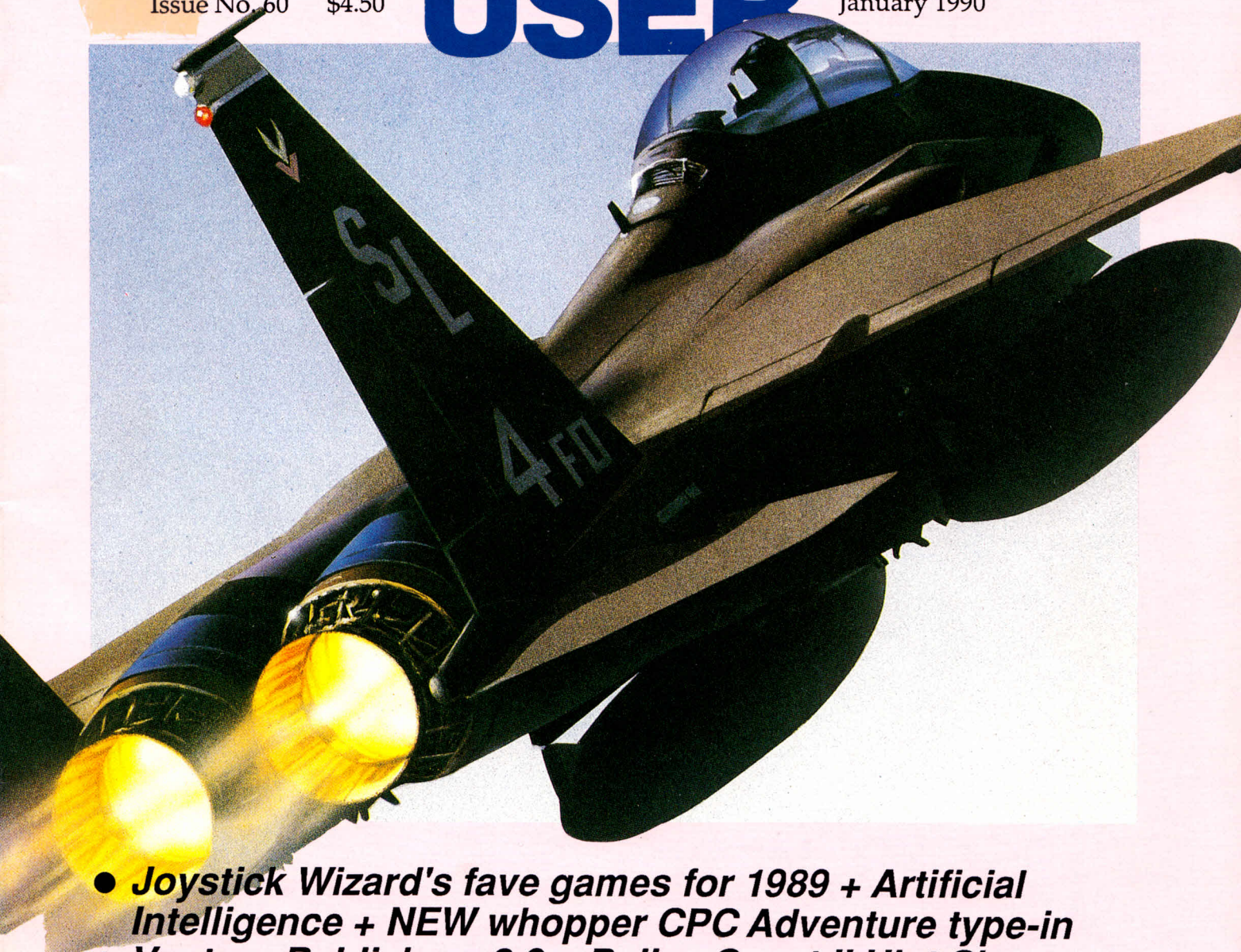
The Aussie Mag for Amstrad owners

THE AMSTRAD USER

Issue No. 60 $4.50 January 1990



- *Joystick Wizard's fave games for 1989 + Artificial Intelligence + NEW whopper CPC Adventure type-in*
- *Ventura Publisher v2.0 + Police Quest II Hint Sheet + latest PC-SOFT disc + GO! business software reviewed*
- *BIG Computer Viruses feature + LocoScript Phrases*

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."

CPC

FUN SCHOOL 2 SERIES
Each program in this series comprises multiple subjects, presented in game type format. Animation and sound effects feature strongly to retain your childs interest.

FUN SCHOOL 2 (AGE 2-6)
FUN SCHOOL 2 (AGE 6-8)
FUN SCHOOL 2 (AGE 8-UP)

FUN SCHOOL
There are three discs in the series. Each disc contains 10 educational programs. The discs are suitable for the following age groups;

VOLUME 1 (AGES 2-5)
VOLUME 2 (AGES 5-8)
VOLUME 3 (AGES 8-12)

MAGIC SWORD
Educational program with a twist. First, you read the full colour book, the program takes up where the book leaves off.

THREE BEARS
Childrens graphic adventure game to improve logic, deduction and reasoning.

LCL EDUCATIONAL RANGE
Advanced software, aimed at older students, typically Years 9-11

MICRO MATHS
MEGA MATHS
MICRO ENGLISH

FERNLEAF EDUCATIONAL SOFTWARE
Rather than concentrating on a specific subject, these programs are aimed at developing Reasoning, Logic, Estimating and Forward Planning skills.

VOLUME 1 (AGES 7-10) TREASURE/ PERFUME HUNTER
VOLUME 2 (AGE 8-12) FLETCHER'S CASTLE/ THE RAIDERS
VOLUME 3 (AGE 9-13) THORN SEA/FERRY CAPTAIN

PRIMARY MATHS
A complete course, covering from 3rd class up to Secondary School.

SCHOOL SOFTWARE:

MAGIC MATHS (AGES 4-8) (CPC, PCW and PC) - Simple exercises in addition and subtraction.

MATHS MANIA (AGES 8-12) (CPC, PCW and PC) - Simple exercises in multiplication and division.

PLAYSCHOOL (AGES 3-6) (CPC ONLY)
The ideal introduction to computers for children. It consists of a number of simple keyboard and logic exercises.

BETTER MATHS (AGES 12-16) CPC, PCW and PC) - Multi section mathematics program.

BETTER SPELLING (AGES 9-ADULT) (CPC, PCW and PC) - A collection of tutorial lessons on grammar and word usages.

MAXI MATHS (AGES 12-16) (CPC and PC)
Computerised geometry course covering multiple topics.

BIOLOGY (AGES 12-16) CPC, PCW and PC)
Menu driven revision courses suitable for 12-16 year olds

CHEMISTRY (AGES 12-16) (CPC, PCW and PC) - Revisionary course. Some versions have graphics.

PHYSICS (AGES 12-16) (CPC and PC)
Introductory level physics with explanatory graphics.

PC

The **MERIT RANGE** of educational software all use colourful graphics and sound, and will run on a Hercules system.

MERIT MATHS IN A NUTSHELL (AGES 8-UP)
LEARNING TO ADD AND SUBTRACT (AGES 4-8)
CLOWNING AROUND (AGES 6-12)
PIPELINE (AGES 8-UP)
ALPINE TRAM RIDE (AGES 8-UP)
MONKEY BUSINESS (AGES 8-UP)
BIKE HIKE (AGES 4-8)
ANIMAL HOTEL (AGES 4-8)

FUN SCHOOL 2 SERIES
Each program in this series comprises multiple subjects, presented in a game-type format. Animation and sound effects feature strongly.

FUN SCHOOL 2 (AGES 2-6)
FUN SCHOOL 2 (AGES 6-8)
FUN SCHOOL 2 (AGES 8+)

SESAME STREET
Superb range of educational programs. Covers problem solving, predicting, logic and reasoning.

ERNIES BIG SPLASH (AGES 4-6)
GROVERS ANIMAL ADVENTURES (AGES 4-6)
ERNIES MAGIC SHAPES (AGES 4-6)
ASTRO GROVER (AGES 3-6)
BIG BIRDS DELIVERY (AGES 3-6)
PALS AROUND TOWN (AGES 4-6)

VISION RANGE
Excellent range of competitively priced educational software.

FRACTIONS 1 (AGES 7-10)
ADDITION/SUBTRACTION (AGES 6-8)
MULTIPLICATION/DIVISION (AGES 7-10)
THINKING SKILLS (AGES 7-10)
VERBS (AGES 6-8)
PUNCTUATION (AGES 7-10)
SENTENCES (AGES 8-11)
MY MATHS TUTOR (AGES 7-11)
ALGEBRA (AGES 9-12)
GEOMETRY (AGES 6-8)
DECIMALS FRACTIONS AND PERCENTAGES (AGES 7-10)
MATHS DRILLS (AGES 6-8)
NUMBER ROUND UP (AGES 6-8)
TOOLS FOR TOTS (AGES 4-6)
MATHS WORD PROBLEMS (AGES 9-12)

LCL EDUCATIONAL RANGE
SEE CPC SECTION

PCW

SEE CPC SECTION.

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

Letters - your chance to tell people all over Australia about anything to do with your Amstrad computer 2

News Break - news from home and abroad plus gossip and the latest software releases 6

Bargain Basement - a once-only clearance where we've slashed the prices on top Amstrad software 8

Action tests on CPC games - overviews of SIX more games:

Gemini Wing, Super Scramble Simulator 12
Story So Far, Vol 4, Strider 12
Licence to Kill, Shinobi 13

Artificial Intelligence - Paul Gerard loves his little pussy cat, and uses her to illustrate some important concepts 15

Satchel on sale! - with the Satchel range finally on sale in our Mail Order pages, we peruse the titles in stock 18

Serendipity - the hacker has his day (and month) as Joseph Elkhorne talks assembler and mnemonics 22

Avoiding Disasters - with some basic common sense, you can avoid most floppy fatalities, says Kevin McLean 26

LocoScript Phrases - gone are the days of repeditively typing in the same phrase over and over again 28

Computer Viruses - in a special three-month feature, Ralph Burger provides accurate answers to all your queries 32

Successful Freelancing - Garry Fabian is a professional writer with years of experience and plenty of tips 36

PC Business - need cheap but useful business software? The GO! series might fit the bill, says Shane Kelly 38

Venture Publisher v2.0 - Mike Turner test drives the Rolls Royce of PC DTP packages and has a great time 41

Compatibles Corner - Chris Collins has little news but plethoric quantities of the best PC Public Domain 46

PC Public Domain - PC-SOFT #3 is out, loaded up with over twenty different utilities for Amstrad PC users 48

Adventurer's Attic - lucky Philip Riley returns with plans for another exciting year for Amstrad adventurers! 49

Unknown Planet - CPC users rejoice! Barrie Eaton has written another fab fantasy adventure. Here's part one ... 50

Hint Sheet - very happy with another $25 in his pocket, Andrew Fort provides cryptic clues to Police Quest II 53

Classified Ads - just $7.50 and you reach over 8000 people throughout Australia and further 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 1000 lines of Software, Peripherals, Ribbons, Discs and Books for the Amstrad range of computers 56

THE AMSTRAD USER

Issue No. 60 - January 1990

Since there were no CPC type-ins this month, Tape Subscribers are being treated to two exciting games. All instructions are on-screen and you simply type run"... to play.

Side 1: ALIEN

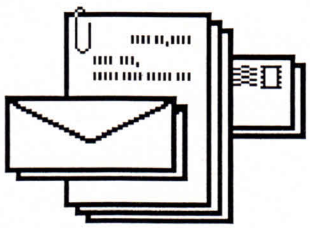
Side 2: SNAPMAN

ADVERTISER'S INDEX

All Stamps and Services 3
Atlantis Engineering Services 31
Pactronics ..... IFC, 5

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 (TAU 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.

I have been typing in Barrie Eaton's Fantastic Adventure from your magazine. However, I think I have found that a line has been omitted. In the October issue of the magazine, the listing finishes at line 2610, and the November issue begins with line 2630. I think that line 2620 is missing. If this is the case, could you please publish the omitted line in your magazine.

Ben Davis

Yes indeed, someone in Paste-Up must have had a heavy 'night before the morning after', but that's no excuse. Anyway, here's the line we missed:

```
2620 IF posi%=13 AND ae=1 THEN PRINT"You
Can't! He is insulted by your actionand w
ith a wave of his arms dismissess  you wi
th a warning not to return for youwill ge
t no help from him.":PRINT:loca$(13)="ins
ide a mystical room":za=1:zp=1:posi%=38:R
ETURN
```

Recently I purchased some back issues of the English edition of Amstrad Computer User. In the Feb. '86 issue there is a program called 'Galaxian Revenge' by K.N. Khalique. It seems that line numbers 2240-2390 are missing. These are data statements for a machine code loader. This code is saved as a binary file 5632 bytes long. There are only 5512 bytes listed.

I am sure that a correction was published in a later edition which I don't have. I would be grateful if any reader could help me with this problem.

Steven Smith, Queens Park, W.A.

I have a hint for Firebird's Bubble Bobble. It's the entry code to levels 80-100. Type it carefully.

ZZZ133VZZZZZZ4ZZZ1Z4V44ZZ1Y24V32

Geoff Tynan, Northview, Qld.

Seeing a letter from A.T. Miller in November's edition of letters to the Editor, I decided to write to you to offer (Mr) Miller some of my advice concerning PC-Write.

Having had the same problems with the Accent Key disappearing when configuring to the UK keyboard, I discovered a method which too, overcame this problem.

A more simpler way of avoiding this problem is by re-defining the accent key as the hash key, as in the American Configuration. This is done with the following line in the ED.DEF file.

035:426

This only leaves one small problem with the reverse apostrophe (`), as it seems to disappear. However, if you space forward one space, then hit the accent key twice, the reverse apostrophe is made.

This method, I've found, is much easier, and saves time when trying to locate [ALT][CTRL][F1] every time a foreign character comes along.

I hope that you may find some use for this tip.

Errol Brandt, Maryborough, Qld.

I am a great fan of your magazine and find your articles interesting and informative, and your CPC type-ins great. Back to the letter.

I have just purchased Renegade 3 - The Final Chapter. It has fantastic graphix and sonix but it is extremely difficult to complete each level, it is practically impossible. I was wondering if you could please make a Cheat Mode for it. With infinite lives and energy, infinite time and you can't get hit by the enemies. I would be very grateful to anyone out there who could produce one.

Craig Martin, Banksia, Park, S.A.

By now you probably will have been inundated with advice on how to solve Mark Malcolm-Brown's dilemma (June 1989) on how to run Mini Office Professional from a 720k disc in Drive B: Having acquired MOP only recently I was inspired by your challenge of "it can't be done," so on the off-chance that no-one has written in, I offer the following advice.

The first step is obviously to copy the relevant files from the MOP discs to a formatted 720k disc. If you have a Public Domain utility such as NSWP.COM (NUSWEEP) it is a fairly simple exercise, but some CP/M users may be hampered by the fact that the MOP program files DBASE, COM, SHEET.COM etc. are set as 'system files' and as such will not be detected by the basic DIR and PIP commands. Use DIR: [full] however, and all will be revealed. To copy the files using PIP you will need to use the [R] option which searches for the 'system files' as well.

Assuming you are logged into

Drive M: (the ram-disc) and have a copy of PIP.COM available, put your MOP disc in Drive A; your blank 720k disc in Drive B: and enter the following command:

```
PIP B:=A:*.*[R]
```

Repeat the procedure for each of the other sides of the MOP discs.

After all the files have been copied, log onto Drive B: and type in OFFICE, and the MOP main menu screen will appear. But during the process the program may have reset the default drive to 'A'. You must check this by using the Disc Utilities option to re-select Drive B: if required. The next step is to Select the module you require and experiment with the various functions to ensure the program is working. However, when you wish to exit to the MOP main menu, the default drive may again be reset to A:, so it's back to the Disc Utilities option to set the drive to B: After that, you may try each module in turn to verify the success of the operation.

This procedure will solve the problems of disc-swapping, but obviously the presence of all the MOP files will limit the amount of storage space available, even on a 720k disc. It is imperative then that good 'house-keeping' practices are followed, such as clearing out any unwanted back-up files (.BAK) which are created whenever a file is changed e.g. if you make a small amendment to your 100k database, you create a 100k backup file. Fortunately documents appear to be edited in drive M: so if a 'DISC FULL' error occurs during a 'SAVE' operation you may be able to retrieve the situation by some judicious erasing (Disc Utilities again!)

I have few gripes concerning the MOP package. The 'different rules' which apply to certain menu options can be quite annoying at times - some have to be 'toggled' by use of the 'ENTER' key (e.g. selecting the appropriate drive) which for others the user enters his/her choice (e.g. user number). And as for printer control, it is advisable to change the Default Setting to Draft Quality or you will experience a very slow print-out. The printer makes several passes and even LocoScript's High Quality option appears fast in comparison.

In conclusion I consider that Mini Office Professional represents good value for the price, and would have to be one of the most versatile programs available for the PCW range.

Dennis Murray, Newnham, Tas.

I have just purchased an Amstrad 1640 DD ECD computer and a Brother 1409 dot-matrix, 9-pin printer set in IBM mode.

My difficulty is in printing out graphic screens, particularly from Basic2 programs.

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

1. When I use GEM Output following GEM Paint the image is printed on the printer at about two-thirds of the screen size. This occurs both from images that I have designed and the Tiger example supplied. However, one image I produced comes out full-size every time and I cannot discover why. When outputting all my images I select 'full-size' not 'best fit'. 'Best fit' does indeed fill the paper.
2. I have had no success in printing out screens from my husband's Basic2 programs. I have tried two methods:
(a) typing GRAPHICS before loading GEM and using the Print Screen key. GRAPHICS produces a printout which is totally black while GRAPHICS/R produces a printout which is totally white!!
(b) using GEM Snapshot. If I try to use Snapshop, after defining the area to be snapped (all of it) a window appears saying:

Insufficient memory

I am a novice where computers are concerned and will be grateful for any help you can give me.

Christine Bury, Duncraig, W.A.

Well, we too are not really sure why GEM images should come out at different sizes on the printer. We suspect however that the small printed images were originally drawn on GEM in CGA mode and that when you try to print them from GEM in EGA mode it thinks that there are a greater number of pixels in the picture than there really are.

The GRAPHICS program supplied by Amstrad will not work with ECD screens. It was designed for CGA screens only. A separate program is supplied for Hercules screens but none for EGA graphics screen dumps.

The reason you get the 'insufficient' memory is precisely that: GEM takes a lot of memory and there is not enough memory in your computer for Snapshot to hold an image from the EGA screen (which contains many more pixels than the CGA screen on the PC1512).

You could try removing all the accessories (except Snapshot) and any memory resident programs you may have running. This may enable you to have Snapshot functioning properly.

Finally the FLOOD command is part of the GEM specification but unfortunately not supported by either the Amstrad version of GEM or DR's own IBM generic version. GEM Paint and some other programs do their own Flood functions but Locomotive Software chose to rely on the inbuilt GEM functions. Their manual does warn 'This feature may not be available on your computer, as it depends on the version of the underlying software that you are using'.

First, may I express my disapproval of your practice, in recent issues, of presenting what is a blatant piece of advertising for Sage accounting programs, in the guise of a straight instructional article. I have no experience of Sage accounting programs, but I do have experience of their "PC Planner", a spreadsheet program; if their accounting programs are no better that their PC Planner, then I can assure your readers that there are plenty of much better programs on the market.

Second, I was interested to read the article on RPED by Helen Bradley in the October issue which arrived here yesterday. I have recently upgraded from an Amstrad PC1640 to an Osborne Turbomate II, which is an 80286 machine running on MS-DOS 4.01. The Amstrad did have RPED, which I found very superior to EDLIN, but I note that RPED does not appear to be part of the normal DOS group of programs.

I know that Amstrads are inclined to be rather individual clones in some respects, so I wonder whether Helen Bradley could tell me whether she is aware of any reason why RPED would not work successfully in other clones, such as the Osborne, and with DOS 4.01? (I have not tried it yet in case there is some dire consequence).

David Aron, Collaroy Plateau, NSW

N PALS PEN PALS PEN PALS PEN PALS PEN PAL

WOW! Again more newcomers to the Pen Pals section this month. Welcome! You too can join this list by writing 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

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

First with the Best!!

Pactronics

NEW PRODUCTS NEW PRODUCTS NEW PRODUCTS NEW PRODUCTS NEW PRODUCTS NEW PRODUCTS

YOUR NEW YEAR RESOLUTION should be – TO GET THE MOST OUT OF YOUR AMSTRAD COMPUTER.

PROTEXT *(PC - $169.00, CPC - $79.95 D, $49.95 T, PCW - $149.00)*

The definitive quality word processor for any machine, with unsurpassed speed and features (makes LocoScript look like a word processor for snails).

SPECIAL NEW DECADE OFFER!

Purchase **PROTEXT** for any of the Amstrad computers and receive totally free, your choice of the following PROTEXT add-ons:

- **PROSPELL** *(CPC - $69.95, PCW -$79.95)*
  The best spelling checker for every word processor, including WORDSTAR.
- **PROTEXT FILER** *(CPC - $59.95, PCW - $59.95, PC - $59.95)*
  Gives you a superb pop-up database module for PROTEXT. Superior datafile management with flexible file sorting program.
- **PROMERGE** *(CPC only - $69.95)*
  The mail-merging program to run with PROTEXT.
  NB: *Just send in a copy of your receipt with the warranty card and we will send you your FREE program.*

MONEY MANAGER *(PC, CPC & PCW)*

Brilliant cashbook and personal accounts system. Amazingly powerful, yet simple to use.

CPC ONLY

ULTRABASE

Powerful Database, designed with "ease of use" in mind.

PLAN IT

Complete desktop organiser, plan budgets, sort files etc. etc.

MINI OFFICE II

The market leader in Business software, for the CPC's.

PCW ONLY

TAIT ACCOUNTING SYSTEM

Popular small business accounting package, covers Invoice and Statement generation, Debtors ledger and Creditors ledger.

TAIT DATABASE AND LABELLER

Simple to use Database, incorporates a label printing program.

DATASTORE II

DATASTORE II is the fast, easy way to manage large amounts of data. It is ideal for customised reports, mailing labels, office and personal records, and is perfect for the beginner.

SUPERTYPE II

The only real complaint that can be made about the PCW is its printer. SUPERTYPE II solves all that, with 8 new typestyles that can be downloaded to the printer. It is compatible with all CP/M software including the LocoScript series.

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:

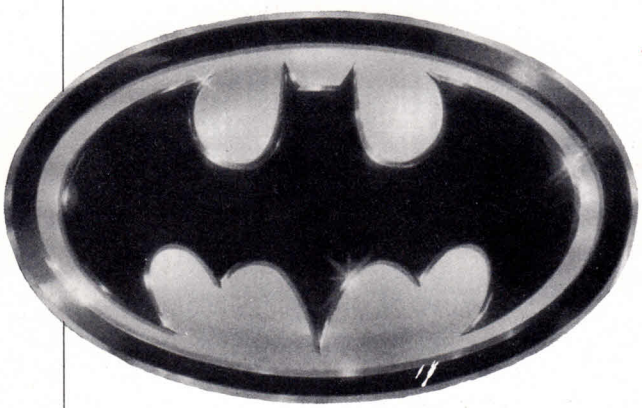
NSW: Pactronics P/L, 98 Carnarvon Street, Silverwater	**(02) 748 4700**
VIC: Pactronics P/L, 51-55 Johnston Street, Fitzroy	**(03) 417 1022**
QLD: Pactronics P/L, 12 Stratton Street, Newstead	**(07) 854 1982**
SA: Baringa P/L,	**(08) 378 9177**
WA: Pactronics WA, Unit 13, Rear 113 High Road, Willeton	**(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**

NEWS BREAK

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

THE LEGEND RETURNS

The problem with preparing this magazine so far in advance of publication is that we have to rely on manufacturer's/importer's release schedules. As we all know these are very often adrift. Now and again though, we get caught with the sudden release of titles and don't get the opportunity to tell you about them quickly enough. **Batman - The Movie** is one in particular. We knew it was coming - sometime - but when? The answer is that it arrived in the middle of November, just in time to tell you about it in the January magazine!



If you've seen the movie (there can't be many who have not!) you will understand the theme and the game follows it reasonably closely. The first scenario takes place at the Axis Chemical Plant where Batman fights henchmen and chemical droplets to reach Jack Napier. Defeating Napier causes him to fall into a vat of chemical toxic waste which transforms him into the Joker. The second scene takes place in the streets of Gotham City following the rescue of Vicky Vale from the clutches of the Joker, and features a race across the city in the Batmobile. The Batcave is the scene of the third level where Batman must discover which everyday consumables have been spiked by the Joker with a compound called 'Smilex'. The fourth scene takes the game back into the streets of Gotham City where the Joker is about to release the deadly Smilex gas to kill the entire population of Gotham City. The gas is contained in balloons, so using the Batwing, you must cut through the mooring ropes. The final scene takes place in Gotham Cathedral where Batman must negotiate the crumbling floors and rats using his Batarang and Batrope for the final showdown with the Joker.

