything else has to be run from CP/M, rendering any transfer of information from these awkward if not impossible.

LocoScript is very different from other programs, and specially designed for those not familiar with computing. Hence it has developed into an operating system in its own right. This means writers wanting to create add-on spreadsheet or database programs would find it very difficult to work with.

So, virtually all the software for the PCW uses CP/M, as a platform from which to work. Unfortunately LocoScript is such a nice cosy environment, that it discourages people from venturing into the depths of CP/M to run something like a database.

If you are a user of LocoScript, you will be well acquainted with this quite friendly and reasonably powerful word processor. The people at Locomotive Software are constantly upgrading their products and providing 'add-on' packages to make LocoScript even more useful. I am presently using LocoScript2 with LocoSpell, LocoMail and LocoFont. One wonders where it will all end. How many more add-ons can we tack onto our systems before they go totally 'Loco'?

Having said that though; Locomotive saw the potential for a LocoScript database add-on, and came up with LocoFile. This is a database system that runs completely from within LocoScript2. You never have to leave the document you are editing at the time to look up an address or some other useful piece of information. When using it, cards pop up onto the screen in front of the document being edited or the disc manager, and after use they disappear again to leave the original screen unaltered. If this sounds like the answer to your prayers, you may not be far wrong. Read on...

LocoFile...makes no...arbitrary restrictions. At any time you can add or remove fields or make them bigger or smaller, re-position them and so on.

Before we go any further, I had better warn you that LocoFile only works with LocoScript2. So if you're growing cobwebs while waiting for LocoScript 1 to get to the end of your document or suffering with some of the other slow features of the original LocoScript, I suggest you seriously consider upgrading.

THE PACKAGE

LocoFile comes in two versions; one for the 8000 series PCWs and the other for the PCW 9512. Remember this when you are ordering it so that you get the correct version. For the money you will get one CF2 disc containing the LocoFile software, some useful example files to be used in tutorial sessions and an upgrade installation program.

The 130 odd page manual is pure Locomotive and up to their usual high standard. It is chock-a-block with useful information all clearly laid out and a joy to use. (Other software manufacturers please note). My only criticism on the documentation side is the upgrade program notes that accompany the manual. These installation notes are quite detailed and I found overly fussy. The actual process is far more simple than the notes would lead you to believe.

The upgrade program converts your version of LocoScript2 to the latest one and then automatically installs the LocoFile software. All you have to do is answer a few simple questions and swap discs when asked. Once you have installed the software you will need to go through this process

again in the future should you ever need to add another package.

This system of using an upgrade program is now the standard method of software distribution for Locomotive. It serves two purposes. Firstly it is a quick and easy way to both install the new software and upgrade your existing packages to the latest version. Secondly it is an effective anti-piracy measure. The installation software cannot be copied and the LocoFile software itself is useless until installed by the previously mentioned software.

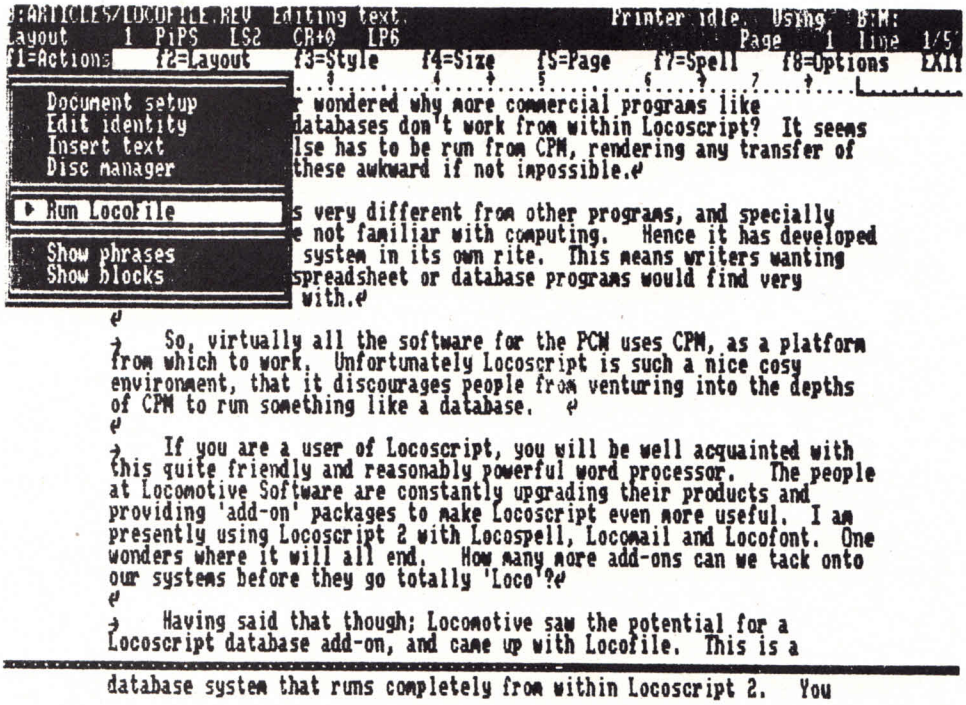
You will also need your original software distribution discs for the other Locomotive products you own handy during the installation process, as you will need to feed them into the drive at the appropriate time. What this software does is to make up a new Start-of-Day disc incorporating all upgrades and the new software. You will need a couple of spare discs for this process, so have them handy.

UP AND RUNNING

If you have ever run LocoSpell or LocoMail, you will know what to expect. There are no surprises here. Everything is in the familiar LocoScript style with drop down menus and lots of helpful prompts. Of course, you have the regular menu cum command sequence of inputting instructions available to you, with the typing of the appropriate letter selecting options from a menu as well as the use of cursor arrow keys, (e.g. A to Abandon Edit).

LocoFile databases are stored as data files ending in a .DAT suffix. Any of these files in Group 0 of a disc in any drive gets copied automatically into Group 0 of the M drive on start-up. This is handy if you do a lot of disc swapping during a work session. Your database is always there in memory regardless of what data disc is in the floppy drive. You may also store .DAT files elsewhere on specific data disc and not have them put into memory on start-up if you wish. This is the way I operate and find it quite successful. The small loss of speed whilst accessing a floppy drive is negligible.

Suppose you are in the middle of typing up a letter and need to look up the address of a client.



Something new has appeared in the 'Actions' menu

You press [F1] 'Actions' and find that in addition to the usual options, there is a new one 'Run LocoFile'. On selecting this you are taken to the disc manager screen and asked which database you wish to use. Subsequent runs of LocoFile will assume the same database as used before and bring it up automatically. If you really wanted another one, fear not, as you are given the option to re-select another database if you wish.

You move the cursor over the file you want and press [ENTER]. Up pops a card on the screen from your database file, the last one you were looking at with the cursor in the same place as before. You can move the cursor around the card with the cursor arrow keys or the [ENTER] or [RELAY] keys. [ENTER] takes you to the next field and [RELAY] takes you to the previous one. Each card is treated as a page in a document; [PAGE] moves you to the next card or record. [ALT][PAGE] to the - previous one and so on. [DOC] takes you to the last record and [ALT][DOC] takes you to the first.

Probably, you want to use this name and address you have looked up in the actual letter you are typing. You can do this by either a cut and paste as normal or by use of the [F7] key to do an extract. You can set up the data base so that when you ask for an extract it always provides you with the most commonly wanted information automatically. This information is put into a block for you and you may then paste it into the document later after exiting from the database. As there are ten blocks available, you can obtain ten different pieces of information from the database to paste into the document at the appropriate places.

INDEXING

Indexing of the records in the database allows you to determine the order in which they will appear or be listed. The indexing

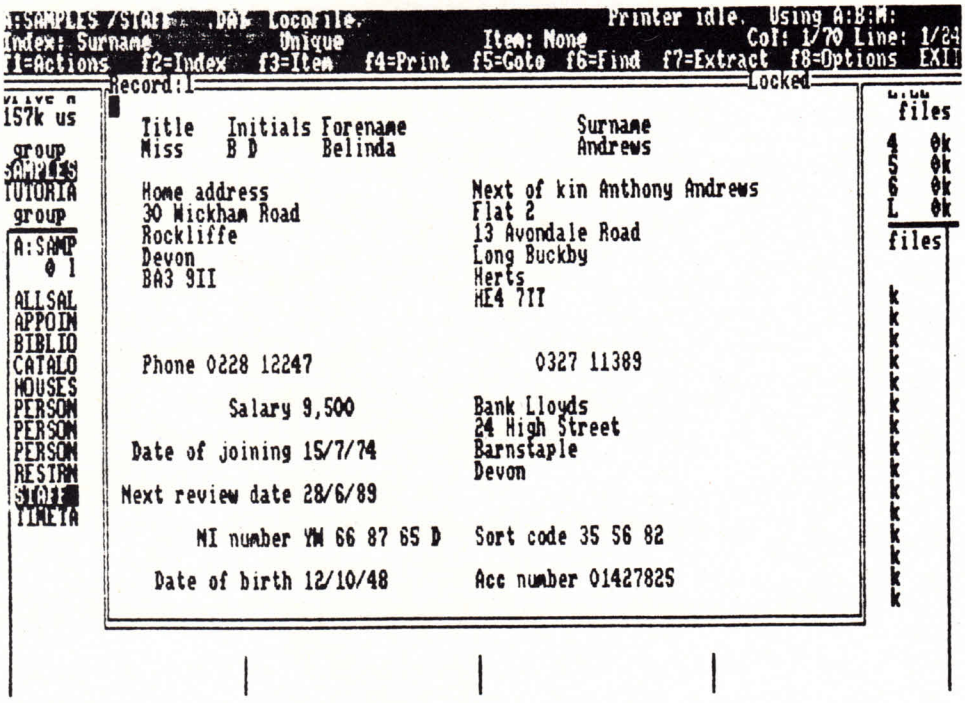
function is very flexible and a joy to use. Indexes can be created on any Item or Sub-Item (e.g. Surname or Surname and Initials). You can also index numerical fields so that $9 comes before $10. In typically Locomotive style different cultures are catered for. You can index in English Scandinavian or Cryllic!

Often you need to find one particular person in the database. [F5] 'Goto' lets you specify the indexed item to be found (i.e. the surname of the person in this example), and immediately, (well almost), displays the desired record. If no match can be found then a brief message is displayed and nearest record to that requested is displayed. [F6] 'Find' is more general. Say you can't remember the customer's name but know that he lives in Surfers Paradise (lucky boy). When this search is activated, every item on every card is checked to find a match for the text that you input. This tends to be somewhat slow due to its thoroughness. Goto on the other hand is quite fast typically taking under a second to find the record you require for databases in memory. That's good in anyone's language.

SETTING UP

A great feature of LocoFile is its flexibility. The ease with which you can set up the layout of your record cards is great. You can move fields around on the card willy nilly until you get the most eye pleasing display; but more on that in a moment. Another great feature is the easy way you can change the structure of the database on the run.

It is perhaps the simplest and most flexible database I have come across, and best of all it works from within LocoScript.



LocoFile records pop up on request, straight over the LocoScript screen you were working on

for international numbers, or that the card layout is just too small. Most databases make you start the whole thing over again, maybe letting you use the old data if you are lucky. LocoFile, however, makes no such arbitrary restrictions. At any time you can add or remove fields or make them bigger or smaller, re-position them and so on. The only thing it will not allow you to do is to make a card so small that you cannot fit any data onto it.

There is no limit to the size of a LocoFile database other than disc capacity. You can make it as big as will fit onto the disc concerned, even a hard disc. Thus you might get a few hundred name address and telephone number cards on a 170K disc and around a thousand on a 720k disc. Obviously, though, this all depends on just how big each card is. On a 20 megabyte hard disc you could store something like 25000 people's details, or perhaps a concordance of every word in the Bible together with extensive details on when and where each is used.

The Squash function squeezes files, re-writing them to make more efficient use of disc space. Possibly more important is the fact that it can rescue database files that have become corrupted in some way. It isn't foolproof but it is a good emergency tool.

Whilst editing a database file, or looking up a record or two can be done from within a document, the actual set-up of a database is done from the disc manager screen. Cards can be made any size up to 90 lines deep and 80 columns wide. If cards end up too big to fit on the screen you simply scroll around them using the keyboard commands mentioned earlier. Cards can be configured to expect a certain paper type or font as can any LocoScript2 document. What you may print out is limited as I will discuss in a moment.

LocoFile and LocoMail data files

are two way compatible; in that you can use data files from either directly in the other. Suppose for example, that you already have a LocoMail data file with a whole heap of names and addresses in it. LocoFile can read all the existing entries from the LocoMail file into a database file of its own. This is provided that you have set up the LocoFile data file with the same item names. Alternatively, LocoMail can utilise LocoFile data so you can do mailshots by specifying the field name from within the LocoFile records and have the details printed in letters automatically, (e.g. Dear (+Mail)name(-Mail) where 'name' is an item or field in the database file).

You can therefore use LocoMail to produce reports from your database. I use LocoMail to print out mailing labels two across the page or to produce Name and Telephone Number lists from my LocoFile data. LocoFile has no calculation ability, but once again you can use LocoMail to total figures and do selective mail shots based on say money owing. PCW9512 owners are fortunate here in that they have LocoMail already. In my case I had to go out and buy it for my 8512. That is an extra but necessary expense if one is to get the best out of LocoFile.

LocoFile is a very simple database and doesn't have some of the sophisticated functions of some of its CP/M counterparts of about the same price. It lacks the ability to select groups of records (e.g. just people who have fallen behind in their club subscriptions), or anything more than very crude printing facilities. You can only print out images of each card. For reports you really need to use LocoMail. You also need LocoMail to do selective printing, i.e. sending threatening letters to the above mentioned defaulters.

However, a neat feature of LocoFile is that you can tell it to print out only those records that have changed or been added since the last printout. This is handy for keeping long lists updated.

THE BOTTOM LINE

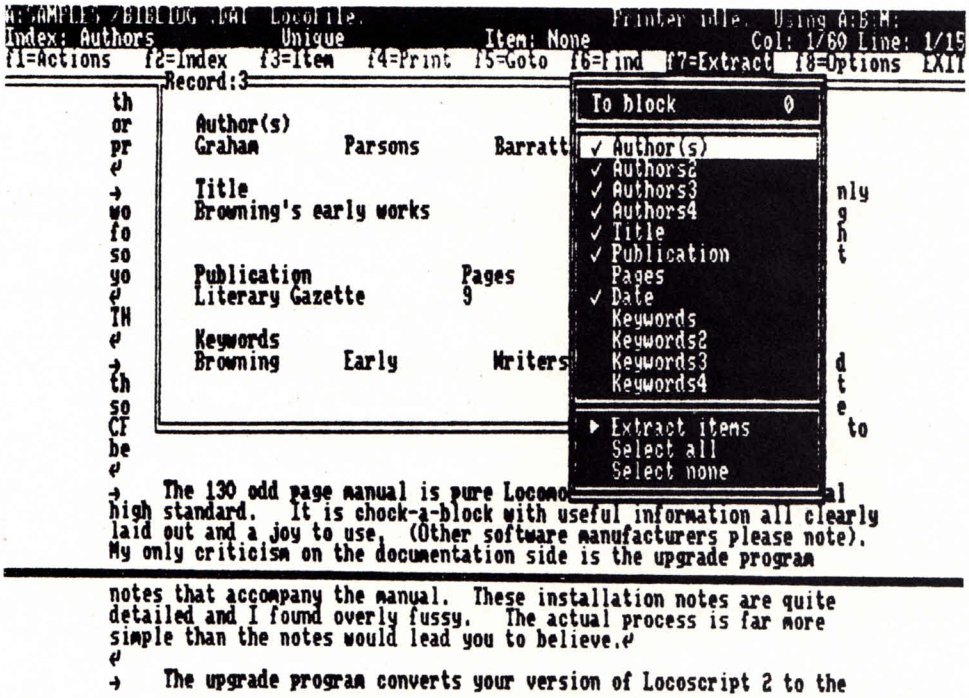
All in all LocoFile is an excellent product. It is perhaps the simplest and most flexible database I have come across, and best of all it works from within LocoScript. Of course it won't replace specialist databases like Condor, Masterfile or dBASE, which have far more powerful data handling functions. To make the most out of LocoFile you really do need LocoMail as well.

However, for simple name and address applications that form the basis of 90% of home users' database work it is great. With some imagination it can be made to handle more complicated applications for things like family tree research and so on. It's difficult to imagine that there are any people out there who are dedicated LocoScript users who will not find this a useful addition to their system.

Although LocoFile does not have the same range of features as a fully fledged database management system like dBASE it does have many advantages. It works completely from within LocoScript. It is extremely easy to set up and use. The software is efficient and apparently well written. I have so far found no 'bugs' at all. The interchangeability of LocoFile and LocoMail data makes life easy for those who already do lots of mail merging work.

On the down side, it lacks the ability to do calculations or generate reports, or to select only certain records based on conditional searches. To do all of these things you must use LocoMail. Unless you are a 9512 owner this means extra expense. You will also need to be reasonably switched on to write the various 'programs' LocoMail needs to perform these functions.

In coming months I will be looking at some practical examples of LocoFile and LocoMail and be providing you with some helpful hints picked up along the way. ■



Extracting selected data from LocoFile for dropping into your LocoScript document

LocoFile is available exclusively through The Amstrad User for $110.00 (plus p.p.). Ring in your firm order on (03) 233 9661.

From the Runes

Before taking a close look at Protext next month, John Barlow explains why he made the big move away from LocoScript.

After having knocked about in some of the more remote parts of the world for the past twenty-odd years, I finally decided to settle down (for a while, at least) to write my version of the 'Great Australian Novel'.

I knew I had the material and having written a number of magazine articles over the years, felt I had the ability. All I needed was an understanding family and the machinery through which I could transfer my thoughts to paper. I was sure I had the first of these requirements; but I wasn't sure about the second. The old portable Olympia that had been with me during most of my travels was getting a bit long in the tooth.

OLYMPIA FALLS

It didn't take me long to discover the enormity of the task I had set for myself. Nor did it take long to discover that I had been right to be concerned about my old manual typewriter. It wouldn't go the distance — or, more to the point, I wouldn't go the distance with it. It became imperative that I find a replacement.

I had almost settled on a state-of-the-art electric typewriter when Amstrad released its PCW series computers. Here was the answer to my prayers. I had looked at a number of personal computers (including Amstrad's CPC series machines) during my earlier search but had found that they were either highly priced toys — suited more to games than to serious work — or were too expensive. Some, in fact were both.

Amstrad's 8000 series machines were different, however. They had good memories — even the 256k available in the smaller machine was much bigger than that of any of the electric typewriters I had looked at; and, unlike all the other computers on offer, there were no hidden extras. The PCW came as a complete package: computer, monitor and printer. Most importantly, it was reasonably priced.

Armed with prices, comparative specifications and a swag of persuasive arguments, I approached Madam, the Chancellor of the Exchequer, and demanded, (well forcefully begged, really) that she approve the purchase of what any one with half a mind could see was more a good investment than a mere item of capital equipment. After a week of haggling and grovelling, she agreed that, for once. I was possibly right and okayed the withdrawal of the necessary funds from the treasury.

With my hard-won dollars clutched tightly in my hairy claw, I rushed down to my nearest Amstrad dealer to talk a deal. Less than an hour later, I was back in the 'Bat Cave' (the name my daughters have affectionately given to my converted garage/office); had my new PCW 8256 hooked up and plugged into the power; and was engrossed in the Amstrad manuals.

Within a week I had worked out the basics of LocoScript and had copied the first few chapters of my book onto disc. What a dream. No longer would I have to type out a rough draft, edit it, re-type it, re-edit, then type out a clean copy of the final draft. Now I could simply type in my initial draft, make the necessary changes on the screen, save the altered document, then, at my leisure, print out a near letter quality copy of the finished product. In fact, the saving in time alone would well justify its purchase.

