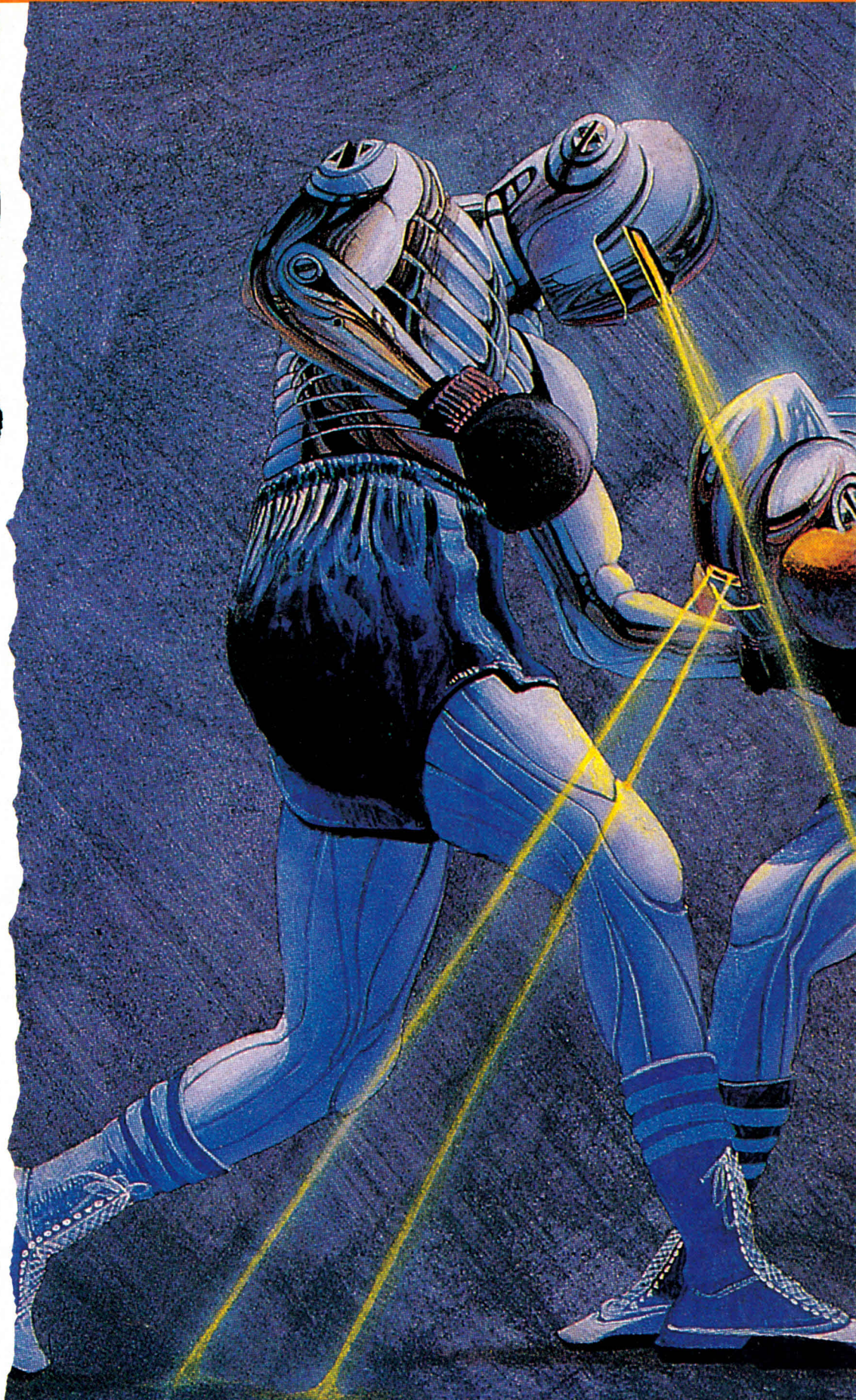


THE *PC* MAG

plus
**THE
AMSTRAD
USER**

**June
1991**

Registered by Australia Post
Publication No. VBP7017
National Library of Australia
ISSN - 1035-9516



4D SPORTS BOXING • FROM MINDSCAPE

YELLOW REVERSE HEADING

USE LOGO SUPPLIED

BLACK KEYLINE

STAR-CURSOR

ANALOG LDR - 501

OF A NEW ERA

DO YOU THINK THIS IS TOO SUBTLE?? - AS THIS IS NEW TECH.