By all accounts, the game is good and we hope to have a detailed review soon.

FROM THE AMSTRAD RUMOUR ROOM

We reported the rumour of the demise of the CPC last month. The latest bit of gossip concerns Amstrad's move to rebuild the CPC into a games console with games supplied on ROM cards. It has been well known that Alan Sugar (Amstrad's Chairman) has been itching to get into the console market for a long time. As usual, Amstrad are keeping things close to their chest, but if the rumour is true, the consoles could be launched in April or May 1990.

AUTOFIRE ON CPCs

One of the major criticisms of the CPC range of Amstrad computers is the lack of an autofire feature when a joystick is added. Many joysticks have the autofire (rapid fire) facility which allows a player to fire a continuous stream of bullets/lasers/shells or whatever as long as the finger is kept on the trigger. However, if the feature is turned on with an Amstrad attached, the firing stops completely!

For the technically minded, the CPC has not been designed to send enough power from the nine-pin D socket (into which the joystick fits) to drive the circuitry for the rapid fire to function. About eighteen months ago, we advertised a similar unit costing $29.95 but had to withdraw it shortly afterwards as its reliability was less than satisactory.

Enter the CPC autofire interface, called appropriately enough Megadeath 1. It takes its power from the 5 volt output on the screen. The joystick connects directly to the Megadeath which in turn fits into the joystick port.

Even more good news is the attractive price of just $19.95 plus postage and packing. You've now $10 to play with!

GOODBYE LEVEL 9

It has been reported that one of the most prolific writers of adventure games, Level 9, has just announced its latests and last adventure called Scapeghost. The game stars an ex-policeman, Alan Chance, who has been murdered for knowing too much and framed for a crime he did not commit. He is reincarnated with three nights on earth to clear his name and wreak vengeance.

Level 9 designer said "People have been declaring the death of the adventure market for years, so Scapeghost is an appropriate final release." Their humourous releases will be missed, but we cannot agree with their reason for closing shop. It's more than likely to have something to do with the increase in animated 3-D adventures which alas Level 9's were not.

ANOTHER PC-SOFT

The third of a series of five public domain disks for the Amstrad PC range is released this month on 3.5" and 5.25" format and contains 24 utilities to help keep you more organised. One (CGA2.COM) may be of particular interest to owners of monochrome monitors who find that they cannot run many games or other programs requiring CGA graphics. The utility emulates the CGA screen in different shades of gray and is claimed to offer at least a 60% success rate with hitherto unusable programs. For PPC owners there's a utility to change the shape of the cursor to make it more visible, and for hard disk card users a utility which puts a smiley face on the screen to indicate that the card is being accessed. It's very good value for money at $12.50 (for 5.25") or $15.00 (for 3.5") plus postage. A complete list of the contents of PC-SOFT #1 (games and utilities in Basic2 for 1512/1640s) and PC-SOFT #2 (games for all PCs under MS-DOS) can be found in Issues 58 (November '89) and 59 (December '89) of The Amstrad User.

OTHER CPC RELEASES

A new compilation to miss our last magazine is Gremlin's **The House Mix** and retail sales are already proving that this is a popular pack. It contains Skate Crazy, a Roller Skating game through the Car Park Challenge and Championship Course; Techno Cop, the elimination of street gangs and deviants who bring terror and destruction to the city; Night Raider, aerial combat and destruction of the mighty Bismark; Artura, overcome ghastly creatures and use the mystical wheel of Cerriddwen to rescue Nimue from the evils of Morgause; Motor Massacre, the most horrifying carnival of motor destruction ever; and Dark Fusion, merciless nerve and coordinated fury are required to succeed in a three phase test of the corps of Guardian Warriors.

Shinobi and **Gemini Wing** have also arrived. The former is a Ninja-stype beat-em-up. In the latter you play the pilot of a Gemini Wing fighter and increase your destructive powers with the more aliens you remove.

Aussie Rules fans will be excited to hear of Again Again's latest release simply called **Australian Rules Football**. We hope to have our own copy soon so expect more in our next issue.

CHRISTMAS MAIL ORDER CLOSING

A final reminder that our Mail Order service will be closed for our annual break from Tuesday 19th December 1989 to 16th January 1990. Any orders received after 12th December may have trouble reaching you before Christmas. Melburnians can do their last minute shopping at our retail outlet (on the corner of Blackburn and High Street Roads, Mount Waverley) up to 9.00 p.m during the week prior to Christmas (Monday 18th to Friday 22nd December) and to 5.00 p.m on Saturday 23rd December. The shop will re-open on Tuesday 16th January 1990. Please remember that the shop cannot handle any mail order enquiries.

NEW BRIDGE PLAYER

Ms. Nicola Gardner, winner of the 1982 and 1985 World Bridge Championships, has joined forces with CP Software to bring out a new version of Bridge for the PCW and PC. Called Bridge Player 2150 Galactica, it comes with a comprehensive tutorial and 100 tutor hands. It also has a post mortem facility, scoring of hands to rubber and special cheat options. The game, we hope, should reach these shores within the next month. Fingers crossed.

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!

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-built PCW dot-matrix printer into a powerful tool capable of printing in some 25 typefaces. Produces good quality characters using a 14 x 18 matrix (as opposed to the 6 x 8 in draft mode on the PCW). It is menu driven and very easy to operate.

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 PCW)
$45.00
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 or PCW)
$45.00
Is a full ISO standard PASCAL extended to provide a comprehensive professional programming environment. Translates directly into high speed object code, generates relocatable object files and has a linker, a run-time support library, a dis-assembler and a debugger.

CPC DISK

Purchase/Creditors Ledger (Soft 1005)
$25.00
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 (Soft 1006)
$25.00
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.

LocoScript & LocoSpell

THE BETTER FASTER WORD PROCESSOR FOR YOUR PCW

LOCOSCRIPT 2 GIVES YOU:

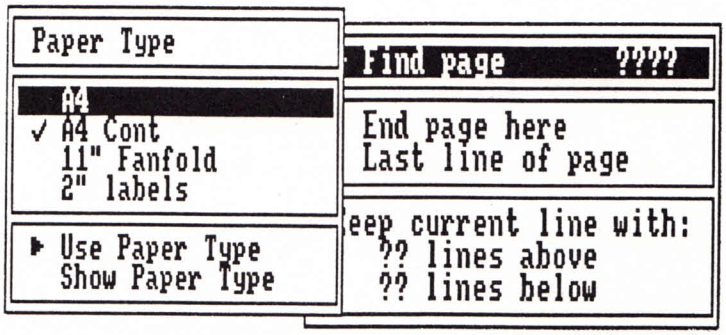
Faster movement through your documents

Move direct to a given page

Better word processing facilities - operated more simply

Unparalleled printing facilities - in every European language

A huge range of special characters



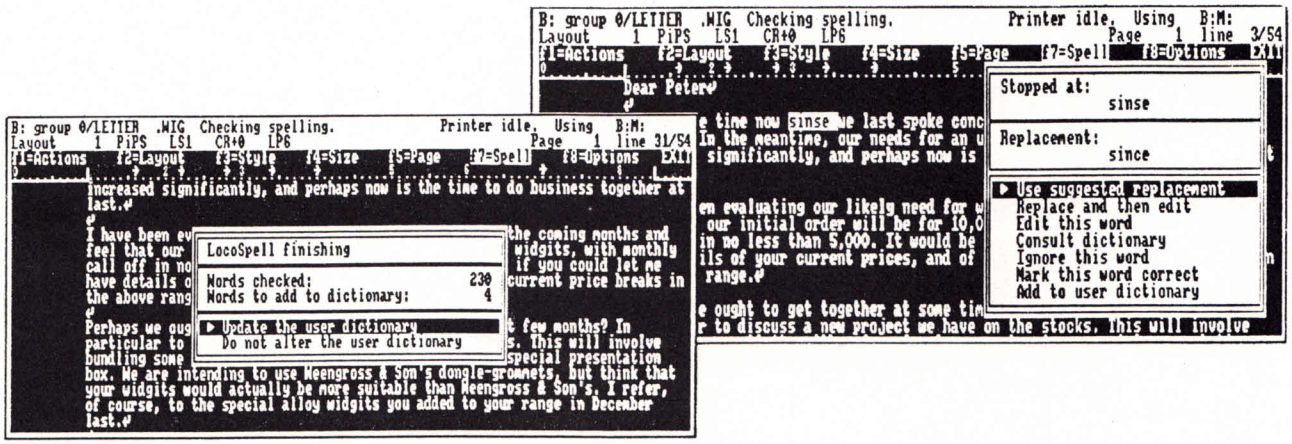
LOCOSPELL OFFERS:

Spelling checker within LocoScript

Longman's 78,000 word English dictionary

An automatic correction facility

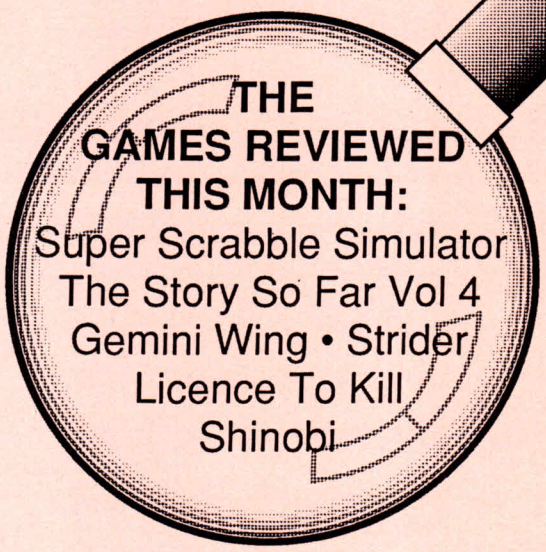
A word count for Locoscript



TOGETHER LOCOSCRIPT 2 AND LOCOSPELL MAKE YOUR PCW MUCH BETTER - BUT THAT'S NOT ALL...

GAMES ARCADE

The Joystick Wizard looks back over 1989 and selects those that had that special something.



Many new products have been released during 1989, games being the most prolific as usual. Some have gained notoriety for their sheer boredom, gratuitous violence or sexual theme, while others have simply faded away. There are a few, however, which can be classed as having "made it" into the top spots for the year.

Of course, the 'beauty of the game is in the eye of the joystick holder'. By saying this I am attempting to sidestep any correspondence from people who don't agree with my choice. With that disclaimer out of the way, let me first take a look at the CPC scene.

Compilations are fast becoming popular. They are a clever ploy by the software companies to squeeze as much revenue out of games which have passed their selling peak (rather like the record companies with 'The Greatest Hits of ..... Vol 27'). As far as the consumer is concerned they are extremely good value with anything from five to ten games in one pack for the price of little more than a single game. As far as the dealer is concerned, some software houses tend to relegate titles to compilations too quickly leaving the full priced single on the shelf next to the compilation containing the same title. Hence the reluctance of some dealers to stock the compilations as soon as they become available.

If sales are anything to go by, the compilation which has out-sold all others this year is Leaderboard Par 3 - a collection of three golf games - Leaderboard, Leaderboard Tournament and World Class Leaderboard. The original Leaderboard is pretty old now and the graphics show it, but World Class Leaderboard surely demonstrates the advances in programming techniques on the CPC. Unfortunately it looks as though this compilation has been pulled off the production line in the UK. Sports fans have pushed Game Set and Match 2 near the top while Taito's Coin Op Hits (also now withdrawn) has been much sought after by arcade conversion freaks. However, if I was confronted with all the compilations I would probably choose **The Story So Far Vol 2.** It contains a space shoot-em-up in the shape of Space Harrier, a James Bond conversion chase in Live 'n' Let Die, an infuriating bouncing ball game called Hopping Mad, a car chase avoiding the baddies game in Overlander and finally Beyond the Ice Palace, a Ghost 'n' Goblins style arcade adventure. All the games can stand reasonably well on their own, and as a compilation give a good cross section of game types to please most members of my family.

Of the Flight Simulators, two battle for my top choice - Gunship and Chuck Yeager's Advanced Flight Trainer - although they are somewhat difficult to compare. In the first place Gunship features a helicopter and some arcade action, while Chuck Yeager's AFT is wholly a flight trainer. If I must pick a winner I would go for **Chuck Yeager's AFT.** It has a more realistic feel about it, you can actually learn from it, and there are many planes from which to choose. You can also do a lot of experimenting and receive a scolding from Yeager if you blow it.

In the Adventure category I must admit to always liking Level 9 offerings, the latest of which is Ingrid's Back. It's full of humour, good graphics and plenty of puzzles. In the final analysis though, the role playing **The Bards Tale 1** hits the tape first. It is more than just a friendly romp through a series of puzzles. It requires a great deal of thinking to build up skill levels of the various characters in order to successfully defeat the baddies. I found it to be very challenging.

Finally the Arcade Section. The list of contenders is quite long - Operation Wolf, Cybernoid 2, Afterburner, Silkworm, TimeScanner and Purple Saturn Day. All have strengths (and weaknesses), but for originality, graphics and general game play my choice would have to be **Purple Saturn Day.** It's essentially four games in one to be played in any order. One can appreciate the detailed planning that must have gone into the game as it contains almost everything that an arcade should feature. Coincidentally, three of my choices were

reviewed in the November issue of The Amstrad User.

An honourable mention should go to **Emlyn Hughes' International Soccer**, the best soccer simulation I've seen yet and **Skweek**, a fast Pacman style game, simple in concept but infuriatingly addictive family fun.

Movement on the PCW games front has, as usual, been virtually non-existent. Let's face it, the PCW is not a games machines and was never designed to be one. It would seem that the million machines produced by Amstrad have gone to more serious homes and as such, there has not been a sufficient demand in entertainment software to persuade the publishers to put any effort in that direction. One exception is CP Software who seem to thrive on the PCW. Although their range of 'thinking games' is restricted to Chess, Backgammon, Bridge and so on, they do strive to improve on them and have produced a number of 'improved versions' over the years. With the exception of Pactronics (and Reckon with their one title Tomahawk), all other Australian importers have ignored the PCW users. Most of the PCW games shown in The Amstrad User mail order section are imported by this magazine. At least *we* care!

Finally, I turn my attention to the Amstrad PCs and compatibles. This area has increased considerably during 1989 and reflects the move to MS-DOS machines. The release of the PC20 for just $799 has brought IBM compatibility within the reach of millions who may otherwise have spent a similar amount on a CP/M based CPC or other 8-bit machine. The Amstrad PC2000 series with VGA screen introduced a standard of graphics which made others look amateur. The arrival of these new computers also reinforced the position of the 3.5" disk in the market place. Unfortunately, not all software publishers have bitten the bullet by offering consumers a choice of both 5.25" and 3.5" disks, but as each month goes by the number of titles with a choice or both supplied is increasing. Some importers offer a service whereby they will provide a 3.5" copy from your 5.25" original for a small fee. Personally, I don't like the idea of having to pay for a game, then send a further amount to someone else for a conversion, let alone the delay before seeing it on my screen.

Chuck Yeager's Advanced Flight Trainer has already received an accolade in my CPC choice of Flight Simulator of 1989. It also appears in PC format. The competition is tough though with the latest version (3) of the MicroSoft Flight Simulator and F-19 Stealth Fighter. Once again, all are very challenging, technically very sound and each has its own features to recommend it. But as I am only allowed one choice, I believe the **MicroSoft Flight Simulator** has the edge. It seems to set the standards on which all flight simulators are based. It is supplied with very detailed documentation, the best of the three contenders, and is available in either 5.25" or 3.5" format. One could also argue that it has a longer history than most and thus had more time to get any bugs ironed out and more technically advanced features incorporated.

Of course there are other simulators around but the wheels generally stay firmly on the ground. Those currently selling well are Test Drive 1 and 2 with add-on modules, Turbo Outrun and 'Vette (a Corvette simulator). Under the ground, or in the sea to be more precise, 688 Attack Sub and USS Stinger are good submarine simulators.

In respect of adventures, there can be little doubt that the Sierra range should feature in the list of finalists. That doesn't mean that there aren't any other good adventures around - far from it. For example, if graphics are what you look for in an adventure (and you have a VGA screen) then Mean Streets would be a winner. It uses the full 256 colours available for superb animation coupled with digitised sound. In the Dungeons and Dragons section, Curse of the Azure Bonds is probably a shade better than Pools of Radiance. Then there's one of my favourite characters Ingrid Bottomlow appearing in Ingrid's Back. For sheer consistency though, the Sierra series of adventures must hold the winner. The only problem is making a final choice from such a large range (4 x King's Quest, 2 x Police Quest, 3 x Space Quest, 2 x Manhunter, 3 x Leisure Suit Larry, etc.). As each adventure is released it always seems to be that little bit better than the last one in terms of presentation, complexity and graphics. However, a choice I must make and **King's Quest 4** gets my vote. It may be more expensive than King's Quest 1, 2 or 3 ($49.95) with a price tag of $79.95, but supplied in the dual pack are nine 5.25" disks and four 3.5" disks. This should give you an indication of the size of the game and justify the price. Having played all four of the KQ series I can appreciate the natural progression from 1 to 4 and would suggest anyone new to the series should start with KQ1 - it's good grounding for the rest. In the final analysis, it was the fact that the whole family could play the game which swung my choice in favour of King's Quest 4. Other adventures such as Police Quest and Leisure Suit Larry series, good as they may be are not, I believe, altogether suitable for younger players.

Arguably the most difficult, and probably the most controversial, is my choice of PC Arcade Game for 1989. There is a mountain to choose from - film theme conversions, arcade conversion, shoot 'em ups, kick 'em downs, knock 'em outs, etc. But after all the dust has settled (and the wounds healed) I must confess that **Purple Saturn Day** is every bit as good on the PC as the CPC. Nobody gets hurt (except a few robots), it's colourful, full of action, innovatively different and sheer escapism at the end of a hard day at the office.

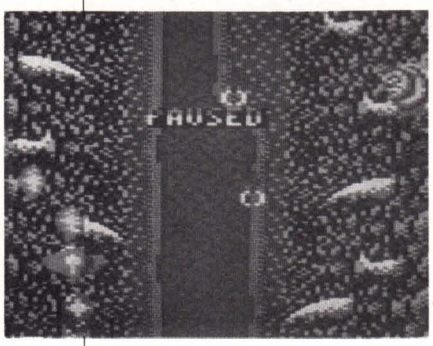
I guess I could have continued with a longer list of my choices covering War Games, Thinking Games, Sport, Films and so on, but I have tried to restrict the list to those I really enjoy playing. Being a family man with young children, I have shied away from the more violent and explicit packages. I have no doubt, however, that there are as many favourites for other people as there are packages on the market.

SHORT 'n' SWEET

A quick look at some new titles

GEMINI WING
CPC: Disk $49.95 - Tape $34.95

Aliens had been busy organising themselves to wipe the Earth off the face of the universe. So preoccupied were they with their preparations, they failed to notice the Earthlings had developed a fearsome new battle craft called Gemini Wing. The alien attack commences, swooping across the surface of the planet depositing burrowing aliens and crack units of flyers. When these are destroyed, coloured gunballs drop to the ground. Flying over the balls gives different but additional firepower to your craft. One type gives you the 'Wiper of Death' - a line of fireballs in front of your craft which burns everything in its path. The nasties in Gemini Wing certainly live up to their name. The game is by all accounts well worth getting, with heaps of action and challenge. It's not to good on a green screen though.

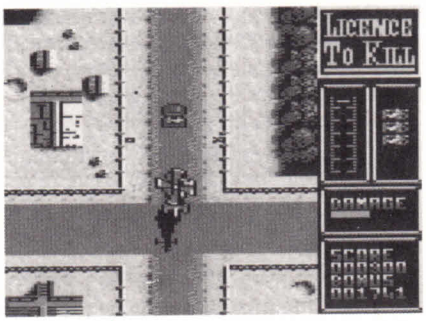


SUPER SCRAMBLE SIMULATOR
CPC: Disk $39.95 - Tape $29.95

Not exactly a simulator, more a race against the clock over five sections each with three different courses. It's not a hard game to play if you don't drive too fast, but you must keep an eye on the clock. The courses contain trenches, tree stumps, hills with a gradient of 45°, a climb over a Volkswagen Beetle to name a few. Controls are through the keyboard or a joystick. There are no spectacular crashes, but you can perform 'wheelies', brake, change gear and so on. Perhaps Super Scramble Simulator is not a game for hardened gamesters, but could be considered for less experienced or younger players.

THE STORY SO FAR - Volume 4
CPC: Disk $39.95 - Tape $34.95

A new compilation from Elite, and the second of this series in the eight-bit bracket. It contains six games of reasonable quality, three of which are based on original films. The best is probably Aliens (from the film) in which you need to track down the source of the beings taking over your crew members. There's Back to the Future following the plot of the film reasonably closely, and Ghostbusters in which you set up a Ghostbuster's franchise, roam the streets clearing them of Roamers and trapping Slimers in buildings. You also get a go at the marshmallow monolith. The other three games are Wonder Boy: an arcade platform-style game in which Wonderboy has to rescue his girlfriend Tina and battle seven types of terrain and ogres; The Eidolon: travelling in time in a deserted old house and finally Quartet, a conveyor belt/platforms/portals style arcade game. This last one (probably not as good as the others) has a two-player option controlling one/two of four characters over fifteen levels. The aim is to destroy a large mechanical monster on each level to get a key which allows you into the next.



As compilations go, this is fairly good, and contains enough to keep you going while you wait for another blockbuster to be released. BUT NOTE: The publishers in their eternal wisdom decided to leave The Eidolon off the CPC Disc version. Space was perhaps a problem. Disc users therefore only have five games in their pack.

STRIDER
CPC: Disk $39.95 - Tape $29.95, PC: 5.25" $59.95

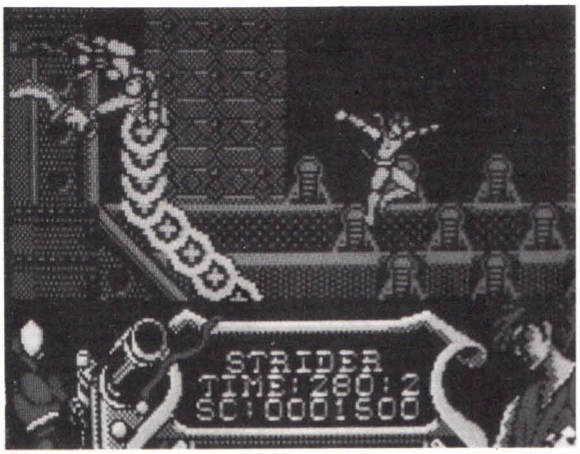
A new style of platform/Ninja type arcade game with the capability of the character (Strider) performing some huge leaps. It's a carefully thought out game of Ninja violence through various locations in Russia - Moscow, Siberia, the jungles (?) in deepest Russia to eventually meet the Master Soviet Mutant.

The initial battles are easy enough but there are some pretty difficult nasties to despatch as you progress and get more confident, in particular a giant worm flashing a sabre around. Technically the game is very sound with plenty of problems to resolve and as such probably requires a little more thought than other games of this kind (e.g.. Forgotten Worlds). A game to be recommended.

SHORT 'n' SWEET

... continued

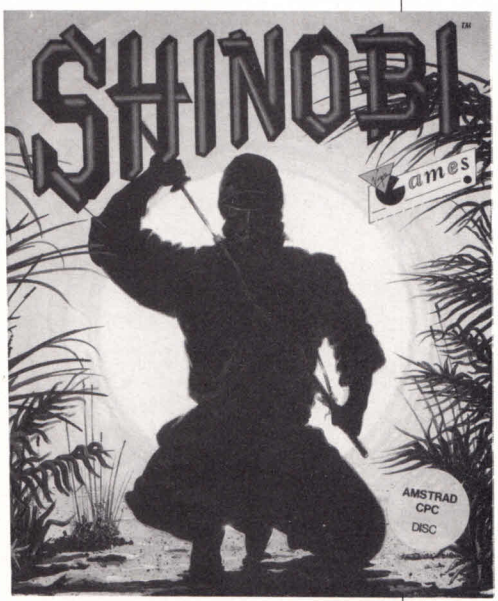
LICENCE TO KILL
CPC: Disk $39.95 - Tape $29.95, PC dual $59.95
Another good film conversion from Domark featuring



the larger than life Bond - James Bond - in which he seeks to avenge the death of his friend. The game starts with a helicopter flight, swooping in on narcotics factories defended by Sanchez's henchmen. This is followed by a gunfight (with limited ammunition) still on the trail of Sanchez who manages to escape in a plane. It's into the helicopter again to chase the plane and hook onto the back of it. The next scene is at a drug drop zone and involves harpoons, divers and gunboats. The finale is a chase in a seaplane with an eighteen wheeler truck armed with missiles and making a dash for freedom.