POUND OF FLESH

Among the promises extracted from me during my negotiations with the Madam Chancellor, however, was that the money for Joyce's purchase would be returned to the coffers with a year. It became necessary, therefore, to put the book aside for a while and go to work on a few magazine articles.

During her first year Joyce not only paid for herself, she turned a nice little profit. As a reward, I treated her to a memory upgrade and myself to a copy each of LocoSpell and LocoMail.

In the process of paying for Joyce, though, I had become a professional writer; something I hadn't envisaged — at least, not so soon. This put a different complexion on things. I had been looking forward to living the life of a garreteer for a while but it was not

to be. Now I was back on the treadmill — a different treadmill from the one I had been on previously, granted; but a treadmill, none-the-less. Whether I had planned it or not, I was in the writing business.

Now, my referring to writing as a business may sound strange to those who see writers as artists. But, artist's we're not. Painters are artists. Sculptors are artists. Writers are artisans; wordsmiths, if you like. The only common denominator between all three is the fact that we all use a measure of creativity to turn raw material into an end product.

No a writer, particularly a freelance writer, is a small-businessman. And, just like any other businessman, he must make a total commitment to his business. Markets must be found, product (in this case, stories and articles) must be researched, produced and promoted; covering letters and letters of enquiry must be written; records must be maintained; invoices and statements must be sent out; and books of account must be kept. Unless a writer is fortunate enough (and productive enough) to be able to afford an assistant, all these tasks fall on him, alone.

But many of these tasks are non-productive and use up valuable writing time. It is imperative, therefore, that the writer spends as little time as is possible carrying out administrative tasks and as much time as possible in profitable pursuits. This is where a writer who uses a full-blown computer has an advantage over one who chooses to use a typewriter, or even a purpose dedicated word processor.

Although I had originally purchased Joyce for her word processing ability, I soon found that she is equally at home with these other facets of the writing business. In fact, one of the main reasons behind my subjecting her to minor brain surgery was to enhance her ability to handle many of these jobs — much of the software for which is designed to run in the memory drive, rather than the slower disc drive.

NO LOCOMOTION

As I started to look around for the software packages needed to meet these demands though, I encountered the problem that most PCW owners have had to face at one time or another: all the available accounting and database programs run in CP/M. LocoScript, however, operated in a world of its own. This, of course, means that the database containing research material can't be accessed while working on an article. Although I had been prepared to put up with LocoScript's other weaknesses — such as its lack of speed and its inability to return me to the point of exit after a 'Save & Continue' — this was the final straw. I had to find a word-processor that would run in CP/M.

It was a pity, really. I had come to enjoy working with LocoScript. It was a smooth and, when combined with LocoSpell and LocoMail, relatively powerful word-processor. But it was of no use if it had to be switched off and rebooted every time I wanted to check on information contained in a research file; then reverse the process to get back into LocoScript after having either written that information down, or printed it out.

About that time, Arnor released a word processor which looked to be the solution to my problem. From all reports, Protext PCW was the greatest thing since Superman donned his red, white and blue pyjamas. It was fast, it was powerful, it was able to access two files at the same time and, like the machine for which it was designed, it came as a complete package — including a spelling checker and mail merger. Most importantly, because it operated in CP/M, it would allow me to access my database files without losing working files held in memory.

Not being one to rush into things, however, I hesitated. LocoScript, in spite of its faults, was still better than the search and strike method I used on the

Announcing:

Another face to Strategy Publications

Apart from producing Australia's biggest selling magazine for Amstrad computers, Strategy Publications also uses its resources to provide a typesetting service to local industries.

We are now pleased to extend this service to readers of The Amstrad User in offering Personalised Stationery at competitive prices.

For just $49.95 (including postage) we can supply for yourself or as a gift 100 sheets of Ivory coloured high quality A4 paper with nominated address and telephone number printed in one of the styles shown below. In addition, 50 envelopes of the same colour are provided.

Choose your style from these four:

STYLE No. ONE

23 Meadowbank Road
Primrose Hill
Victoria 3150
03 - 123 4567

NB. Text will be centred near top of sheet

STYLE No. TWO

23 Meadowbank Road
Primrose Hill
Victoria 3150
03 - 123 4567

STYLE No. THREE

23 MEADOWBANK ROAD
PRIMROSE HILL
VICTORIA 3150
03 - 123 4567

STYLE No. FOUR

23 MEADOWBANK ROAD
PRIMROSE HILL
VICTORIA 3150
03 - 123 4567

The above styles are roughly half actual size

HOW TO ORDER

1. Write very clearly (or type) onto a blank piece of paper the address and telephone number you want to see on the new letterhead.
2. Select the style you want and indicate on the same piece of paper.
3. Attach the above details to written confirmation of your order which should include the delivery address, your credit card number (Bankcard, Mastercard or Visa) and expiry date. Alternatively, you can pay by cheque or money order.
4. Phone orders cannot be accepted.

If you are not sure about anything, please ring us before proceeding. We are happy to provide a sample sheet if required.

Send your order to:

Strategy Publications,
641 High Street Road, Mount Waverley
Vic. 3149 • (03) 233 9661

old Olympia. Could I justify outlaying $270 odd (which was the price at that time) for a new word-processing program when I already had a perfectly adequate one? It

The old favourite.

was also rumoured that Locomotive were working on an updated version of LocoScript which would address most of the originals version's shortcomings. But could I wait?

Finally, it was my doctor who made up my mind for me. He told me I'd have to cut down on my intake of coffee (which I was consuming in copious quantities during the interminable scrolling through long documents). That gave me the courage to approach Madam Chancellor and, once again, appeal to her loving and understanding nature. I think it was the line about the doctor telling me I'd probably die if I didn't get Protext that finally convinced her of its worth – she lives in fear of not having anyone around to obey her commands.

About a fortnight later, my new word-processing software arrived. I couldn't wait to take it for a spin.

I can only liken my first experience with Protext to that of getting out a Volkswagen and into a Porsche: although they will both get you from point A to point B, one does it a hell of a lot better than the other.

But the change meant that I would have to learn to drive all over again. While it had only taken me a week to establish a working relationship with LocoScript, it took me at least that long to simply initialize Protext.

Oh, I had it installed and running in no time flat; but very few of the parameters conformed to those to which I had become accustomed. The type-size was wrong. The margins were wrong and many of the other default settings were wrong. They all had to be adjusted.

DEFAULTS AND PHRASES

During that week, I reconfigured most of the parameters to suit my requirements – but not without a few hiccups, I'm afraid. The manual was sadly lacking in some of the more involved areas and blatantly misleading in others. I had to rely heavily on hints and tips picked up from TAU and some of the overseas magazines. After much trial and error, though, I was able to alter the default print size from twelve point (pica) – which I found too big – to ten point (elite); alter the top, bottom and side margins to zero, four and ten, respectively; set the tabs and returns to on; and reset the page width to 75 to accommodate the smaller type size. No sweat! I was proud of myself.

But, as they are wont to say: "Pride comes before the fall." The problems started when I attempted to set up a standard phrases file. That was when I really began to appreciate the user friendliness of Locomotive's word processing program.

In LocoScript one simply builds a phrase, copies it, and stores it in a PHRASES.STD file (in group 0 on the Start of Day disc) and Bob's your uncle. Not so in Protext, however. One must construct a small program for each phrase.

To me one of the generation that is commonly referred to as 'computer illiterate', this was more frightening than delving into the mysterious world of the occult. I'm a writer, not a programmer. Once again, I hesitated. Did I really need phrases? Couldn't I fake it? I know I could get away without the ubiquitous "Dear Sir's"; but I didn't use them for that, anyway – even in LocoScript.

What I did use them for, was to save on multiple-keystrokes. An example of one of these is the long dash used throughout this article – which I prefer to the double hyphen used by some writers. I also like to have it preceded and followed by a space. To be effective, however this method of punctuation must be of the non-break variety. Space/Dash/Space (–), therefore, would normally take up to 15 keystrokes – Alt-N/Space, Alt-X/L, Alt-N/Hyphen, Alt-X/L, Alt-N/Space.

I decided that I had to give it a try. Tentatively, I typed PROG after the >a prompt in command mode.

At the end of another week I was frustrated. I had tried everything I could think of but still couldn't get the damned thing to work. There was no problem with text: simply allocate a key and type the text inside inverted commas; QED. But printer control codes? No go! If it wasn't for the fact that I'd spent so much money on the thing – and the threat of having to explain my actions to Madam – I'd have discarded it. But I wasn't going to let it beat me. I do think, however, that if it hadn't been for the fact that I had to finish an article I'd already started in LocoScript, I'd have been carted away in one of those back-to-front wind-cheaters by the men in the long white coats.

By the time I had got back to Protext, I had calmed down enough to look at it a little more objectively. I wonder if the manual is wrong, I thought. It had been in other areas; why not here? Perhaps I was using the wrong escape character. Bingo!

With that hurdle overcome, Protext took on a completely different personality. It certainly was fast and it was better suited than LocoScript to longer documents such as magazine articles and book manuscripts– mainly

because it was doing all the work in memory and, unlike LocoScript, it didn't waste time formatting as it scrolled through a document. Of course, that meant I'd have to get used to formatting each document before it was saved to disc, but I figured that, even with my feeble brain, I could handle that small task – given time.

ONE LINERS

I had to admit that LocoScript had spoiled me, though. No longer did I have the multiple-line headers and footers I was accustomed to. It didn't seem to matter how many lines I allocated, Protext would only print a single line of header or footer text. Gone, too, was the instant access to the spelling checker that LocoScript provided for the checking of a single word; now I would have to wait until the end of an edit session before calling for a spell check.

It took me a month before I felt confident enough with Protext and its codes and commands to embark on my first writing project. Now I use it in preference to LocoScript when working on manuscripts. In fact, I've pretty well become bi-lingual. For some time I continued to use LocoScript for shorter documents, such as correspondence, but as I came to grips with Protext's mail merging facility, I noticed the situation changing. More and more, I found myself automatically loading Protext; even when working on correspondence files. I guess I was enjoying the feeling of being in complete control.

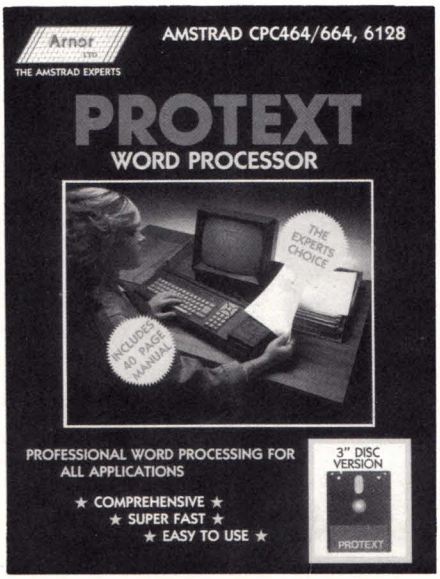
POSTSCRIPT

Since purchasing Protext, Locomotive Software have released their LocoScript upgrade, which , according to usually reliable sources, has addressed many of the limitations of its predecessor. Among the newly released support packages available for LocoScript is LocoFile, a database which certainly adds to the system's appeal. Perhaps, if Locomotive had had that sort of package around at the time, I would have seriously considered its purchase instead of Protext. I doubt it, however. Protext is still a great deal faster than LocoScript2 – which still can't give me uninterrupted access to my CP/M files.

Nor can I take LocoScript with me if, at some time in the future, I decide to swap Joyce (heaven forbid) for one of the other computers in the Amstrad range. I can do that with Protext however.

Because Protext is available in most of the major operating formats, I am able to change over to an IBM compatible machine, for example, without having to become acquainted with a new word processor. All I have to do is buy a copy of Protext PC.

Added to that, Arnor have recently released Protext Office, a combined database and invoice generator that runs within Protext and allows data to be transferred directly from a database file to a word-processing document. Sounds great!



The challenger!

Now, how do I go about persuading Madam Chancellor that Protext Office is necessary to the well-being of the Barlow clan? Perhaps...? No, she'd never fall for that. But, maybe...? ■

KNOW LOCOSCRIPT, LOCOSPELL AND LOCOMAIL BACKWARDS!

LocoScript/LocoMail/LocoSpell: Assignments and Solutions opens with a brief and clear introduction to the facilities offered by the LocoScript, LocoMail and LocoSpell software packages. This is followed by a series of assignments which:

- *allow readers to work at their own pace, gaining practical experience in creating documents and using data files;*
- *give a good understanding of the editing, merging, spelling and arithmetic functions;*
- *have a strong business orientation, including invoices, mailshots, personnel records and customer orders.*

Full solutions are given to all assignments. This text is suitable for use in colleges, offices and the home - wherever the Amstrad PCW is in use!

JUST $32.95 (+P.P.)

Grab a copy from The Amstrad User on (03) 233 9661

The Amstrad Use

FIFTH BIRTHDAY PROGRAMM

Write us a 100-line* program in any L AMSTRAD computer and all this cou

* REMs and comment lines excluded

AMSTRAD

– 14" Colour monitor (1)
– Sinclair IBM Joystick (2)
– Promotional Software Pack (3)

click

– Surgebuster, 6 socket (4)

Pactronics

– 3.5" 80-capacity Disc Box (5)
– Skweek (6)

Computer® Accessories

– 3.5" disc File Drawer (7)
–Copy Holder (8)
– Mouse Mat (9)
– Printer Stand (not shown)

Verbatim®

– 20 3.5" 2M2DD Floppy Discs (10)

DRAGON TECHNOLOGY PTY. LTD.

– Ext. 3.5" Disc Drive (not shown)

Quickshot THE CHALLENGE CONTINUES

– M1 Tank Platoon (11)

Tasman SOFTWARE

– Tasword PC (12)

CONDITIONS OF ENTRY:

1. Entries may be on any subject, written by an individual or as a team effort but must not exceed 100 lines (REMs and comment lines not included).

2. Competition closes at 5pm, Friday 30th March, 1990. All entries received after this date will be excluded. The winner will be announced in Issue 64, May 1990.

3. Among other things, the entries will be judged on originality, and the judges' decision is final. Apart from documentation accompanying the entry, no correspondence will be accepted.

4. All entries must be submitted on disc or tape, including full

er Magazine
MING COMPETITION

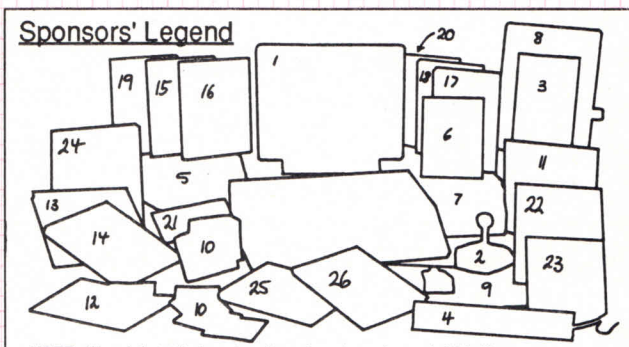
Prize totalling nearly **$2900!** Winner takes all!

BASIC for any uld be yours!

documentation and operating instructions to *Programming Competition, The Amstrad User, 641 High Street Road, Mount Waverley Vic. 3149.* Entries will be returned if accompanied by a suitable stamped and self-addressed padded envelope.

5. All entries received become the property of The Amstrad User and if suitable may be published at a later date.

Sponsors' Legend



NOTE: Although the total prize value will remain unchanged, some individual items may vary.

OziSoft

- Battlechess (13)
- Leisure Suit Larry II (14)
- Grand Prix Circuit (not shown)
- Final Frontier (not shown)

RECKON PTY LTD
SOFTWARE PUBLISHERS & DISTRIBUTORS

- PC20, Complete Introduction (15)
- Iankey, two-finger to touch (16)
- Word Fun One (17)
- Spelling Fun One (18)
- Number Fun 1 (19)
- Lex Wizard of Words (20)

LINE manufacturing
DUSTCOVER

- PC20 Dust Cover (21)

dataflow
Computer Services Pty Ltd

- Publish-It Lite! (22)

MINDSCAPE
INTERNATIONAL

- Double Dragon II (23)
- Bruce Lee Lives (24)

Entertaining Australasia.
ECP

- Hillsfar (25)
- Dragons of Flame (26)

Computer Viruses part 2

Continuing this special three-part feature on Viruses, Ralph Burger this month gives some examples of a few real meanies.

A computer virus is a program which can insert executable copies of itself into other programs. Every infected program can in turn place additional copies of the virus in other programs.

Naturally, scientists are not satisfied with such a definition. But since really no official scientific work has been done on the subject of viruses (even Fred Cohen's book "Computer Viruses: Theory and Experiments" is disputed in some circles) we must be content with an attempt at a definition. We'll mention a publication of the University of Dortmund, West Germany, written by J. Kraus (1981). There the autoreproduction of software, the basic virus principle was precisely defined:

Let π be a valid program in the machine language M.

If π has no inputs, and if π outputs its machine code (exactly) or copies it in main memory, then it is (strictly) self-reproducing.

This precise definition cannot be used for virus programs, because a virus doesn't have to reproduce itself (exactly). It needs only to reproduce certain parts of the program. In addition this definition defines only the reproduction of the actual program code and not binding it into other programs. Thus a definition might be worded as follows:

A program must be characterized as a virus program if it combines the following attributes:

1.) Modification of software not belonging to the virus program by binding its program structures into these other programs.
2.) Capability to execute the modification on a number of programs.
3.) Capability to recognize a modification performed on a program.
4.) The ability to prevent further modification of the same program upon such recognition.
5.) Modified software assumes attributes 1 to 4.

If a program lacks one or more of these properties, then in the strict sense it cannot be considered a virus program.

Now that we have explained how a virus operates and what a computer virus is, we should explain some types of programs which are often confused with viruses.

WORMS

The first is the classic worm program. This is a program which reproduces itself by creating copies of itself. The essential difference between this and a virus is that worms don't require a host program in order to reproduce. Worms "creep" through all levels of a computer system without using a carrier program.

LOGICAL VIRUS

Another type of program which might arguably be called a virus is the logical virus. These programs not only modify their host's programs, they delete them entirely and take their place. This can be done through simple renaming, for example: If A is a virus and B is a user program, then renaming A to B makes B appear as a virus.

TROJAN HORSES

The third example is the Trojan horse. The basic idea of this type of program is at least as old as the original Trojan horse. The operation is as simple as it is dangerous. While the user is mesmerized by a fantastic graphics display, perhaps even accompanied by music from the system speaker, the program reformats the hard drive unnoticed.

DANGERS OF COMPUTER VIRUSES

Manipulations of data or programs are as old as electronic data processing itself. Why then are virus programs causing such a stir? Perhaps the new name for these programs plays a significant role here. In the times of much discussion about AIDS, the term "virus" coined by computer scientists was just what the press was looking for.

The fatal part of virulent program code is primarily that virus

programs develop a life of their own, upon which the developer of this program has only limited control once the reproduction has begun. It's similar to a chain reaction in an atomic reactor - once the process has started, it can only be stopped with great difficulty. But this brings us to another point. In earlier computer systems it had required detailed system knowledge or long-term access to the computer to bring about certain data manipulations, but now it is very easy to perform this task with virulent code.

AN EXAMPLE

A would like to cause harm to B by making all of the data on B's computer unusable. Naturally, this can be done without virulent code with a memory-resident program which has the task of erasing the stored data at a designated point in time (such "jokes" are most often found in software from dubious sources). But first is the danger that the memory-resident program will be discovered or will be removed when the computer is turned off, and second, even after the deed has been done it's not particularly difficult for B to restore the destroyed data from backup copies.

When a virus is involved, the danger of A being discovered becomes much smaller.

The virus reproduces itself and within a short time has infected all of the programs. The infected programs are still executable, however. The virus function is to encrypt all of B's data. Since all of B's programs which are infected with this virus possess this encryption algorithm and can put the data into a readable form before being processed, the computer can be used as usual. The condition prevails until all of B's backup data has been encrypted without his knowledge.

Now if B's already infected software is erased on a given date, then not only is all of the original data useless, but so are the backup copies, since the encrypted data can only be processed by the infected programs.