ERGONOMIC GRIP FOR SMOOHER CONTROL AND MAXIMUM GAME RESPONSE

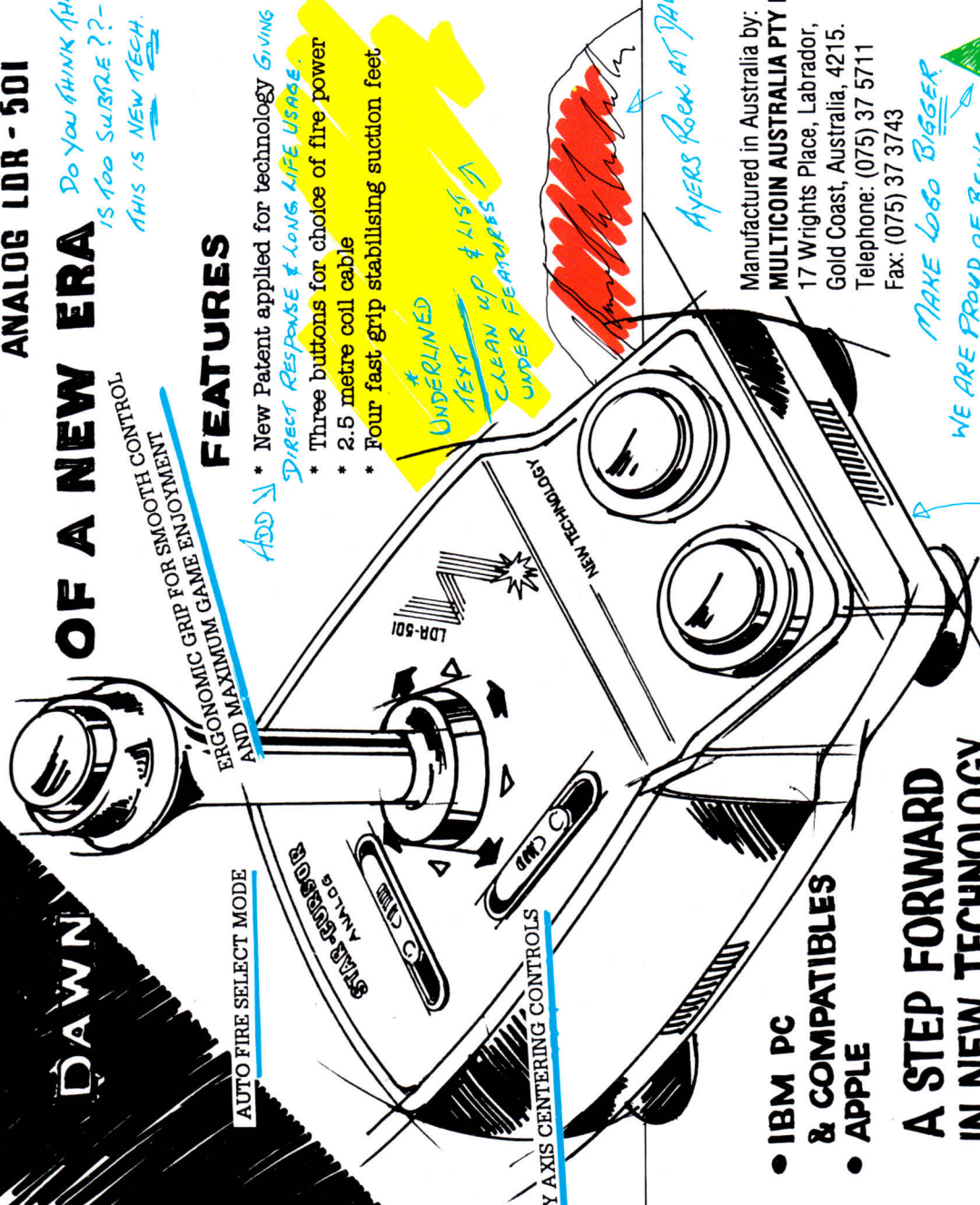
FEATURES

- * New Patent applied for technology giving **DIRECT RESPONSE & LONG LIFE USAGE.**
- * Three buttons for choice of fire power
- * 2.5 metre coil cable
- * Four fast grip stabilising suction feet

ADD ↓

* UNDERLINED TEXT CLEAN UP & LIST UNDER FEATURES

AYERS ROCK AT DAWN



Manufactured in Australia by:
MULTICOIN AUSTRALIA PTY LTD.
 17 Wrights Place, Labrador,
 Gold Coast, Australia, 4215.
 Telephone: (075) 37 5711
 Fax: (075) 37 3743