Licence to Kill seems to be the best of the Bond conversions to date with lots of action and exceedingly good music. It is effectively six different games in one, all of them not too easy, but not too hard either.

SHINOBI
CPC: Disk $49.95 - Tape $34.95, PC 5.25" $69.95
The arcade Shinobi was pretty good and this conversion seems to be just as much fun. The story is that the children of the world's leaders have been kidnapped by a band of nasty Ninjas (Ring of Five) and it is up to Shinobi (that's you) to rescue them. It's a multiload game with tough sections to each level. The pace is fast and furious with plenty of destruction and difficult terrain to mete out and meet respectively.



The Ring of Five's henchmen (doesn't it sound silly when you say henchperson?) consist of street thugs, master ninjas with shields, divers, camouflaged ninjas and spidermen.

Shinobi is merely armed with his hands, feet and an unlimited supply of shurikens and the odd dart. However, he has limited magic powers to summon warrior ancestors to assist when the action gets really tough, especially at the end of a level when he meets Honorable Mr. Big. The main aim is to rescue the children (and earn a dart), which may mean disposing of a few nasties on the way, but the skill in this game (as every martial art fan will know) is using the grey matter and sussing out the particular problem and its solution. Timing is important as well as accuracy.

It look like Shinobi is going to start 1990 off with a bang. It's fast moving, has very good game play and must be recommended to people who like this style of game or a looking for a real challenge.

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**

EXPERT SYSTEM

It's time to forget the theoretical and start to consider the practical, says Paul Gerard.

This month we will look at some ways we can actually get the computer to start thinking about concepts that are not numbers. (Bear with me if you still feel computers can't think at all). To get right away from the rather abstract and philosophic approach we have been stuck with so far we will get right down to a concrete example, and imagine an expert system that is concerned with living things (plants and animals). This is a good place to start because the science of biology has, even since the time of Linneus, been highly "structured" (just can't get away from that word!) in the sense that all living things are regarded as belonging to species which belong to families which belong to orders which belong to classes which belong to phylums (phyla?), which belong to kingdoms. For those of you who have either forgotten your biology or (gasp) never studied it, and find that a little confusing, let's take an example.

My old puss is a cat, which makes her (from the top down):

1. An animal (a member of the animal kingdom).
2. A vertebrate (of the phylum chordata)
3. A mammal (class mammalia)
4. A carnivore (order carnivora)
5. A member of the cat family (family felidae)
6. A member of a particular species (felix felix).

Now let us imagine that we want to represent this stepwise definition of a particular creature symbolically - one way, invented by the great librarian Dewey over a hundred years ago, is to use symbols (probably numbers) applied as if they were decimal fractions. Thus additional definition is carried from left to right. Unfortunately Dewey's own scheme is designed for arranging library books and doesn't work consistently enough for the computer, but pinching his basic idea rather than his application of it we might arrive at the following as our definition of the concept "cat".

Let us take a one place decimal fraction (say .4) and assign to it the meaning "all living things and their environment." The other decimal fractions (.1..2 and so on) we can save for other classes of idea; if you like the "fraction" metaphor then think of them as divisions of a central unity (1) of thought. Then we can further divide .4 as follows:

```
4        living things
45       animals
458      vertebrates
4587     mammals
45878    carnivora
458783   felidae (cat family)
45878355 domesticated cat
```

Note that in practice we have left off the decimal point - if you look at the backs of a few library books you will notice that Dewey moved his decimal point three places to the right to make his numbers easier to read. Since our user will never have the read the "number", and the computer will be treating it as a character string, we don't have to bother with the point at all - but it will help to understand what we are doing if you imagine it there - and each longer "number" as actually representing an increasingly smaller fraction of the totality of possible ideas. Note that when we are likely to have more than nine divisions of an idea it makes sense to add two or three digits rather than one - as "55" to define the domestic pussy. Also note that Dewey's scheme uses quite different numbers - his "4's" are concerned with language rather than biology, for instance.

Why represent an idea in a code like this rather than as a conventional "word"? Basically the advantage is the same as that produced by the original classification of living things, in that we can talk to the computer about whole classes of creatures, knowing that it can apply this information to all members of the class, and we can talk to it about a specific creature, knowing that the computer will be "aware" that this specific idea is part of a larger more general one. It will "know" for instance that a cat is a mammal - and can apply information generally true of mammals to "cat" (say, the possession of hair rather than scales or feathers, and feeding milk to young ones). This greatly reduces the amount of data it must store (and plough through) to retrieve information about any given animal. This applies in fact to any idea, as we shall see when we start to generalise our expert system a bit.

Another advantage of the code is that the idea is universalised, that it is taken away from the domain of a particular word. Because to the computer "cat" is the character string "4587832", and any real "thought" about the idea "cat" is going to be in terms of that string, it can easily be taught to consider "puss" or "mog" as being the same thing - just as our command routine could easily be persuaded to accept several different words as representing the same command. Even more excitingly, it means that our coding, and the bulk of our basic data, can be used unchanged for a version of our expert system designed to work in Arabic or French or Chinese. All that needs to be changed is

the file holding the data that permits translation between the "natural language" and the code numbers.

One drawback is that we need to go to all the bother of compiling a classified list of all concepts - in the case of plants and animals this has already been done for us because that is the way biologists make sense of the multitude of different organisms on the planet, but in the case of other fields of knowledge it is not so simple (we can still do it, but it is a hassle).

Another drawback of our taxionomic "tree" is that it does not give anything like a complete description of the idea of "cat". The cat is a predator, for instance, but so are many animals, including the praying mantis and the crocodile as well as the lion, tiger, leopard and other animals related more closely to old puss.

What we need is another set of ideas - let us call them "attributes" that we can apply to "cat" as well as, say "crocodile". These attributes can be coded and stored in the same way as the codes for the animals themselves - in fact we will store them in an independent file rather than putting them in another field in the file for the animals. Some attributes, with their codes that we might want to assign to "cat" might be:

CW	White (at least my old moggy is)
HA	Domesticated
HAA	Living in human dwellings

Don't worry too much about the derivations of the codes for the moment - the important thing is that all three attributes need to be linked to "cat". One way to do this would be the method we used in "Structured Data", using "field" entries for (say) "Relationship to man", "Habitat" and "Colour" and keep everything in one file, (or one data array in RAM memory). The trouble is that we may want to make many entries for some headings - for instance, cats can be many colours besides white and feral cats don't live in people's homes. A more flexible way of doing essentially the same thing is to have three data files (or arrays) - one for the animals, one for their attributes and a third that "links" the other two. Assuming the other two files will be exactly as above, our "linker" file will include these entries for "cat"-

(Animal code)	(Characteristic code)
4587832	CW
4587832	HA
4587832	HAA

In addition, we will want to include attributes of the wider divisions to which "cat" belongs - say the following:

Cat family (458783)	:	has retractable claws (AK)
Carnivore (45878)	:	is a predator (DB)
Mammal (4587)	:	has fur or hair (AH)
	:	feeds its young milk (RF)
Vertebrate (458)	:	has an internal skeleton (AAT)

These things will be true of "cat", of course, and at the same time true of other creatures on different limbs of our "tree".

Let's get down to programming and see if we can get this working! We will cheat a bit and look at our "report" or enquiry module first - this sort of thing is called "bottom-up implementation" and is actually quite respectable from an academic point of view nowadays.

The first thing is to get our data files set up - since we have not yet got our input routines working we will do this by setting up ASCII files with the word processor; TASWORD, PROTEXT, or WORDSTAR will all do the job nicely. If you haven't got a word processor, then even "ED", the good ole CP/M text editor, is quite adequate for this purpose. If all else fails, you can always cheat by getting this month's cassette and using "CASLOAD" from the CP/M 2.2 disc to load the data files up to disc.

Assuming you are using your word processor (remembering to use its ASCII facility so that you haven't got a lot of unwanted control characters), then simply open files (named as follows) and type in the following data as text. The result is exactly what a BASIC program like Structured Data produces of course. (If you don't believe me then have a look at an SD file)!

1) The following into a file called "animals.exp".

```
12
"452354","Jellyfish"
"4527382","Snail"
"4527768","Octopus"
"452983754","Praying mantis"
"458353","Shark"
"4584798","Cane toad"
"4585455","Crocodile"
"458646287","Budgerigar"
"4587237","Echidna"
"45872736","Wombat"
"45874887","Computer programmer"
"45878355","Cat"
"###","EOF"
```

2) Next a rather longer file called "aniclass.cla".

```
28
"4","Living thing"
"45","Animal"
"452","Invertebrate"
"45235","Coelenterate"
"4527","Mollusc"
"45273","Gastropod"
"45277","Cephalopod"
"45298","Insect"
"4529837","Mantid"
"458","Vertebrate"
"4583","Fish"
"45835","Cartilaginous fish"
"4584","Amphibian"
"45847","Frog or toad"
"4585","Reptile"
```

```
"45854","Crocodile or aligator"
"4586","Bird"
"4586462","Parrot"
"4587","Mammal"
"45872","Monotreme or marsupial"
"458723","Monotreme"
"4587273","Wombat"
"45874","Primate"
"458748","Hominid"
"4587488","Homo sapiens"
"45878","Carnivore"
"458783","Feline"
"###","EOF"
```

3) Then, yet another called "aniattri.att".

```
51
"AAF","has no internal skeleton"
"AAJ","has a jointed exoskeleton"
"AAT","has an internal skeleton"
"AB","carries a shell on its back"
"AC","has its eyes on feelers"
"AD2","has two legs"
"AD4","has four legs"
"AD6","has six legs"
"AD8","has eight legs"
"AE","has a segmented body"
"AF","has cartilage rather than bones"
"AG","has a long thin snout"
"AH","has hair or fur"
"AI","has feathers"
"AJ","has scales"
"AK","has retractible claws"
"AL","has grasping hands"
"AM","has binocular vision"
"CT","is transparent"
"DA","eats plants"
"DAA","eats my wife's roses"
"DB","is a predator"
"DBA","eats ants"
"DBB","kills rats and mice"
"DC","loves coffee"
"DD","laps milk"
"HB","lives in the water"
"HBA","lives in the sea"
"HBAA","get washed up on beaches"
"HC","lives in the garden"
"HD","starts its life in the water, lives its adult life
on the land"
"HE","burrows in the ground"
"LA","propells itself with a jet of water"
"LB","can fly"
"LC","hops"
"LD","erect bipedal stance"
"RA","is hermaphoditic"
"RB","is subject to metmorphis"
"RBA","its juvenile form is a tadpole"
"RC","lays eggs"
"RD","bears live young"
"RE","keeps its young in a pouch"
"RF","feeds its young milk"
"RG","female eats her husband"
"RH","has no placenta"
"SA","is small"
"TA","is venomous"
"TB","purrs when stroked"
"TC","can be taught to speak"
"TD","washes itself with its tongue"
"TE","sentient"
"###","EOF"
```

4) And, finally "anilink.lnk".

```
55
"452","AAF"
"45235","TA"
"452354","HBAA"
"452354","CT"
"4527382","AB"
"4527382","AC"
"4527382","DAA"
"4527382","RA"
"45277","LA"
"4527768","AD8"
"45298","AE"
"45298","AAJ"
"45298","RB"
"45298","AD6"
"4529837","DB"
"452983754","RG"
"452983754","LB"
"458","AAT"
"4583","AJ"
"4583","HB"
"45835","AF"
"458353","HBA"
"458353","DB"
"4584","HD"
"45847","RBA"
"4584798","TA"
"4585","AJ"
"4585","AD4"
"45854","AG"
"45854","HB"
"45854","DB"
"4586","AI"
"4586","RC"
"4586462","TC"
"4586462","LB"
"458646287","SA"
"4587","RF"
"4587","AH"
"45872","RH"
"458723","RC"
"4587237","DBA"
"4587273","HE"
"4587273","RE"
"45874","AL"
"45874","AM"
"45874","RD"
"458748","LD"
"4587488","TE"
"45874887","DC"
"45878","DB"
"45878","RD"
"458783","TD"
"45878355","DBB"
"45878355","DD"
"45878355","TB"
"###","EOF"
```

Oops! That's about all we have room for this month. Clever programmers can probably already work out roughly how we will be using these things - have a go at making sense of it all yourself!

For the rest, we will be having a purely "practical" session next month, and getting our first real "intelligent results!

SATCHEL'S SELLING!

Finally, Angle Park Computer Centre's Satchel software range of Educational CPC software has made it onto our mail order pages! Here is a quick look at the titles we now have in stock.

Readers interested in educational software, teachers in particular, may have read some articles which appeared a few months ago concerning Satchel Software. This is the label under which Angle Park Computing Centre (part of the Education Department of South Australia) publish software for both the CPC6128s (under CP/M) and PCs running under MS-DOS. The articles discussed some of the software packages they produce, but really only scratched the surface of the list of the forty or so titles available for the 6128. It would be a mammoth task to review all the products (although we may pick one or two in the future), so for the time being we will attempt to satisfy the thirst for more information by presenting a run-down of each.

ABSCONDED CONVICTS - $40
A database about the convicts who escaped during the first quarter of 1838. It contains details on more than 200 convicts and gives their age, gender, physical characteristics, the place of escape etc. A valuable resource when researching this era of Australia's history.

AFRICAN FARMING GAME - $40
Places you in the position of a small farmer trying to survive droughts, disease and starvation. Your ultimate survival relies on good management and just a bit of luck.

ANNA - $55
An interactive fiction based on the novel by Colin Thiele called 'The Seed's Inheritance'. It is non-sexist, non-violent and encourages a close examination of the lives and hardships of our early pioneers. A hard-cover copy of the book is included with the package.

ARTWORKS - $40
This is a paint package intended for use by students of all ages. It is simple to use and has many sophisticated features such as rotating objects and filling in shapes. You can draw circles, boxes and ellipses on the screen using the cursor keys or joystick and splash paint all over the place.

CATASTROPHES - $40
A set of 5 databases on disasters that were caused by human error, rather than atmospheric or geomorphic conditions. The five are: Aviation, Fires, Traffic, Water and Others and contains information about most major events since 1970.

CHART BUSTER - $40
This is a simple but very effective graphing package that enables you to quickly produce line graphs, bar charts and pie diagrams. Chart Buster allows you to plot 2 sets of data, each with a maximum of 20 values - the X and Y axes are scaled automatically. You can also specify the graph title, labels for the X and Y axes and a legend. Swapping between graph types is just a matter of using a function key.

CONVICT SHIPS - $40
Is a set of databases about the many ships that transported convicts from England and Ireland to Australia between 1800 and 1868. The handbook includes 11 classroom activities and valuable information about this important era in Australia's history.

CORDIAL STALL - $40
A simple but entertaining game for upper primary age school students. The task is to sell cordial to a hot and thirsty public, but the weather can be unkind, the competition tough and bankruptcy lurks behind every decision.

CROSS WHIZ - $40
An easy to use program that allows you to rapidly create and print crosswords with solution sheets. A special feature allows the shape of the crossword to be modified.

DISASTERS - $40
This package is a resource for teachers to enhance the study of atmospheric and geomorphic hazards. There are six databases covering storms, earthquakes, floods etc. It has over 1000 records.

DRAGON WORLD - $50
An Amstrad version of the very popular 4MATION original. The package is more than just another adventure game - it provides the user with a range of resources that could form the basis of a whole term's work. An audio tape of the exciting story and original music is included.

FINDABOOK - $40
The Findabook database has information on more than 1000 books currently available in Australia. The books have been selected as good children's literature by teachers and school librarians from all the States.

FIRST FLEET - $40
This database contains 777 records on the first convicts to come to Australia. Each record has the convict's name (and alias, if applicable), sex, age, ship they were transported on, place and date of trial, the crime and its value, the sentence and the convict's trade. The package provides extensive classroom activities with 20 worksheets that range from simple to complex searches on all fields of the database.

GRANNY'S GARDEN - $40
Granny's Garden is a structured adventure game written for lower and middle primary school children and is based on the popular BBC program of the same name. It has lots of graphics and is great fun!

GUESS THE WORD - $40
This is a primary program that asks the user to guess the letters that make up a word - it is similar in concept to the 'hangman' type game. The teacher controls the word lists, the number of the wrong guesses and the time limit.

HAMMURABI - $40
A game in which you are in charge of managing the ancient city of Sumeria. Initially it has 1000 hectares of land, 100 people and 3000 bushels of grain in storage. You can use the grain to buy and sell land, plant crops and feed people - but life isn't that easy.

JARA TAVA: The Isle of Fire - $40
A classic adventure game with sensational graphics involving pirates, volcanoes, hidden treasure, excitement and a plot with numerous twists that will stretch the imagination of any middle primary children - and older! They must cross shark infested waters, avoid horrific pitfalls in dark, dank caverns and can even try their hand at hang gliding.

The adventure game includes a 100 page resource book packed with ideas for classroom use.

KADIMAKARA: Creatures of the Dreaming - $50
Kadimakara is a unique window into our prehistory allowing students to discover the world of Australian dinosaurs, the giant short-faced kangaroo, the 7-metre goanna and the family of diprotodons.

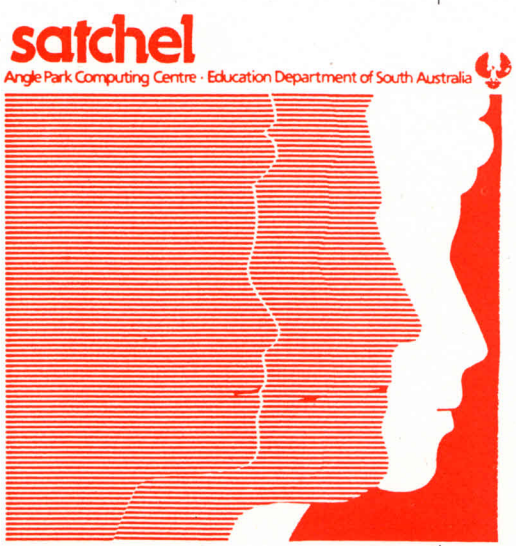
The package contains a full colour screen illustrated guide (Picturebase) to fifty of Australia's most interesting antediluvian fauna beginning with the trilobite, through the giant amphibians, to the dinosaurs and ending with the 'mega-fauna', along with Timeline software covering the last 500 million years of our prehistory with information about the periods in which the animals lived. There's also a teacher's guide supplying dozens of ideas and a detailed guide to resources.

Supplementary software includes a program to print out a 25 page 'skeleton' time line, 8 files to use with Satchel's 'Word Hunt' program, 2 Tree of Knowledge trees and a 'Story Paths' starter file.

LOGO SCREEN DUMP - $30
This program allows teachers and students to get printed output of their LOGO pictures. The manual contains full installation instructions. The program requires DR LOGO.

MATHBOOSTER - $40
Allows student to improve their number skills using an exciting arcade game. The mission is to maintain satellites in orbit through the use of addition, subtraction, multiplication and division. The nature of the arithmetic problems and level of difficulty are easily selected to suit individual needs.

MATH GAMES 1 - $40
Contains three games each with colour graphics and variable difficulty levels. Moon Bus provides practice at dealing with number sequences. Factor Games is two programs in one (Factors and Taxman) but both are based on the factors of numbers. Escape is based on the concept of building a series of number sentences that contain three different numbers and two different operations.



MATH GAMES 2 - $40
Three more games. Maximum is a deceptively simple strategy game that can be played against the computer or a human opponent on a 6x6 matrix of numbers, either all positive or a mix of positive and negative numbers. Balloon Burster displays eight balloons and the user has to estimate the angle through which to rotate a laser so as to burst each balloon. Zoo Patrol has four animals hiding on a 9x9 grid that have escaped from the zoo.

MATH HOPPER - $40
Similar to Mathbooster, this package allows students to jump a frog across a stream providing they give the correct answer to the arithmetic logs that float past. Great fun!

MOSAIC - $40
A simple picture-making program suitable for junior primary school. A joystick or keyboard is used to select patterned tiles and place them on a grid to build up a picture. It comes with a set of tiles to work with or children may create or modify their own tiles. When finished, the picture can be saved to disk for later retrieval or may be printed out.

NEWS WRITER - $40
This offers 2 simple word processors for primary students - one allows 48 separate short stories to be saved as a single file and printed out under the one banner. The package also includes a utility to produce big print.

OMICRON - $40
A fast disc-based menu-driven database package, with elegant search technique. It is compatible with existing Rambase files.

PATHWEAVER - $40
This is an adventure creator allowing students to create reasonably complex text adventure games with up to 50 locations. A printer is desirable, but no programming knowledge is necessary.

PICTURE BOOK - $40
A package which allows students to create stories using words and pictures. It has more than 200 picture objects already drawn and these can be placed anywhere in the picture window.

PICTURE BOOK COMPANION - $40
A further 176 objects ranging from Humpty Dumpty, Cyclops and baby dragons (and all the other characters from Granny's Garden) through to flying carpets and the Roadrunner. The disk also has a more superior printout facility. Requires the Picture Book Program.

POINT PUER LADS - $40
A database containing information on the criminal backgrounds and convict experiences of 118 individuals who spent time at Point Puer, a prison for juvenile convicts and part of the Port Arthur Penal Settlement.

SAILING SOUTH - $40
A database containing information about more than 500 passengers aboard the first nine ships which reached South Australia in 1836.

SETTLEMENT - $40
A simulation of some of the problems encountered when establishing a colony in the 18th century. It is intended for use with middle to upper primary students.

SOFTWORD - $40
An easy to use word processor that features powerful editing and formatting commands. It is suitable for use by students at all levels.

STEP INSIDE - $40
A machine code simulator illustrating the fetch-execute cycle and memory addressing techniques for the Amstrad 6128.

STORY PATHS - $40
A program that allows you to write and read interactive stories. You interact with a story by making choices between various paths that the story may follow. You can print out the individual story pages so that you can create your own interactive books.

THE PRINT MACHINE - $40
Allows you to produce Banners and Posters quickly and easily. It also has a simple and easy to use word processor - ideal for primary students.

TREE OF KNOWLEDGE - $40
A primary sentence-building and discrimination program in which the student plays a guessing game with the computer. When the computer fails to guess the object, the student must add the object to the Tree and give it a distinguishing feature.

WHERE'S BABY BEAR? - $40
A new junior primary illustrated adventure in which you have to discover the 'bear' facts and reunite the Bear family.

WHICH WAY WORDS - $40
A program that allows you to hide a list of words (either your own or a prepared set) in a block of seemingly random letters. The words are hidden on the rows, columns and diagonals of the blocks. An excellent way to improve spelling!

WOMEN'S SERIES - $40 each or $90 all 4
A series of 4 databases on: Australian Women, Women in Science, Women in Society and Women in Sport.

WORD HUNT - $40
A program designed for children of primary school age to improve reading comprehension. It presents a passage of text that has some words missing and the children, using contextual clues, have to guess what goes where.