This is only one example of the dangers of virulent software. Since the programmer of viruses is subject only to the limitations of the computer system in question, all of the tasks which can be performed on the system can be included in a virus. But this condition alone does not make up the real danger of computer viruses. The greatest threat is the enormous propagation speed of the virus. This was demonstrated by the invasion of the ARPAnet computer system in 1988 by a non-violent virus. Another example is the Macintoch "peace" virus which appeared on over 350,000 Macintosh computers on March 2, 1988.

VIRTUALLY IMPOSSIBLE TO TRACE.

As we have already said, one of the greatest dangers of virus programs is the relatively small risk involved to someone using viruses for criminal purposes. When virus programs are placed on networks or mainframes it is almost impossible to determine the origin of the program. But the problem does not just lie in the inaccessibility of network structures. The origin of virus programs can be completely hidden with a bit of care. This is not even considering the fact that a carrier program can be removed from the system after being started without breaking the infection chain.

If you continue to think along these lines, you quickly come to the conclusion that after a successful penetration and propagation, viruses must either destroy themselves or transform themselves into harmless, non-virulent programs in order to minimise the

risk of detection as much as possible. If you follow this direction a bit further, you come to a type of virus which is really not far removed from organic life: programs which do not infect their hosts continually, but which remove themselves from these programs after a few replications.

You can imagine how difficult it would be to trace this type of virus. There is almost no risk at all to the perpetrator, since he probably won't leave a copyright message in the program. If it's not possible to trace the source of the virus through technical means, then really the only way left is to deduce the perpetrator based on the goal which seems to be pursued by the virus.

If a virus program performs manipulations in favour of A, then it naturally follows that A intends to reap some financial benefit or that B is trying to throw suspicion on A. The chances of finding the perpetrator based on the type of manipulations shrink to a minimum when the manipulation is of a destructive nature (e.g. FORMAT:).

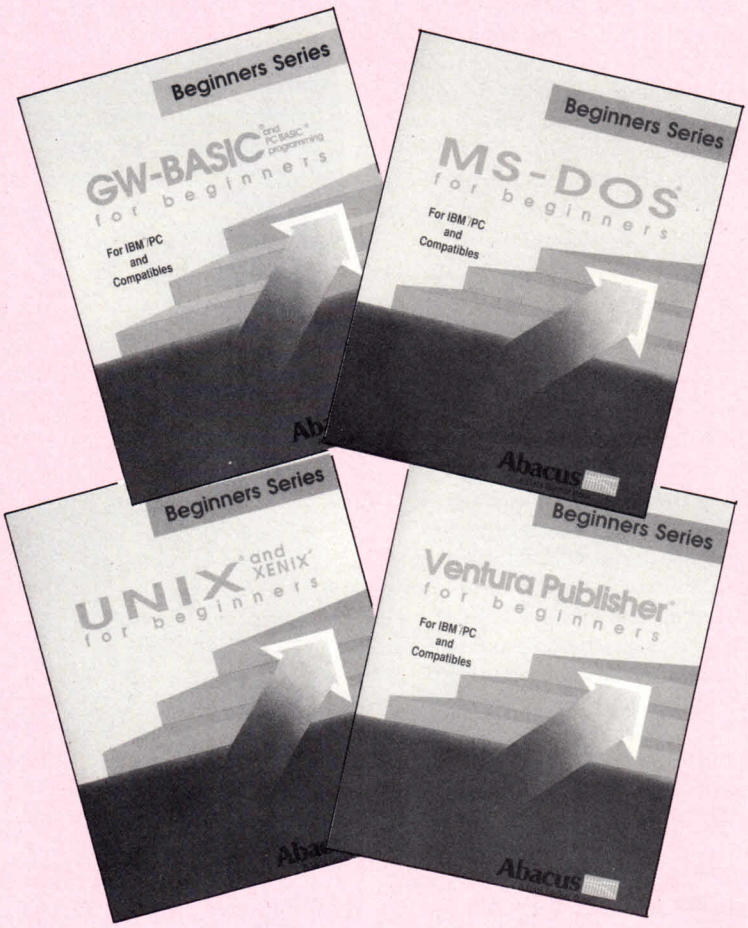
If B wishes to perform manipulations to his advantage, we must consider what sort of manipulations will be performed. But here again it comes down to the point of view, because a disadvantage for A can be quite advantageous for B, if A is a business competitor of B, for example.

But despite all this, no matter what type of manipulations have taken place on a system, it would be a mistake to destroy all data and programs. Upon discovering a virus this would rob you of the possibilities of tracing the virus based on its manipulation task.

As long as the purpose of a virus infection is to destroy all data and programs, it remains relatively safe for virus programmers to pursue dubious goals with such software. ■

Reprinted with permission from *"What you need to know about Computer Viruses"*, a booklet by Abacus Books.

THE GUIDES BY YOUR SIDE



The **Abacus Beginner's Series** is a set of books covering a wide variety of software applications. They're written for today's personal computer users who have limited time. The authors' goal is to make you more productive sooner. Each book is written in easy-to-understand language. These books remove the *computerese* that new readers find confusing. They present carefully chosen, practical examples and avoid lengthy theoretical explanations. Beginner's Series books show you how to use the important features of an application step-by-step. You'll be "up and running" quickly.

- $36.95 (+p.p.)

Ring The Amstrad User on (03) 233 9661 for prompt delivery anywhere in Australia

Bob's Batch Bag #3

Bob Waixel is back with more handy hints for those of us who have decided not to let DOS get the better of us.

This is the fourth in a never-ending set of articles for people who want to be lazy with DOS. In other words, getting DOS to do more work, and the user to do less repetitive typing!

GOTO AND LABELS

BACKGROUND

DOS's batch command language is not the most flexible or 'rich' in the world. Indeed it could politely be described as 'orrible.

It does have conditional processing ('IF' statements to you), but only single lines are directly affected by each IF statement.

Does it have:

DO...WHILE, REPEAT...UNTIL, FOR...NEXT loops?

Not really, if you exclude the

FOR %%variable IN (set) do (command)

construct, which I haven't found a use for yet!

But you can simulate some of the above, to a limited extent, using IF and GOTO (label).

SYNTAX

GOTO will jump (pass control) to a label, when the label is in the form :LABELNAME

EXAMPLE DEMONSTRATION BATCH FILE (BOBTEST4.BAT)

```
ECHO OFF
rem
rem BOBTEST4.bat
rem
rem Batch file example to test whether a parameter
rem (e.g. a filename) has been entered as %1
rem
:TEST_FOR_PARAMETER_(DUMMY_LABEL)
IF    "%1"==""goto no-param
IF NOT"%1"==""goto IS_PARAM
rem-else
rem-(shouldn't get here!)
goto END
:NO-PARAM
echo.
echo.You should have entered a parameter
echo.as well as the batch file name
echo.
GOTO:END
:IS_PARAM
echo.
echo.Parameter entered was %1%
echo.
GOTO END
:END
echo.
echo. -%0 batch file terminated-
echo.
```

COMMENTS

- All Labels MUST start with a colon (:) and be spelt the same as their corresponding GOTO statement. Upper, lower case or a mixture doesn't seem to matter.
- The GOTO statement may optionally have the colon prefix or not.
- Only the first 8 characters of the label are significant. Any more are disregarded, so that two labels which are the same for their first 8 characters are regarded as identical by DOS and only the first is jumped-to, every time!
- Labels can contain underscores (_) and hyphens (-).
- Spaces seem to be allowed, but I'm not sure whether DOS regards the lot as a label or only the bit up to the space. I would avoid spaces in a label, for safety's sake.
- I often use labels for documentation. That is provide a label which describes the chunk of code what follows, but which is never actually used as a jump-destination. It still needs its leading colon however, to prevent DOS spitting it

out as an error.

- DOS processes all labels by searching from the top of the file, so that very long batch files may take longer, particularly if they are searching for a label near the end.
- So instead of

  goto :END

  from various points to jump out of your mega-batch-file one tip to speed it up could be to create an END.BAT and stick it away somewhere in the PATH.
  END.BAT would just be an empty file. Then: END in your batch file, would call END.BAT and since control doesn't pass back from another batch file, the effect would be the same, but faster.
- The disadvantage, is that two files are now needed, and there is an extra level of complexity to cope with if moving such files around.

ONE TIP

DON'T put > or < in any text that you ECHO or REM in a batch file. DOS, being the smartie that it is, will think you're trying to redirect something, and react with an error message that you really can do without, and may well ignore anything subsequent on the same line, to add insult to injury.

THE SUBST COMMAND

SUBST stands for Substitute, and it allows you to fool around with DOS and any other programs that need fooling, that one drive is called something else!

It has two main uses that I know of:

1. STRAIGHTFORWARD SUBSTITUTION

Perhaps a bit of software wants to always have its own disc in A:, and you have a hard disc called C: which you want to use instead for that purpose without keeping your A: drive as a waste-disc receptacle.

```
SUBST A: C:
```

where the FIRST drive (without any backslash please) is the 'artificial' name you want to pretend it has and the SECOND name (which must have a valid path - hence the backslash) is where you want the first name to point to.

You can find out if this has worked by typing SUBST. which will show a list of substituted drives in the form

```
SUBST
A:=>C:\
```

Almost any error will give the (un)helpful message 'invalid parameter'.

Note that you cannot use any letter you choose - that would be too easy! DOS - unless kicked into action - only recognises drive letters up to E. To get DOS to recognise more, put a statement in your CONFIG.SYS in the form

```
LASTDRIVE = Z
```

Now DOS will recognise drive letters up to and including Z:. It is but a short step to the second use of the SUBST command.

2. SUBSTITUTION OF A FULL PATH INCLUDING SUB-DIRECTORIES

For example:

```
SUBST W:C:\TEXT\WORD\1989\LETTERS
```

If you need to access this directory rapidly without a lot of cd\ typing, or don't want your path to be too long then SUBST is a way out.

TO REMOVE A SUBST DRIVE

```
SUBST W: /d
```

NOTES, TIPS AND TRAPS

SUBST (and its deletion) are woefully slow to execute.

You cannot backup a SUBST drive!!! SO **ALWAYS** REMOVE ALL SUBSTITUTED DRIVES **BEFORE** DOING A BACKUP.

I know of no way to test whether a drive has been substituted with a DOS batch file, although an attempt to SUBST a second identical drive will give the ever helpful 'invalid parameter' message, and then chunter gaily on.

Attempting to SUBST a floppy disc drive is, as far as DOS is concerned, an attempt to read that drive, and will fail unless there is a diskette there. ■

Corrections to previous articles

Part 2 (Issue 59 Page 45)
Section: Conditional Processing - the "IF" command.

As printed: Syntax: IF <MIO> <M>and to be performed
As intended: Syntax: IF<condition><command to be performed>

Second section, line 7

As printed: IF NOT <MIO><M>
and provides the equivalent of an ELSE statement.
As intended: IF NOT<condition><command>
provides the equivalent of an ELSE statement.

Similarly the statements at the top of Page 46

As printed	*As intended*
<MO>and1	<command1>
<MO>and2	<command2>

You will also find another reference to the mythical "<MO>and' appearing at the beginning of the third paragraph in NOTES.

It must be caused by some disagreement between the word processor in which these articles are written, and the production process by which all articles are transmuted into typesetting. Not to worry, it won't happen again.

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 in 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, incl 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) 233 9661**

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

Adults Only!

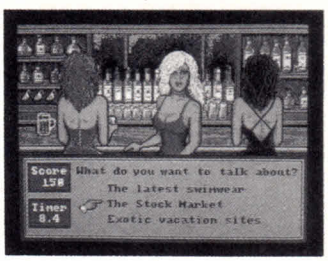
As computer games become more liberated, Simon Anthony takes a peep at the seamier side of some selected PC software.

Readers born in the 'baby boomer' era would have grown up with a significant change in moral attitudes across a gamut of books, stage or screen productions, newpapers, magazines and so on. Of course, there could have been a slow change over the last hundred years, but I am not an authority (nor old enough!) to make any historical judgements.

What I can comment upon is the apparent accelerating acceptance these days of things which would have been considered risqué or worse a few years ago. It is inevitable therefore, that computer software has become 'liberalised' - witness the number of 'adults only' titles appearing on the market. Again, I don't propose to present you with my opinions or provide a judgement in the 'mine field' of moral issues - rather, I will leave it up to your adult minds to make the final analysis. All I will say is that my standards dictate that my children won't get to see them until they are much older.

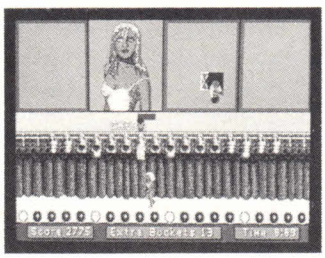
BAR GAMES - 5.25" OR 3.5" - $59.95

There are five "games" to play in this package, but I can't believe that they all take place in a typical American bar. First there's Liar's Dice in which you play against the barmaid. The idea is to guess the best possible hand that combines your dice with those of the barmaid and provokes a one-sided conversation from the opposition as she thinks about her next bid. Next comes Last Call where you are the bartender with the job of sliding beer mugs down a long three-tiered bar to thirsty patrons. There are one-hour shifts over four nights (ie. four levels) each getting progressively harder.



Bar Games: Pick-up Artist's playground.

Then there's Wet 'n' Wild, a wet T-Shirt competition in which you have to dump as much water as you can from a catwalk onto a contestant on the stage below. To keep things even, there are two females and two males to drench. It's pretty easy to start with, but as you move through the levels many obstructions appear to hinder your progress. Next is Air Hockey where you use a paddle to knock a puck into your opponents goal. There are four opponents, and each has to be beaten 2-1 to pass onto the next round.



Bar Games: wet T-shirt competition.

Finally, there's Pick-up Artist - perhaps the real meaning of Bar Games. Three young ladies are sitting at the bar and by selecting a relevant question to one of them (a bit like Emmanuelle in some respects) you get a considered response. This could be the big brush-off, or could open up a conversation to discover which girl is wearing the flower in her hair. If you can satisfy her conversational desires on the first night (Thursday), you get to take her out on Friday to talk some more, then Saturday if successful again. Succeeding on all three nights gives you the big Weekend Reward - but I didn't get that far so I can't tell you what it is.

DR. RUTH'S GAME OF GOOD SEX - 5.25" - $47.95

Dr. Ruth Westheimer is well known for her talk-back programmes to 60 cities across America. The 'Sex Clinics' have gained popularity through her unique brand of frank, down-to-earth and very often humourous responses to questions.

This computer game is for one to seven players, with an opportunity to answer up to eight questions per game covering love, sexuality, marital problems and other relationships. There are two types of questions. The true/false questions consists of four statements with just one being either true or false compared with the other three. A question from the

Sex Clinic files provides the second type of question - in this case the player must choose one of four answers he/she thinks Dr. Ruth would give to the question presented. This is a bonus question and is earned by scoring well in the first section. Scoring is based upon the time taken to answer each question.

With two or more players, there is a knock-out round where the two players with the highest scores are assigned four keys each on the keyboard. The first person to answer gets the points (or penalty).

This game is clearly for adults only as most of the questions would go straight over a youngster's head. Even so, many adults will be surprised by the frank nature of the questions and probably even more surprised by the correct answers.

Challenge your knowledge of love, sexuality and relationships in Dr. Ruth's first computer game.

EMMANUELLE - 5.25" - $39.95

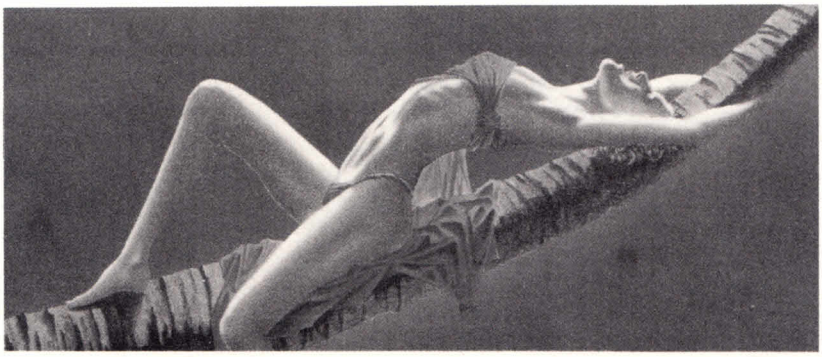
This is a game adapted from Emmanuelle Arsan's novel and takes place in the heart of Brazil. The idea is to track down the location of Emmanuelle and fly off with her to Paris. How you achieve this depends upon your luck (or experience?) in asking the right question in the right place. The game is peppered with attractive women (and an occasional male) who may be able to provide a clue to Emmanuelle's whereabouts, but they must be treated in the right way.

It's not a text adventure by any stretch of the imagination. All conversations are carried out by initially selecting from a list of questions you may like to ask. The kind of response will depend upon the question and character asked. It may cost money to get the character to reveal some information, and you will soon find yourself a bit short of cash. This can be replenished by gambling successfully at the casino. You may also run out of more energy if you choose to engage in carnal activity - represented somewhat modestly with shadows behind a venetian blind.

You may also get involved in smuggling. From a "topless" beach are anchored two boats. In one, a voluptuous woman is ready to whisk you away, but in another is a swarthy looking male who, if answered correctly, will give you some contraband to deliver to the town. Visiting the town without the illegal goods spells disaster.

Small gold statues can be earned by performing various feats or actions and if you can accumulate enough, provide extra skills.

Emmanuelle is an unusual game and requires quite a bit of playing before you are likely to get the hang of it.

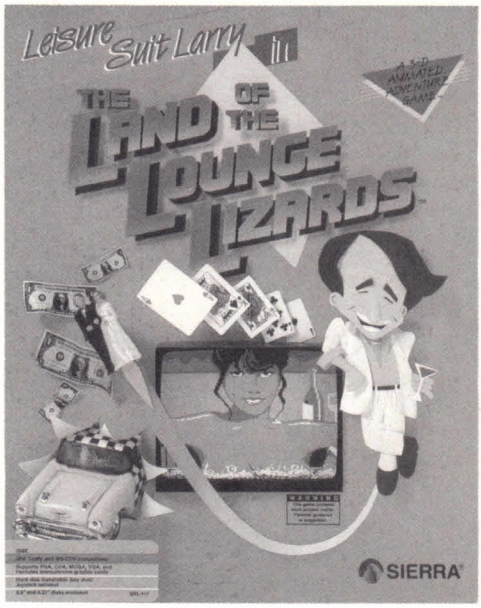


Emmanuelle: steamy scenes in the heart of Brazil.

LEISURE SUIT LARRY - DUAL - FROM $59.95

This is a humourous 3-D graphic adventure series from Sierra, numbers one and two are already available with number three due shortly. They all star 'super-nerd' Larry Laffler, the kind of guy you are likely to meet in a seedy singles bar. He is usually dressed in a white leisure suit and an open necked shirt revealing a number of gold chains to make up for his lack of chest!

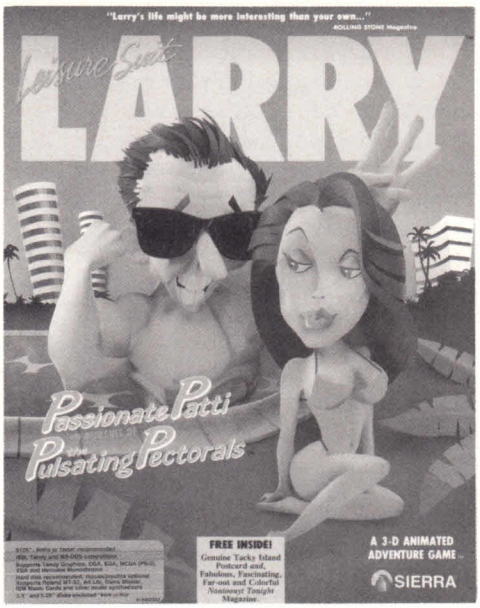
In Leisure Suit Larry 1 (In the land of the Lounge Lizards), the object is to help Larry overcome his jerkisms and



Leisure Suit Larry I: the madness begins!

lose his virginity. In a risque romp through the singles scene he will meet a number of women who may help in his quest, but most will be his downfall. Only a night with Eve will be sufficient to complete the game. It is easier said than done with many puzzles to solve and situations to negotiate (like the hot tub or the disco floor).