MAKE LOGO BIGGER
 WE ARE PROUD OF BEING THE ONLY AUSTRALIAN JOYSTICK MANUFACTURER

- IBM PC & COMPATIBLES
- APPLE

A STEP FORWARD IN NEW TECHNOLOGY

DEEP ETCH INTO BACKGROUND

KODAK EEP 6005



EEP ▶ 12

COMMENTS

MIKE:
 A FEW CHANGES WILL BE NEEDED TO MAKE THIS FORMAT INTO A POSTER-IT SHOULD LOOK FANTASTIC.
 P.S. - MAKE AN "ANALOG - LDR"

MERN,
 THIS IS OUR NEW SYSTEM THAT PUTS THIS 25 YEARS AHEAD OF THE REST - THE SYSTEM WORKS WITH LIGHT BEAMS & SHUTTERS - AND NOT RODS LIKE THE OLD JOYSTICKS !!

P.S. - Don't Forget: "AVAILABLE NOW"

STAR MICRONICS

DOT MATRIX PRINTERS

FREE
DELIVERY,
RIBBON & CABLE
with all STAR printers on this
page for limited period only

STAR NX1000CL
Colour Printer



The STAR range

Model	Pins	Width	Fonts	CPS	Price
LC10-2 *	9	10"	4	180	445.00
NX1000CL	9	10"	4	144	495.00
LC200CL	9	10"	5	225	540.00
LC15	9	15"	4	180	745.00
LC24-10 **	24	10"	5	180	670.00
LC24-200	24	10"	6	222	790.00
LC24-200CL	24	10"	6	222	890.00
LC2415	24	15"	5	200	1095.00
FR10	9	10"	8	300	1095.00
FR15	9	15"	8	300	1290.00
XB2410	24	10	16	240	1345.00
XB2415	24	15"	16	240	1490.00

* Suitable for Amstrad CPCs or PCWs. ** Suitable for Amstrad PCWs. (Note: PCW8000s require RS232 interface to connect another printer. Both 8000s and 9000s require a 24-pin printer driver to use a 24-pin printer).

*Treat your PC
to a high quality printer.*

STAR printers are now available direct by Mail Order from Strategy Publications. You can order by phone on (03) 803 9661 and quote your Bankcard, Mastercard or Visa. Alternatively, send a cheque, Money Order or credit card authorisation to:

STRATEGY PUBLICATIONS
1/641 High Street Road, Mount Waverley,
Victoria 3149

THE PC MAG

plus

THE
AMSTRAD
USER

June
1991

Registered by Australia Post
Publication No. VBP7017
National Library of Australia
ISSN - 1035-9516

DIREC

PC News

The latest information from the PC arena _____ 4

Little Squirt is a Big Hit

Canon's new Bubble Jet Printer is proving a big winner. David Higgins has put it through its paces _____ 6

Playing and Learning

A review of four new colourful educational programs from Scotland and France _____ 10

Game Play

PC games reviewed in this issue:

Space Quest 4

Helter Skelter

4D Sports Boxing

Lexi-Cross

The action begins on page _____ 14

Moonlighting with DTP

The secrets behind producing a newsletter or hobbyist magazine, without sending you broke, are explained by John de Rivaz _____ 20

Books for Productivity

Abacus are prolific publishers of books to help PC users get more from their computers. Here's another five to add to their impressive list _____ 22

Patterns in Chaos

The Chaos Theory is certainly complex, but a by-product when using a computer can bring amazing graphics to your screen. _____ 25

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

The PC Mag is normally published on the first working day of each month. Reprinting of articles published is strictly forbidden without written permission. Copyright 1991 by Strategy Publications. The single copy price of \$4.50 is the recommended retail price only.

The subscription rate (for Australia) is \$45.00 for

12 issues, which includes postage. For overseas subscriptions to New Zealand, PNG, Solomon Islands or Vanuatu please add \$30 for airmail costs. Other overseas prices are 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 but will not be returned unless specifically requested, coupled with a stamped and return addressed padded bag.