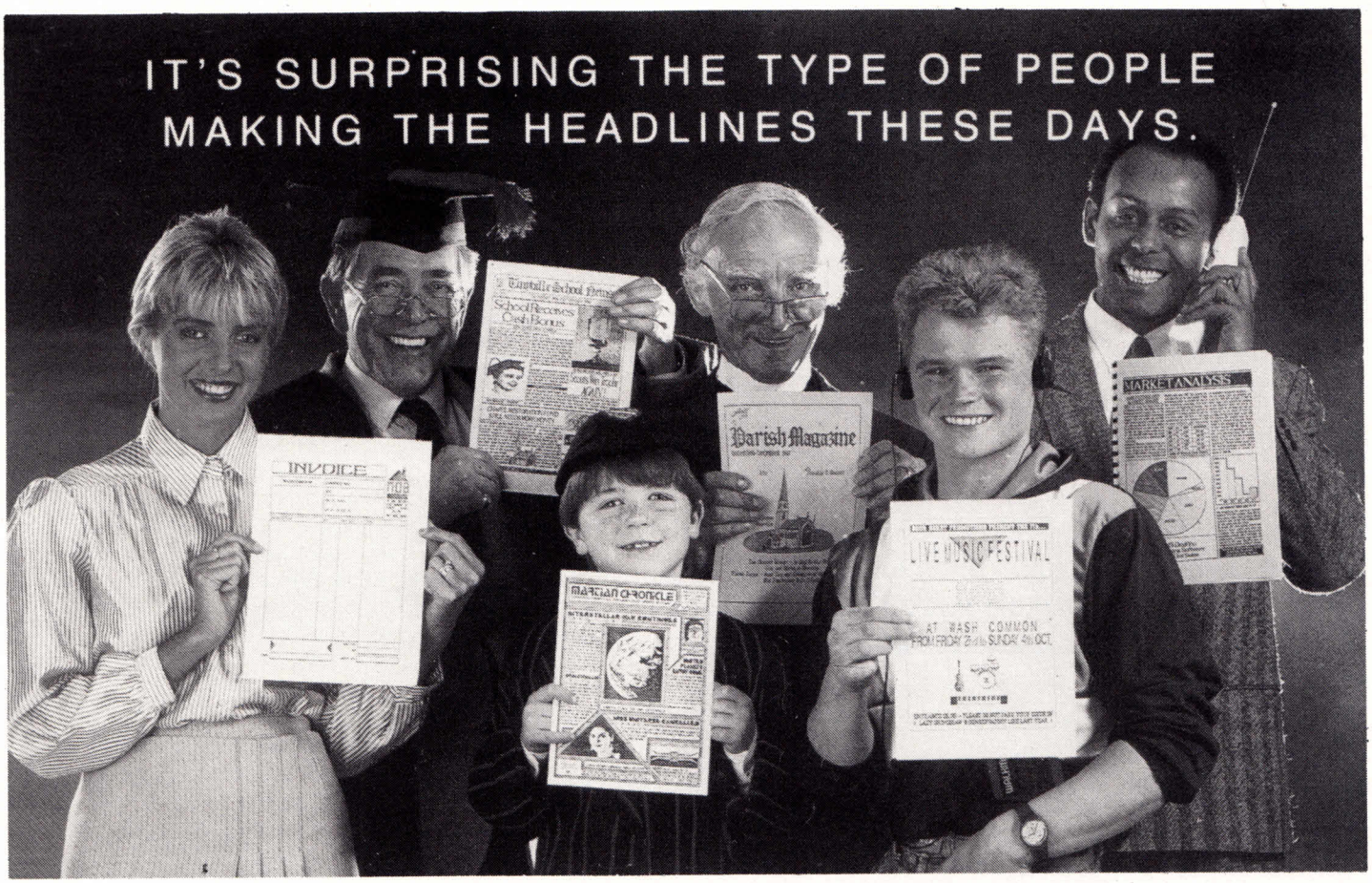
WORD HUNT COMPANIONS - $40 each
Volumes 1 and 2 have six passages from 12 books suitable for 'clozing'. The books represent some of the best in children's literature, such as Charlotte's Web by E.B. White and Flat Stanley by Jeff Brown.

Volume 3 contains 64 nursery rhymes ready for teachers to cloze. The Companion provides a secure and familiar context for junior primary children to practice reading.

WORD PROCESSING PACK - $40
This pack offers two word processors (Easy Word and SoftWord) and a utility to print large letters. Great value!

WORLD WIDE - $40
A series of databases of demographic and economic statistics for 165 countries of the world. It has statistics for 1970, 1977 and 1982 and allows the analysis between countries and continental areas. Further databases can be created if necessary.

That completes the round up of Satchel Software for the 6128. In a future issue we hope to list the software available for PCs. It is worth noting that although a lot of the above software has been written for a classroom environment, there is no reason why the same packages cannot be used at home, with the parent replacing the teacher.



STOP PRESS

'Stop Press' puts you right at the heart of the Desktop Publishing Revolution. Utilising dynamic WYSIWYG (What You See Is What You Get) facilities, 'Stop Press' makes it simple to create professional newsletters, leaflets, flyers, forms or in fact anything where text and graphics is required.
'Stop Press' is the ideal publishing software solution for home enthusiasts, schools, societies and small businesses.

READ ALL ABOUT IT

Documents may be prepared using any of the superb selection of type faces (12 or more) supplied or alternatively a typeface of your own design.
Text can be entered from within 'Stop Press' or imported from your preferred word processor with fully automatic on-screen text formatting as the file loads.
Centering, ragged right, and literal justification are all available. There also also is full pixel resolution control over character size and spacing.

GRAPHIC DESIGN

As well as the ability to import digitised images there are outstanding facilities for drawing, spraying and painting using either the patterns supplied or your pattern designs, enabling you to produce graphs, charts diagrams and pictures.
These can be pasted, cropped or re-sized to fit any layout, and for those finishing touches a fantastic zoom is available.

HOT OFF THE PRESSES

At anytime your pages can be previewed before being output to a wide range of Epson or compatible dot matrix printers.

AMX MOUSE

'Stop Press' can be used with a joystick or keyboard but the AMX MKIII Mouse gives you the control and flexibility which you would expect from the most accurate pointing available. Produced in Switzerland the AMX Mouse has a unique patented design which includes high resolution movement (D.P.I) and superior ball technology to ensure contact between the Mouse and the surface is constant at all times.

EXTRA! EXTRA!

Complimenting 'Stop Press', Extra! Extra! is a superb collection of ready made clip art and new typefaces covering a wide variety of subjects and styles.

CPC Stop Press (needs 128k)	$159.00	CPC MouseWith Interface	$150.00
with Mouse	$289.00	PCW Mouse With Interface	$165.00
PCW Stop Press	$179.00		
with Mouse	$299.00	CPC Extra! Extra! Clip Art Disc	$89.00

Available From;
The Amstrad User,
641 High Street Rd.,
Mount Waverley. VIC. 3149.

• ***Firm** orders may be phoned through on (03) 233 9661 (Bankcard, MasterCard, Visa accepted)* •

MNEMO... WHAT?!

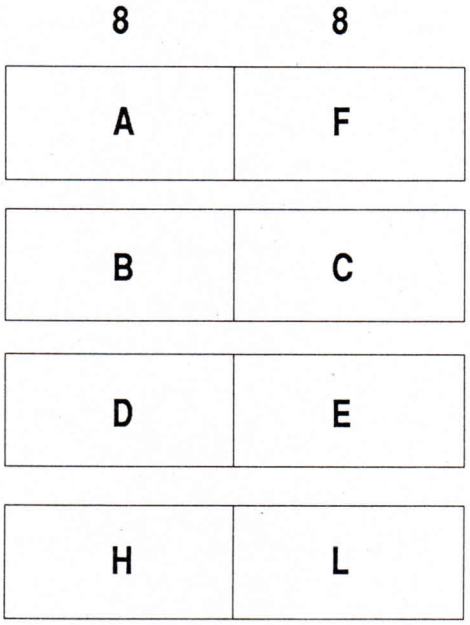
Joseph Elkhorne explains mnemonics, registers, and other things to make a hacker's mouth water.

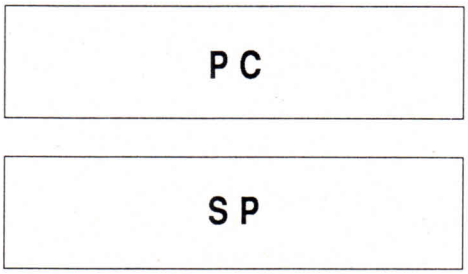
And a Happy New Year to you all. I trust the New Year's resolutions haven't already been broken when you read this column.

Rolling into the new decade we will nonetheless be looking backward, no doubt to the chagrin of Z80 enthusiasts. Our approach to assembly language will look in a little more detail at the earlier microprocessor architecture that CP/M was based on. As previously, we'll use the tools supplied with the machine for our investigations.

The 8080 is a three-bus device, consisting of an 8-bit data bus, a 16-bit address bus, and a control bus. Even though the bus external to the microprocessor has only 8 bits or lines, we have some internal capability of 16-bit manipulations.

Confucius allegedly said: "A picture is worth a thousand words." Ah, so - we'll take a squiz at the layout.





When you code a program, you're manipulating the above registers - which you might liken to variables in BASIC. The A register, or accumulator, is either forced to a value by you, the programmer - or accepts the result of an internal calculation of some kind. The latter process takes place in another block called an Arithmetic Logic Unit, but let's not get too deep at this time.

Beside the 8-bit A register is a F (for Flag) register. This clever devil is what allows the microprocessor to make decisions, as it were. Again, we'll leave that for later. Obviously, if you're dealing with only 8 bits, you have 256 possible values which can be held. Thus, the A register is capable of holding the values 0 up to 255. In BASIC, you would set a variable like this:

```
(LET)  alldone = 42
```

Using assembly language, it is MVI A,26

Charming, what? This is a 'mnemonic' - an "easy to remember" code that describes the function of the instruction. So, let's decode it. Simply MoVe Immediate the value at the end of the statement into the register. Easy!

But the numbers are different, you say. BASIC is mostly done in decimal; though you can specify decimal values in assembly language, get used to working with hexadecimal representation. The instruction values and diagnostic aids will be in hex.

That mnemonic could also be referred to as an OPCODE, another buzzword to describe an instruction, or operation code. Although it might seem formidable, it's certainly better than this:

```
0011 1110 0010 0011
```

That, of course, is the bit representation of the above instruction and describes the volts and no-volts on the data bus lines. The first binary byte is the instruction and the second byte is the value to work with.

You'll find you can MoVe Immediate values into the registers A,B,C,D,E,H,L and M. What's M? M is for memory and gives you the capability of treating a specific address just like a BASIC variable. Since it's a more complicated instruction, we'll save it for another day.

Not only can you set the registers, you can move 'em around. Thus, the next mnemonic to consider, naturally enough, is Move. One example will suffice: MOV L,A

Thus far, we're dealing in 8-bit values. Later, we'll see that BC, DE, and HL can be treated as register pairs, and manipulated as 16-bit registers, also.

Well, you started by setting or loading a numeric value into A. This might be a turns counter. When the turn is complete, you make the value smaller. Once the program reaches zero, the game is complete. How is this recognised? Aha, the Flag register reacts to the situation. As you might expect, to make the value smaller you simply DeCRement the register:

```
DCR A
```

The reverse possibility is an InCRement instruction.

You're getting pretty capable of manipulating data in registers, aren't you? You can force them to a value, shift them from one place to another, make them bigger and smaller. Well, you wouldn't really be surprised to find that you can add registers, subtract them, and even more.

When it comes to the 16-bit register pairs, if you expected consistency of terms, you'd be wrong. Therefore, we now find LXI H,1234 is Load indeX Immediate with the data following the comma. H actually refers to the HL register pair. So, if you do this, what value do you think would appear in the B register?

As an instruction sequence starts in Low memory and works its way up to High, we see that the 12 value comes before the 34 value. So — the H register would end up containing 34 and the L register would have the 12. It's sort of like thinking inside out. The instruction would set the HL register pair to 3412, possibly as a pointer to an address. If you intended or expected 1234, the result would be a grave disappointment, and possibly a program crash or endless loop. You'll have that happen more than once in learning to deal with machine code.

OK., you've got the rudiments of instruction handling. Now, let's watch a bit of it happening. You'll want a work disc with some utilities, primarily SID if you're working with CP/M Plus or DDT for the earlier 2.2 version.

I'll stick with SID; you other lot will have to do a bit of interpretation. Boot up CP/M and enter SID. There's a few commands you'll have to get used to. Some of this has been glossed over in earlier columns.

A for Assemble
L for List
S for Set byte
X for eXamine registers
G for Go (with caution!)

I'll PUT a worksession out, with commentary. Here goes!

```
CP/M 3 SID - Version 3.0
#a 100
?
```

[notice the deliberate mistake above — SID responds with the ? symbol to tell you it doesn't know what you're talking about]

```
#a100
0100  mvi a,42
0102  mvi b,12
0104  mvi c,34
0106  mvi d,56
0108  mvi e,78
010A  mvi h,9a
010C  mvi l,bc
010E  inr a
010F  inx h
0110  dcr c
0111  .
```

[I've poked in a few instructions, including one I did not refer to before. Most of you will probably have figured out the inx h refers to incrementing the HL register pair]

[. full stop terminates the assembly process]

```
#l100
 0100  MVI  A,42
 0102  MVI  B,12
 0104  MVI  C,34
 0106  MVI  D,56
 0108  MVI  E,78
 010A  MVI  H,9A
 010C  MVI  L,BC
 010E  INR  A
 010F  INX  H
 0110  DCR  C
 0111  NOP
```

[I've merely listed area to verify instructions]

```
#x
 ----- A=00 B=0000 D=0000 H=0000 S=0100 P=0100 MVI  A,42
```

[now I eXamine the starting environment and follow it with a Trace command, which on its own is a single step function]

```
#t
 ----- A=00 B=0000 D=0000 H=0000 S=0100 P=0100 MVI  A,42
*0102
```

[SID executes the command BUT shows you the beginning register values: A, BC, DE, HL with S being the stack pointer and P the program counter. Lastly is the instruction

starting at that program address.]

```
#x
 ----- A=42 B=0000 D=0000 H=0000 S=0100 P=0102 MVI  B,12
```

[The asterisk above serves as a pointer to the next instruction. I follow up with another eXamine and find that, indeed, A is 42, just what I told it to be.]

```
#t
 ----- A=42 B=0000 D=0000 H=0000 S=0100 P=0102 MVI  B,12
*0104
#x
 ----- A=42 B=1200 D=0000 H=0000 S=0100 P=0104 MVI  C,34
#t
 ----- A=42 B=1200 D=0000 H=0000 S=0100 P=0104 MVI  C,34
*0106
#x
 ----- A=42 B=1234 D=0000 H=0000 S=0100 P=0106 MVI  D,56
#t
 ----- A=42 B=1234 D=0000 H=0000 S=0100 P=0106 MVI  D,56
*0108
#x
 ----- A=42 B=1234 D=5600 H=0000 S=0100 P=0108 MVI  E,78
#t
 ----- A=42 B=1234 D=5600 H=0000 S=0100 P=0108 MVI  E,78
*010A
#x
 ----- A=42 B=1234 D=5678 H=0000 S=0100 P=010A MVI  H,9A
```

[repetition of the process, checking each time to see the results.]

```
#t2
 ----- A=42 B=1234 D=5678 H=0000 S=0100 P=010A MVI  H,9A
 ----- A=42 B=1234 D=5678 H=9A00 S=0100 P=010C MVI  L,BC
*010E
```

[Here I've gotten adventurous and let SID do two instruction steps. No x command was needed to display the two register dumps.]

```
#x
 ----- A=42 B=1234 D=5678 H=9ABC S=0100 P=010E INR  A
#t
 ----- A=42 B=1234 D=5678 H=9ABC S=0100 P=010E INR  A
*010F
#x
 ----- A=43 B=1234 D=5678 H=9ABC S=0100 P=010F INX  H
#t
 ----- A=43 B=1234 D=5678 H=9ABC S=0100 P=010F INX  H
*0110
#x
 ----- A=43 B=1234 D=5678 H=9ABD S=0100 P=0110 DCR  C
```

[If you don't believe HL was handled as a 16-bit register pair, try setting it to 3FFF.]

```
#t
 ----- A=43 B=1234 D=5678 H=9ABD S=0100 P=0110 DCR  C
*0111
#x
 ----- A=43 B=1233 D=5678 H=9ABD S=0100 P=0111 NOP
```

[Similarly, you can verify the 8-bit independence by DeCRementing B instead.]

```
#t
 ----- A=43 B=1233 D=5678 H=9ABD S=0100 P=0111 NOP
*0112
#t
 ----- A=43 B=1233 D=5678 H=9ABD S=0100 P=0112 NOP
*0113
#
```

And here I exited SID by using Control-C. Note that I stepped beyond the instructions I entered. This can be dangerous. If you trace into "rubbish" you may end up with a hung machine. It's advisable to end a program entered this way with RST 6, which returns control to the Command Control Processor.

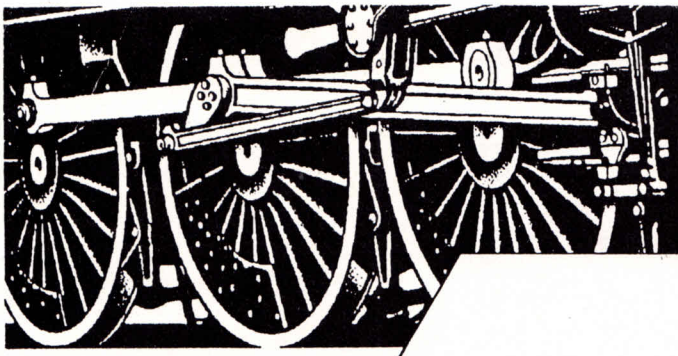
Once you get a bit of familiarity with this sequence, you can enter a string of instructions and let the program execute completely by using the G command. They say you have to crawl before you can walk.

Now that you can drive SID, it's possible to test the effect of every instruction in the set, by using this process. In the coming months, we will discuss the large number of instructions, and even more fascinating ideas, such as coming to grips with the CP/M system routines. These latter will save you from re-inventing the wheel.

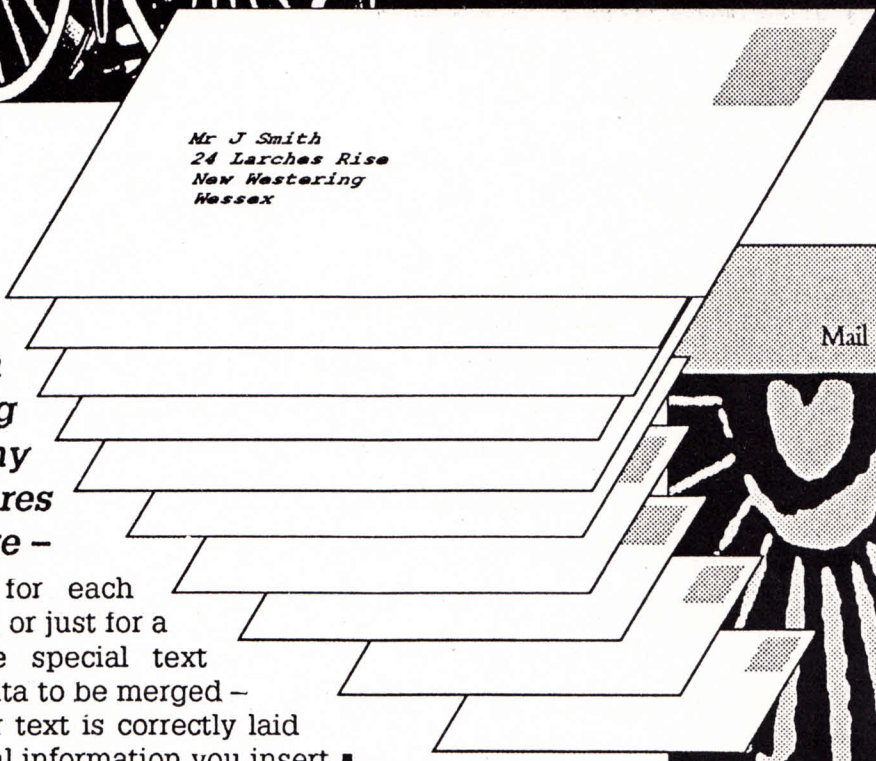
From this foundation, we will quickly progress to sets of instructions that actually do something. Before long, you'll be accessing the screen, hooking into the heart of the CP/M system itself, and implementing disc routines. There's a lot to learn, so make a resolution to stick with it.

REMINDER

If you are reading this and today is not yet Tuesday, January 16th or later, please don't ring The Amstrad User mail order service or editorial because no-one is home. We're all hopefully still lazing in the summer sun drinking tequilas, listening to the beach boys, tanning beautifully, licking icy-poles, reading Kafka, sleeping till 12, having wet T-shirt competitions...

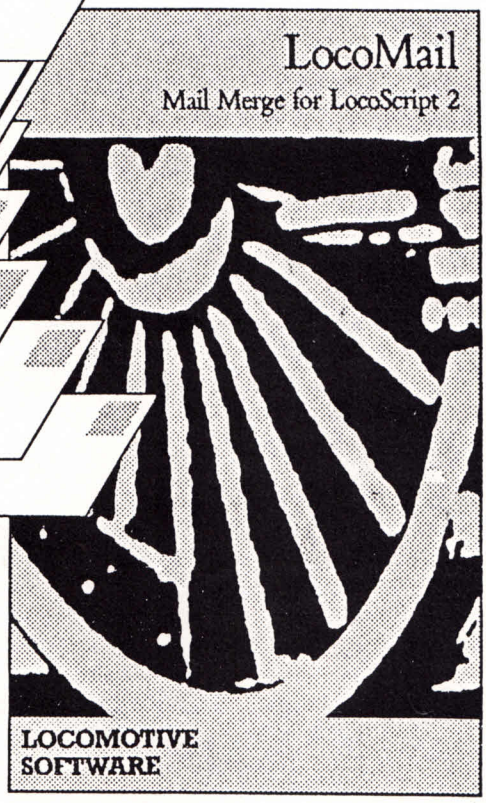


LocoMail
for LocoScript 2



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.

ALL ABOUT FLOPPIES

Kevin McLean gives some advice on how to avoid a big disaster with those infuriating yet essential floppy discs...

Computers can store data in several ways. Audio tapes, discs or diskettes, cartridges, streaming tape, CD ROMs and optical storage (the newcomers) are the main ones. Most of these mediums are magnetic. The humble audio cassette is the most basic of storage mediums and those home computers that use this method do so because it is very cheap. Unfortunately, it is far from reliable, as anyone who has saved their own programs to tape, will testify. The tone and volume of the cassette recorder have to be 'just right' to achieve consistent storage. If several tape recorders are to be used better results can be obtained by 'standardizing' the recorders at the local electronics shop.

Floppy discs are the most common form of storage. They are reliable, re-usable, easily transportable and convenient. Over the years discs have become smaller and more reliable. The original 8 inch floppies were cumbersome and awkward. The advent of the 5.25 inch disc saw a much more manageable medium come about. Although a little fragile, this disc was easy to transport and post through the mail. The 'new wave' of floppy is the 3.5 inch. Amstrad have their own (expensive) 3 inch floppy. Although the three are called floppies, the outer casing has been improved to be rigid plastic instead of soft plastic. The term 'floppy' actually refers to the magnetically coated piece of plastic that actually stores the data. There is an even smaller floppy disc used by Sharp, the 2.5 inch, for their Pocket Computer series.

FORMATS

Now, if you wanted to find one of the most confusing areas of computers, formats would be a contender. If discs can be thought of as ELVIS records then the record player would represent the computer. Just as the notes and tunes are stored on the record, data used by programs, is stored on magnetic discs. Going a step further, most record companies agreed to limit the playing speeds to 33, 45 and 78. Well, the same cannot be said for computer companies. There are literally hundreds of different formats available for computers. Most manufacturers have developed their own systems. In order to read these disc formats each manufacturer, in turn, has developed their own Disc Operating System... Amstrad DOS, Apple DOS, Commodore DOS, etc.

There has been an attempt made to standardize the format for 5.25 and 3.5 discs. This format is generally 360k double sided for the former and 720k double sided for the latter. This has meant a boon for a company called Microsoft, which developed it's own DOS... MS-DOS. It has also made it simpler to transport data and programmes from one computer to the other. Double sided discs require computers to have double sided disc drives to read them.

Just as our ELVIS record has to have a format, so does the floppy disc. Every floppy has to be formatted before use. This allows Floppy disc manufacturers to let users put their own particular formats on the floppies. An interesting example is the Amstrad 464 and 6128 machines. They use 180k discs, but can be formatted using CP/M to an IBM format. All floppies are formatted into tracks and sectors. The tracks being similar to tracks on our ELVIS record and the sectors being slices of the record, similar to a cheesecake.

The 'general' idea of formats is to optimize the capacity of the floppy disc and to allow quick data retrieval. Some computer manufacturers have achieved their aim, others appear to have failed dismally. Simplicity is the key to any data retrieval system. Tape recorders are a good example of an inadequate system. The user just wants to store the data quickly and simply, and audio tapes fail on both counts.

READING AND WRITING

After formatting a floppy and writing a 30 page letter, we are now ready to 'save' this data to disc. If you're like me then, sometimes half way through 'saving' your letter, a midget appears and pushes the drive release button. Most users have probably suffered the above example. The 'midget' can be a relative, unknowing friend, or even our own impatient hand. The reason the letter cannot be found again is because DOS does not know where the end of the 30 page letter is.

When writing files to disc several operations occur at once. Take our letter. DOS stores the file name, size, date and where it will store the file (see DIR/P command). Usually, the date and other basic information regarding the file itself are stored as well. Besides storing the file physically on the floppy disc, an entry is made in an index system that every floppy has, called the DIRECTORY.

MS-DOS stores this 'index' in the first 4 tracks of the disc. 112 directory entries are allowed in the ROOT (main) directory of any MS-DOS floppy. There can be several Directories, but in general floppy users would only use the ROOT directory for file storage.