Leisure Suit Larry 2 (Looking for love in several wrong places) continues Larry's sexual adventures. Starting with no money at all, you guide him through to a national lottery win and a "Perfect Match" style television game. This presents Larry with a million dollars and a luxury cruise. Naturally, this brings out all the female fortune seekers and part of the fun is to fight them off, in particular a KGB agent. But Larry's real aim is to settle down, so he must find a wife. Succeed in this and you solve the game.



Leisure Suit Larry meets Passionate Patti in Part Three.

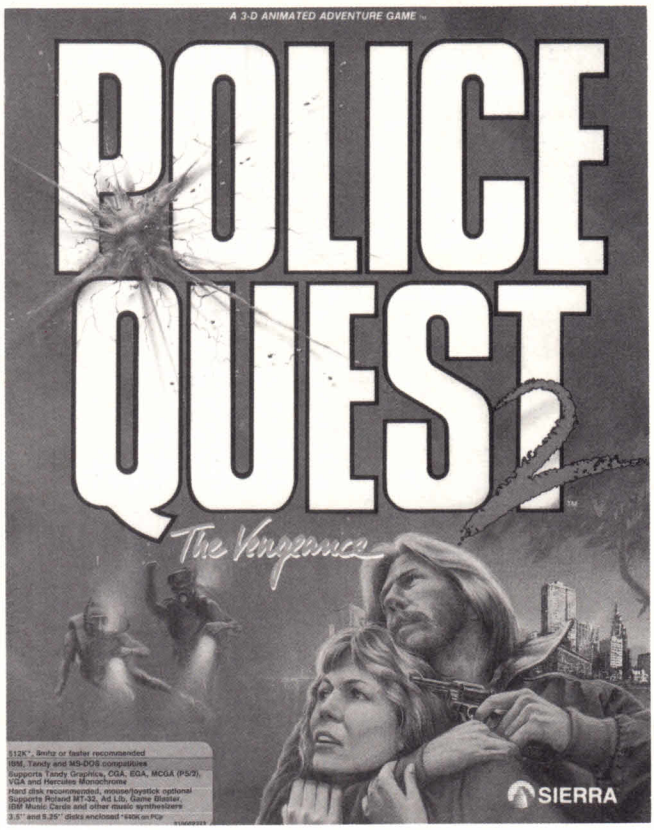
The third in the series starts on Nottonyt Island, a strange jungle island, and differs from the first two in that it co-stars Passionate Patti. The game allows for role-reversal in that you can switch between the two main characters to experience a different perspective. Larry mixes it up with sinister spies, a mad scientist and tropical island beauties in his quest to win the girl of his dreams. While all this is going on, Patti is searching for the man that got away!

The whole series features exceedingly good graphics and original humour. It's not really rude, just full of innuendo.

POLICE QUEST - DUAL - $59.95

There are two in this Sierra series: Police Quest 1 - In Search of the Death Angel and Police Quest 2 - The Vengeance. Both are 3-D graphic adventures, converted from real-life stories written by Jim Walls, a Californian Highway Patrol Officer.

PQ1 features rookie patrolman Sonny Bonds in bringing a drug dealer to justice. It provides a revealing look into the day-to-day life and duties of a police officer with the capture of 'Death Angel' as the aim.



Police Quest II: The Death Angel is back with a craving for blood - YOURS!

In PQ2, the Death Angel has escaped from jail with a list of people he wants dead. It's up to Sonny to put an end to the revenge killings before he becomes one of the victims.

You may question why this series is considered 'adults only.' The theme itself is not exactly suitable for children, and some of the situations and action are pretty violent. Although it may be reflecting real-life situations, it could be considered a bit harrowing for younger minds. ■

The above titles are available from various dealers throughout Australia or from The Amstrad User mail order service. Phone (03) 233 9661.

First with the Best!!

Pactronics

NEW PRODUCTS

TEMPLE OF APSHAI TRILOGY

The three classic APSHAI arcade adventures now all in the one package. The realms of APSHAI are threefold. First, the **TEMPLE** - its power lashes out at those who dare to enter. To survive, your war-like spirit must be raised to a fever pitch. Second is **UPPER REACHES OF APSHAI** - which know tragedy and magic. It also knows the path of the spirit. The final chapter is **THE CURSE OF RA** - blinding sands and rooms of mazes which are the sanctuary of the Sphinx, the last mystery.

Requires CGA card.

PERSONAL NIGHTMARE

Why has your father, the dutiful local vicar, neglected his parish without any apparent reason?
Why has Jimmy Blandford suddenly taken to drinking heavily?
Why did your mother invite you to stay for the weekend, and then disappear without a trace?
What horrors await you behind the closed doors of the burnt out manor?
Are you ready to meet a vampire and to do battle with a crazed hound straight from HELL?
Are you ready to be terrified beyond your wildest dreams?
Are you ready for your own Personal Nightmare?

Requires CGA or EGA card.

BUFFALO BILLS RODEO GAMES

Dust off your duds and spit polish your spurs, Buffalo Bills Rodeo Show is coming to town. Compete in six unique events, Knife Throwing, Trick Shooting, Calf Roping, Steer Wrestling, Bronco Riding and the Stage Coach Rescue.

Requires CGA card.

LEGEND OF DJEL

As the son of a disgraced magician, it is now your duty to release the land of Djel from the grip of three fearful sorcerors. TEMPLE OF DJEL features breath taking graphics, stunning special effects and numerous locations and problems to keep you guessing for months.

Requires CGA, EGA or VGA cards.

ATLAS EXPLORER

Welcome to the world. ATLAS EXPLORER will take you on a round the world trip from the comfort of your computer desk. It contains facts and figures on literally hundreds of countries. It gives details such as currency, population, area, boundaries and more. There is even a quiz section to test your knowledge of the globe.

Requires CGA card.

NEWSROOM PRO

The NEWSROOM PRO is an advanced, more powerful version of the best selling NEWSROOM. It's easy to learn, fast to use and very efficient in operation. It's ideal for designing and printing out newsletters that combine text and graphics in any way you desire. The NEWSROOM PRO has a built in graphics section, so you can draw directly onto your newsletter, plus it is supplied complete with over 1200 pieces of CLIP ART, ready to import into your document. Further volumes of CLIP ARTs are available.

Requires CGA card.

SPRINGBOARD PUBLISHER

Hello Springboard Publisher, ...Goodbye Word Processing! This is the most accessible DeskTop Publishing program ever published. Although it is extremely easy to use, it still has all of the features that are making the "big name" DTP programs look over their shoulders. SPRINGBOARD PUBLISHER does not concentrate on page layout as do most other DTP programs, it combines word processing, graphics creation and page layout into an elegantly designed, simple to use package. The results can be as simple as you need, or as complex as your business demands.

Requires '286 or '386 computer, Hercules, CGA, EGA or VGA card.

Available from: **John Martins, Harris Scarfe, Harvey Norman, Grace Brothers, Computer Base (Castle Hill & Bankstown), Maxwells of Rockdale, Ettalong & Melbourne, Steve's (ACT) or other retailers around Australia.**

For the nearest retailer in your state contact:

NSW: Pactronics P/L, 98 Carnarvon Street, Silverwater	**(02) 748 4700**
VIC: Pactronics P/L, 51-55 Johnston Street, Fitzroy	**(03) 417 1022**
QLD: Pactronics P/L, 12 Stratton Street, Newstead	**(07) 854 1982**
SA: Baringa P/L,	**(08) 378 9177**
WA: Pactronics WA, Unit 13, Rear 113 High Road, Willeton	**(09) 354 1122**
NEW ZEALAND: Micro Dealer, 68F Greenmount Drive, East Tamaki, Auckland	**(09) 274 9300**
MAIL ORDER: The Amstrad User, 641 High Street Road, Mount Waverley, Vic 3149.	**(03) 233 9661**

More wares to share...

Another month and another pile of PC Public Domain goodies as Chris Collins offers a special treat for WordPerfect 5.0 users.

Hello out there, and welcome once again to that funny little column that helps you get a bit more fun out of your PCs! This month we have some news, as well as a change of address, and also some new diskettes. Now that the Christmas period has passed us by, and the children will soon be starting back at school, it would appear that it may be time for us to get serious again.

First things first! I have had to move house, due to the owner of the last one selling it out from underneath me. So as of now, please address all correspondence and orders to the following address:

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

Any that had been addressed to the old address should have been filled by now, but if you did address an order to the old address and it hasn't been filled please let me know. I do have a question for most of you though. If I installed a fax machine so that you could fax your orders, as well as access to VISA, BANKCARD and MASTERCARD, how many of you would use it? Please let me know, and if the response if good enough, I will install these extra options for you. There would be a surcharge on the cost of diskettes for the people using this method, but most probably it would only increase the cost of diskettes to $8 per diskette. This would cover the cost of the banks charges for the use of the credit cards, and the extra for the fax machine.

I have had a new delivery of diskettes from the States within the last 3 weeks, and am slowly sorting them out. As I go through them and find all these little gems, I will bring them to your attention. Also, a lot of people have been asking for a catalogue, and I now have one of these available. It fits onto one diskette and comes with a program to let you read the file. All the diskettes are listed in alphabetical order, with a list of files on the diskette as well as a short run-down on what the program is, and what it does. I have tried also to include the author's name and the registration charge, if I could find this out. I hope that you like it. If anybody wants a copy, simply send an order for the CATALOGUE diskette at $7.50 to the above address.

WORDPERFECT!

For all the WordPerfect freaks out there, I have a special for you this month. A couple of the new programs just out from the States are for WordPerfect v5.0 users. The first is a pair of diskettes called the WP5.0 Learning System.

WP5.0 LEARNING SYSTEM

This is a two diskette package from a company called ECC Learning Systems, and it has a shareware registration charge of US$79.95. It is a wonderful slide show, which when combined with the WordPerfect workbook, takes you by the hand and leads you from being a beginner to being an expert with WordPerfect v.5.0. You do receive a lot of additional extras when you register, including a commission on every copy of your program that is registered by your friends, as well as a free update, a new workbook and much much more. This makes it well worthwhile.

The WordPerfect v5.0 user that I asked to check out this program came back to me raving. He said and I quote "This thing really s_ _ _ s all over the WordPerfect tutorial." Please excuse the French, but he is a little rough (even though his heart is in the right place).

The same company also has a copy of this program for WordPerfect v4.2 that I am waiting on to come from the States. However, the first release did have a bug in it, and it has been recalled to be fixed before general release.

WP5.0 MACROS

This is a diskette of over 90 macros ready to run with WordPerfect v5.0 or later. They are all drawn from the book 'WordPerfect v5.0 Macros and Templates' and are copyright to the author of the book, one 'Gordon McComb'. This book is published by Bantam Publishing. These macros do not

require a registration fee, they are yours to use as you see fit.

The macros that are on this disc are best listed in the file DISK.DIR. This is a WordPerfect file, that fully explains them. This diskette also includes a game, created entirely out of macros. It is a simple adventure game, but it does give you some idea of what can be done.

I believe that these diskettes are a must for all WordPerfect v5.0 fans!

SYDEX UTILITIES

This is another two diskette collection, and it includes a group of utilities from a company called Sydex. These are listed below, with a quick run-down and their registration fee; *22NICE124.ARC*:- A Z80/CP/M emulator that is very good, and very fast. Registration fee is US$30.00 however, this does include a registered copy of 22DISK as well.

22DISK124.ARC:- A program that lets you format and copy from around 100 different CP/M formats. Similar to PC Alien (an Australian product, probably the best of its type in the world). Registration fee is US$15.00.

ANAD132:- A complete diskette utility similar to MACE or the Norton Utilities. This is a program not for the faint hearted! Registration is US$15.00.

CNFMT102.ARC:- This is probably the only program of its type available. A background diskette formatter. Format diskettes whilst running another program. Registration is US$15.00.

COPYQ162.ARC:- This is a diskette copy service: copies, formats and verifies many diskettes from one master. Registration is US$15.00.

FORMQ153.ARC:- This is a bulk diskette fast formatter. Will format a box of diskettes in nothing flat! Well that is an exaggeration, but it does format a lot faster than DOS. Registration is US$10.00.

TELED105.ARC:- Copy a diskette to a file, and vice-versa. Do remote diskette copies. Handles any known kind of diskette. Registration is US$25.00.

Please note that all of these registration fees are quite reasonable, and I suggest that if you use any of these programs continuously, you should register. Documentation on all of these products runs to quite a few pages, such as 5 pages only for CNFMT102 and FORMQ153 to 23 pages for 22DISK124. None of the programs appear to be crippled in any way, but Sydex do offer you some incentives to register. To find out what they are, read the documentation.

UPDATES!

Some of the updates that have arrived in the last couple of weeks include the following:

Express Calc:- Now up to version 4.0. This is a major upgrade from the old v3.18. Still occupies only two diskettes, but the program has now been rewritten in 'C' so that only one executable file is required.

File Express: - Now up to version 4.27. The new revision has grown to 3 diskettes instead of the two that it was before. Yet again, File Express has been re-written in 'C', and for the same reasons as above (probably as they both come from the same company). The third diskette in the set has a lot of sample data-bases on it, including report formats, so that you will have something to learn from.

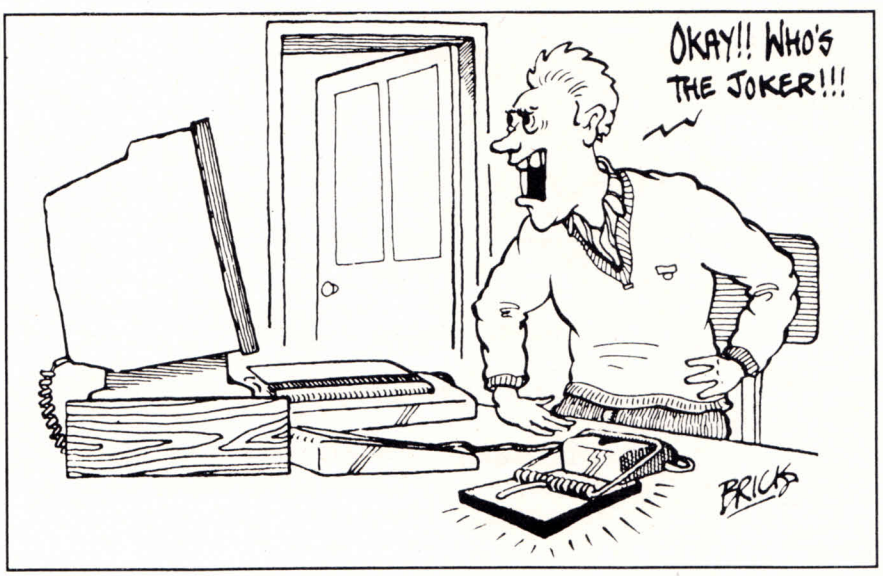
Fastbucks:- Another upgrade past the version 4 mark. This one is now up to version 4.1. Now grown to two diskettes, Fastbucks is a wonderful financial management system for personal or business use. Although the file format for the data files has changed, the new program will automatically convert the data files as you install the new program.

Hard Disk Menu 3: - Has just been upgraded from Hard Disk Menu 2. As yet, I haven't had a good chance to have a look at this one, but it appears to be a major update. Still on one diskette.

Wampum:- This has been upgraded from version 3.2B to version 3.3S. It appears to fix the problem about dates in 1989 that v3.2B had, and now fully occupies one diskette so it has obviously been expanded.

Telix:- Talk is from one of my contacts that Telix has been upgraded to version 3.12. Apparently a bug fix with a few extras thrown in; I hope to have a copy within the next couple of days. Also available now are mouse menus to run Telix. I will be putting these on the original Telix diskettes as soon as I finish testing them.

Well, that about finishes my rambling for now! So until next month. Keep on COMPUTING! ■



Life on the ocean waves was never as much fun as these games!

PC-SOFT is a new series of disks containing games or utilities for the Amstrad range of PC computers.

The fourth disk to be released is PC-SOFT#4, in either 5.25" or 3.5" formats, and contains the following:

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.

HAVE YOU UNEARTHED THESE TREASURES YET?

PC-Soft#1
19 Basic2 programs for the PC1512 and PC1640.

PC-Soft#2
8 games for all Amstrad PCs and other PC compatibles.

PC-Soft#3
24 utilities for all Amstrad PCs and other PC compatibles.

Note: PC-Soft #2 and #3 are also available in 3.5" format for $15.00

5.25" format will be supplied unless 3.5" is requested

5.25"
$12.50
(plus P&P)
3.5"
$15.00
(plus P&P)

To get your copy of PC-SOFT#4, simply send $12.50 (plus P&P), or $15.00 (plus P&P) if ordering a 3.5" format, by cheque or money order (or quote your Bankcard, Mastercard or Visa number with expiry date) to:

THE AMSTRAD USER
1/641 High Street Road,
Mount Waverley, Victoria 3149.

Or ring (03) 233 9661 with credit card details.

Next month we release #5 on 5.25" and 3.5". More Utilities for all Amstrad PCs!

Hint Sheet

JINXTER

by - name not provided!

Bedroom:
Look in the wardrobe and the cello case. You will need the things you find here much later in the game.

Kitchen:
The tin opener could come in handy for opening a tin! You need to freeze something in the fridge. Drinking the milk will provide a handy container.

Conservatory:
You need something from here - something red!

Back garden:
Leave the secateurs - you don't need them.

Grassy field:
Did you find something red? Wave it at the bull, then drop it.

Xam's kitchen:
Don't expect to catch a mouse while you're standing there watching - come back later and the job will be done.

Airlock:
Close the hatch, press the left button, have a look around then come back and press the right button. You won't drown if you're wearing the right equipment.

Bakery:
The baker won't be very impressed if the bread you bake is burnt - he might even throw it out and you with it.

Pub:
Put out the fire and take the ash - you need it later. Don't spend any money here.

Post Office:
You need to post something to the station - it's the only way to get it there, and it will cost you two fergs. It will take 9 moves to open the safe, starting and finishing with the top left handle. You should have 5 charms by now.

Platform:
If you have the right charms, you can change the weather. The rain weatherman can provide you with something useful.

Station:
Now you know what to do with the tap-dancing shoes, the hat, the harmonica and the one ferg coin! Don't forget to collect the parcel you posted before you run after the train.

Dungeon:
Xam is not ignoring you - he's asleep! If you don't wake him up you'll never finish the game.

Jewel room:
You need to slide the blocks so that each row, horizontal, vertical and diagonal, adds up to 15. It will take 10 moves.

Hall:
The witch wouldn't like ash on her hearth, would she? Hide in the chimney, look into the crystal ball, and wait for the future to become clear.

Would the person who sent this hint sheet in please contact us or we won't be able to give you your $25! Somewhere along the line we lost your vital statistics! Why not put pen to paper and earn yourself some extra pocket money by sending in your own hint sheet (don't give the whole game away) to:

The Editor (Hint Sheets),
The Amstrad User,
641 High Street Road,
Mount Waverley, Victoria. 3149.