TORY

Organising VCs and Pics

Chris Collins studies two databases and a drawing program with a difference now released on Shareware _____ 28

Mail Order Software for PCs and Compatibles

A comprehensive list of entertainment, educational, and business software plus consumables and more _____ 30

For Amstrad CPC & PCW Users

Game Play

CPC games reviewed in this issue:

Teenage Mutant Hero Turtles

Sim City

Rick Dangerous 2

The action begins on page _____ 34

Twin Type-ins

Two short type-ins - the first is a game requiring quick reactions and the second a sound demo _____ 37

Guide to Machine Code - 5

If you are suffering withdrawal symptoms because we didn't give you your dose of machine code last month - here's some pretty scrolling to break the drought _____ 38

SIX-PACK SALE

with some pretty amazing bargains which are bound to go fast! _____ 40

Combining Datafiles

To make better use of disk space or for easier look-up facilities, here's the inside information on how to combine two LocoFile datafiles _____ 42

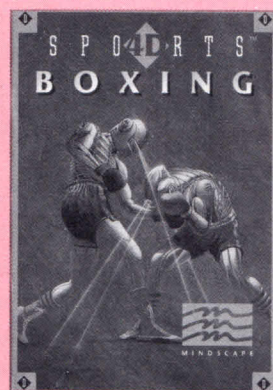
CPC and PCW Public Domain disks _____ 45

The CPC and PCW Catalogue

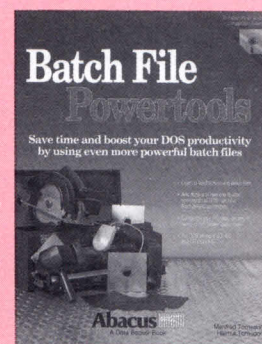
A comprehensive list of software titles for Amstrad CPC and PCW computers _____ 46

Classified Ads and User Groups

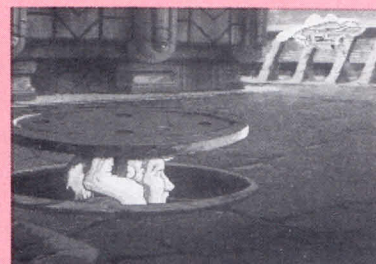
Just \$7.50 gets your message across Australia _____ 48



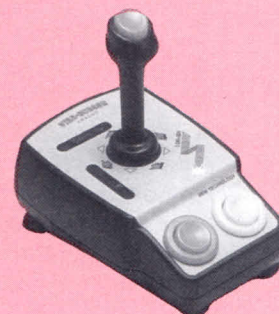
• Front cover: 4D Sports Boxing from Mindscape. It's reviewed in Game Play on Page 17.



• One of five new books for PCs from Abacus. See Page 22.



• Screen shot from Space Quest 4, reviewed on Page 14.



• The almost indestructible Star Cursor Analog LDR-501, a PC joystick under review next month.

NEWS NEWS NEWS NEWS

The latest information for IBM PCs and compatibles

AMSTRAD INCREASES RANGE

Amstrad have recently announced three new computers to be added to their range soon.

Code-named "Shoehorn" during its development, the **Amstrad PC4386SX** features very compact dimensions (250mm x 264mm x 70mm) and an extremely high resolution 10" Sony colour or mono VGA screen. Driving it all is a 20MHz 386SX processor with a standard 4mbs of expandible RAM, 64k RAM cache, 80mbs Hard Disk

such as word processing, Excel and so on. The mono screen version is likely to cost \$3999 and the colour version \$4499.

The **Amstrad ACL 386SX** is a full colour display version of the successful ALT 386SX Laptop. The colour display features the latest in high-performance active TFT (thin film transistor) colour LCD technologies. The 256 VGA screen colours (from a palette of 24,000) remain saturated and the definition stays sharp from all viewing angles. The portable unit

screen. It has a standard 1mb of main memory, a 1.4mb floppy drive, a full-size 82-key keyboard. Power is supplied either through an internal high-capacity nickel-cadmium battery pack for about three hours stand-alone operation or an AC adaptor/charger. A PS/2 type keyboard, mouse and VGA monitor can be attached using on-board connectors. The unit will cost between \$4000 - \$5000 and should be available in June.

CANON LASER IMAGING PACKAGE

Canon has announced that its entry into colour imaging connectivity will soon receive a massive boost with the launch of an instant colour desktop scanning and printing package based on its CLC-500 Colour Laser Imaging System.

The CLC-500 system will be capable of scanning up to A3 size colour illustrations from a variety of sources, including 35mm transparencies, still or conventional video and hard copy, making it a powerful tool for artists, designers or publishers. Using an Australian developed interface, the package will enable illustrations to be uploaded into a variety of personal computers (Apple Macintosh and most IBM compatibles). They can then be manipulated or combined with text or other graphic images and printed out at up to 400dpi (dots per inch) on a variety of material, including A4 or A3 plain paper. *For more details contact your state Canon office or ring Head Office on (02) 805 2000.*



The new A4-sized notebook computer - Amstrad ANB 386SX

(19ms). The unit houses a 1.44mb high-density floppy drive, two 16-bit expansion slots and comes with a mouse. It will also be supplied with a new Windows 3 interface called the Amstrad Manager to give instant access to key management applications

houses a 60mb hard disk and full size keyboard and should be available in August at a price between \$8000 and \$9000.