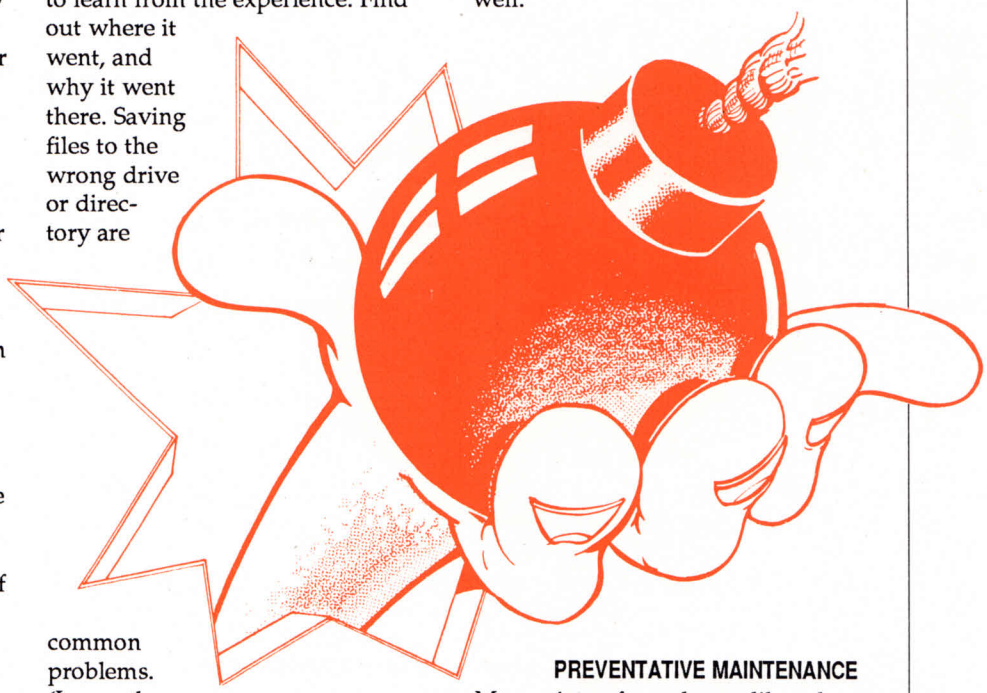
When the disc drive is reading or writing to disc it is imperative that the floppy is not removed or bumped in any way. Disc drives only have a clearance of approximately one human hair, and so a good kick or bump could send your 30 page letter to parts unknown. All floppies have a read/write protection scheme designed mainly to protect new users from their own curiosity.

FLOPPY FAULTS

There are dozens of possible errors when dealing with lost files. If a file doesn't arrive intact on the floppy, the obvious thing to check is the read/write protection. The file itself could cause a problem if it is marked by DOS as READ ONLY. The next most common problem seems to be bad software. Some software writers don't allow for simple problems... such as forgetting to place a floppy in the CORRECT drive or using a floppy which is full up with files. Most commercial software shouldn't have this problem (although I wouldn't bet money on it).

Then come the more unusual faults, such as bad tracks or sectors on the actual floppy. These can be caused by poor manufacturing or by user error. Apart from pulling floppies out of still spinning drives, care in handling is important. There are bad floppies on the market that just aren't worth a cracker. El cheapo floppies without guarantees should be avoided. However, generally speaking, bad floppies probably come in batches, rather than brands.

The computer is involved in writing the data to disc, even though the disc drive does the hard part. Instructions come from the software and DOS saying where to write, what to write, and in some cases (archiving) how to write the data. Losing a file is a nuisance and it happens all the time, but it is much better than losing a floppy! My best advice to anyone who loses a file is to learn from the experience. Find out where it went, and why it went there. Saving files to the wrong drive or directory are common problems. (I recently saved a file to the wrong computer!)



FLOPPY CARE

As dust is the mortal enemy of floppies, it makes sense to keep floppy discs in a clean environment. A dust proof container is the best. Special floppy disc boxes are on the market for reasonable prices. Ice cream contains are OK, if you are really desperate. Originals should be locked away in dust free drawers or cupboards where moisture cannot get at them. 5.25 inch discs are susceptible to the 'carbon copy' effect. That is, if you write on a floppy label, do it gently, or even better, write on the label before sticking it on the floppy.

Avoid over-handling the floppies, especially around the areas where the magnetic drive is visible. If scratching occurs, copy as many files as possible and try reformatting the floppy several times. The bin is the next best bet (if you don't know anyone who can save the 500 page book you just wrote)! Some floppy discs just don't want to spin quietly. I have found it best to change brands until a good one is found. Floppies can be found that are cheap, have guarantees, and work well.

PREVENTATIVE MAINTENANCE

Magnetic surfaces do not like other magnetic fields, sticky substances, spirits (or beer), scratches and the real enemy DUST. Any magnetic head reading device, be it video, tape or computer must be treated like a new born infant. No sudden bumps, keep clean, and change the nappy regularly. The nappy, in this case is the HEAD and it should be cleaned monthly. Head Cleaning sets can be expensive, but may prevent costly repairs later.

When file and disc data does go walkabout all is not lost. Most times the damage can be repaired or the data transferred to a new floppy. Disc and file repairing software is available, commercially and through the Public Domain. Norton's Utilities, Mace and PC Tools are the most well known for IBM compatibles. Oddjob, and Sweep are the CP/M ones I remember best. MS-DOS also has it's own disc repairer called CHKDSK.EXE, which comes in handy for errant files and difficult directories.

TO COIN A PHRASE

LocoScript allows you, with just two keystrokes, to insert your most commonly used phrases into all the documents you write

If you prepare a lot of similar documents, you probably find that the same pieces of text crop up regularly. Business letters, for instance, typically use a number of standard expressions or sentences. Rather than make you type these same pieces of text in all the different documents you create, LocoScript allows you to store them as 'phrases'. Then each phrase can be inserted using just two keystrokes. This articles shows you how you can put these phrases to good use.

Using phrases is all about saving yourself effort. The most common need for phrases is probably in letters, where they can save you typing ' Yours sincerely', 'Your reference' and the like over and over again. However they are just as useful in many other types of document. For example, an estate agent might keep a set of phrases containing brief descriptions suitable for different types of houses ('mature garden', convenient for the station' etc.) or a hotelier might want information on tap about the facilities the hotel offers.

Up to 26 such phrases can be in use at any one time. In LocoScript 1, you could only use one set of phrases but in LocoScript 2, you can have as many different sets as you like, and you can easily change the set of phrases LocoScript is using at any stage. This is particularly useful, because it means you can keep different sets of phrases to suit the different types of document your prepare - one set for business letters, one set for replying to job applicants, and so on.

The phrases that you want to use most often in your documents need to be stored in a file called PHRASES.STD within group O of your Start-of-day disc, the set of phrases stored in this file will automatically become available for use.

WHAT PHRASES ARE

Phrases are sections of text that are held in memory while you work and that you insert into your document by pressing the [PASTE] key followed by a letter (the phrase's name). This sort of operation probably sounds very familiar to you because LocoScript has another way of helping you to insert sections of text as your prepare a document - 'blocks'.

Phrases and blocks are stored and used in much the same way. You copy text into both a phrase and a block by using the [COPY] and [CUT] keys, and you insert text from a phrase or block using the [PASTE] key; the only difference is that you store a phrase by associating it with a letter (A, B, ...Z), but to store a block you type a number from 0 to 9.

However, phrases and blocks fulfil very different roles, when it comes to preparing your documents. The purpose of blocks is to make it easy for you to move or copy large sections of text within your document or between different documents. LocoScript therefore lets you store a substantial amount of text in a block. Phrases are used to store smaller sections of text, and each phrase is limited to a maximum of 255 characters. Another important difference is that the contents of blocks are forgotten whenever you switch off or reset your machine. Sets of phrases, on the other hand, can be stored on disc and used when you prepare documents on another day; this makes them much more suited to storing your standard phrases.

Each set of phrases can have up to 26 different pieces of text (i.e. phrase A to phrase Z)- though the whole set must not exceed 972 characters. However, you can have as many sets as you want, so the number of phrases you can store is effectively unlimited.

CREATING NEW PHRASES

Once you've seen what phrases you have available, you can replace, delete or create new ones as you like.

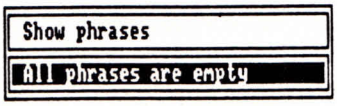
Whenever you are setting up new phrases, it's a good idea to start by deleting any phrases that you don't want. For example, the PHRASES.STD on the LocoScript 2 master disc includes a paragraph under phrase Z purely to help you to follow Session 2 of the Tutorial. This uses up much of your allocation of 972 characters, so we recommend that you get rid of this before starting to add your own.

You can delete any redundant phrases simply by moving the Menu cursor to the unwanted phrase on the Show phrases menu, and pressing the [-] key to clear the phrase.

Alternatively, you can delete a phrase without displaying this menu at all. When editing a document, simply press the [COPY] key and, without moving the cursor, press it again. Then type the letter of the phrase you want to delete. What you

are actually doing is copying 'nothing' into that phrase, which is the same as erasing it. If you use this method, be sure not to accidentally erase a phrase that you want to keep.

If you have deleted all the phrases in the set you are using, then selecting the 'Show phrases' option will give you the following message:



To add a phrase to the current set, simply highlight the piece of text in a document starting with the [COPY] key (as described in the User Guide), and then type the letter you wish to save it under. Just repeat this for all the phrases you wish to set up.

Choosing the letter to type is the hardest part of this operation. It's a good idea to save each phrase under a letter that reminds you of its content; then it is much easier to remember what phrase you need to paste in. An estate agent might create a phrase C 'close to the market' or a phrase M with the text 'in need of some modernisation'. However adding a phrase will overwrite any phrase that already existed for that letter so you may have to do some juggling with your choice of letters.

SAVING PHRASES FOR ANOTHER DAY

As soon as you have changed any phrases or created new ones, you can use them in any document. However, if you switch off the machine at this stage, you will lose the new phrases. This might not matter in some cases (for example, if you have set up today's date as a phrase), but if you want to use any of the new phrases again, you must save the new set of phrases permanently in a file by using the Save Phrases option in the f1=Actions menu when you return to the Disc Manager Screen.

We have received quite a few letters from people who have reached this point and have then forgotten to save their new set of phrases on disc to make them permanent. When they load LocoScript again, they are surprised to see the old set of phrases reappear.

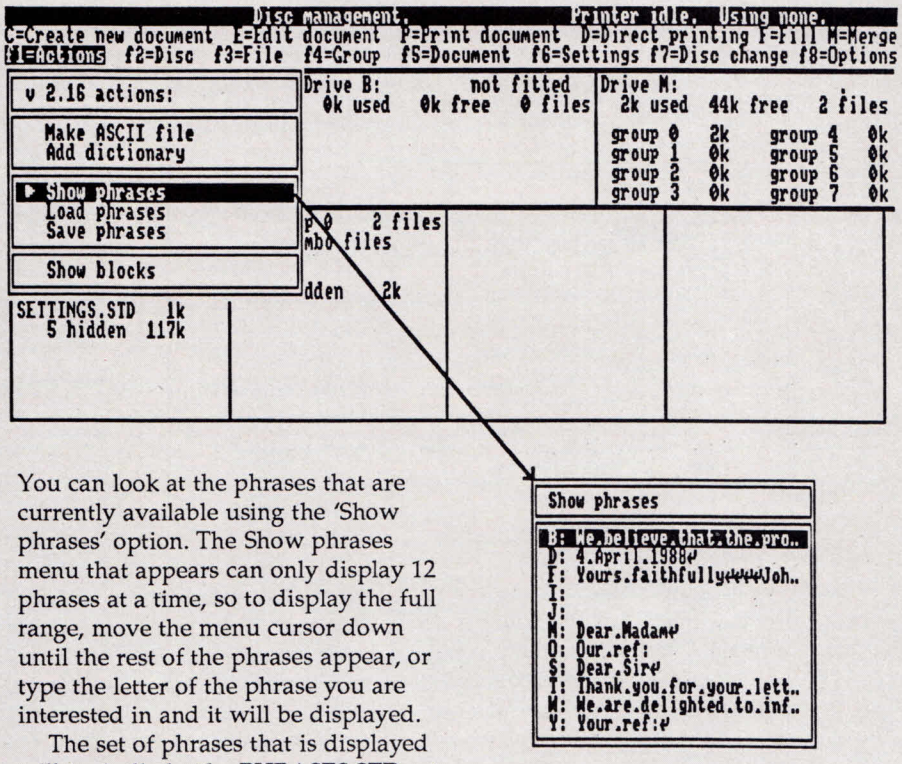
To ensure that your new set of phrases will always be available after start-up or resetting your machine, you need your Start-of-day disc in Drive A when you use the 'Save phrases' option (see above for details).

USING DIFFERENT SETS OF PHRASES

You may want to keep different sets of phrases for use with different types of documents. For example you may want one main set of phrases to use in a range of different documents, but also some other sets for specific topics relating to your line of work. Our estate agent would probably use the PHRASES .STD set of phrases for standard text used for sending letters to clients but another for preparing house details.

To create other sets of phrases, you simply change the current set of phrases (as we described above), then save this amended set in a new file. When you do this, LocoScript will automatically offer the name PHRASES.STD for the new file. You can either keep this name or change it as your wish and you can store it

Working with phrases



You can look at the phrases that are currently available using the 'Show phrases' option. The Show phrases menu that appears can only display 12 phrases at a time, so to display the full range, move the menu cursor down until the rest of the phrases appear, or type the letter of the phrase you are interested in and it will be displayed.

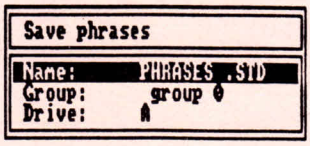
The set of phrases that is displayed will typically be the PHRASES.STD set ; the set that was automatically loaded when you started up. The menu displays the letter associated with each phrase, and the first part of the text of that phrase.

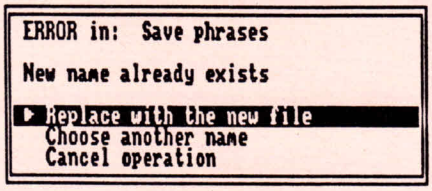
If a phrase is empty, then the letter will not appear on the Show phrases menu.

If you see letters on the menu that appear to be empty, this means there are just codes stored in those phrases; the Show phrases menu doesn't display any LocoScript codes. Similarly, if you save text and codes in a phrase then the phrase will appear to contain just the text.

Saving PHRASES.STD on your Start-of-day disc

- Display the Disc Manager Screen (if necessary, finish editing your document)
- Insert your Start-of-day disc in Drive A (Side 1 to the left) and press [f7] to indicate the change of disc
- Move the group cursor until it is over group 0
- Press [f1] Actions, select 'Save phrases' with the cursor and press [ENTER]
- The default filename PHRASES.STD and the group will be displayed: accept this by pressing [ENTER]

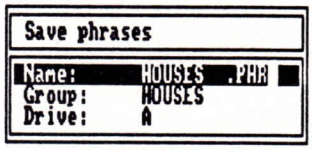




If necessary, accept the 'Replace with the new file' option to overwrite an existing file

The set of phrases will now be saved, and will automatically be loaded after you reset your machine.

in any group and on any disc. For example:



Phrases files don't have to be stored on your Start-of-day disc. What you must not do is store them as PHRASES.STD in group 0 on your Start-of-day disc because then you will lose the main set of phrases you've carefully set up!

When you want to use one of these other sets of phrases, you simply have to 'load' them from that disc (see over). Loading another set of phrases will replace the phrases that are currently available from memory (i.e. the ones copied from the PHRASES.STD file when you started up).

USING CODES IN PHRASES

Phrases can be used to store any of LocoScript's codes and, in fact, using phrases in this way can save you a lot of keystroking. For example, you may want to emphasise parts of your text by making them bold and italic. So you might have two phrases that look like this:

B: (+Bold) (+Italic)
C: (-Bold) (-Italic)

Then all you have to do is press PASTE and type the letter B, type in the text you want emphasised, then press PASTE and the letter C to turn off the emphasis and return to your usual text style.

AN ALTERNATIVE WAY TO USE CODES

Mr. Beal of Lanark has written in with his tip on the use of phrases. He finds it more convenient when editing text to turn off the 'Show codes' feature. When he uses LocoScript codes like Bold and Italic to emphasise parts of his text, he copies them into a phrase and also adds the ReVerse code. Then each instance of emphasised text is made clear on the screen by the ReVerse code (although, of course, you can't tell if more than one emphasis code has been used).

For example: B: (+Bold) (+ReV) starts a bold section
C: (-Bold) (-ReV) ends a bold section.

USING LAYOUTS IN PHRASES

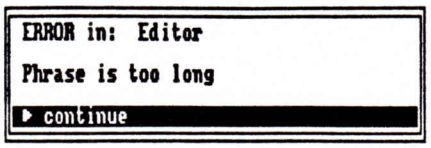
Though it is a very useful technique, you should be careful about using Layout codes in phrases. Each Layout code in LocoScript 2 contains all the details of the layout and so, depending on each layout, it can prove expensive in the number of characters of a phrase that it uses up.

Each Layout code occupies a minimum of 23 characters. In addition to this minimum, each tab stop you set up within the layout uses up another character. A layout with ten tab stops will, therefore, take up 33 characters of your phrases store.

Because you are limited by the length of a phrase (255 characters) and the total length of the set (972 characters) you can see how putting lots of Layout codes into phrases might quickly use up all the available space. If you do have the space available, then putting Layout codes into phrases is perfectly alright.

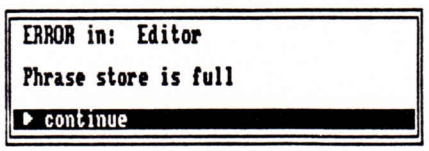
LOCOSCRIPT'S MESSAGES.

If you try to store a piece of text that is longer than the 255 characters maximum, then the first 255 characters of the text will be saved and LocoScript will give you the following message:



Similarly, if you have added several long phrases then you could run out of room in the set of phrases. In this case another alert message will be displayed:

ERROR in: Editor



This means you have used up the 972 total characters available in the set. LocoScript will save as much of the phrase as possible.

Note: If you use [COPY] and [CUT] to save the text into the phrase and you run out of room,

then all is not lost. LocoScript sees that it cannot save the text and so abandons its 'cutting', leaving the remainder of your text on the screen.

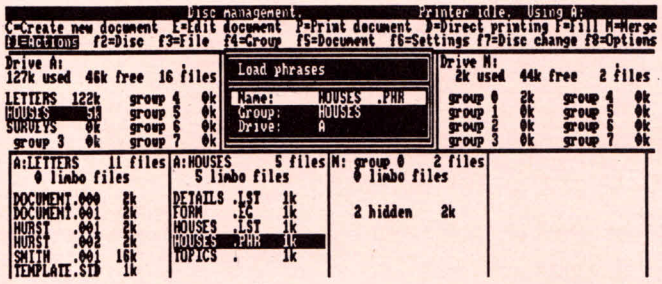
ORGANISING YOUR PHRASES

- Keep your main set of phrases in PHRASES.STD in group 0 of your Start-of-day disc.
- Give each set of phrases an appropriate name so that you can be sure you are loading the set you want to use (i.e. names such as LETTERS.PHR or HOUSES .PHR.)
- Save other sets of phrases on the disc (and preferably in the group) which holds the documents that use these phrases.

If you keep your phrases on the same disc then you will be able to load a new set of phrases in the middle of an Edit. Just press [f1] and select "Disc Manager" then load your phrases in the normal way. Now press [EXIT] to leave Disc Manager and return to your edit.

Loading Phrases

- Display the Disc Manager Screen
- Insert the data disc containing the phrases file you want to load. Press [f7]
- Move the File cursor until it is over the relevant phrases file
- Press [f1] Actions, select 'Load phrases' with the cursor and press [ENTER]



- A menu with the filename and group will appear as above. Press [ENTER] to confirm that this is the file containing the phrases you want to use, and the new set of phrases will replace those held in memory.
- You can select 'Show phrases' to confirm that the different set of phrases is now available.

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

pcw
TOOLKIT

There *IS* life after death!

If your PCW is coming back with messages like:

> DISK ERROR - Missing Address Mark

and you've got the noose around your neck because your 500 page masterpiece looks like it's lost forever, here is the best news you've heard all day!
PCW Toolkit by Moonstone Computing is designed to allow you to examine and alter data on any PCW disc, as well as copy part or all of *damaged or corrupted* discs and *repair* the damage. Toolkit also provides the means to un-ERAse a file - how often have you wished for that?!

JUST $69.95 from The Amstrad User mail order service, 641 High Street Rd, Mount Waverley Vic. 3149 • Ph. (03) 233 9661

COMPUTER VIRUSES

In a special three-month feature, Ralph Burger slides the difficult subject of computer viruses under the microscope

What are computer viruses? In the early 1980s, if a programmer had said that a computer could be infected by "viruses", he probably would have been greeted with only sympathetic laughter from his colleagues. In the meantime the response to this problem has changed somewhat, due in part to extensive but not always factual publicity. But even today many users are under the false impression that computer viruses are similar to biological viruses.

Of course this is not true. Computer viruses are programs, just like a spreadsheet or a word processor. This distorted picture of computer viruses is the reason that the variety of responses to this term range from sympathetic laughter to a knowing grin, to a literal panic. Factual explanations about computer viruses have up to now generally been ignored. There have been reports of "promiscuous discs", of worms which eat through the computer, and "hard viruses which destroy the ROM." To put the subject in perspective, this feature is intended to be an introduction to the world of computer viruses.

First we should explain the origin of the term *computer virus*. We'll draw a parallel between biological viruses and viruses in the computer.

Biological Viruses	Computer viruses
Attack specific body cells	Attack specific programs (all *.COM, all *.EXE, etc)
Modify the genetic information of a cell other than originally intended	Manipulate the program: Computer viruses performs specific tasks.
New viruses grow in the infected cell itself	The infected program produces virus programs
An infected cell is not infected more than once by the same cell	A program is infected only once by most viruses
An infected organism may not exhibit symptoms for a long time	The infected program can work without error for a long time
Not all cells with which the virus comes in contact are infected	Programs can be made immune against certain viruses
Viruses can mutate and thus cannot be clearly told apart	Virus programs can modify themselves and possibly escape detection this way

MODIFYING PROGRAMS

As a general rule, every programmer takes great pains to see that his software runs properly. For example he tries to avoid the notorious problem of "hanging up" the computer (the continuous repetition of a program loop without being able to get out of it). He also tries to make sure that erroneous user input doesn't crash the program or doesn't destroy other data. "Defensive" programming such as this requires particular care and is one of the most time consuming parts of software development.

Most commercial software is sold and distributed as object code as opposed to source code. Source code is a file of the higher level language statements which when compiled are executed as an application. Object code is a file of executable machine language instructions produced by compiling the source code. In general, if object code is modified, you can expect problems to arise.

Although it's a time consuming activity, one of the popular hobbies of some computer hackers is to "reverse-engineer" the object code of commercial software. This is not an activity that is looked on kindly by software publishers.

For example, the hacker may want to remove or change the program copyright message. There are many tools which he can use to make the change. One of these tools is called a disassembler. This is a program which, with some knowledge, can be used to recreate a source listing from the object code. This allows the program to be more easily understood, and allows the original program to be adapted to personal desires.

You can even use these tools to make changes to a payroll system for example. If such a change is carried out cleverly, the authorities may not detect the changes at all.

But we don't want to create the impression here that such changes can be made by ordinary users. Considerable knowledge is required

to alter object files as described.

MODIFYING DATA

It's also possible to have one program change the contents of other programs. As a general rule the purpose of a program is to change data. This applies to a word processor as well as a computerized billing system.

But the possibilities for program-controlled changes are not limited to data. In this same manner, programs (object codes) can be manipulated by other programs.

A computer doesn't care whether a particular data record it is dealing with is a program or "real" data. Since the introduction of the "von Neumann computer", there has been no distinction within the computer between programs and data. On MS-DOS systems the only indication in the directory is in the filenames. When you change CUSTOMER.DTA to WS.COM, the computer thinks it is an executable program. If you attempt to execute the renamed file, the computer will probably crash.

Installation programs make full use of the ability to treat and modify programs as if they were data files. Installation programs can adapt the program to be installed to the system environment. To do this the user must answer questions which the program poses. The operation of the installation program consists of changing certain parameters of the program whose addresses are known to the installation program. Therefore it is naturally impossible to install WordStar with an installation program intended for Turbo Pascal. It's possible to write a program which searches through main memory for the program WS.COM and, if it finds it, changes WordStar so that the "Save file" function is replaced by the "Delete file" function, a classic example of a manipulation with unpleasant results.

PROPERTIES OF VIRUS PROGRAMS

Knowing how to write programs that manipulate or make changes is a small step to knowing exactly what computer viruses are. Virus programs combine many of the properties mentioned previously. A virus program is a manipulating program because it modifies other programs. But a virus program also reproduces itself in the process. We'll show how this happens graphically.