Unknown Planet part 2

Hopefully you've completed typing in part one and you're ready to go on this, the second part of Barrie Eaton's latest thriller!

```
970 IF (y$="w" OR w$="go w") AND loca%(posi%,4)<>0 THEN
 kk=1:posi%=loca%(posi%,4)
980 IF kk=0 AND (y$="n" OR y$="s" OR y$="e" OR y$="w")
THEN kk=1:PRINT"You can't go in that direction":PRINT
990 IF kk=0 AND (w$="go n" OR w$="go s" OR w$="go e" OR
 w$="go w") THEN kk=1:PRINT"You can't go in that direct
ion":PRINT
1000 IF p$="get key" THEN PRINT"Which key?":PRINT:GOTO
1360
1010 IF x$="get" AND (posi%=21 OR posi%=121) AND r=0 TH
EN GOTO 1360
1020 IF x$="get" OR w$="take" THEN kk=1:GOSUB 1440
1030 IF y$="i" THEN kk=1:GOSUB 1690
1040 IF r$="drop key" THEN PRINT"Which key?":PRINT:GOTO
 1060
1050 IF w$="drop" OR w$="leav" THEN kk=1:GOSUB 1730
1060 IF o$="forc " OR q$="force " OR o$="leve " OR q$="
lever " THEN kk=1:GOSUB 1870 ELSE IF w$="forc" OR w$="l
eve" THEN 1370
1070 IF o$="enter" THEN kk=1:GOSUB 3910
1080 IF o$="unlo " OR q$="unloc " OR p$="unlock " THEN
kk=1:GOSUB 1910 ELSE IF w$="unlo" THEN 1370
1090 IF o$="clea " OR q$="clear " OR o$="move " THEN kk
=1:GOSUB 1990 ELSE IF w$="move" OR o$="clear" THEN 1370
1100 IF o$="clim " OR q$="climb " THEN kk=1:GOSUB 2030
ELSE IF w$="clim" THEN 1370
1110 IF o$="span " OR w$="lay " OR o$="lean " OR o$="re
st " THEN kk=1:GOSUB 2100 ELSE IF w$="rest" OR w$="span
" OR w$="lean" OR x$="lay" THEN 1370
1120 IF o$="enla " OR q$="enlar " OR p$="enlarg " OR r$
="enlarge " THEN kk=1:GOSUB 2200 ELSE IF w$="enla" THEN
 1370
1130 IF w$="cut " THEN kk=1:GOSUB 2240 ELSE IF x$="cut"
 THEN 1370
1140 IF w$="tie " THEN kk=1:GOSUB 2270 ELSE IF x$="tie"
 THEN 1370
1150 IF o$="blas " OR q$="blast " THEN kk=1:GOSUB 4330
ELSE IF w$="blas" THEN 1370
1160 IF o$="kill " OR o$="shoo " OR q$="shoot " THEN kk
=1:GOSUB 4330 ELSE IF w$="kill" OR w$="shoo" THEN 1370
1170 IF o$="fill " THEN kk=1:GOSUB 2490 ELSE IF w$="fil
l" THEN 1370
1180 IF x$="sco" OR w$="scor" OR o$="score" THEN kk=1:G
OSUB 1850
1190 IF o$="jump " THEN kk=1:GOSUB 2610 ELSE IF w$="jum
p" THEN 1370
1200 IF o$="wear " THEN kk=1:GOSUB 2650 ELSE IF w$="wea
r" THEN 1370
1210 IF o$="buil " OR q$="build " THEN kk=1:GOSUB 2690
ELSE IF w$="buil" THEN 1370
1220 IF w$="row " OR o$="sail " THEN kk=1:GOSUB 2800 EL
SE IF x$="row" OR w$="sail" THEN 1370
1230 IF o$="type " THEN kk=1:GOSUB 2830 ELSE IF w$="typ
e" THEN 1370
1240 IF o$="turn " THEN kk=1:GOSUB 2890 ELSE IF w$="tur
n" THEN 1370
1250 IF o$="exam " OR q$="exami " OR p$="examin " OR r$
="examine " THEN kk=1:GOSUB 2920 ELSE IF w$="exam" THEN
 1370
1260 IF o$="read " THEN kk=1:GOSUB 3090 ELSE IF w$="rea
d" THEN 1370
1270 IF o$="inse " OR q$="inser " OR p$="insert " THEN
kk=1:GOSUB 3120 ELSE IF w$="inse" THEN 1370
1280 IF o$="weld " OR q$="repai " OR p$="repair " THEN
kk=1:GOSUB 3170 ELSE IF w$="weld" OR q$="repair" THEN 1
370
1290 IF w$="quit" THEN kk=1:GOSUB 3220
1300 IF w$="oops" THEN kk=1:GOSUB 3390
1310 IF o$="open " THEN kk=1:GOSUB 3280 ELSE IF w$="ope
n" THEN 1370
1320 IF w$="drin" THEN kk=1:GOSUB 3320
1330 IF w$="swim"THEN kk=1:GOSUB 3360
1340 IF w$="save" THEN kk=1:GOSUB 3510
1350 IF w$="load" THEN kk=1:GOSUB 3670
1360 IF kk=0 THEN PRINT"I don't understand what you mea
n by ";:PEN 2:PRINT z$:PRINT:GOTO 1380
```

■

```
1370 IF kk=0 THEN PRINT"Please be more Specific":PRINT
1380 WEND
1390 IF r=0 THEN GOTO 1400 ELSE IF LOWER$(RIGHT$(z$,3))
=" it" THEN RETURN
1400 l$="":FOR x=1 TO LEN(z$):IF MID$(z$,x,1)=" " THEN
l$=RIGHT$(z$,LEN(z$)-x):x=200
1410 NEXT:r=0:l%=0:IF LEN(l$)<3 THEN RETURN
1420 FOR x=1 TO 56:IF LEFT$(get$(x),LEN(l$))=l$ THEN l%
=1:r=x
1430 NEXT:RETURN
1440 IF RIGHT$(z$,4)=" all" THEN FOR z=1 TO 44:IF obj%(
z)=posi% THEN GOSUB 3940:GOSUB 4030:IF full=1 THEN GOTO
 1450 ELSE all=1:GOSUB 3970:GOSUB 1540:GOSUB 4010:IF ca
nt=0 THEN PRINT"You get ";obj$(z):all=0:obj%(z)=0:inv$(
xx)=obj$(z)
1450 IF RIGHT$(z$,4)=" all" THEN full=0:cant=0
1460 IF RIGHT$(z$,4)=" all" THEN NEXT:PRINT:RETURN
1470 GOSUB 1390:IF l%=1 THEN 1500
1480 PRINT"You Can,t!":PRINT:RETURN
1490 RETURN
1500 e%=0:FOR x=1 TO 44:IF obj%(x)=posi% AND obj%(get%(
r))=posi% THEN e%=1
1510 NEXT:IF e%=0 THEN RETURN
1520 FOR x=1 TO 6:IF inv$(x)="" THEN x=10:GOTO 1540
1530 NEXT:PRINT:PRINT"Your hands are full!":PRINT:RETUR
N
1540 IF (r=1 OR r=2) AND posi%=1 AND all=1 THEN r=0:PRI
NT"Don't be absurd!":PRINT:all=0:RETURN
1550 IF (r=1 OR r=2) AND posi%=1 THEN r=0:PRINT"Don't b
e absurd!":PRINT:RETURN
1560 IF r=4 THEN ab=1 ELSE IF (r=5 OR r=6) THEN aa=1 EL
SE IF r=13 THEN ac=1 ELSE IF (r=14 OR r=39) THEN ad=1 E
LSE IF r=17 THEN ag=1 ELSE IF r=9 THEN bk=1 ELSE IF r=1
0 THEN ae=1 ELSE IF r=12 THEN af=1 ELSE IF r=18 THEN ah
=1
1570 IF r=23 OR r=24 THEN ai=1
1580 IF r=20 AND ak=0 THEN ak=1
1590 IF r=50 THEN al=1 ELSE IF r=21 AND am=0 THEN am=1
ELSE IF r=27 THEN an=1 ELSE IF r=29 THEN ao=1 ELSE IF r
=11 THEN ar=1 ELSE IF r=28 THEN as=1 ELSE IF r=34 THEN
at=1
1600 IF r=35 THEN au=1 ELSE IF r=54 THEN av=1 ELSE IF r
=52 THEN aw=1 ELSE IF r=53 THEN ax=1 ELSE IF r=44 THEN
ay=1 ELSE IF r=55 THEN az=1 ELSE IF (r=47 OR r=48) THEN
 bd=1 ELSE IF r=51 THEN bc=1
1610 IF r=9 AND posi%=35 AND all=1 THEN all=0:RETURN
1620 IF r=9 AND posi%=35 THEN PRINT"You Can't!":PRINT:R
ETURN
1630 IF (r=7 OR r=8 OR r=15 OR r=16 OR r=38 OR r=41 OR
r=45 OR r=49) AND all=1 THEN all=0:RETURN
1640 IF r=7 OR r=8 OR r=15 OR r=16 OR r=38 OR r=41 OR r
=45 OR r=49 THEN PRINT"You Can't!":PRINT:RETURN
1650 IF all=1 THEN RETURN
1660 e%=0:FOR x=1 TO 6:IF inv$(x)="" THEN inv$(x)=obj$(
get%(r)):e%=1:x=10
1670 NEXT:IF e%=0 THEN PRINT"Your hands are full!":PRIN
T:RETURN
1680 obj%(get%(r))=0:a%=a%+1:PRINT CHR$(7):RETURN
1690 PEN 3:f%=0:PRINT"You are carrying :-"
1700 FOR x=1 TO 6:IF inv$(x)<>"" THEN PEN 2:PRINT inv$(
x):f%=1
1710 NEXT:IF f%=0 THEN PEN 2:PRINT"nothing at all!":PRI
NT
1720 PRINT:RETURN
1730 IF RIGHT$(z$,4)=" all" THEN FOR z=1 TO 44:FOR y=1
TO 6:IF obj$(z)=inv$(y) THEN inv$(y)="":GOSUB 3970:obj%
(get%(r))=posi%:PRINT"You drop ";obj$(z):all=1:GOSUB 17
70:all=0:GOSUB 4000
1740 IF RIGHT$(z$,4)=" all" THEN NEXT:NEXT:RETURN
1750 GOSUB 1390:e%=0:FOR x=1 TO 6:IF inv$(x)=obj$(get%(
r)) THEN inv$(x)="":e%=1:a%=a%-1
1760 NEXT:IF e%<>1 THEN PEN 2:PRINT"You are not carryin
g a ";l$:PRINT:RETURN
1770 IF (r=5 OR r=6) THEN aa=0 ELSE IF r=4 THEN ab=0 EL
SE IF r=11 THEN ar=0 ELSE IF r=12 THEN af=0 ELSE IF r=2
8 THEN as=0 ELSE IF r=34 THEN at=0 ELSE IF r=35 THEN au
=0 ELSE IF (r=14 OR r=39) THEN ad=0 ELSE IF r=17 THEN a
g=0 ELSE IF r=18 THEN ah=0
1780 IF (r=23 OR r=24) THEN ai=0 ELSE IF r=20 AND ak=1
THEN ak=0 ELSE IF r=21 AND am=1 THEN am=0
1790 IF r=27 AND (an=1 OR an=2) THEN an=0:obj$(19)="hel
met"
1800 IF r=29 THEN ao=0 ELSE IF r=54 THEN av=0 ELSE IF r
=52 THEN aw=0 ELSE IF r=53 THEN ax=0 ELSE IF r=44 THEN
ay=0 ELSE IF r=55 THEN az=0 ELSE IF r=50 THEN al=0 ELSE
 IF r=9 THEN bk=0 ELSE IF r=10 THEN ae=0 ELSE IF (r=47
OR r=48) THEN bd=0
1810 IF r=51 THEN bc=0
1820 IF all=1 THEN RETURN
1830 obj%(get%(r))=posi%
1840 RETURN
1850 PRINT:PEN 3:PRINT"You have scored ";sc;"points out
 of 360":PRINT:RETURN
1860 RETURN
1870 IF posi%=7 AND aa=1 THEN PRINT"The door creaks ope
n.":loca%(posi%,4)=8:sc=sc+10:PRINT:RETURN
1880 IF posi%=7 AND aa<>1 THEN PRINT"You don't have the
 right object.":PRINT:RETURN
1890 IF posi%<>7 THEN PRINT"You Can,t!":PRINT
1900 RETURN
1910 IF posi%=12 AND ab=1 THEN PRINT"O.K! (iron key)":l
oca%(posi%,4)=14:PRINT:loca$(12)="inside a chamber. Qui
te large but empty.There is an open door on the far sid
e.":RETURN
1920 IF posi%=39 AND ah=1 THEN PRINT"O.K! (red key)":lo
ca%(posi%,3)=40:PRINT:loca$(39)="at the end of the pass
age.The door is  open.":RETURN
1930 IF posi%=82 AND ao=1 THEN PRINT"O.K! (large key)":
loca%(posi%,2)=83:PRINT:RETURN
1940 IF posi%=107 AND ax=1 THEN PRINT"O.K! (grey key)":
```

```
loca%(posi%,4)=108:PRINT:RETURN
1950 IF posi%=109 AND ay=1 THEN PRINT"O.K! (silver key)
":loca%(posi%,2)=110:loca$(109)="outside a maintenance
building. It lookslike the way to the refinery.":PRINT:
RETURN
1960 IF (ab=0 OR ah=0 OR ao=0 OR ax=0 OR ay=0) AND posi
%<>7 THEN PRINT"You don't have the key!":PRINT:RETURN
1970 PRINT"You Can't!":PRINT:RETURN
1980 RETURN
1990 IF posi%=18 AND aa=1 THEN PRINT"O.K!":loca$(18)="i
n a passage with rocks to one side.":loca%(posi%,1)=19:
PRINT:sc=sc+10
2000 IF posi%=18 AND aa<>1 THEN PRINT"You don't have th
e right implement.":PRINT:RETURN
2010 IF posi%<>18 THEN PRINT"You Can't!":PRINT:RETURN
2020 RETURN
2030 GOSUB 1390:IF posi%=5 AND ac=2 THEN PRINT"O.K!":po
si%=4:sc=sc+10:PRINT:RETURN ELSE IF posi%=4 AND ac=2 TH
EN PRINT"O.K!":posi%=5:PRINT:RETURN ELSE IF posi%=34 AN
D ag=3 THEN PRINT"O.K!":PRINT:posi%=35:sc=sc+10:RETURN
2040 IF posi%=105 AND al<>2 THEN GOTO 3420 ELSE IF posi
%=106 AND aw<>2 THEN GOTO 3420
2050 IF posi%=35 AND ag=3 THEN PRINT"O.K!":PRINT:posi%=
34:RETURN ELSE IF posi%=105 AND al=2 THEN PRINT"O.K!":p
osi%=106:sc=sc+10:PRINT:RETURN ELSE IF posi%=106 AND aw
=2 THEN PRINT"O.K!":posi%=105:sc=sc+10:PRINT:RETURN
2060 IF posi%=115 THEN PRINT"O.K!":PRINT:posi%=116:RETU
RN ELSE IF posi%=116 THEN PRINT"O.K!":PRINT:posi%=115:R
ETURN
2070 IF r=54 AND av=1 THEN PRINT"O.K!":PRINT:RETURN
2080 PRINT"You Can't!":PRINT:RETURN
2090 RETURN
2100 GOSUB 1390
2110 IF posi%=27 AND ad=1 AND (r=14 OR r=39) THEN PRINT
"O.K!":loca%(27,1)=28:PRINT:sc=sc+10:GOSUB 4050:RETURN
ELSE IF posi%=28 AND ad=1 AND (r=14 OR r=39) THEN PRINT
"O.K!":loca%(28,2)=27:GOSUB 4050:RETURN
2120 IF posi%=45 AND ad=1 AND (r=14 OR r=39) THEN PRINT
"O.K!":loca%(45,3)=51:PRINT:sc=sc+10:GOSUB 4090:RETURN
ELSE IF posi%=51 AND ad=1 AND (r=14 OR r=39) THEN PRINT
"O.K!":loca%(51,4)=45:GOSUB 4090:RETURN
2130 IF posi%=34 AND ag=1 AND r=17 THEN PRINT"O.K! It i
s in position.":bj=1:PRINT:sc=sc+10:GOSUB 4130:RETURN
2140 IF posi%=124 AND aw=1 AND r=52 THEN PRINT"O.K!":lo
ca%(posi%,2)=125:PRINT:sc=sc+10:GOSUB 4170:RETURN ELSE
IF posi%=125 AND aw=1 AND r=52 THEN PRINT"O.K!":loca%(p
osi%,1)=124:PRINT:GOSUB 4170:RETURN
2150 IF posi%=106 AND aw=1 AND r=52 THEN PRINT"O.K! It
is against the fence.":PRINT:sc=sc+10:GOSUB 4210:RETURN
2160 IF posi%=105 AND al=1 AND r=50 THEN PRINT"O.K! It
is against the fence.":PRINT:sc=sc+10:GOSUB 4250:RETURN
2170 IF posi%=5 AND ac=1 THEN PRINT"Alright! It is in p
osition.":PRINT:sc=sc+10:GOSUB 4290:RETURN
2180 PRINT"You Can't!":PRINT:RETURN
2190 RETURN
2200 IF posi%=30 AND ae=1 THEN PRINT"O.K! Is is now wid
e enough to go through":loca$(30)="by an opening in a r
ock face. It is wideenough to go through.":PRINT:loca%(
posi%,1)=31:sc=sc+20:RETURN
2210 IF posi%=30 AND ae<>1 THEN PRINT"You don't have th
e right tool for it.":PRINT:RETURN
2220 PRINT"You Can't!":PRINT:RETURN
2230 RETURN
2240 IF posi%=33 AND af=1 AND bi<>1 THEN PRINT"Good! Yo
u are free":PRINT:loca%(posi%,1)=34:loca%(posi%,2)=32:a
ak=0:loca$(33)="on a pathway. You can see a dead vine."
:bi=1:sc=sc+20:RETURN
2250 PRINT"You Can't!":PRINT:RETURN
2260 RETURN
2270 IF posi%=34 AND bj=1 THEN PRINT"O.K!":PRINT:ag=3 E
LSE GOTO 2310
2280 GOSUB 1390:FOR x=1 TO 6:IF inv$(x)=obj$(7) THEN in
v$(x)=""
2290 NEXT
2300 obj%(get%(9))=posi%:RETURN
2310 IF bk=1 AND ag=1 THEN PRINT"No point just yet.":PR
INT:RETURN
2320 IF bk=1 AND ag=0 THEN PRINT"You Can't!":PRINT:RETU
RN
2330 RETURN
2340 IF posi%=26 AND ai=1 THEN PRINT"It is dead!":aj=0:
loca%(posi%,4)=25:loca$(26)="in a dark forest. You can
see a dead    lizard.":bf=1:PRINT:RETURN
2350 IF posi%=33 AND ai=1 AND bi<>1 THEN PRINT"It has n
o effect.":aak=aak+1:PRINT:IF aak=3 THEN aak=0:GOTO 342
0 ELSE RETURN
2360 IF posi%=80 AND ai=1 THEN PRINT"It is dead!":PRINT
:ap=0:loca$(80)="outside crumbling buildings. You can s
eea dead alien":loca%(posi%,2)=81:bh=1:sc=sc+10:RETURN
2370 IF posi%=50 AND ai=1 THEN PRINT"It is dead!":aq=0:
loca%(posi%,4)=49:PRINT:loca$(50)="beside a large tree.
 You can see a dead serpent on the ground.":bg=1:sc=sc+
10:RETURN
2380 IF ai<>1 AND (posi%=26 OR posi%=33 OR posi%=50 OR
posi%=80) THEN PRINT"You don't have your laser gun!":PR
INT:aak=aak+1:IF aak=3 THEN aak=0:GOTO 3420 ELSE RETURN
2390 IF ai<>1 THEN PRINT"You don't have your laser gun!
":PRINT:RETURN ELSE PRINT"You Can't!":PRINT:RETURN
2400 RETURN
2410 IF posi%=26 AND ai=1 AND bf<>1 THEN PRINT"You shoo
t at it and miss.":PRINT:aj=aj+1:PRINT:IF aj=3 THEN aj=
0:GOTO 3420 ELSE RETURN
2420 IF posi%=33 AND ai=1 AND bi<>1 THEN PRINT"It has n
o apparent effect.":PRINT:aak=aak+1:IF aak=3 THEN aak=0
:GOTO 3420 ELSE RETURN
2430 IF posi%=80 AND ai=1 AND bh<>1 THEN PRINT"You shoo
t at the alien and miss.":PRINT:ap=ap+1:IF ap=3 THEN ap
=0:GOTO 3420 ELSE RETURN
2440 IF posi%=50 AND ai=1 AND bg<>1 THEN PRINT"You shoo
t at it and miss.":PRINT:aq=aq+1:IF aq=3 THEN aq=0:GOTO
```

```
 3420 ELSE RETURN
2450 IF ai<>1 AND (posi%=26 OR posi%=33 OR posi%=50 OR
posi%=80) THEN PRINT"You don't have your laser gun!":PR
INT:aak=aak+1:IF aak=3 THEN aak=0:GOTO 3420 ELSE RETURN
2460 IF ai<>1 THEN PRINT"You don't have your laser gun!
":PRINT:RETURN
2470 PRINT"You Can't!":PRINT:RETURN
2480 RETURN
2490 IF posi%=21 AND am=1 THEN PRINT"O.K! It is full.":
bp=1:PRINT CHR$(7):sc=sc+10:FOR x=1 TO 6:IF inv$(x)=obj
$(18) THEN inv$(x)=obj$(18)+" (full)"
2500 IF posi%=21 AND bp=1 THEN NEXT:obj$(18)=obj$(18)+"
 (full)":PRINT:RETURN
2510 IF posi%=1 AND ak=1 AND bo=1 AND bd=2 THEN PRINT"O
.K! The tanks are full.":be=1:bo=0:PRINT CHR$(7):sc=sc+
20:IF bm=1 THEN bm=0:FOR x=1 TO 6:IF inv$(x)=obj$(17) T
HEN inv$(x)="fuel container"
2520 IF posi%=1 AND ak=1 AND bd=2 THEN NEXT:obj$(17)="f
uel container":PRINT:RETURN
2530 IF posi%=1 AND bd<>2 THEN PRINT"You need to repair
 the tanks first":PRINT:RETURN
2540 IF posi%=121 AND ak=1 THEN PRINT"O.K! It is full."
:bo=1:PRINT CHR$(7):sc=sc+20:bm=1:FOR x=1 TO 6:IF inv$(
x)=obj$(17) THEN inv$(x)=obj$(17)+" (full)"
2550 IF posi%=121 AND bo=1 THEN NEXT:obj$(17)=obj$(17)+
" (full)":PRINT:RETURN
2560 IF posi%=21 AND am=0 THEN PRINT"You Can't!":PRINT:
RETURN
2570 IF posi%=121 AND ak=0 THEN PRINT"You Can't!":PRINT
:RETURN
2580 IF posi%=1 AND bo<>1 THEN PRINT"You Can't!":PRINT:
RETURN
2590 PRINT"You Can't!":PRINT:RETURN
2600 RETURN
2610 IF posi%=27 THEN PRINT"You plunge headlong to your
 death.":PRINT:GOTO 3420
2620 IF posi%=34 THEN PRINT"O.K! But it was deeper than
 you thought.":PRINT:GOTO 3420
2630 PRINT"You Can't!":PRINT:RETURN
2640 RETURN
2650 GOSUB 1390
2660 IF r<>27 THEN RETURN ELSE IF r=27 AND an=1 THEN PR
INT"O.K! You are wearing it.":sc=sc+20:PRINT:an=2:FOR x
=1 TO 6:IF inv$(x)=obj$(19) THEN inv$(x)=obj$(19)+" (wo
rn)"
2670 IF r=27 AND an=2 THEN NEXT:RETURN
2680 RETURN
2690 IF ar<>1 AND as=1 AND at=1 AND au=1 THEN PRINT"You
 are missing a hammer":PRINT:RETURN
2700 IF ar<>1 OR as<>1 OR at<>1 OR au<>1 THEN PRINT"You
 don't have all the objects for it.":PRINT:RETURN
2710 IF ar=1 AND as=1 AND at=1 AND au=1 THEN obj%(42)=p
osi%:PRINT"O.K! You now have a raft.":PRINT:sc=sc+30
2720 FOR x=1 TO 6:IF inv$(x)=obj$(20) THEN inv$(x)=""
2730 IF as=1 THEN NEXT:as=0
2740 FOR x=1 TO 6:IF inv$(x)=obj$(25) THEN inv$(x)=""
2750 IF at=1 THEN NEXT:at=0
2760 FOR x=1 TO 6:IF inv$(x)=obj$(26) THEN inv$(x)=""
2770 IF au=1 THEN NEXT:au=0:RETURN
2780 PRINT"You Can't!":PRINT:RETURN
2790 RETURN
2800 IF posi%=53 AND av=1 THEN PRINT"You sail to the ot
her side.":PRINT:posi%=54:RETURN ELSE IF posi%=54 AND a
v=1 THEN PRINT"You sail to the other side.":PRINT:posi%
=53:RETURN
2810 PRINT"You Can't!":PRINT:RETURN
2820 RETURN
2830 IF posi%=110 AND RIGHT$(z$,11)=CHR$(114)+CHR$(111)
+CHR$(99)+CHR$(107)+CHR$(101)+CHR$(116)+CHR$(32)+CHR$(1
02)+CHR$(117)+CHR$(101)+CHR$(108) THEN PRINT"It is corr
ect! The door slides open.":bb=1:PRINT:loca%(posi%,3)=1
11
2840 IF posi%=110 AND bb<>1 THEN PRINT"Thats the wrong
password!":PRINT:RETURN
2850 IF posi%=90 AND ba=1 AND RIGHT$(z$,9)=CHR$(104)+CH
R$(111)+CHR$(108)+CHR$(111)+CHR$(99)+CHR$(97)+CHR$(117)
+CHR$(115)+CHR$(116) THEN PRINT"It is the correct passw
ord!":bl=1
2860 IF posi%=90 AND ba=1 AND bl=1 THEN PRINT:PRINT"It
prints a message....ROCKET FUEL.":ba=2:PRINT
2870 IF posi%=90 AND bl<>1 THEN PRINT"Thats the wrong p
assword!":PRINT:RETURN
2880 RETURN
2890 IF posi%=117 THEN PRINT"O.K! It is open.":PRINT:lo
ca%(posi%,2)=118:sc=sc+10:RETURN
2900 PRINT"You Can't!":PRINT:RETURN
2910 RETURN
2920 IF RIGHT$(z$,4)=" all" THEN FOR i=1 TO 6:FOR z=1 T
O 44:IF inv$(i)="" THEN 2930 ELSE IF inv$(i)=obj$(z) TH
EN GOSUB 3970:all=1:PEN 1:PRINT inv$(i);" - ";:PEN 2:GO
SUB 2950
2930 IF RIGHT$(z$,4)=" all" THEN NEXT:NEXT:PRINT:RETURN
2940 GOSUB 1390
2950 IF r=4 OR r=18 OR r=29 OR r=44 OR r=53 OR r=55 THE
N PRINT"It fits a lock somewhere.":GOTO 3070
2960 IF posi%=18 THEN PRINT"It may be possible to move
them.":GOTO 3070 ELSE IF (r=15 OR r=16) THEN PRINT"They
 sparkle in different colours.":GOTO 3070 ELSE IF r=12
THEN PRINT"It is quite sharp!":GOTO 3070
2970 IF r=19 THEN PRINT"It is empty.":GOTO 3070 ELSE IF
 (r=23 OR r=24) THEN PRINT"It is a high energy blaster"
:GOTO 3070 ELSE IF r=27 THEN PRINT"It is a protective h
elmet.":GOTO 3070
2980 IF r=28 THEN PRINT"They are made of wood and empty
.":GOTO 3070 ELSE IF (r=30 OR r=31) THEN PRINT"It is a
broad sword but quite rusty.":GOTO 3070
```

Just think, there's only one month to go and you'll have a brand new exciting adventure to play! So take a rest and ponder the meaning of life. Barrie will be back with part three next month.

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 3pm.
Mail: P.O. Box 77, Brunswick Jn, WA 6224.

AMSWEST (Perth)
President: Thelma Ardron (09 361 8975)
Vice Pres: John Firth (09 364 1360)
Secretary: Neil Miller (09 272 3994)
Asst. Sec.: David Ammon (09 448 5378)
Treasurer: Darryl Dunlop (09 448 6440)
Venue: 293 Bagot Road, Subiaco 6008 on the first and third Tuesdays of each month at 7.30.
Mail: 6 Weston St., Carlisle. WA. 6101.

VIC CHIPS USER GROUP
(Amalgamated with Rockingham Quingana Group)
President: Des Nichols
Secretary: Val Hoeksemo (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 Haffner Crt, Maddington, WA 6109.

AMSTRAD COMPUTER CLUB TOM PRICE
President: Colin Smith (091 89 2074)
Secretary: John Eliot (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)
Venue: 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.

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

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 the1st Sunday of each month from 1.00pm.
Mail: PO Box 583, Croydon, 3136.

GEELONG AMSTRAD USER CLUB
President: Arthur Pounsett (052 78 2160)
Vice-Pres: Diethard Kuhlmann (052 81 9200)
Secretary: Mick Stone (052 91 505)
Venue: South Barwon Community Services Ctr, 33 Mount Pleasant Rd, Belmont on the first Wed. of each month, from 7.30p.m
Mail: 346 Autumn St., West Geelong, 3218.

GOULBURN VALLEY AMSTRAD USERS CLUB
President: Roger Tacey (058 23 1449)
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
Mail: P.O. Box 1713, Shepparton 3630.

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 Urmston (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.

CENTRAL COAST AMSTRAD USERS CLUB
President: Lloyd Mitchell (043 88 2950)
Secretary: Douglas Green (043 42 2568)
Treasurer: Nick Winter (043 84 6766)
Venue: Minjarra Recreation Club, Adelaide St, Tumbi Umbi every 2nd and 4th Monday at 7.30 p.m. sharp. Also every 3rd Thurs. at 'Meals on Wheels', Woy Woy.
Mail: C/o 1/254 Railway St., Woy Woy, 2256.

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 Gremania Club, Berkeley at 2.00 pm. evey 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 Philip (066 77 1440)
Secretary: Laura Goode (066 72 2499)
Treasurer: Lorraine Montgomery (066 72 1823)
Venue: Murwillumbah High Sch. on the 2nd

user group lately?

NATIONWIDE USER GROUPS

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.

PCW AUSTRALIA GROUP
Secretary: Clyde Gittins (02 579 3984)
Treasurer: Geoff Bolton (02 745 2230)
Venue: Burwood RSL Club, 96 Shaftesbury 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 Incoll (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.
Mail: 10 Carramar St, Loganlea, 4204.

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 Nev 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.

BUNDABERG AMSTRAD USER'S GROUP
President: Ray Babbidge (071 72 1223)
Secretary: Clive Barrett (071 71 3668)
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.

CAPRICORN AMSTRAD USERS GROUP
Pres/Sec: Anthony Trost (079 33 1951)
Treasurer: Dorothy Jasperson
Venue: Block 2, Waraburra State School, Johnson Road, Gracemere on the first Friday of each month at 7.00 pm.
Mail: 4 Sunrise Crescent, Gracemere, 4702.

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

GOLD COAST AMSTRAD USER GROUP
President: Stephen Greenwood (075 572 442)
Treasurer: Pamela Scott (075 323 334)
Secretary: Ray Maclaren (075 398 743)
Venue: Benowa State High School, Mediterranean Drive, Benowa on the first Saturday of each month at 2.00 pm.
Mail: 7 Coral Gables Key, Broadbeach Waters. QLD 4218.

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

MACKAY AMSTRAD USER GROUP
Contact: Des Mulrealiey (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 third 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 Gschidle (076 34 1692)
Librarian: Shane Gschidle (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: Alister 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 Burtt (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.
Mail: 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.
Mail: C/o 50 Rapaki Road, St. Martins, Christchurch. 2 NZ.

AMSTRAD USERS GROUP
Contact: John Court H (666 143)
Venue: Oranga Scout Hall, Fergusson 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

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

OVER 100 NEW PROGRAMS for Amstrad CPC's. Schoolwork, games, etc. High quality programs at low prices! Write now for free list to:-
Educator Discs, Waitakere, Auckland, NEW ZEALAND

WANTED

CPC6128 2nd Disc Drive, spare plug to suit 34 pin. Ring Colin (02) 398 3659 (2pm - 10pm Mon. - Fri.)

SERVICES

FABRIC RIBBONS re-inked. DMP, LX86, LC10 - $4; PCW - $5; LINE from $6.50; Multi-colour $4 per track (min 2 tracks). WE PAY surface post both ways. Windsor Software, FREEPOST 47, BOX 408, Lutwyche, QLD 4030. Ph (07) 356 1759

Personalised Stationery - an ideal gift for any occasion. 100 sheets of high quality paper with address and phone number printed plus 50 matching envelopes. Ring (03) 233 9661 for details.

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
APR'90	12/02/90	23/02/90
MAY'90	12/03/90	23/03/90
JUN'90	17/04/90	27/04/90

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.

USER GROUPS

W.A. PC Owners are invited to join the expanded "Southside Amstrad Users' Club" which caters for all PC and Amstrad CPC users. See "User Groups" for details. Mail members welcome.

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

Please place the following advertisement in the next available issue of The Amstrad User
I enclose payment of $7.50 by Cheque/MO/Bankcard/Visa/Mastercard (cheques payable to The Amstrad User).
Credit Card Number .....
Credit Card Expiry date .....
Name .....
Address .....
.....
Telephone .....

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

CPC & PCW PUBLIC DOMAIN SOFTWARE

The following discs contain compilations of public domain programs put together by the Advantage Computer User Group (in England) and which have been tested under CP/M Plus.
Unless otherwise stated, programs will run on the PCW, 6128 and 464/664 with extra memory and CP/M Plus. Programs for the 464/664 are on the CP/M 2.2 Collection. The discs are supplied in Data format and contain documentation files to help the user get started and provide instructions on running the programs plus useful sorted directory and MENU systems.

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

CP/M 2.2 COLLECTION

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

CPC Ref: #430

FULL SCREEN TEXT EDITOR

This machine code editor offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap and formatting, pagination, find/replace, undelete and many user options.
The editor, which is less than 10k in size, is fast because it edits a file entirely in memory. It produces ASCII text files and has enough features to be used as a word processor. A comprehensive on-disc manual is included together with keyboard configuration files for the CPC and PCW.

CPC Ref: #601 PCW Ref: #801

DATABASE

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

CPC Ref: #602 PCW Ref: #802

COMMUNICATIONS

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

CPC Ref: #603 PCW Ref: #803

VIDEO CLERK

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

CPC Ref: #604 PCW Ref: #804

FIXED ASSETS LOG

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

CPC Ref: #605 PCW Ref: #805

COMPLETE UTILITIES

• *Newsweep* - one key erase, copy, rename and print, plus many other features. Ideal for sorting out your disc collection quickly and efficiently • *Superzap* - disc sector editor - edit by track/sector or filename. Fully menu-driven with cursor key SETKEYS file • *DisckitA* - multi-choice disc formatter, offers 178k data format for PCW discs and 5.25" second drive formatting • *Unerase* erased files • *Read/write* PCW discs on a CPC • *CP/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

PCW GRAPHICS (PCW only)

Simple user-designed graphics drawing program. Enables you to create, save, edit and print pictures on your PCW. Plot lines, points, boxes, four fill patterns, easy to use and wholly interactive • *PCW Screen Font designer* with several ready-to-run font sets • *Biomorph* - fascinating, graphic demonstration of natural selection - develop your own bugs! • *Readme* - program to display any ASCII text file in 45 character format on the 90 character screen - makes it easier to read.

PCW Ref: #815

How to order your discs

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

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

Send Your Order to:

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

THE AMSTRAD USER

Comprehensive catalogue of Entertainment and Business Software, Books, Add-ons and Consumables for Amstrad computers.

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) 233 9661.

The Amstrad User,
641 High Street Road,
Mount Waverley, Victoria 3149

MAIL ORDER: (03) 233 9661 - SHOP: (03) 233 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.

Amstrad CPC Range
464, 664 and 6128
(unless otherwise stated)

CPC GAMES

	Discs	Tapes
3-D Pool	49.95	39.95
4x4 Off-Road Racing	-	-
500cc Grand Prix	-	24.95
1942	24.95	19.95
1943	-	-
Academy (Tau Ceti 2)	49.95	-
Acrojet	49.95	39.95
Adventure 4-Pack	32.95	27.95
After Burner	44.95	29.95
All Points Bulletin	**39.95**	**29.95**
Altered Beast	**39.95**	**29.95**
Andy Capp	-	29.99
Artura	44.95	29.95
ATF	44.95	29.95
Bad Cat	-	29.95
Bactron	-	9.95
Bard's Tale, The	39.95	29.95
Basil, the Great Mouse Detective	-	29.95
Batman - The Movie	**39.95**	**29.95**
Beach Volley (volley ball)	39.95	29.95
Bedlam	-	29.95
Beyond the Ice Palace	-	34.95
Bionic Commando	-	29.95
Blasteroids	39.95	29.95
Bomber	44.95	29.95
By fair means or foul	44.95	29.95
Cabal	39.95	29.95
Captain Blood	49.95	39.95
Charlie Chaplin	44.95	29.95
Chase HQ	44.95	29.95
Chicago 30's	39.95	29.95
Chubby Gristle	44.95	29.95
Chuck Yeager's Adv. Flt .Trainer	54.95	45.95
Classic Quest Adventures:		
Goblin Towers (mod.)	49.95	-
Forestland (hard)	49.95	-
Witch Hunt (very hard)	49.95	-
Cluedo	39.95	29.00
Crazy Cars 2	49.95	34.95
Cybernoid	44.95	-
Dark Fusion	44.95	29.95
Darkside	44.95	29.95
Deep, The	39.95	29.95
Desolator	44.95	29.95
Dominator	39.95	29.95
Double Dragon (6128's only)	49.95	-
Dragon Ninja	44.95	29.95
Dr Doom's Revenge	39.95	29.95
Driller	44.95	29.95
Dynamic Duo	39.95	29.95
Echelon	-	29.95
Eddie Edward's Super Ski	39.95	29.95
Elimination	**39.95**	**29.95**
Emlyn Hughes International Soccer	**34.95**	**29.95**
Empire Strikes Back	49.95	34.95
F-15 Strike Eagle	49.95	39.95
Fighting Soccer	39.95	29.95
Flippit	29.95	24.95
Forgotten World	39.95	29.95
Fury, The	34.95	34.95
Galactic Conqueror	49.95	39.95
Galaxy Force	44.95	29.95
Game Over 2	39.95	29.95
Games, The - Winter edition	35.95	29.95
Garfield	**29.95**	**-**
Gauntlet II	-	-
Gemini Wing	49.95	34.95
Ghostbusters II	44.95	29.95
Ghouls and Ghosts	39.95	29.95
Gnome Ranger	44.95	29.95
Gm. Gooch's Cricket	29.95	-
Guerilla Wars	44.95	29.95
GunShip	59.95	49.95
H.A.T.E.	-	29.95
High Steel	39.95	-
Hopping Mad	34.95	34.95
Hot Shot	37.95	29.95
Human Killing Machine	39.95	29.95
Hunt for Red October	-	39.99
Impact	49.95	-
Impossible Mission II	39.95	29.95
Incredible Shrinking Sphere	44.95	29.95
Ingrid's Back	49.95	34.95
Iron Lord	49.95	39.95
Jaws	39.95	-
Lancelot	49.95	39.95
Last Duel	-	29.95
Last Ninja 2	44.95	29.95
LED Storm	44.95	29.95
Licence to Kill	**39.95**	**29.95**
Live and Let Die	39.95	29.95
Living Daylights	49.95	32.95
Mad Mix - Pepsi Challenge	44.95	29.95
Mach 3	32.95	-
Major Motion	44.95	29.95
Mercenary Compend. (2 games)	29.95	19.95
Mega Apocalypse	34.95	34.95
Monopoly	39.75	29.00
Moon Walker (Michael Jackson film)	39.95	29.95
Motor Massacre	44.95	29.95
Mr Heli	39.95	29.95
Navy Moves	29.95	19.95
Nebulus	**39.95**	**29.95**
New Zealand Story	39.95	29.95
Nigel Mansell's Grand Prix	49.95	35.95
Night Raider	44.95	29.95
Not a penny more...	49.95	-
Operation Thunderbolt	44.95	29.95
Operation Wolf	-	-
Outrun	-	29.95
Overlander	39.95	29.95
Pacmania	44.95	29.95
Panic Stations	39.95	29.95
Pegasus Bridge	34.95	29.95
PHM Pegasus	34.95	34.95
Pictionary	**39.95**	**29.95**
Powerdrift	39.95	29.95
Professional 4 Soccer Simulator	34.95	24.95
Pro Tennis 3-D	24.95	-
Psycho Pigs	44.95	29.95
Purple Saturn Day (Capt. Blood II)	-	-