MARKER BYTES

When a virus program is started, it searches the current disc drive for a user program - one that the virus can change. If it finds a user program, it is tested to see if it has already been infected by the virus. The first part of the user program is read and checked to see if the virus marker byte "M" is present. A virus marker byte indicates an infection. Since an already infected program need not be reinfected, the virus continues to search until it finds another user program that hasn't yet been infected. It can identify a non-infected program because it doesn't contain the virus marker "M". This protection against multiple infections is necessary so that the virus doesn't expend its energy infecting a program which is already infected. Let's say that the first user program found is infected and contains the virus marker.

M	VIR	1st User Program

M Virus marker byte. This marker byte indicates an infection and prevents the program from

being infected more than once.

VIR Virus kernel. The virus kernel contains the routines and functions which let the virus reproduce.

VIRAL INFECTION

The virus skips the infected program and searches for a second user program that is not infected. If this second program is a user program that it can infect, the virus transfers itself into this program by overwriting the start of the program on the disc drive with a copy of itself.

2nd User Program

Then it marks the program as infected. Now the virus is spreading. The user may notice only a write access to the disc drive as this takes place.

M	VIR	2nd User Program

If this infected second user program is started, the virus program is executed because it overwrote the program code of the second user program. The virus then reproduces itself again the same way as above in the third user program.

After the virus copies itself on top of the user program, serious program errors occur in the second user program. A part of the second user program is gone since space was needed for the virus code.

Before the start of the second user program:

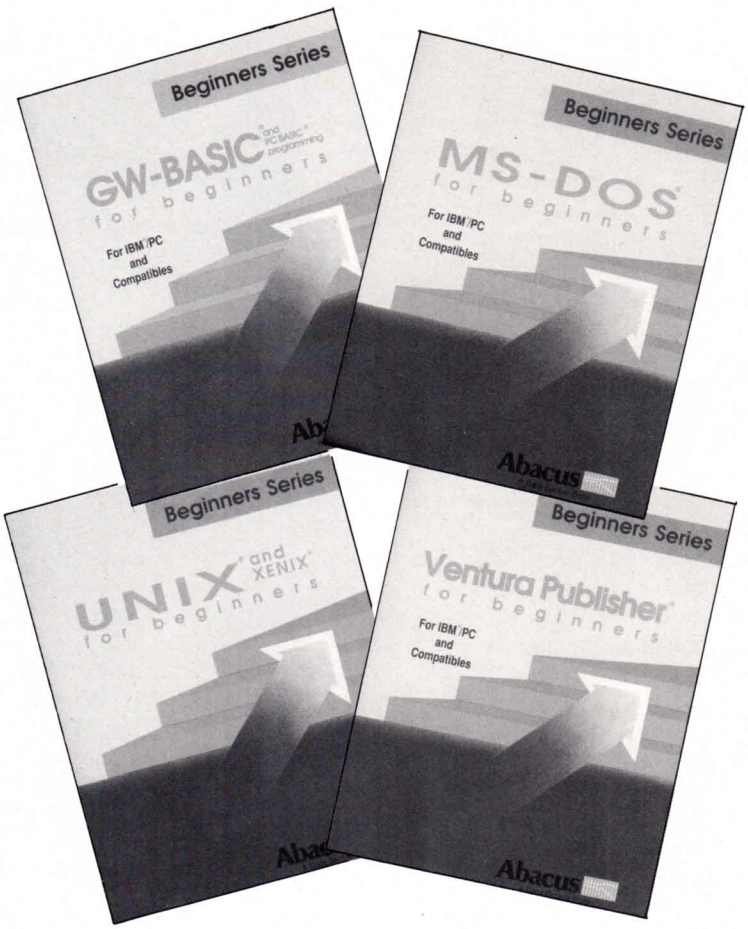
3rd User Program

After the start of the infected second user program:

M	VIR	3rd User Program

(Reprinted with permission from "*What you should 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

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

SUCCESSFUL FREELANCING

With considerable experience as a full-time freelance journalist, Garry Fabian is well qualified to provide tips for preppies...

To the uninitiated being a freelance journalist sounds like an ideal life. No fixed hours, no boss to tell you what to do, sleeping late, long lunches, and plenty of leisure while you wait for the cheques to roll in. A rosy vision of a blissful existence? Definitely, but the reality does not quite match the theory.

Every business, and let's face it, freelancing is a business, has it's problems as well as rewards. In my early days, when I started freelancing as a sideline to my normal occupation, the Catch-22 syndrome was very much in the forefront. Approaching an editor with an idea for an article met with the inevitable question, "what have you had published to date?" As the answer was in the negative, he or she would lose interest instantly and with frosty politeness suggest that you go away and not come back until you had some published work to display.

This experience was repeated on a number of occasions, and I was getting very close to forgetting about my embryonic ambitions to become a journalist even before the gestation period had been completed. Then one day, as often happens in life, chance came to the rescue. I have spent the greater part of my working life in the technical field. One day I chanced to read an article in a technical magazine, dealing with a subject in the field I was active in.

The article was highly technical, and although I considered myself reasonably literate, it was impossible to understand what the author was driving at. In my rashness I rang the editor and expressed that very opinion to him on the article. Being a particularly cynical editor, he suggested in a not too polite manner that I do better, and slammed the phone down in my ear.

Never one to pass up a challenge, I sat down that evening and wrote a short article on that particular subject, and with great anticipation posted it to the magazine. Within two days, the editor rang me, very cordial this time, expressing delight at the contribution, and asked when he could have some more. Within the next three months I had four articles published in the magazine, and if by magic several small cheques arrived in my letter box.

It occurred to me that if one magazine was interested in my articles, there must be others, I started contacting various technical magazines who accepted my work. This modest success prompted me to look further afield, and after some 18 months I had built up a very nice sideline with my writing activities. The financial returns were modest, as many trade magazines are not over generous in their rates. As the scope of my work grew, so did my confidence, and I regularly studied the daily papers, where occasionally in the professional section small advertisements for freelance journalists appear.

One such contact reinforced the Catch-22 principle, and provided a good insight into the requirements if you are going to make it as a freelancer. Ringing the editor I got an appointment. When I arrived, he greeted me in a "don't confuse me with facts, my mind is made up" voice, enquiring in a very offhanded manner if I had any work published. Without a reply I placed my by now not inconsiderable pile of magazines on his desk. As he leafed through them his manner changed completely, and with great enthusiasm asked me if I could provide an article on a specific subject in a few days.

Naturally I agreed with great enthusiasm, and the result was that I have been getting quite regular work from this editor for a number of years now. I discovered a very nice little niche in the market place. Writing technical articles for non-technical readers. Most experts are highly skilled in their field, but cannot write clearly, while many journalists are excellent writers, but lack technical knowledge. Combining my skills I found I could produce a saleable product.

This reinforced another basic requirement. Providing you can provide reasonable material and can meet deadlines there is a great deal of work that can be found.

As time went on I branched out and built up a reasonable market in a wide and diverse field. Eventually I had to make a decision. To give up my regular job, and more importantly regular income, and go full time into freelancing, or to keep going on a part time basis. I sat down and carefully considered such a move as a cold business proposition. I knew what my average income from my part time writing was, averaged over several years. Using that as a basis I projected what possible income a full time pursuit could generate. Then I took the most negative scenario, and worked out the minimum I could earn and still make a living.

Backing myself, I went full time, and while it has its moments, and is subject to a rather erratic cash flow

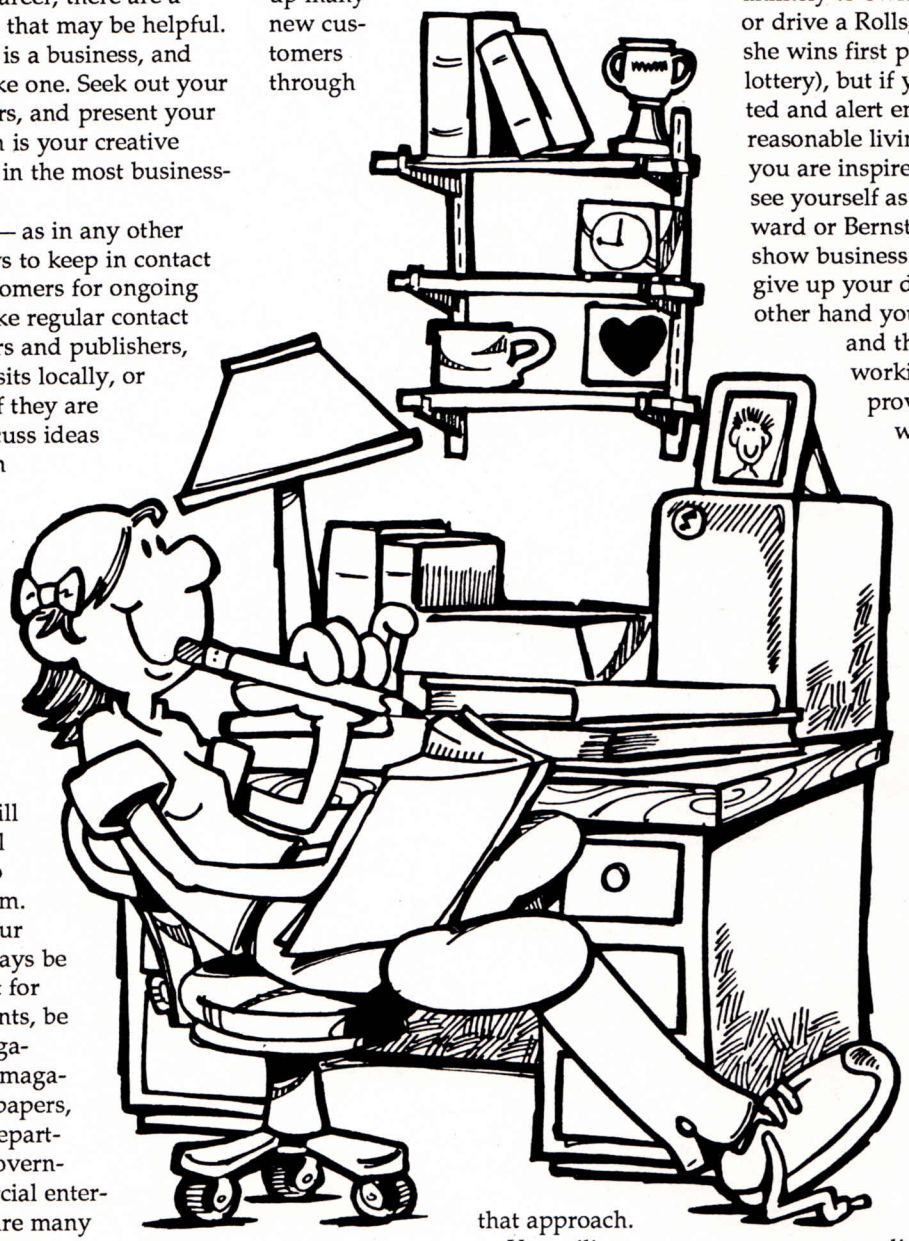
situation at times, it is a move I have not regretted. To anybody contemplating taking up freelancing as a full time career, there are a number of tips that may be helpful.

Freelancing is a business, and must be run like one. Seek out your likely customers, and present your product, which is your creative writing ability in the most business-like manner.

Persistence— as in any other business it pays to keep in contact with your customers for ongoing business. I make regular contact with my editors and publishers, by personal visits locally, or by telephone if they are interstate. Discuss ideas for stories with them, ask if they need any material. In most cases this generates new business. Always remember editors are busy people, and will not always call you. It is up to you to call them.

Broaden your horizons - always be on the lookout for additional clients, be they trade magazines, general magazines or newspapers, government departments, local government, commercial enterprises. There are many sources to obtain these names and addresses. A visit to the local newsagent for a few minutes browsing in his magazine display, industry directories, publications such as The Writer's News are very good sources of information. The Australian Journalist's Association, if you are a member, is a very good source for referrals for freelancers.

I have a standard letter setting out a list of publications I write for, which I send to editors of new magazines. While this does not produce 100% results, I have picked up many new customers through that approach.



Versatility - this is a great insurance against idleness. Not only does it spread the risk in a volatile industry, but I have found that writing in a wide variety of fields, I can often use the same article with slight adaptations for a number of magazines in different fields, without a conflict of interest arising. This has often resulted in useful by-products. I might be gathering information for a specific article, and pick up leads for several other stories I can sell.

A freelance journalist is very unlikely to own a luxury yacht or drive a Rolls, (unless he or she wins first prize in the lottery), but if you are committed and alert enough there is a reasonable living to be made. If you are inspired by films, and see yourself as another Woodward or Bernstein, to use a show business phrase, 'don't give up your day job.' If on the other hand you enjoy writing, and the freedom working for yourself provides, it is well worth considering. A freelancer becomes free in the truest sense when he or she stops waiting around for other people to initiate work - and makes it happen.

This approach to journalism brings working nights and weekends, wrinkled skin and sleepless nights, often a cheque book that is overdrawn. It also brings freedom. Mac Gordon once invoked the medieval origin of the term 'free-lance'; going to the Crusades carrying your own lance.

If you take your own lance in your own hands and bear it proudly, you can make work happen for yourself - and be truly free.

READY, SET, GO!

The GO! business software series at under $30 is cheap but is it adequate? Shane Kelly decides...

The ideal of software that is powerful, easy to use for beginners and requires no training is a great one. It has, however, eluded reality. The Go! Series is not the answer, either. It is the answer to a number of problems that a personal computer user has, but as with most simple to use programs, it lacks flexibility.

With the Go! Series you can write letters, do some filing, and work out some financial calculations. You must do these things in the formats laid out for you by the Go!Series, but within that framework, the results are acceptable.

The advertising on the back of the packet says no manual, no training and no dos. The reality is a little different. The manual proudly states on its front cover that you hardly need it at all, and that you should throw them away now. Don't! For a start, the loading instructions are in there! The manuals (single sheets folded down to shirt pocket size) are sometimes misleading and do not contain the usual warnings about write protecting your original discs and only using backup copies. The manual states in the loading instructions that you place the disc in the A: drive and that if you have two drives the A: drive is always the one on the left. What if your drives are like mine - one on top of the other? To complete the loading instructions you are told to depress the on/off switch on your computer - no warning to the effect that you should wait about 30 seconds after turning the machine off to turn it on again.

These days most computers sold have a hard disc as part of the package. There are no instructions on how to put the Go!Series on the hard disc in the manual. They appear from the help instructions within each application. Once discovered, it is merely a matter of typing install at the A: prompt and allowing the particular Go!Series application to get on with it. Some other shortcomings in the manuals are that they refer to other applications in the Go!Series (i.e. the Go!File manual tells you to refer to the Go!Write section of the manual to prepare a data disc - hard luck if you didn't buy that particular application!)

Enough of the down side. How do the programs perform? In my opinion, quite adequately.

GO!WRITE

The Go!Write package is not a word processor by any stretch of the imagination. What it is, is a more than adequate letter writing program that has most of the required forms for written communication that we need in our daily lives. There are predefined layouts for memos, business letters, personal letters and reports. There are forms for weekly planners, message pads, change of address, calendars and party invitations. Each one is simple to use and instructions are available at the press of a key. Once you learn how to do one type of form, you will know

how to do all the others as the user interface is consistent across all the forms.

GO!PLAN

The Go!Plan package is a spreadsheet package with predefined calculations for a lot of the more mundane financial calculations we must make these days. It allows you to work out the mortgage repayments (how depressing!), your present net worth (not much!) how much is the real cost of owning/leasing a car, retirement incomes and how much you have to save now to be able to live comfortably in retirement (I have to save more than I earn!) and some other financial calculations of a more esoteric nature.

GO!FILE

The Go!File package is a flat-file database of the fill in the form type with predefined categories for name and address, things to do, credit card inventory, collections recipes, quotes and jokes and a few other categories. As with all the Go!Series, once you have filled in one form, you can fill in all the others using the same keys, as the user interface is consistent across the lot.

Nice to see was the number of printers supported by the package (including Amstrad 3000 and 4000) and since I could get it to print with my old DMP2000 (non IBM graphics capable) you shouldn't have too much trouble getting hard copy from almost any old printer.

Another nice touch is a thing supplied with all modules of the Go!Series - the computer tool box. This is simply a way of using DOS commands from within the current application to copy files or discs or do those "housekeeping" chores without having to touch nasty old DOS.

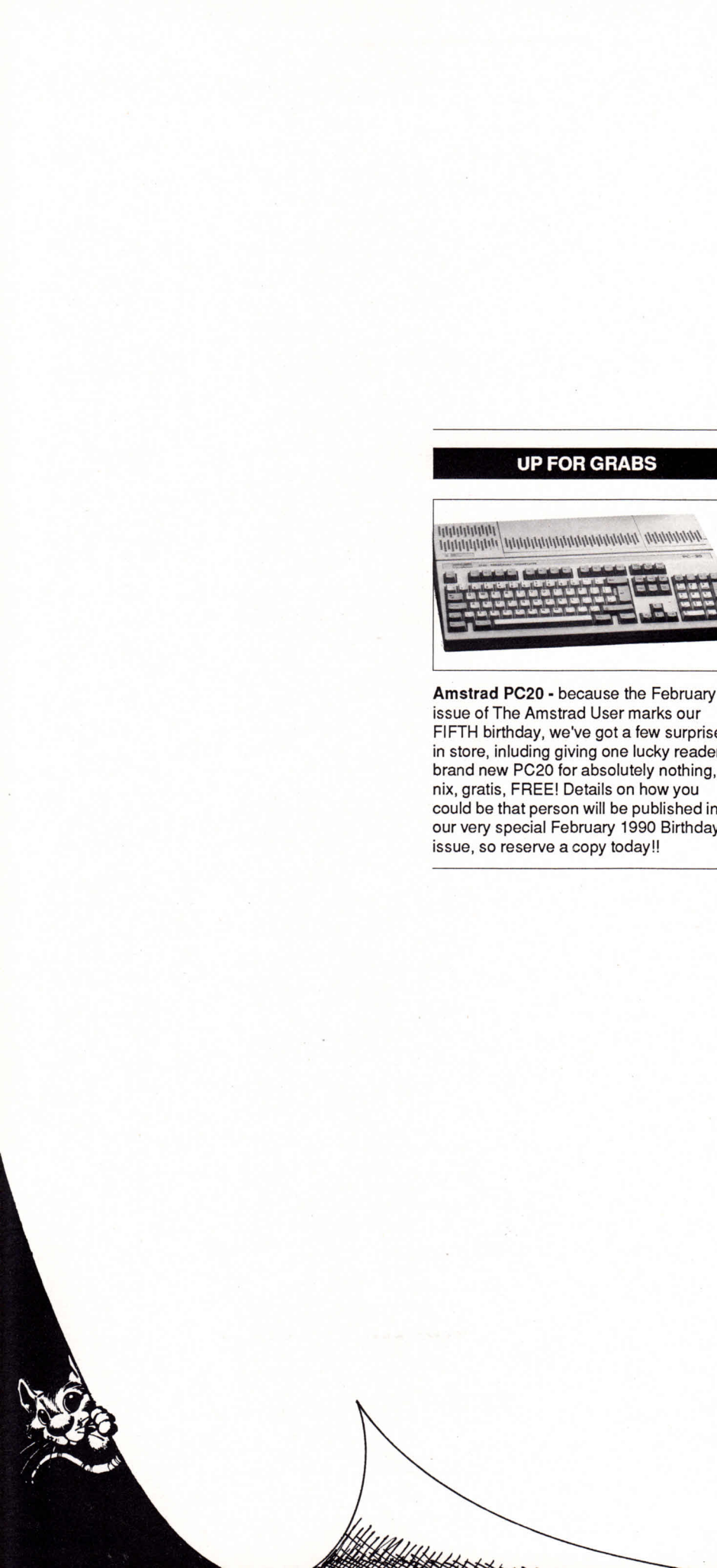
CONCLUSION

Summing up then, the Go!Series is an adequate effort in the field of software that sets out to fill a specific need and is worth a look if you want to accomplish some clearly defined task that is within its capability. Do not look for flexibility or expandability - what you see is what you get and there isn't anymore. Despite the manuals shortcomings, (which did not inspire me with confidence) the programs seemed to work well enough within their (restricted) orbits. One final parting shot - when distributors undertake to supply a package NOT written specifically for Australia, why do they NOT take the time to alter the packages to reflect the prevailing terminology and conditions in this country (e.g. - change ZIP to postcode, miles per gallon to litres per 100k etc.) - it would do so much for their credibility.

I think the above shortcomings point out the difficulty of producing software that fits the large range of machines on the market today while still claiming to be a self-contained solution to everyone's needs.

UP FOR GRABS

Amstrad PC20 - because the February issue of The Amstrad User marks our FIFTH birthday, we've got a few surprises in store, inluding giving one lucky reader a brand new PC20 for absolutely nothing, nix, gratis, FREE! Details on how you could be that person will be published in our very special February 1990 Birthday issue, so reserve a copy today!!



VENTURA PUBLISHER

Ventura version 2.0 is a formidable tool for the serious desktop publisher who has about $1500 to spare, says Mike Turner

Desktop publishing is becoming more and more popular with computer users for various reasons. No longer is this the domain of publishing houses. Even home users are getting in on the act. The uses for this type of software are only limited by your imagination and the power of the package itself.

Graeme Kidd reviewed the Finesse DTP package recently in this magazine. Finesse is at the lower end of the DTP marketplace. There are many other packages around that do basically the same job but with varying degrees of sophistication. I have tried a few different packages and I must admit to becoming a bit of a DTP junkie.

My introduction to this pastime, (for want of a better word), was with Fleet Street Editor Plus on my PCW. However after trying Ventura Publisher recently, I'm afraid I have become spoilt. It's a bit like having to go back to driving a Mini-Moke after a Rolls Royce.

As desktop publishers go, Ventura is definitely in the Rolls Royce department; both in performance and also unfortunately in price. However for the money, you can be assured of getting one of the best performing and most versatile desktop publishing packages on the market. The quality of the output from this package when teamed up with a good quality printer is quite staggering.

Version 2.0 is the latest release of this software and contains several enhancements to previous versions. The catch with software of this sophistication is that you will need the computer hardware to match in order to get the best from it. Ventura will run on the PC2000 series and on the PC1640. You will definitely need a hard disc drive and preferably a mouse to run the software properly.

Amstrad owners are fortunate here in that a rodent comes with their machines. Also don't try to run any memory resident software such as Sidekick at the same time as you attempt to run Ventura. You will find that Ventura needs an entire 640K of RAM to run and will display nasty messages if you try to make it share with other software.