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

Raffles	39.95	26.95
Rambo III	44.95	29.95
Real Ghostbusters	-	-
Red Heat	-	-
Renegage 3	39.95	29.95
Return of the Jedi	-	29.95
Robocop	44.95	29.95
Rodeo Games	39.95	-
Rolling Thunder	-	29.95
R-Type	44.95	29.95
Running Man	39.95	29.95
Run the Gauntlet	39.95	29.95
Sapiens	39.95	29.95
Savage	39.95	29.95
Scalextric	-	29.00
Scrabble (standard)	39.75	29.00
SDI	39.95	29.95
Shinobi	49.95	34.95
Silk Worm	49.95	-
Skweek	49.95	-
Slaine	35.95	-
Skate Crazy	-	29.95
Sorcerer Lord	44.95	29.95
Space Racer (Space jet bikes)	32.95	-
Star Wars	49.95	35.95
Storm Lord	36.95	-
Street Fighter	44.95	29.95
Strider	39.95	29.95
Super Scramble	39.95	29.95
Super Trux	**39.95**	**29.95**
Technocop	44.95	29.95
Terramex	34.99	29.99
Tetris	34.99	-
Thunder Blade	44.95	29.95
Thunderbirds	39.95	29.95
Time Scanner	-	29.95
Times of Lore	**39.95**	**29.95**
Tiger Road	-	29.95
Titan	39.95	29.95
Total Eclipse	44.95	29.95
Trivial Pursuit		
Young Players edition	-	22.95
Baby Boomer edition	27.95	22.95
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
Typhoon	44.95	29.95
Untouchables, The	39.95	29.95
Vigilante	39.95	29.95
Vindicator, The	-	29.95
Vindicators	**39.95**	**-**
Vixen, The	34.95	-
Wanderer 3-D	39.95	29.95
War in Middle Earth	**-**	**49.95**
WEC Le Mans	44.95	29.95
Wizard Warz	44.95	29.95
World Class Leaderboard	44.95	-
Xenaphobe	**49.95**	**-**
Xybots	34.95	24.95
Yes Prime Minister	49.95	39.95

CPC BLOCKBUSTER BUDGETS

Advanced Pinball Simulator	-	11.95
Battle Valley	**-**	**12.95**
BMX Simulator	-	9.95
Core	-	12.95
Dizzy Dice/Joe Blade	22.00	-
Fruit Machine Simulator	-	9.95
Grand Prix Simulator	-	9.95
Hydrofool	**-**	**12.95**
Jet Bike Simulator	-	21.95
Light Force	**-**	**12.95**
Metal Army	-	-

CPC - continued

Ocean Conqueror	**-**	**12.95**
Professional BMX Simulator	-	21.95
Professional Ski Simulator	-	9.95
Shockway Rider	**-**	**12.95**
Super Stuntman	-	9.95
Tanium	-	12.95
Technician Ted	**-**	**12.95**
Uridium	**-**	**12.95**

CPC COMPILATION PACKS

ARCADE MUSCLE
with Bionic Commandos, Street Fighter, 1943, Side Arms and Road Blasters - 39.95

CLASSIC GAMES FOUR
with 3-D Chess, Bridge Player, Draughts/Checkers and Backgammon 49.95 39.95

CLASSIX 1
with Bobby Bearing, Brian Bloodaxe and Palitron (plus 2 free games demos) 29.95 -

ELITE COLLECTION
with Bomb Jack I and II, Frank Bruno's Boxing, Commando, Airwolf, Paperboy, Ghost 'n' Goblins, Battleships - 39.95

ELITE SIX-PACK - VOL 3
with The Living Daylights, Ghost 'n' Goblins, Paper Boy, Dragon's Lair, Escape from Singes Castle (on tape only) and Enduro Racer - 34.95

FISTS 'N' THROTTLES
with Thundercats, Ikari Warriors, Dragon's Lair, Enduro Racer and Buggy Boy - -

FOUR SMASH HEWSON HITS
with Zynaps, Exolon, Ranarama and Uridium Plus 39.95 29.95

FLIGHT ACE
with Air Traffic Control, ACE, Spitfire 40, Strike-force Harrier, Tomahawk, ATF 49.95 39.95

GAME, SET AND MATCH II
with Super Hang-on, Basket Master, Ian Botham's Test Match, Championship Sprint, Steve Davies Snooker, Match Day II, Nick Faldo's Open and Track & Field events 49.95 39.95

GOLD SILVER BRONZE
Three tapes containing Summer Games 1 and 2 and Winter Games - -

HOUSE MIX, THE
with Night Raider, Dark Fusion, TechnoCop, Skate Crazy, Motor Massacre and Artura 49.95 39.95

IN CROWD
with Karnov, Gryzor, Barbarian, Platoon, Combat School, Crazy Cars, Target Renegade & Predator - 39.95

LEADERBOARD PAR 3
with Leaderboard, Leaderboard Tournament, and World Class Leaderboard 52.95 42.95

SPECIAL ACTION
with 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**

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

STORY SO FAR Vol 2
Space Harrier, Live 'n let die, Hopping Mad, Overlander and Beyond the Ice Palace 39.95 34.95

STORY SO FAR Vol 4
Ghost Busters 1, Aliens, Wonder Boy, Eidelon (not on disc), Back to theFuture and Quartet 39.95 34.95

STRAIGHT SIX
Loriciel's compilation with 3D Fight, Billy, Soccer, MGT, Flash and ZOX2099 29.95 19.95

SUPREME CHALLENGE
compilation with Elite, Sentinel, Tetris, ACE II and Starglider - -

THRILLTIME PLATINUM 1
with Ikari Warriors, Thundercats, Buggy Boy, Beyond the Ice Palace, Hopping Mad, Overlander, Live and Let Die, Space Harrier, Great Gurianos & Dragon's Lair 49.95 39.95

TAU GAMES + *(6128s only)*
Dominoes, Snakes and Ladders, Mah-Jong, 3-D Noughts & Crosses, Trucking, Tycoon plus Graphic Designer and Sprite Designer 32.95 -

TIME AND MAGIK TRILOGY (disc for 128k only)
Lords of Time, Red Moon and Price of Magik 49.95 39.95

WINNERS
with Blasteroids, Thunderblade, Indiana Jones & the Temple of Doom, LED Storm & Impossible Mission 2 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	-
Separate tapes for each issue's type-ins are also available : 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 89.00 -

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. 79.95 -

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 telephone 59.00 -

CPC - continued

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 CP/M Plus only) 59.95 -

PRINT MASTER ART GALLERY 1 - 140 pictures including holidays, animals, sports office etc. 50.95 -

PRINT MASTER ART GALLERY 2 - 140 pictures including ornamental letters, flags, people 50.95 -

PROTEXT - high speed w/p 89.95 -

PROTEXT FILER - pop-up database module for Protext. (Requires Promerge & Protext) 69.95 -

PROTEXT OFFICE - pop-up add-ons for Protext including mailmerge and invoice generator. (Needs Promerge & Protext) 99.95 -

PROSPELL - spell checker 79.95 -

PROMERGE - mail merger 79.95 -

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)	**159.00**
With AMX Mkill Mouse	**289.00**
Extra Extra clip art	**89.00**
Mouse only	**150.00**

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

From Satchel Software (Education Dept. of SA) for 6128s		
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	-

CPC - continued

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	-
Women's Series Databases:		
Australian Women	40.00	-
Women in Society	40.00	-
Women in Science	40.00	-
Women in Sport	40.00	-
All the above four	90.00	-
Word Hunt	40.00	-
Word Hunt Companions		
Volume 1	40.00	-
Volume 2	40.00	-
Volume 3	40.00	-
Word Processing Pack	40.00	-
World Wide	40.00	-

From LCL SOFTWARE		
Micro Maths (Grades 9-11)	59.95	49.95
Mega Maths (Grades 9-11)	59.95	49.95
Micro English (Grades 9-11)	59.95	49.95
Primary Maths (Ages 7-11)	79.95	49.95

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

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: *A Fun School 2 series of three discs or tapes each containing 8 educational programs (Rev'd Jul 89).*

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 -

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

CPC PERIPHERALS

AMX MOUSE Mk III - with superior ball technology and high resolution movement this updated mouse from Database gives total control and flexibility, and compatibility with Stop Press. Comes with an interface for CPC owners 150.00

CPC CENTRONIX PRINTER CABLE (PL/1)
Suitable for linking a CPC to most printer with a 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

COMPUTER/TV MODULATOR CONVERTER - an Amstrad unit (MP3) allowing a CPC colour monitor(CTM644 only) to be used as a colour television - all you need to connect is a TV aerial to watch your favourite stations.
***SPECIAL CHRISTMAS PRICE (while stock lasts)* $49.95**
*(Please add **$10.00** for certified post & packing)*

MOUSE MATS - keeps Mouse clean 19.95

RS232 SERIAL INTERFACE- for CPC464, 664 or 6128 229.50

MEGADEATH 1 - a unit which attaches between your CPC and joystick to provide rapid or autofire feature. 19.95

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. **Temp. O/S**

256k MEMORY EXPANSION (464/664)
Converts the 464 into a 6128 (except for ROMs) and gives a tot memory of 320k. Is 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

CPC UTILITIES

Model Universe - 3D rotating drawing	54.95	-
Rampak - nearly 50 m/code subroutines	44.95	-
System X - 40 new Basic commands	-	19.95

JOYSTICKS

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

CPC - continued

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, non-slip rubber pads 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. Also has rubber pads on base for flat surface use 29.95

NEW KONIX NAVIGATOR - hand-held joystick with micro-switch precision control, steel shaft. 39.95

CPC MISCELLANEOUS

SCREEN FILTER 29.95

DUST COVERS - Australian made vinyl fabric dust covers in light grey colour for:

464 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

Amstrad PCW Range 8256, 8512 and 9512

(unless otherwise stated)

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

PCW GAMES

Academy (Tau Ceti II) §	65.95
ACE COMPILATION: with ACE (Air Combat Emulator, Sky War, Formula 1 & Strip Poker	**39.95**
Armageddon Man	57.95
Catch 23	57.95
Classic Invaders (Space Invaders style)	29.95
Classic Quest Adventures:	
Forestland (hard)	49.95
Witch Hunt (very hard)	49.95
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
Distractions: *3 graphics games compilation: On the Run, 2112 AD and Nexor* §	o/s
Double T Patience - *compilation of six frustrating games including Kuala Lumpur, Poker Patience and Fourways*	64.95
Graham Gooch Cricket *(Ltd.Overs & Test Match featuring full animation of bowler, batsman and fielders)*	49.95
Guild of Thieves	69.95
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	59.95
Living Daylights	o/s
Mindfighter	65.95

PCW - continued

Pawn, The	69.95
Return to Doom *(Topologika adventure)*	54.95
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	**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)	39.95
Better Spelling (12-16 yrs)	39.95
Biology (12-16 yrs)	39.95
Chemistry (12-16 yrs)	39.95
Giant Killer - maths adventure 10 to adult	54.95
Magic Maths (4-8 yrs)	39.95
Maths Mania (8-12 yrs)	39.95

PCW PUBLISHING

Desk Top Publisher	59.00
Newsdesk International	89.00

STOP PRESS

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

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

PCW DATABASES

Cardbox Plus	99.00
Condor One	149.00
Masterfile 8000	119.00
TAIT Database and Labeller	49.95

PCW MISCELLANEOUS

BRAINSTORM - tool for structuring raw ideas ina logical manner 79.00

DAATAFAX PERSONAL ORGANISER a Gift Pack by Kempston - with software, stylish binder, subject tabs, and starter stationery 149.00

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...

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

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

PLAN-IT - desktop organiser, plan budgets, sort files etc. 39.95

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 module for Protext 69.95

PROTEXT OFFICE - as Protext Filer but with mail-merge and invoice generator module 99.95

PROTEXT PCW 179.99

PROSPELL PCW - spellchecker for most word processors incl. WordStar and LocoScript 89.95

SCRATCHPAD PLUS spreadsheet 99.00

STARTRACK - tracks you through 88 constellations and more than 600 stars 54.95

STOCKMARKET - watch your investments 79.95

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 129.00

TEMPDISC - a disc full of instant templates exploiting LocoScript to the full. Provides a wide range of heading styles, agendas, invoices, borders and documents:

Tempdisc 1 (needs Loco1)	59.95
Tempdisc 2 (needs Loco2)	59.95
Tempdisc 8.2 (needs Loco2, Locomail and 8512)	67.95
Tempdisc 9 (for 9512)	67.95

T/MAKER - Relational database, Spreadsheet,Word Processor, Spell Checker, Graphics, List processor- for 8512s and 9512s only 149.00

TOUCH 'n' GO - typing tutor 69.00

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

MM3 MARGIN MAKER - Single sheet locator and aligner for PCW 8000 printers 34.95

PCW JOYSTICK INTERFACE from Kempston 49.95

SCANNER - Master Pack - a scanning device which attaches

PCW - continued

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

SCREEN FILTER 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

LOCOFILE/8000 - the resident 'pop-up' database for LocoScript2 110.00

LOCOFONT SET 1 adds nine extra fonts to your matrix printer 75.00

LOCOFONT SET 2 adds a further set of five fonts to your matrix printer 65.00

LOCOKEY to customise your keyboard 59.95

LOCOMAIL SORTING PROGRAM 39.95

LOCOMAIL2 EXAMPLES DISC 17.50

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

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

Amstrad PC Range PC1512/1640, PPC512/640, PC20 PC1000 and 2000 series

(unless otherwise stated)

Items marked with a "†" symbol are also available in 3.5" disc format. Items marked with a "#" symbol are supplied with both 5.25" and 3.5" discs.

PC & COMPATIBLES GAMES

221b Baker Street 49.95

2000 leagues under the sea 39.95

3-D Game Maker **49.95**

3-D Helicopter Simulator # 52.95

4 x 4 - Off-Road Racing † 49.95

4th and Inches (Grid Iron) 44.95

4th and Inches Construction Set 35.95

Abrams Battle Tank 54.95

ACE 2 33.50

Action Service 54.95

Adventure 12 Series: *12 adventures + hint book* **59.95**

All Point Bulletin **59.95**

Ancient Art of War # 74.95

Airball (now supports EGA and VGA) 59.95

Airborne Ranger † 59.95

African Raiders 49.95

Alf 39.95

Amazon 32.95

Annals of Rome # 64.95

Apollo 18 59.95

Auto Duel 59.95

Backgammon 24.95

Ballistix **69.95**

Bard's Tale Vol 1 # 49.95

Bar Games † 59.95

Battle Chess (needs 640k) # 69.95

Battle Hawks 1942 # 64.95

Battle Tech # 61.95

Batman o/s

Beyond Zork 59.95

Billiards 52.95

Bionic Commandos o/s

Black Cauldron # 44.95

Black Jack Academy † o/s

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

Blade Warrior 61.95

Blockbuster 48.50

Bomber 61.95

Cadaver 61.95

California Challenge (Test Drive 2 add-on) † 39.95

California Games † 49.95

California Raisins 49.95

Captain Blood † 69.95

Captain Power 29.95

Carrier Command 59.95

Caveman UGH-lympics † 64.95

Charlie Chaplin 69.95

Chase HQ 61.95

Chessmaster 2100 # 69.95

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 Arcades 2: *with Penngo, Arnold and Grand prix* 59.95

Classic Invaders 29.95

Club Casino - 4 gambling programs 19.95

Codename Iceman (Sierra) # 61.95

Computer Yahtzee # 29.95

Colonel's Bequest (Sierra) # 61.95

Concentration 49.95

Conquest of Camelot (Sierra) # 61.95

Convoy - road and transport games 19.95

Corruption 59.95

Crazy Cars 2 † 59.95

Crossbow # 59.95

Crossword Magic 69.95

Curse of the Azure Bonds # (D.&Dragons) 64.95

Cycles, The † **64.95**

Daley Thompson's Olympic Challenge 61.95

Dark Castle 49.95

Dark Side 54.95

Decision in Desert 59.95

Def Con 5 (American 'Star Wars' defence) 59.95

Demon Stalkers 54.95

Destroyer † 49.95

Doctor Doom's Revenge † 59.95

Doctor Ruth's Game of Good Sex (AO) 47.95

Don't go Alone † **64.95**

Double Dragon 61.95

Dragonworld 32.95

Dream Warrior 29.95

Driller 59.95

Earl Weaver's Baseball 47.95

Earl Weaver's Baseball Stats 34.95

Echelon 54.95

Elite 49.95

Emmannuelle (AO) 39.95

Empire - Wargame of the Century # 47.95

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

Fahrenheit 451 32.95

Family Feud 49.95

Fantasy Pak - arcade, war and mazes 19.95

Fast Break (Basketball) 59.95

Fiendish Freddie † 59.95

Final Battle, The 61.95

Fire and Forget 59.95

Fire Brigade † 49.95

Fire Power # 47.95

First Expedition † 49.95

PC - continued

Fish	69.95
Flight Simulator (MicroSoft version 3) †	95.00
Flippit	39.95
Galactic Conqueror	69.95
Games, The - Summer Edition †	49.95
Garfield Trivia Game †	39.95
Ghostbusters II	61.95
Ghouls and Ghosts	o/s
Gnome Ranger	59.95
Gold Rush †	52.95
Gone Reel Fishin' #	61.95
Grand Prix Circuit #	52.95
Grave Yardage	59.95
Greg Norman Ultimate Golf	59.95
Gunship †	69.95
Hall of Montezuma #	52.95
Hardball	49.95
Heavy Metal	52.95
Heros Quest (Sierra) #	61.95
Hitch Hiker's Guide to the Galaxy	64.95
HKM (Human Killing Machine) - CGA & VGA	59.95
Horse Racing - strategy game	69.96
Hoyles Book of Games #	52.95
Hunt for Red October	49.95
Indiana Jones and the Temple of Doom	69.95
Impossible Mission II †	o/s
Ingrid's back	59.95
Inside Trader	59.95
International Team Sports - *five Olympic events - coach and select the team then play the Games*	59.95
Inter Phase	59.95
Into the Eagle's Nest	48.50
Jack Nicklaus Golf	59.95
Jack Nicklaus Courses Vol 1	39.95
Jaws (from the movie)	59.95
Jeopardy	49.95
Jet Fighter	**69.95**
Joan of Arc	52.95
Journey (adventure) #	89.95
Kampfgruppe	69.95
Kings Quest 1 #	49.95
Kings Quest 2 #	49.95
Kings Quest 3 #	49.95
Kings Quest 4 (9x5.25" and 4x3.5") #	79.95
Knight Force †	69.95
Kong Quest - four arcade classics	19.95
Kult	59.95
LA Crackdown †	39.95
Lancelot	59.95
Laptop Computer Chess 3.5" only	52.95
Leisure Suit Larry (AO) #	59.95
Leisure Suit Larry II (AO) #	59.95
Leisure Suit Larry III (AO) #	61.95
Licence to Kill #	**59.95**
Lombard R.A.C Rally	59.95
Man Hunter - New York #	64.95
Man Hunter 2 - San Francisco#	61.95
Maniac Mansion # (adv)	59.95
Maze Adventures - four on one disc	19.95
Mean 18 Famous Courses 3/4	29.95
Mean Streets: ***adv. + arcade segments, supports VGA with 256 colours, superb graphics & digitised sound †***	**79.95**
Microprose Soccer †	59.95
Millenium 2.2 (superb in CGA)	59.95
Mind Games	18.95
Mines of Titan (space adv) #	59.95
Mini Putt	49.95
Moonwalker (Michael Jackson film)	59.95
Moto Cross #	59.95
Murder Club †	79.95
Murder in Venice	59.95
Nebulus	49.95
Never Mind	**69.95**
Night Raider	59.95
Nine Princes in Amber	32.95

PC - continued

Oil Imperium	59.95
Operation Neptune	59.95
Outrun	o/s
Pawn, The	69.95
Personal Nightmare †	69.95
Peter Rose Pennant Fever # *(not for 1512/1640)*	47.95
Perry Mason - Mandarin Murders	32.95
PHM Pegasus †	59.95
Pictionary #	**59.95**
Pinball Wizard	69.95
Pirates	59.95
Police Quest 1 #	59.95
Police Quest 2 #	59.95
Portal	47.95
Pools of Radiance (D. & Dragons) #	59.95
President Elect	69.95
President is Missing	59.95
Professional 4 Soccer Simulations	44.95
Project Space Station	49.95
Prophecy #	61.95
Psycho - the trail to the Bates Motel	49.95
PT-109	64.95
Purple Saturn Day †	o/s
Quadralien	59.95
Quest for Timebird	69.95
Rack'em (Pool, Billiards, Snooker)	54.95
Rainbow Warrior	59.95
Rambo III	69.95
Red Lightning	64.95
Rendezvous with Rama	32.95
Rick Dangerous	59.95
Road Runner	**69.95**
Robocop	59.95
Rodeo Games #	59.95
Santa Paravia - 15th century strategy	29.95
Sapiens	69.95
Savage	59.95
Scavengers #	54.95
Schultz Treasure	18.95
Scrabble de luxe	52.95
Scruples	43.95
Search for the Titanic	49.95
Serve and Volley	54.95
Sherlock	61.95
Shiloh	69.95
Shinobi	69.95
Shogun	52.95
Silent Service	59.95
Silicon Dreams	59.95
Silpheed #	52.95
Sim City	84.95
Skweek †	59.95
Sleeping Gods Lie	59.95
Snow Strike †	39.95
Slots and Cards - casino simulator	59.95
Solomon's Key	69.95
Sorceror Lord	59.95
Space Harrier	59.95
Space Max	69.95
Space Quest 1 #	59.95
Space Quest 2 #	59.95
Space Quest 3 #	52.95
Space Rogue †	59.95
Speed Ball	64.95
Sports Spectacular: golf, gridiron, archery	19.95
Spitfire Ace	59.95
Star Command	79.95

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

Star Quake (Amstrad j/stick port only)	59.95
Star Ray	59.95
Star Trek: Promethian	49.95
Star Trek 5: The final frontier †	69.95
Steel Thunder	61.95
Stellar Crusade	69.95
Star Glider	59.95
Station Fall	47.95
Stiegar	59.95
Street Sports Baseball †	39.95
Strider	**61.95**
Strike Force - airborne arcade action	19.95
Sub Battle Simulator †	49.95
Super Cars (Test Drive 2 add-on) †	39.95
Superman	69.95
Takedown (Wrestling) #	59.95
Tank	69.95
Teenage Queen (Strip Poker) AO	49.95
Technocop	49.95
Test Drive 1	59.95
Test Drive 2 #	61.95
Test Drive 2 (add-on) Muscle Cars	39.95
Tenth Frame	59.00
Terrarium	61.95
Tetris #	62.95
Thexder #	59.95
Third Courier, The †	64.95
Thud Ridge	54.95
Thunderchopper †	89.95
Time and Magik	59.95
Times of Lore	59.95
Titan	59.95
Tomahawk (helicopter sim)	49.95
Tongue of the Fat Man # (wrestling)	59.95
Total Eclipse	49.95
Turbo Outrun	o/s
Ultima Trliogy (Ultima 1,2 & 3 + Hint Books)	69.95
Ultima V	69.95
UMS (War game simulator)	59.95
Untouchables, The	o/s
USS Stinger - submarine simulator	29.95
Usurper, The	59.95
'Vette (Corvette simulator) #	69.95
Volleyball Simulator	59.95
Voyager	o/s
War in Middle Earth	57.95
Wargame Construction Kit	69.95
WEC Le Mans	69.95
Welltris # (Tetris style puzzle)	69.95
Wheel of Fortune	44.95
Where in Europe is Carmen Sandiego †	74.95
Where in Time is Carmen Sandiego †	79.95
Where in theWorld is Carmen Sandiego †	74.95
Where in USA is Carmen Sandiego †	79.95
Where time stood still	61.95
Who framed Roger Rabbit †	54.95
Wibarm - puzzle solving arcade action #	69.95
Wide World of Sports: ***a compilation of California Games, Games (Winter Ed.) and Games (Summer Ed.)***	**49.95**
Wizardry 5	79.95
Wizard's Crown	69.95
Wierd Dreams	59.95
Wordsearch 2000	18.95
World Class Leaderboard Golf value pack	64.95
World Class Leaderboard with real sound #	69.95
World Class Leaderboard Courses 1,2 and 3	99.95
World Tour Golf †	45.95
Zac McKracken & alien mindbdrs (Hi-res) #	64.95
Zork Trilogy (Zork 1, 2 and 3) #	69.95
Zork Zero #	69.95

PC HINT BOOKS

Gold Rush	13.95
Kings Quest 1	13.95

PC - continued

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
Manhunter - New York	13.95
Maniac Mansion	14.95
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 McKracken & 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*	14.99
Arcade 2: *Munchman, Bowling and Depth charge*	14.99
Arcade Bonanza: *Frog, Pac-em, Tank & Red Alert*	14.99
Board Games	14.99
Master Blaster: *Paratrooper, Round 42 & Rockets*	14.99
Mind Challenge: *Concentration, Magie, Hide-away and Mindscan*	14.99
Sink the Bismark: *Computer Battleships and Naval Trivia*	14.99
Space Battles: *Space War, Meteor Shower, Moon Lander and Space Zombies*	14.99
Space Games	14.99
Strategy Games: *Ruler, Killer Bees, Engineer, Sabotage and Vampire*	14.99

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
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
Cryptocube	59.95
Decimal Dungeon	49.95
Delta Drawing	52.95
Dinosaur Discovery #	**49.95**
Fraction Action	49.95
FUN SCHOOL 2 SERIES (Reviewed Jul 89)	
Under 6	49.95
6 to 8	49.95
Over 8	49.95
The above FUN SCHOOL 2 items are also available in 3.5" format if requested. The cost of each unit is	53.95
Grammar Examiner	59.95
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***	**59.95**
Kids on Keys	59.95
Kidwriter	59.95
Lex, Wizard of Words (Ages 10 to 99) #	39.95
Magic Maths (4-12 yr) CGA	39.95
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

PC - continued

Micro Maths - advanced for Years 9-11 students	69.95
Mixed up Mother Goose #	59.95
Notable Phantom	59.95
Number Fun 1 (5 to 15 yrs) #	34.95
ONCE UPON A TIME SERIES: for children (6 - 12) to write, edit and print their own book.	
Volume 1	69.95
Volume 2	69.95
Physics (12-16 yrs)	39.95
Puzzle Story Book #	**49.95**
Race Car Arithmetic	49.95
Remember!	89.95
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
Spellagraph	59.95
Spellakazam	59.95
Spelling Fun 1 (5 to 15 yrs) #	39.95
Stepping Stones Series	
Level 1 - ages 2 to 4 - letters, number & words	**59.95**
Level 2 - ages 5 to 7 - words, maths & sentences	**59.95**
Ten Little Robots	49.95
Typing Tutor 4 #	62.95
Word Fun 1 (5 to 15 yrs) #	39.95
Where in Europe is Carmen Sandiego †	74.95
Where in Time is Carmen Sandiego †	79.95
Where in the World is Carmen Sandiego †	74.95
Where in USA is Carmen Sandiego †	79.95

PC BUSINESS

Ability Plus	299.00
Upgrade to **Ability Plus** for existing **Ability** users *(Original disks and manual required for proof)*	224.00
Ability	169.00
AutoSketch (CAD system)	**249.00**
Bankmate - *manages personal finances and reconciles your bank account. Includes pop-up calculator.* #	59.95
Brainstorm	99.00
Business Dynamics - *primer*	39.95
Capital Budgetting	199.00
Cardbox PC	149.00
Cardbox Plus Standard	895.00
Chartman - *business graphics*	129.00
Condor 1 Jnr	149.00
Contactmate- *productivity package which controls personal & business contacts* #	69.95
Corporate Finance	199.00
Desktop Accountant	450.00
Financial Accounting for non-Accountants	199.00
In-house accountant	299.00
Masterfile PC version 3 standard - *the most popular database for Amstrad PCs and compatibles* #	199.00
Masterfile PC version 3 full - *the standard version with an integrated word processing module included* #	269.00

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

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, budgeting, cash flow etc. (can use mouse)* #	119.00
Personal Excellence Package - *a serious approach to assessing your thinking skills, IQ, mental performance and aptitudes*	109.00
Personal Cardbox Plus	349.00
Protext PC #	199.00
Protext Filer PC	69.95
Protext Office	99.95
RAM JET EXECUTIVE - *gives PC1512 only a disc cache, print buffer, screen accelerator*	189.00
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
Tait Accounting - *small business accounting with Debtors, Creditors and Invoicing*	149.00
TBM (formerly ABC Business Pack) - *an Australian supported integrated accounting and stock control package with many extras*	499.00
Top Copy Plus - *word processing + macros*	299.00
Twin Advanced - *integrated spreadsheet (like Lotus), graphics and database*	189.00

PC UTILITIES

AWARD WARE - *certificates, banners, cards Designer*	49.95
BANNER MANIA # (for colour printers too)	59.95
CREDIT CARD ACCOUNTING SYSTEM	29.95
DISCO HARD DISK MENU SYSTEM - *creates personalised menus, runs common DOS commands with one keypress.*	99.00
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*	

PC - continued

ready made forms for planning retirement, savings, car expense, loans, etc. 29.95

HOME ORGANISER - *with Inventory, Shopping list, Librarian and Planner* 14.99

IANKEY TYPING TUTOR - *crash course #* 69.95

IANKEY TYPING TUTOR - *for 2 finger typists #* 69.95

MAIL SHOT PLUS - *with graphical layout* 99.00

MASTERING YOUR PC - *a DOS & Typing tutorial* 39.95

PERSONAL BANKING RECONCILER 29.95

PERSONAL POSSESSIONS INVENTORY 29.95

PRINT MAGIC † 49.95

PRINT SHOP - *over one million copies sold of this easy to use personal graphics package. 8 type styles, 9 borders, dozens of pictures to create personal cards etc.* † 89.95

PRINT SHOP COMPANION - *adds a calendar to Print Shop (monthly and weekly formats) plus facility to edit existing Print Shop graphics* † 84.95

PRINT SHOP GRAPHIC LIBRARIES

Disk 1 - *over 100 pictures for holidays, special occasions, sport, zodiac signs, animals* † 54.95

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

School & Business Edtn - *over 100 eye-catching pictures for the office or student environment* † 54.95

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.* 89.95

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 † 95.00

Tascopy PC - graphics editor † 95.00

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 controlsfor accurate movement, and rubber feet for surface grip* 39.95

JUNBO JOYSTICK: *the smallest inthe 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.

PC - continued

MISCELLANEOUS

DISK DRIVE HEAD CLEANERS

3.5" for PPC, PC20 or PC2000s 17.95

5.25" for PC1512/1640 17.95

JOYSTICK GAMES CARD: Easily fitted - allows the use of an IBM style joystick on your Amstrad 49.95

PC1512/1640 'SEAL 'N' TYPE KEYBOARD PROTECTOR
Stops damaging spills and dust 29.95

MODEM - Amstrad's MC2400 (V21, V22, V22 bisand V23 2400 bps). Works with any IBM compatibleand comes with communications software. 399.00

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

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
40mb Portable Hard Drive on a card *	1249.00
20mb Internal Hard Disc *	649.00

** 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 **	299.00
720k 3.5" External disc drive **	299.00

FOR PC2286 and 2386

1.2 mb 5.25" External disc drive **	385.00
1.44mb 3.5" External disc drive **	385.00

*** Add $10 for certified post and insurance ($20 overseas)*

FOR PPC512/640 **<<< N E W >>>**

PPC/HDU2	20 mb external hard disk *	1099.00
PPC HDU3	30 mb external hard disk *	1199.00
PPC/HDU4	40 mb external hard disk *	1499.00
PPC/5.25	5.25" external floppy drive *	750.00

** Add $15 for certified post and insurance ($25 overseas)*

AMSTRAD PC20 RANGE

The PC20 is an IBM PC-XT compatible with 512k RAM, 8MHz 16 bit processor, a built-in modulator and cable for use with a standard TV (CGA only), single 3.5" 720k floppy drive, parallel

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

centronics printer port and an expansion socket for an external 3.5" or 5.25" drive. (The PC20 was reviewed in Issue 56 - Sept '89)

PC20 unit only	799.00 plus freight of $35.00
PC20 + colour monitor	$1199.00 plus freight of $45.00
PC20 + colour monitor with DMP3160 printer	$1499.00 plus freight of $50.00

MATHCO-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
Excel for Windows #	835.00
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 #	295.00
Word Exchange †	115.00

BOOKS for all Amstrads

CPC TITLES

Advanced User Guide	21.95
Childs' Guide to the Amstrad Micro	13.95
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
Desktop Publishing with the PCW	35.95
All in one business computing with the PCW and Mini Office Professional	37.95
Locomail User Guide - new version	54.95

BOOKS - continued

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

PC TITLES

Abacus Books for Beginners:	
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	36.95
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
Introducing Lotus 1-2-3	o/s
Lotus Agenda	39.95
PC System Programming for developers: *an encyclopaedia for DOS programmers*	**69.95**
PC1640 Technical Reference Manual	49.50
PPC Technical Reference Manual	54.95
Program your PC	32.95
Simple Basic2 Programs on the Amstrad PC1512/1640	29.95
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

BOOKS - continued

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**

OTHERS

Computer Viruses	49.95
Computers and the Law	65.00
Introducing dBase	o/s
Managing your Computing: a practical handbook	50.00
Microcomputer - troubleshooting & repair	48.95

SELF-TEACH COURSES

Complete intoductions 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

BACK COPIES of magazines

THE AMSTRAD USER

Iss. 01 - Feb 85	Iss. 03 - Apr 85	Iss. 04 - May 85
Iss. 06 - Jul 85	Iss. 07 - Aug 85	.....each 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 - May 88	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

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

MAGAZINES - continued

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	.....each 4.50

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
June 86	September 86	November 86
February 87		.....each 4.00
February 88	March 88	April 88
		.....each 4.50

BINDERS for magazines

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

GIFT 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.

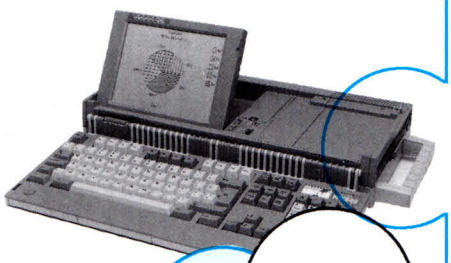
Any value of voucher (over $20) can be purchased, but must be used through The Amstrad User Mail Order service or The Amstrad User Computer Shop, our retail outlet in Mount Waverley.

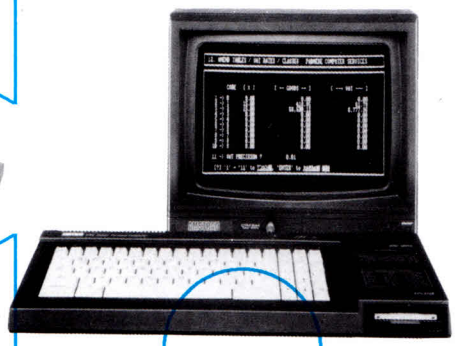
To order by mail, send your cheque, money order or credit card number with expiry date, along with your name and address (this is to where the voucher will be posted) to our address shown below.

THE AMSTRAD USER

641 High Street Road, Mount Waverley, Vic 3149

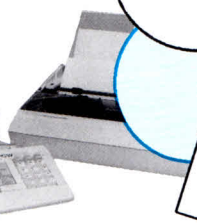
Phone: (03) 233 9661

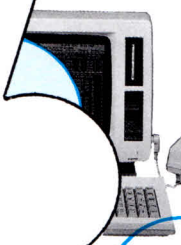




THE AMSTRAD USER

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) 233 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.

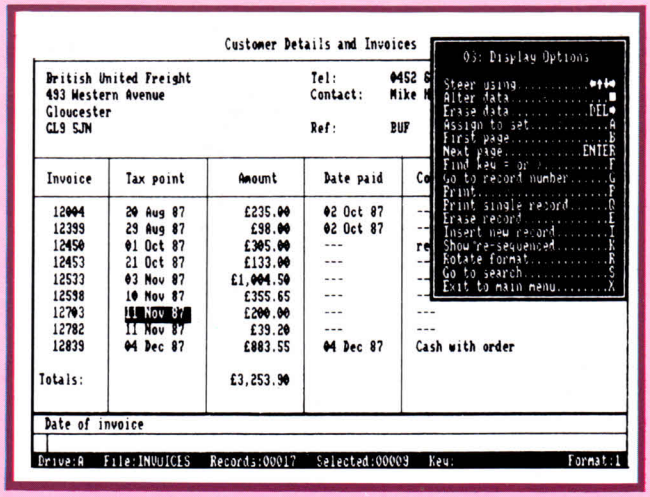
Other products offer a choice between fast but limited capacity RAM files, and large capacity but cumbersome fixed-length, direct access disc files. **MASTERFILE 8000** and the PCW RAM disc combine to offer high capacity with fast access to variable-length data. File capacity is limited only by the size 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.

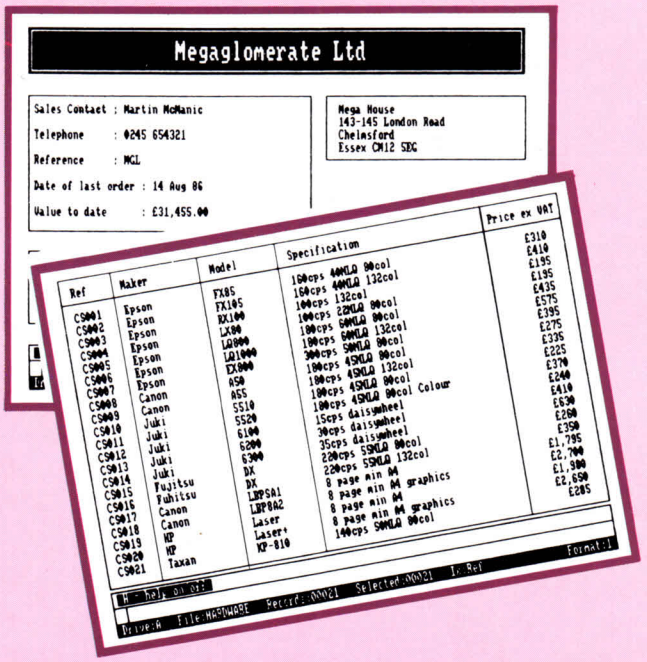


Keyed files are maintained automatically in key sequence, with never any need to sort. You can have unkeyed files too, where records can be inserted at any point in the file.

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.



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

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

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

Send your order now to:

THE AMSTRAD USER
641 High Street Road
Mount Waverley
Victoria 3149 **Tel: (03) 233 9661**