Ventura arrives in a neat package containing a reference manual, a workbook, a training manual, a quick reference guide and a huge pile of floppy discs. The package I tried was supplied on 5.25" discs - all sixteen of them! Also supplied were five discs containing Bitstream

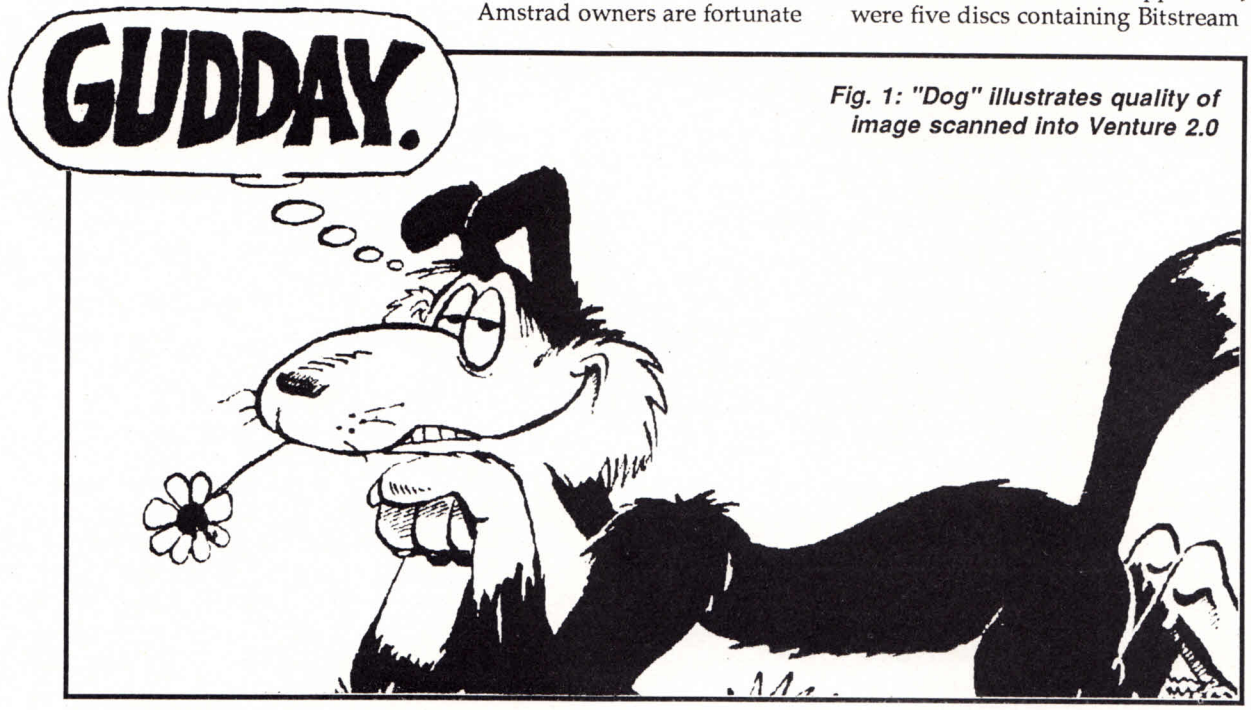
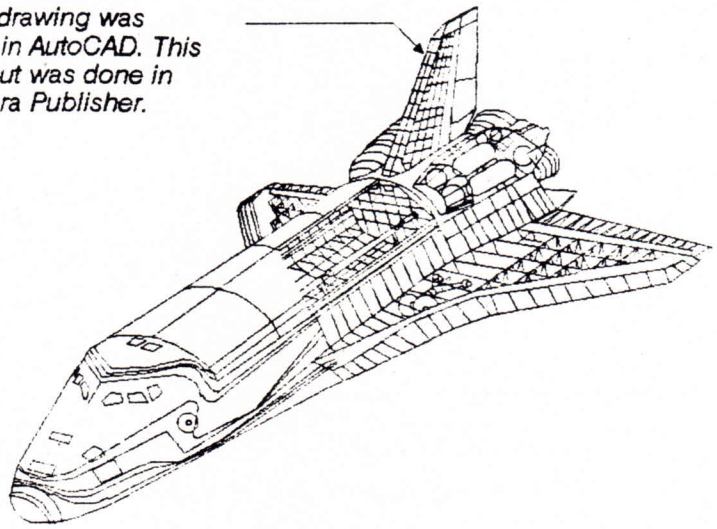


Fig. 1: "Dog" illustrates quality of image scanned into Venture 2.0

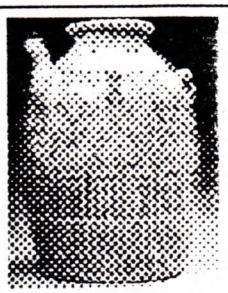


Professional Extension Redefines Desktop Publishing

SALINAS, CA, Sept. 6, 1988 — Xerox Ventura Publisher: Professional Extension software incorporates an advanced set of desktop publishing features to complement version 2.0 capabilities.

Professional Extension incorporates Expanded Memory Support (**EMS**) for larger documents like books and technical manuals, as well as densely packed pages such as telephone directories and catalogs. Different modes of automatic **vertical justification** allow users to fill a specified space with text, a feature not previously available in desktop publishing.

Professional Extension provides [illegible] WSIWYG (What [illegible]-See-[illegible]



Gray-scale images, such as this picture of a piece of pottery, can be created with scanners, saved as a TIFF file, displayed on the screen in true shades of gray (on a VGA monitor), and then printed. On PostScript printers, you can control the halftone process and create brilliant halftone images.

played while line spacing adjust automatically to accommodate the equation. Complex **tables** can be easily [illegible]

Ventura 2.0 is both powerful and versatile, as this example shows.

Fontware for creating and using extra fonts within Ventura.

The amount of space needed on your hard disc drive to accommodate all of this will depend on how you configure the software during installation. You are warned in the manual that this could eat up as much as 3.5Mb with drivers for several printers and a heap of fonts installed. I would suggest that the days when a 20Mb hard disc drive seemed like the ultimate in storage devices for a home PC are over. By the time you install several packages of the size and power of Ventura, there isn't much space left for data.

An amazing omission in a package of this price and power is some sort of optical scanning device. This is especially true when you consider that Ventura comes with no graphics library as such. There are a few sample graphics files provided so that you can complete the tutorial package in the training manual, but that's it. Mind you, Ventura can import images from an impressive array of other packages including AutoCAD files and Lotus data. It can also import text from most popular word processing packages. Those not supported directly are covered by the inclusion of an ASCII text file importing facility.

For the purposes of this review, I ran Ventura on an IBM AT clone with 640k of RAM, an NEC P5300 24 pin dot matrix printer, and used a DFI HS2000 hand scanner to scan images into the documents. WordStar Professional Release 5 was used for text composition and no problems were encountered in the importing of these files into Ventura. I also did some output to a Star NX1000 9 pin dot matrix printer for the sake of comparison with its bigger 24 pin NEC cousin and was pleasantly surprised with just how good the 9 pin output was. The examples of printed output in this article come from the 24 pin printer.

Installation was quite easy. Armed with my computer and printer manuals, the massive pile of floppies and Ventura's reference manual, I set to work. To my amazement the task was accomplished in less than 15 minutes with a minimum of fuss. It was simply a matter of typing in one command and then following the on-screen prompts; changing discs when asked and answering questions about the computer and printer along the way.

Ventura also comes supplied with Bitstream Fontware. This allows you to create different fonts for use with the package. I had no end of trouble getting this to work properly and in the end decided to stick with the standard range of fonts that came with Ventura. But more on that later.

My enthusiasm was then to be dampened somewhat when I tried to run the program and instantly print out professional looking documents. This program is not one that can be mastered in 10 minutes or 10 hours for that matter. Sure, you can get basic results within your first couple of hours of playing with it, but to get really professional results requires quite a deal of familiarity. So there was nothing to it but to spend a whole Saturday going through the training manual from start to finish and slowly absorbing everything along the way.

Now I am comfortable with the package and can get it to do most of what I want. Mind you I have just scratched the surface. I read with interest a recent article in the Bulletin magazine about desktop publishing. Australian Consolidated Press use Ventura for the production of their magazines. The article stated that for journalists and sub-editors to become fully familiar with all the various functions of this package takes some six to nine months of work each! You could spend months using this package and still learn something new each time you do. Believe me when I say that the time taken to get to know Ventura will be highly rewarding and lots of fun to boot. The documentation is quite good, and although a bit technical in places does cater for the beginner fairly well.

The use of drop down and pull down menus will catch a few people by surprise at first as will the lack of any real file management system. The way Ventura organises its files is a little bit strange to my way of thinking. I would suggest that all prospective users go through the training sessions first before attempting to publish their masterpiece. A good knowledge of how DOS organises directories and sub-directories is essential. Get that squared away in your mind and make appropriate directories to hold your publications and you'll be laughing.

There is also an annoying tendency of Ventura to remember what you were up to last when you start up the package. By this I mean that it doesn't come up with default settings on start up. If you had loaded a document from a particular directory during a previous session, you will find yourself back in that directory again when you next go to load a document. You will also find that Ventura has already loaded the particular style sheet that you last used in preparation for your next work session. I suppose I can see the logic of this but I would still prefer to start from one common point. That way if I make a total stuff up of something I can go back to square one by simply abandoning the file on which I am working and starting again. But I am racing ahead of myself. Let's start at the beginning.

"...the price tag of over $1500.00 is out of most people's range for home use, and that is just for the basic model..."

The whole purpose of desktop publishing software is to produce professional looking text which incorporates pictures and diagrams. Without this sort of software you would have to resort to typing up your text on a word processor and leaving appropriate gaps in the printed result into which you would manually paste your diagrams. This works relatively well for small newsletters and such but is time consuming and limited in the way you can format the finished document. Some more sophisticated word processors can now support multi column printing which goes some way towards improving the layout of finished documents. But the ability to effectively combine text and graphics into a single file, preview this on the screen, and obtain a high quality print out suitable for duplication is where DTP software comes into its own.

Ventura excels in this department. It is capable of producing very detailed sophisticated typesetting and the results are mind bending. The example at Figure Two shows one of the sample chapter files that comes with the package. This Ventura Scoop page shows just how good the output can be. Images can be easily imported from other sources, placed into frames within the text and then sized and scaled to your liking. For those wishing to produce high quality documents for everything from company reports through to club newsletters Ventura will fulfill your needs.

Figure One shows Ventura Publisher's graphics capability. I used a DFI Handy Scanner Model HS2000 to scan various images and then reproduce them through Ventura. For those who did not read Graeme Kidd's article on Finesse, it is worth devoting a few moments to talk about optical scanners.

IMAGE CAPTURE & OPTICAL SCANNING

There are many different hand scanners on the market. All consist of a hand held head which is moved over the item to be digitised; an interface board plugged into one of the expansion slots of your computer; and some sort of driver software to make the whole thing work. Some also have available optical character recognition (OCR) software which will electronically read the text over which the scanner passes. More on OCR and its benefits in a moment.

The HS2000 scanner has a resolution of 200 DPI (Dots Per Inch) and caters for shades of grey with dither tones. Scanned images may be saved in a variety of formats for export to various other packages. I found that Ventura likes files in GEM format best of all and produces the best printed results from these. Line art and drawings from CAD packages are also well repro-

duced. The next model up in the DFI range the HS3000 will scan images at 400 DPI and OCR software is also available for this scanner. *(At time of publishing, Mike is testing a new scanner system, the review of which will appear soon. -Ed.)*

The benefits of OCR software will soon become apparent to those who need to transcribe information from books or articles for inclusion in their own text. Using this software will dramatically reduce the time need for this process. A scanned image is normally saved in some form of picture format and is treated as a graphic. The OCR software actually treats the characters that are scanned as ASCII text. This can then be read into a word processor and modified or added to as required. There will be a few errors encountered in the reading process from time to time as the scanner gets confused by fancy fonts in the text being scanned. However the small amount of time spent in correcting these errors is much less than the time needed to completely re-type the text from scratch.

With all hand scanners the quality of the resulting image is directly proportional to the amount of time spent in scanning the image in the first place. It is worth playing with the controls to get just the right darkness and contrast settings to produce the clearest image. Remembering that once you have successfully scanned the image, you can save it to the disc for use later. Plain black and white images will scan best with little adjustment required by the operator. Coloured images or those on glossy paper will cause the most problems. This is due to the fact that scanners work off reflected light. The glossy paper can confuse the scanner and produce less than satisfactory results.

Once you have built up a library of scanned images importing them into a Ventura document is easy. Simply create a frame on the page and select the Load Text or Picture option from the File menu. Select the file to be loaded and it will magically appear in proportion in the frame. You may then move the image around with the frame and size and scale it to suit. Any text on the page is automatically re-justified and moved around the frame that you have created. Captions can be easily added and text tags can be added to your graphic as you can see in figure one with the drawing of the space shuttle Columbia.

Ventura can handle quite large documents and saves your files as chapters. This makes sense as you may only wish to amend a couple of pages at some future stage without affecting your whole masterpiece. Your chapters can be linked together to form a complete publication. Ventura will also create an Index and Table of Contents for you in the finished publication.

The software knows where you store your various files on the hard disc. If, for example you use WordStar to produce your rough copy, Ventura will look in the appropriate WordStar sub-directory to find your text when you select the text import option. You only have to teach it where to look for the first time or after importing from a different directory. It does the same sort of thing with your graphics files. Rather than copying these files it simply stores as part of your chapter information on where to find them. So each time you go to print a chapter you will note a flurry of activity as Ventura drags various files from all over the hard disc and incorporates them in your desired format into the chapter.

Text can be formatted in a variety of ways and in various fonts and styles. As I mentioned earlier, the Bitstream Fontware package can be used to increase the number of available fonts both for printed output and for the screen display. I tried unsuccessfully to install this software on three separate occasions. The installation process is simple enough if time consuming. To make a moderate selection of point sizes in say three fonts can take up to 3 1/2 hours to complete. You don't have to be there all this time as the computer will merrily carry on by itself and tell you when it is all over. The problem I had lay in the incorporating of these fonts into Ventura. It has to do with merging things called Width Tables so that the printer and display know all the details of the fonts. This portion of both the Ventura and Bitstream manuals I found very confusing. I shall stick with the standard range of fonts available within Ventura for now until I am more familiar with the system and will then start adding enhancements.

CONCLUSION

It is impossible to do justice to this incredible package in the space of a single article (or even two). There are all sorts of books available on Ventura and training courses are also available through reputable software houses and some computer consultancy firms.

I was impressed by the power and speed of the package and the quality of the output on even basic printers. I have been assured that the output on a postscript laser printer is so good that it has to be seen to be believed. On the down side the time needed to master this package is considerable and the file management system or lack thereof leaves a bit to be desired. Also the price tag of over $1500.00 is out of most peoples range for home use, and that is just for the basic model without the Professional extension and the Network support. Add to that the price of a decent hand scanner and you're starting to talk really big dollars.

I don't think anyone will ever invent a DTP package that will be universally accepted as the one that does everything. Ventura Desktop Publisher is the closest I have found yet to this ideal. Even though I have barely scratched the surface of its capabilities and will continue to learn as my knowledge of and familiarity with this package grows, I am already feeling comfortable with it. I'm finding new applications for its use every day and having a whale of a time in the process.

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.

SHARING THE WARES

It's a new year and a new decade and Chris Collins has little news but lots more Public Domain goodies on offer...

Welcome to 1990, and welcome to Compatible's Corner for the month of January. This is the start of a whole new decade for Australia. Hopefully, we will be able to pull ourselves out of the problems we are currently having, and elevate ourselves back to the top of the list as God's Own Country!

Not a real lot of news this month. It has been pretty quiet apart from the following. There are some rumours reaching me from my US contacts, that some authors are thinking of pulling their shareware products out of Australia. This is due to the very low number of registrations originating from here. To all you people out there with shareware software that you are continually using please pay your registration fees. I, and I am sure all the other registered users, don't wish to be disadvantaged by a few other inconsiderate people.

Shareware software offers all of us the chance to try software before we buy. If you cannot live with the BUY part of that line, you shouldn't be using shareware. Now come on people, let's get our act together and register some of this software. I will be able to offer you the following software in registered form, at the prices listed beside them;

Ample Notice	$ 55.00
AsEasyAs	$ 70.00
Automenu	$115.00
Bakers Dozen	$100.00
Cashtrac	$ 80.00
Disk Spool II	$ 60.00
Easy Presentation Graphics	$145.00
ExpressCalc	$ 85.00
ExpressCheck	$ 55.00
ExpressGraph	$ 55.00
Extended DOS	$ 55.00
EZ Forms Lite	$ 85.00
EZ Forms Executive	$190.00
Fastbucks	$ 85.00
File Express	$115.00
Galaxy	$100.00
Homebase	$120.00
On-Side	$ 40.00
PC Calc+	$115.00
PC Deskteam	$ 55.00
PC File: dB	$145.00
PC File+	$115.00
PC Key Draw	$160.00
PC Type II	$115.00
PC Write	$160.00
PC Write Macros	$ 50.00
Powermenu	$145.00
Procomm+	$145.00
Qubecalc	$115.00
Wildcat1 BBS	$205.00
Zoomracks	$145.00

All of these programs are being purchased locally, and will be available to you within 14 days of me receiving your order and cheque through the mail. All of the above prices also include postage! To make an even bigger incentive for you to register, I will allow you the cost of your shareware diskette ($7.50) against the purchase price, so long as you send your original MacroDisk diskette with your order. So now you all have no reason not to register your shareware. Go for it!

Now onto the diskettes for this month. For those of you with either Printmaster, Printmaster + or PrintShop, we have a bonanza for you this month. Two library diskettes of graphics for each program, and a diskette of tools for each program.

PRINTMASTER+ LIBRARY DISCS 1 & 2

First off, we will look at the graphics diskettes for Printmaster+ and Printmaster. On diskette 1, we have 6 additional libraries of graphics for you to use. These cover the following topics:

Animals
Computers
Medical, and
Various 1, 2 and 3.

This diskette contains over 300 graphics for you to use with either Printmaster or Printmaster+. It also contains the program PMTOOLS and GETART, which allow you to view the graphic libraries, and play around with them.

On diskette 2, we have graphic libraries covering the following topics;

Men,
Music,
People,
Transportation, and
Women.

Also included on this diskette of over 300 graphics are GETART and PMTOOLS so that you can work with the libraries. These diskettes will work as they stand with Printmaster+, by just copying them into the same hard disc subdirectory as Printmaster+. If using floppies, when Printmaster+ asks for another diskette, just slip either one of these into the drive. For Printmaster, you must load one set at a time, and rename them to ULIB.SDR and ULIP.SHP, instead of their normal names.

PRINTMASTER+ TOOLKIT

This diskette contains a collection of tools to help you with Printmaster or Printmaster+. Included on this

diskette are the following;
ARTCON14: - Allows you to convert graphics between Printmaster, Printmaster+, PrintShop and First Publisher, although going from First Publisher to any of the others is a problem.
CHKPIC:- Will identify approximately 14 types of picture formats.
CONVERT:- Another conversion utility.
GETART:- As per the library diskettes, allows you to work with the graphics libraries.
PM-PS-BS:- Allows you to convert between Printmaster, PrintShop and BSAVE, as well as backwards.
PMLABEL:- Prints mailing labels using Printmaster+ graphics.
PMLIB:- Is another program to allow you to work with the graphics libraries from Printmaster and Printmaster+.
PMTOOLS:- From the library diskettes, another graphic library tool.
PRINTGAL:- Probably, to my eyes at least, the best utility for playing with the graphics libraries from Printmaster and Printmaster +.

PRINTSHOP LIBRARY DISKETTES 1 & 2
These two diskettes are identical to the Printmaster+ Library Diskettes 1 and 2 except that they work with Printshop, instead of Printmaster and Printmaster+. Same graphics libraries, just slightly different names. This is due to the program involved.

PRINTSHOP TOOLKIT
This diskette is identical to the Printmaster+ Toolkit diskette, except that it is designed to work with Printshop. The different programs are as follows:
PSLABEL:- Prints mailing labels using Printmaster+ graphics
PSTOOLS:- From the library diskettes, another graphic library tool.

Otherwise these diskettes are identical.

Well, that is six diskettes for this month. If you require any of the diskettes mentioned in this month's column, or in any previous column, please send your order, with your name and address printed clearly, along with a cheque or money order for $7.50 per diskette to the following address:

MacroDisk
1 Woods Street
Newport Vic 3015

Please allow me fourteen days for delivery.

I am currently looking at some more graphics diskettes for Printmaster+, Printmaster and Printshop. As soon as I find enough to fill a diskette or two, I will release them to you. Also coming soon, will be some more clip art and fonts for all you First Publisher users, but that is a little while off yet.

Well that is about it for this month. I hope that you are all enjoying your Christmas/New Year breaks. Don't forget, if you are driving, don't drink! We would much rather have you back here again next month for a bit more fun with our computers. Until next time, bye for now!

LATEST RELEASE

And now, from the home office of Mindscape Inc. in Northbrook, Il, here are the top five reasons why you should play **Fiendish Freddy's Big Top O' Fun**:

Number 5: Because this program contains not one, but *two* scantily-clad, fully-endowed babes.
Number 4: Because you can do this by yourself and *not* go blind.
Number 3: Because it will help stimulate the economy – particularly ours.
Number 2: Because we left circus tickets for Elvis at the will-call window.

And the number one reason...Because we offer breakthrough animation, dazzling graphics, slapstick, cartoon-style humour, and big time big top fun. And because we said so!

Just $59.95 from The Amstrad User and lots of other places

Shiver me timbers! Your ship's come home with these utilities.

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

The third disk to be released is PC-SOFT #3, in either 5.25" and 3.5" formats, and contains the following:

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

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

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

CGA2.COM
Offers something like a 60% success rate in allowing owners of monochrome monitors to run programs that use CGA graphics in different shades of grey.

CHOICE.COM
A short command file providing a handy way of using multiple-choice menus in your batch files.

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

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

CLR.COM
Simply clears the screen to a specified colour.

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

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

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

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

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

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

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

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

FULLDIR.EXE
This displays the directory tree structure of any drive.

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

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

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

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

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

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

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

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 #3, 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 #4 on 5.25" and 3.5". More Games for all Amstrad PCs!

ADVENTURER'S ATTIC

Manned only with a ratty typewriter, Philip Riley casts his prophetic eye forward over the coming year...

Happy New Year everyone out there in adventure land, I hope you all had a good Christmas. You may have noticed that the attic has been absent for the past couple of months, but don't worry – we are back in line again now.

What could be a better time than January to tell you of some of the things that we have got coming up this year in Adventurer's Attic. Over the next few months we will be looking at graphics in adventures. We will start next month by looking at the various problems associated with using graphics and discussing if graphics are really all that important anyway. I would be interested in hearing your view on the subject as we work our way through the articles.

After this we will look at compacting screens so that they take up less memory. We will also be looking at moving data about and moving the screen, not to mention changing the shape and size of the screen.

I also hope to look at various commercial programs that can be used to assist you in drawing your graphics. Finally we will take a look at moving graphics. Most of the programs will be in machine code, but as you should already know, this can be easier to use than first thought (if you don't know this, then you were not paying attention in previous months when we looked at machine code in the last series of articles concerning encode/decode).

We have not visited those poor lost souls in Castle Dracula or Aftershock lately, so we will pop in to see how they are getting along and maybe offer some advice.

James Green in his last letter mentioned that his handwriting had improved greatly. Looking at his letter I can see it has, and I am convinced that the printer and word processor he bought himself have got nothing to do with it. James also complained that his name is not where it should be on the contact list. You may remember that he thinks it should be on top of the list. This has nothing to do with me, the sub-editor sorts out all of this sort of thing. *(Hee hee hee hee - S. Ed.)*

Well, it's only a short one this month as my disc drive is down at the moment (and I don't mean down the shop either). This article is being written on a very old typewriter which suffers many problems, but I will battle on regardless. Such is the stuff REAL adventurers are made of. Talking of which, we will end the column by letting James sign off as he did in his letter:

Yours Sincerely, James Green – *adventurer extraordinaire.*

– Don't you just love a modest adventurer? See you next month.

QUESTIONS

Damian Roy is stuck in Knightmare. He has received the necklace of the girl and found the dragon but cannot kill it. The spells don't help any more than the sword does.

Damian would also like to know how to get through the trapdoor in the roof after you pass the three sorcerers in Fairlight.

Janne R. Birch is the first Kiwi to write to us. He is having trouble with The Pawn as you can see from his list of questions. He is unable to find the lamp and asks: How do you get into the palace without being chucked out as soon as you give the king the note? What do you do with the adventurer who rides the horse with no legs? How do you shift boulders, and what do you do with the guru?

Finally, in Leisure Suit Larry 2, how do you build the bomb on the island? Graeme Nitz of Balwyn knows that you have to build a bomb but cannot find the correct syntax.

Exclusive to The Amstrad User

ADVENTURE 4-PACK

All four on one (CPC) disc - $32.95
All four on one (CPC) tape - $27.95

1. Colossal Cave Adventure
2. Mountain Palace Adventure
3. Time Search
4. Castle Dracula

Ring (03) 233 9661 for Credit Card orders or mail to:
The Amstrad User, 641 High Street Road, Mount Waverley. VIC. 3149

UNKNOWN PLANET

Our holiday season special is a new and even better CPC BASIC adventure from Barrie Eaton. It's so big it's in three parts, so here's part one...

You have landed on a remote planet in some unexplored part of the universe. Whilst you were orbiting the planet a tiny meteorite punctured your fuel tanks causing you to lose fuel and hence make an emergency landing. Your computer has no data on the planet but your instruments tell you it has a breathable atmosphere. Although your food situation is stable your water supply is very low. You check the fuel tanks and find a hole the size of a small fist in the main tank and a fracture in the secondary tank. You are unable to repair the damage as you don't have the right equipment and very few tools and your fuel supply is almost gone.

You are, therefore, left with the obvious choice. You must explore outside your spaceship or eventually die. You might die anyway but you have to take that chance and try to locate some fuel, water and something with which to repair the fuel tanks.

So after picking up your laser gun you leave your ship and look around outside. It is a bleak looking place.

Some commands are as follows:

I	Will list what one is carrying.
EXAM	Will allow one to examine any object in the game.
SAVE	Will save the game at any position.
LOAD	Will restore a saved game when restarted.
GET or TAKE	Will allow one to pick up an object.
QUIT	Will give one the option to save a game before quitting.
SCORE	Will give one their score at any point in the game.
N,S,E,W	Will allow one to move North, South, East and West.

Plus a host of other commands.

As an aside, once an object has been taken or dropped, any further action concerning that object may be called up referring to that object as 'IT' e.g. 'GET THE PICK' 'EXAMINE IT' etc.

This adventure takes 34K and has all the features of Fantastic Adventure plus many more!

```
10 REM ******** UNKNOWN PLANET *********
20 REM ***** AUTHOR: BARRIE EATON ******
30 REM * PROGRAMMER: B.M. & M.C. EATON *
35 REM *** The Amstrad User, Jan. '90 **
40 MODE 1
50 GOTO 3820
60 CLEAR
70 INK 0,13:INK 1,0:INK 2,24:INK 3,1:BORDER 13
80 DIM loca%(132,4),loca$(132),obj%(44),obj$(44),get$(5
6),get%(56)
90 posi%=1:sc=0:aak=0
100 FOR x=1 TO 132:FOR y=1 TO 4:READ loca%(x,y):NEXT y:
READ loca$(x):NEXT x
110 FOR x=1 TO 44:READ obj%(x),obj$(x):NEXT x
120 FOR x=1 TO 56:READ get%(x),get$(x):NEXT x
130 inv$(1)="laser gun":ai=1
140 DATA 2,42,132,91,outside your spaceship.All around
you  looks bleak with a haunting red sky,20,1,0,3,in a
 wilderness with very little plant  life,4,0,2,0,in a d
esert both hot and dry.,0,0,0,5,in a desert....Suddenly
 the ground cavesin beneath you
150 DATA 9,0,0,6,at the bottom of a pit.Light filters i
n from the hole above,0,0,5,7,inside a small cavern,0,0
,6,0,inside a small cave.You can see a door.,0,0,7,0,in
side a room.It is very dank
160 DATA 10,5,0,0,in an arch shaped passage with lights
   overhead still giving off light,11,9,0,0,inside an i
nner chamber.,0,10,0,12,inside an anti-chamber.,0,13,11
,0,inside a chamber.You can see a door
170 DATA 12,0,0,0,in an old sleeping room.The broken
   remains of a bed lie alongside the wall.,0,0,12,15,i
n an abandoned subway.A railway track  goes from east t
o west.
180 DATA 0,0,14,16,on an abandoned railway track in the
    subway.,18,0,15,17,at the end of the railway track.
,0,0,16,0,at a dead end.
190 DATA 0,16,0,0,in a passage that is blocked by rocks
   from a roof cavein.You can see a room onthe other si
de,0,18,0,0,inside a supply room.Various useful     ite
ms lie scattered around,27,2,21,0,in a rocky terrain wi
th litle plant life
200 DATA 0,0,22,20,beside a water hole.,0,0,23,21,in a
lightly treed region,24,0,25,22,in a sparsely treed are
a.,0,23,0,0,in a woody region
210 DATA 0,0,26,23,at the edge of a forest.,0,0,0,0,in
a dark forest......Suddenly a lizard like creature spri
ngs out and attacks  you,0,20,0,0,at the southern edge
 of a deep ravine.,29,27,0,0,at the northern side of a
deep ravine
220 DATA 0,28,30,0,in a rocky terrain with steep cliffs
 on either side.,0,0,0,29,by an opening in the rocks.It
 is too   narrow to get through,32,30,0,0,on the north
 side of an opening in the  rocks.
```

```
230 DATA 33,31,0,0,on a narrow pathway overrun with vin
es and creepers,0,0,0,0,on a pathway.......Suddenly on
e of the vinelike creepers wraps itself around your
legs.
240 DATA 0,33,0,0,by the edge of a deep hole.,0,0,38,36
,at the bottom of a hole.You can see a rope.,0,0,35,3
7,in a small empty room.,0,0,36,0,in a small supply roo
m no longer used
250 DATA 0,0,39,35,in a narrow passage.Light spills in
fromthe hole above,0,0,0,38,in a narrow passage.You can
see a door,0,0,41,39,in a small chamber,0,0,0,40,in a
murky looking store room.
260 DATA 1,43,0,0,in rocky terrain,42,68,44,75,in a val
ley at the foot of a mountain,0,0,45,43,in a valley.Sig
ns of a past civilizationare apparant.,0,46,0,44,at the
western edge of a wide and very deep gulch
270 DATA 45,47,0,0,in a clearing obviously devastated a
t one time,46,48,62,0,outside a deserted dwelling.It
has an exit to the east,47,49,0,0,in a wooded area.,4
8,0,50,0,in the woods
280 DATA 0,0,0,0,beside a large tree......suddenly you
are attacked by a snakelike serpent. It coils itself
around you.,0,0,52,45,on the eastern side of a deep gul
ch.
290 DATA 0,0,53,51,in a grassy region.,0,0,0,52,beside
a large lake that widens out intothe distance.,0,55,0,0
,at the east side of a lake.,54,56,0,0,at the north sid
e of a rocky wasteland
300 DATA 55,57,0,0,in a rocky terrain,56,58,0,0,at the
foot of a cliff.Partly hidden behind some vines lies
a cave
310 DATA 57,59,0,0,inside a large cave.,58,0,0,60,insid
e a large grotto.It was inhabited at one time,0,61,59,
0,in a smaller cavern.,60,0,0,0,at the brink of a dark
and deep shaft. Further progress this way is impossibl
e
320 DATA 0,0,63,47,inside an abandoned homestead.,0,0,6
4,62,in the living room.Only broken furnituренow remain
,65,0,66,63,inside the kitchen,0,64,0,0,in the sleeping
quarters.The remains of a cot lie on the floor
330 DATA 67,0,0,64,between a homestead and a shed,0,66,
0,0,inside a shed.It still contains tools and other e
quipment
340 DATA 43,69,0,0,at the foot of a mountain.A narrow p
ass ascends to the south,68,70,0,0,on a steep mountain
pass. Rocks from above are falling around you
350 DATA 69,71,0,0,on the south side of the mountain.Yo
u can see a cave,70,72,0,0,inside a cave.,71,0,73,0,i
nside a grotto. It seems people once lived here.,0,0,
74,72,in a narrow and dimly lit passage.
360 DATA 0,0,0,73,in a large cavern.It appears to have
once been a place of refuge.,0,0,43,76,in a flat ope
n area devoid of any life
370 DATA 0,77,75,0,at the outskirts of a desolated city
,76,78,0,87,on a deserted street with buildings on eit
her side.Some of them still intact,77,79,0,0,inside an
old warehouse.,78,80,0,0,outside a warehouse.
380 DATA 79,0,0,0,outside crumbling buildings. An alien
suddenly leaps out at you brandishing a club.,80,82,
0,0,at the far end of town.It is deserted
390 DATA 81,0,0,0,outside a temple like structure.You c
an see a door,82,84,0,0,inside a lightly furnished room
,83,0,85,0,inside a large room.Tables lie scatteredarou
nd,0,0,86,84,in a room full of electronic equipment no
longer in use.
400 DATA 0,0,0,85,inside a storeroom.,0,0,77,88,outside
a tall building.It has an exit to the west,0,89,87,0,
inside a lightly furnished room.,88,90,0,0,inside a lar
ge office almost bare.
410 DATA 89,0,0,0,inside an adjoining annexe. It conta
insa large computer.,92,96,1,94,on the outskirts of a p
etrified forest.,0,91,0,93,walking through a petrified
forest
420 DATA 0,94,92,0,in a petrified forest,93,95,91,97,in
a petrified forest,94,0,96,0,in a petrified forest.,91
,0,0,95,in a petrified forest,0,0,94,98,at the far side
of a petrified forest.,99,0,97,0,in a clearing
430 DATA 100,98,0,102,in a dense area of undergrowth.,0
,99,0,101,in dense growth.,0,102,100,103,in dense under
growth.,101,0,99,0,in dense growth.,0,0,101,104,in a gr
een open valley.,0,0,103,105,in an open valley.
440 DATA 0,0,104,0,outside a large compound surrounded
by ahigh wire fence.,0,109,0,107,inside the compound of
a huge refinery. It is surrounded by a high wire fence
450 DATA 0,0,106,0,outside an office block. You can see
a door,0,0,107,0,inside an office.,106,0,0,0,outside
a maintenance building. It lookslike a way through to t
he refinery.You can see a door
460 DATA 109,0,0,0,inside the upper room of the mainten
ancebuilding. On the far side lies a barred grille and
behind it a walkway.,0,0,112,110,crossing over a walkwa
y
470 DATA 0,122,113,111,on the outskirts of a huge refin
ery.,0,123,114,112,walking along a conglomerate of pipe
work,0,115,0,113,in the midst of rows of pipes.,114,0,0
,123,at the foot of huge silos. There is a stairway l
eading up to the top of them
480 DATA 0,0,117,0,on top of a huge silo.A stairway goe
s tothe bottom,0,0,0,116,on the top of a silo.You can s
ee a hatchwith a spider like handle,117,119,0,0,inside
a huge structure that houses manysmall tanks.,118,120,0
,121,admist a row of small tanks
490 DATA 119,0,0,0,at the edge of an acid pit. To go an
y further will be disasterous.,0,0,119,0,amongst some
larger tanks.,112,124,123,0,amongst a network of steel
work and pipes,113,0,115,122,in amongst steel and pipew
```

```
ork.
500 DATA 122,0,0,0,at the north side of a walkway. Ther
e isa gap in the middle,124,126,0,0,at the south side o
f a walkway.Before  you lies a vast network of pipes s
teel  and silos
510 DATA 125,129,131,127,walking through a maze of pipe
 and steelwork.,0,128,126,0,in a maze of pipes and stee
l work.,127,0,129,0,in a maze of pipework and tanks.,12
6,0,130,128,in a maze of pipes.
520 DATA 131,0,0,129,walking through a maze of pipes ta
nks  and steelwork.,0,130,0,126,in a network of pipes,
0,0,0,1,near a rocky terrain. Before you lies a very de
ep and wide ravine making furtherprogress this way impo
ssible.
530 DATA 0,laser gun,1,your spaceship,2,round object,8,
iron key,10,metal rod,15,pile of rocks,19,rope,19,pick,
19,hammer,19,knife,19,ladder,24,small tree,29,strange s
tones,32,branch of a tree,65,red key,38,compact case,41
,container
540 DATA 74,canteen,44,helmet,46,barrels,49,large key,5
6,rusty sword,59,black box,64,cutlery,67,wooden planks,
67,nails,74,boring tool,74,writing on the wall,78,crate
,84,body,0,papers,86,chart
550 DATA 108,silver key,98,dead mutant,0,map,86,steel s
heets,110,a computer. It is still operating,59,piece of
 timber,127,welder,109,girder,90,grey key,0,raft,0,tiny
 key,0,note
560 DATA 2,ship,2,spaceship,3,object,4,iron key,5,metal
,5,rod,6,pile,6,rocks,7,rope,8,pick,9,hammer,10,knife,1
1,ladder,12,tree,13,strange stones,13,stones,14,branch,
15,red key,16,case,17,container,18,canteen
570 DATA 0,n,1,laser,1,gun,0,n,21,opening
580 DATA 19,helmet,20,barrels,21,large key,22,rusty swo
rd,22,sword,23,box,24,cutlery,25,planks,26,nails,27,bor
ing tool,27,tool,28,writing,12,small tree,29,crate,30,b
ody,31,papers,32,charts
590 DATA 33,silver key,34,mutant,35,map,36,steel sheets
,36,sheets,37,computer,38,timber,39,welder,40,girder,41
,grey key,42,raft,43,tiny key,44,note
600 CLS
610 WHILE qqq%<10
620 PEN 3:PRINT"You are:-":PEN 1:PRINT loca$(posi%)
630 IF an=2 THEN obj$(19)="helmet (worn)"
640 IF (bp=1 OR bp=2) THEN obj$(18)="canteen (full)"
650 IF bo=1 THEN obj$(17)="container (full)"
660 IF posi%=28 AND ad=0 THEN obj%(12)=28 ELSE IF posi%
=28 AND ad=1 THEN loca%(28,2)=0 ELSE IF posi%=27 AND ob
j%(12)=28 THEN obj%(12)=27 ELSE IF posi%=27 AND ad=1 TH
EN loca%(27,1)=0
670 IF posi%=51 AND ad=0 THEN obj%(12)=51 ELSE IF posi%
=51 AND ad=1 THEN loca%(51,4)=0 ELSE IF posi%=45 AND ob
j%(12)=51 THEN obj%(12)=45 ELSE IF posi%=45 AND ad=1 TH
EN loca%(45,3)=0
680 IF posi%=125 AND aw=2 THEN obj%(40)=125 ELSE IF pos
i%=125 AND aw=1 THEN loca%(125,1)=0 ELSE IF posi%=124 A
ND obj%(40)=125 THEN obj%(40)=124 ELSE IF posi%=124 AND
 aw=1 THEN loca%(posi%,2)=0
690 IF ac=2 THEN loca$(4)="in a desert.There is hole in
 the sand  that drops into a cavern below.":loca%(4,3)
=2:loca%(4,4)=0
700 IF posi%=69 AND an<>2 THEN PRINT:PRINT"You have jus
t been brained by a rock.":PRINT:GOTO 3420
710 IF posi%=26 AND aj>0 THEN PRINT:PRINT"It swings a m
urderous claw at you and  narrowly misses."
720 IF posi%=33 AND aak>0 THEN PRINT:PRINT"Its tentacle
s get tighter around you."
730 IF posi%=50 AND aq>0 THEN PRINT:PRINT"It tightens i
ts crushing grip around you"
740 IF posi%=80 AND ap>0 THEN PRINT:PRINT"He swings his
 club at you viciously."
750 IF posi%=1 AND am=1 AND bp=1 THEN bp=2 ELSE IF posi
%<>1 AND bp=2 THEN bp=1
760 IF posi%=1 AND be=1 AND bp=2 THEN GOTO 3480
770 kk=0
780 a$="":IF loca%(posi%,1)>0 THEN a$="North"
790 IF loca%(posi%,2)>0 AND LEN(a$)>0 THEN a$=a$+",Sout
h" ELSE IF loca%(posi%,2)>0 THEN a$="South"
800 IF loca%(posi%,3)>0 AND LEN(a$)>0 THEN a$=a$+",East
" ELSE IF loca%(posi%,3)>0 THEN a$="East"
810 IF loca%(posi%,4)>0 AND LEN(a$)>0 THEN a$=a$+",West
" ELSE IF loca%(posi%,4)>0 THEN a$="West"
820 IF LEN(a$)=0 THEN a$="Nowhere at all!"
830 PRINT:PRINT:PEN 3:PRINT"You can go:- ":PEN 2:PRINT
a$
840 e=0
850 FOR x=1 TO 44:pp%=0:IF obj%(x)=posi% THEN pp%=1
860 IF pp%=1 THEN 880
870 NEXT:GOTO 910
880 IF e=0 THEN PRINT:PRINT:PEN 3:PRINT"You can see:- "
890 PEN 2:PRINT obj$(x):e=e+1
900 GOTO 870
910 PEN 1:PRINT:PRINT:PRINT"What do you wish to do now?
":PRINT:INPUT "",z$
920 z$=LOWER$(z$):y$=LEFT$(z$,2):x$=LEFT$(z$,3):w$=LEFT
$(z$,4):o$=LEFT$(z$,5):q$=LEFT$(z$,6):p$=LEFT$(z$,7):r$
=LEFT$(z$,8):u$=LEFT$(z$,9):t$=LEFT$(z$,10)
930 CLS
940 IF (y$="n" OR w$="go n") AND loca%(posi%,1)<>0 THEN
 kk=1:posi%=loca%(posi%,1)
950 IF (y$="s" OR w$="go s") AND loca%(posi%,2)<>0 THEN
 kk=1:posi%=loca%(posi%,2)
960 IF (y$="e" OR w$="go e") AND loca%(posi%,3)<>0 THEN
 kk=1:posi%=loca%(posi%,3)
```

Phew! All this typing and checking is hard work. Better take a break, have a Kit Kat and we'll see you next month with part two of Barrie Eaton's 'Unknown Planet'!

Hint Sheet

POLICE QUEST II
- The Vengeance
by Andrew Fort

BASIC TIPS
- Look everywhere
- Get everything that isn't nailed down.
- Make a Map (not so important in PQII)
- Save your game, often!

LOCATIONS
- The Station
  - Your locker number is easy to find
  - Look around the car at start of the game.
  - Your office is the one at the top-left corner as you enter the station.
- In the Car
  - If you want to go somewhere, type "go to ???" or "drive to ???"
- At the Jail
  - Bains has escaped, so get info on him
- At Cotton Cove
  - Always have your gun drawn
  - Talk to the girl
  - Look around, especially on the farmost left screen.
  - Watch out for speeding cars.
  - Save your game!
- At the Warehouse District.
  - Search the body very carefully you might find important information.
- At the Inn
  - You might need some thing to help you get in.
  - You also might need some force.
  - Remember, never do things alone!
  - Once inside the room, check everywhere, including the bathroom.
- At the Airport
  - Your gun still sighted?
  - Take a look around.
  - Ask for a ticket - you won't have enough cash.
  - If Keith doesn't do anything, then you haven't done enough - try calling someone on the phone - maybe the police - but where and which police?
- On the Plane
  - Gun sighted? I hope.
  - The drinks are awful (most of the time they are on domestic flights. Right?!)
  - I won't say anymore about the flight, except if something is put together forwards, then the opposite must be done to take it apart!
- In Steelton
  - Take a good look around the park - look everywhere.
- In the Tunnels
  - there isn't any cows, there isn't any paddy field, but there's a hell of a lot of ....
  - it's not impossible, but you can get protection.
- In the Hideout Room
  - Keep quiet
  - Hide somewhere - it's quite obvious where.
  - Hope gun's loaded
  - If you get to here, congratulation's! You've finished and you can just watch the rest.

Things to try after finishing - or before!
- Try shooting your gun in the airport or in the station
- Drink on the airplane
- Don't watch your step in the tunnels
- Don't wear ear protectors at target practice - WHAT?!

One last helpful hint if you are stuck...

With most of the Sierra games, make a couple of saved games - as far as possible into the game, then use a viewing utility like PCTOOLS View, Norton's or even the CHK4BOMB check program used like this...(the directory names and file names can be changed, of course)

```
c:\utility>Chk4bomb
c:\sierra\pq2\pq2sg005
>c:\pq2hint.doc
```

This takes the output from the chk4bomb program and puts into an ASCII file called pq2hint.doc
You can then do a 'type' of this file (or use an ASCII editor) and view the quite interesting contents.

This is our fourteenth Hint Sheet and earns Andrew Fort another cheque for $25. 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.

FOR SALE

FRUSTRATED with you home finances? Home Accounts Manager is THE answer: professional user friendly software for 6128s ($40). Cheques/P.O.s/inquiries to: Chris Wooton, 15 Aruma St, Mornington, Tasmania 7018

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

Second Hand CPC6128, colour or mono. Also 5.25" or 3.5" drive to fit 6128. Paul Wight, 79 Sussex St, Maryborough Qld. 4650. Phone (071) 22 2398.

AMSOFT 968 Firmware Manual to buy or borrow. Call (03) 369 5480

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

CPC464 POWER COMPUTING can make super computers green with envy, without emptying your pocket. Details, John Taunins: Box 2008, Geraldton 6530. Specify CPC464 tape or MS-DOS disc as transfer media.

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.

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.

SYDNEY AMSTRAD COMPUTER CLUB for CPC only. Meets first Saturday of the month in Inner Suburbs. Details Ph. 560 9487 or 661 7573, 6-9pm only.

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
MAR'90	15/01/90	26/01/90
APR'90	12/02/90	23/02/90
MAY'90	12/03/89	23/03/89

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

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

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

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 reload • *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 •

Send Your Order to:

The Amstrad User,
641 High Street Road
Mount Waverley, Victoria 3149.
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	39.95	29.95
500cc Grand Prix	32.95	24.95
1942	24.95	19.95
1943	44.95	29.95
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	44.95	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	39.95	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	39.95	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	39.95	29.95
Game Over 2	39.95	29.95
Games, The - Winter edition	35.95	29.95
Garfield	**29.95**	**-**
Gauntlet II	44.95	-
Gemini Wing	49.95	34.95
Ghostbusters II	39.95	29.95
Ghouls and Goblins	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.	39.95	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	39.95	29.95
Operation Wolf	44.95	29.95
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)	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

Raffles	39.95	26.95
Rambo III	44.95	29.95
Real Ghostbusters	39.95	29.95
Red Heat	39.95	29.95
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	39.95	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	-	12.95

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 39.95 34.95

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 - 49.95

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 49.95 39.95

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 PLUS - enhanced version of Cardbox (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 MkIII 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 mousefrom 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	29.95	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* §	59.95
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	49.95
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	99.00
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 59.95

MINI OFFICE PROFESSIONAL - the PCW version of the highly successful Mini Office II with Spreadsheet,Wordprocessor, database, graphics and communications 149.00

MONEY MANAGER PLUS - cashbook/personal accounting 99.00

NEWWORD2 - 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 T.O/S

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 print-head 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 print-

PCW - continued

head 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	69.95
Beyond Zork	59.95
Billiards	52.95
Bionic Commandos	54.95
Black Cauldron #	49.95
Black Jack Academy †	49.95

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

Blade Warrior	59.95
Blockbuster	48.50
Bomber	59.95
Cadaver	59.95
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	59.95
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	69.00
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	59.95
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	59.95
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	59.95
Ghouls and Goblins	59.95
Gnome Ranger	59.95
Gold Rush †	52.95
Gone Reel Fishin' #	61.95
Grand Prix Circuit #	59.95
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 # Price not yet available	
Hunt for Red October	49.95
Indiana Jones and the Temple of Doom	69.95
Impossible Mission II †	49.95
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
Minds 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	69.95
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) #	54.95
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 †	59.95
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	**59.95**
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	59.95
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	59.95
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	59.95
Ultima Trilogy (Ultima 1,2 & 3 + Hint Books)	69.95
Ultima V	69.95
UMS (War game simulator)	59.95
Untouchables, The	59.95
USS Stinger - submarine simulator	29.95
Usurper, The	59.95
'Vette (Corvette simulator) #	69.95
Volleyball Simulator	59.95
Voyager	59.95
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 #*	79.97
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) #*	99.00
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 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

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

MATH CO-PROCESSORS

8087-2	XT - 8MHz	369.00
80287-8	AT - 8MHz	595.00
80287-10	AT - 10MHz	689.00
80387-16	16MHz	1145.00

MICROSOFT RANGE

Chart	550.00
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	16.95
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	14.95
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 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		.....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 the festive season (or any other 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

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.

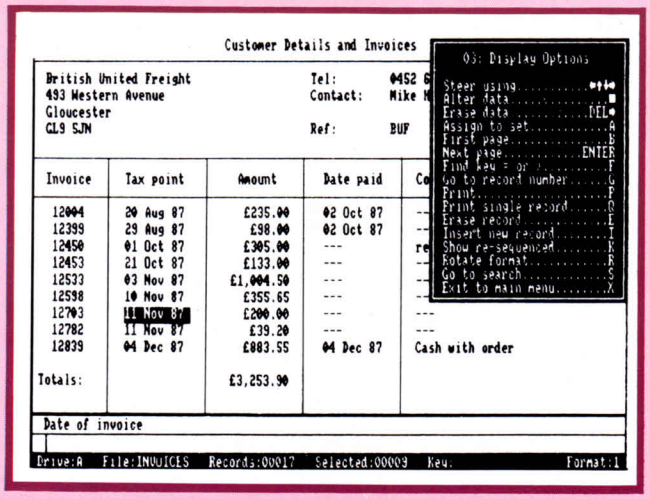
Other products offer a choice between fast but limited capacity RAM files, and large capacity but cumbersome fixed-length, direct access disc files. **MASTERFILE 8000** and the PCW RAM disc combine to offer high capacity with fast access to variable-length data. File capacity is limited only by the size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

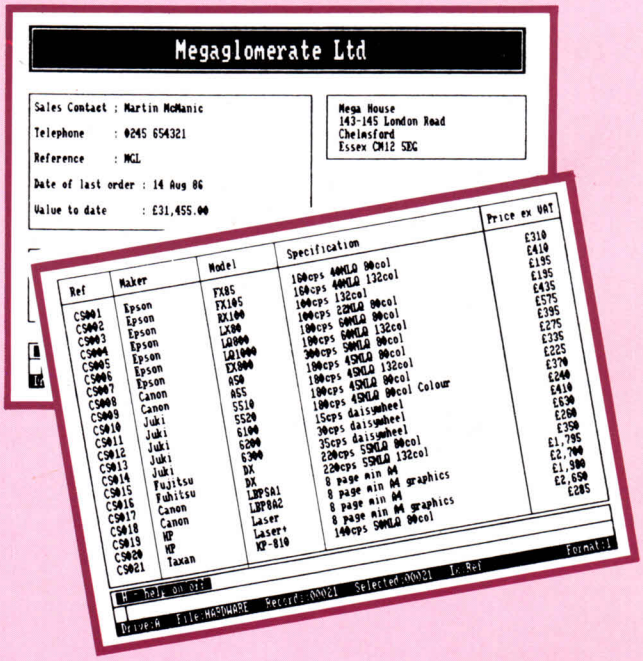


Keyed files are maintained automatically in key sequence, with never any need to sort. You can have unkeyed files too, where records can be inserted at any point in the file.

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**