Finally, the **Amstrad ANB 386SX** is a new A4-sized notebook computer with a 40mb hard disk and clear backlit VGA

NEWSNEWSNEWSNEWS

REVOLUTIONARY AUSSIE PC JOYSTICK SOON

Multicoin Australia, well known for manufacturing very robust joysticks for both arcade machines and home computers, have just announced the impending release of an equally sturdy joystick for PCs and compatibles.

The Starcursor Analog LDR 501 features a clever design feature incorporating LEDs (Light Emitting Diodes) and other "secrets" inside the unit. They replace a number of moving parts which are subject to friction and eventually wear out, and this is where the Starcursor LDR 501



will have the advantage over its

competitors.

The unit has three fire buttons, an autofire function, a 2.5 metre coil cord and comes with a twelve month warranty. It is also suitable for Apple computers. Although \$79.95 a unit, it seems the Starcursor may be a less expensive option in the long run. Watch for a review next month.

The Starcursor Analog LDR 501 is manufactured by Multicoin Australia (075) 375711, and will be available in all good computer shops or by mail order from Strategy Publications on (03) 803 9661.

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**

Little Squirt is a Big Hit

Canon's new Bubble Jet printer is proving a big winner. David Higgins has put it through its paces and reports.

Hands up all of those who wish they had a laser printer connected to their computer! Why does nearly everyone put their hands up? These are big, bulky and expensive pieces of equipment. Their only advantage is in print quality and speed. Of course, you say there is no alternative. Well my friends, there is now.

The Squirt is a new line-up of printers just released by Canon. The name has little to do with the size of the printer (except in the case of the BJ-10e which is very small indeed), but to the fact that they are a new breed of ink jet printers, more accurately termed Bubble Jet printers.

The BJ-10e is the smallest and cheapest of the line-up. It is an 80 column wide model suitable for standard A4 wide single sheet paper. That's right, it will not accept continuous feed paper although a multi sheet feeder is available as an optional extra.

The printer can emulate 4 other types of IBM printers, namely the

current model Proprinters and the IBM Graphics Printer. I have my Squirt attached to an Amstrad 1640DD (IBM compatible) and the Printer has few problems emulating the standard Amstrad DMP3000 printer.

The usual print pitch and character sets are offered and line pitch can be adjusted by as little as 1/360" to as much as 1/8". The quality of the standard font (courier in mode 2, courier and prestige elite in mode 1) comes from a 36 x 48 dot matrix in HQ mode or 18 x 48 in economy mode. Printing speed is slower than the average dot matrix printer, 83 characters per second at 10 characters per inch in both HQ and economy modes with bidirectional printing for text and unidirectional print for graphics.

The unit is powered by an external AC adapter (supplied) although a NiCad battery back can be used (optional extra) to allow the use of the printer on site with a portable computer. Connection to a computer is via a

standard 8 bit parallel port (cable supplied) and the unit has an input buffer of 3K with another 34K reserved for download.

The BJ-10e measures 310mm wide x 216.5mm deep x 47.5mm high. For those still using the old



system that's about 12" x 8" x 2". The unit comes with its own case top which flips up to act as paper support/guide, a built in stand so

that the printer can be sat vertically and a bottom slot so that paper and envelopes can be fed in while it is in the vertical position. The printer has to sit in the vertical position if the optional multi sheet feeder is attached.

her
e in
nter
tory.



was a HP Ink Jet but that was some years ago. The noise comes from what appears to be the print head initialising itself. This takes place when you connect mains power, when you switch the printer on, when you switch power off, when you load a sheet of paper and when the printer is getting ready to print. Apart from this the printer is quite silent when actually printing.

The quality of print was much better than I had expected. Both HQ and economy mode printouts were, as far as I am concerned, letter quality, equal to that of any laser printer. Mind you the quality of the print will depend on the coarseness of the paper you use. It spits ink and does not press the paper flat on impact so really coarse paper will produce really coarse print. The best paper to use would be a good quality photocopy paper but any standard or better bond will do. One more thing about the paper. You cannot use multiple sheets, i.e. ones that are normally used to produce copies.

Secondly you can't (or shouldn't) use paper thicker than 0.2mm.

Paper weights of between 52 and 105 gms are

recommended. Maximum size of paper is B5, A4, letter and legal.

When first setting up the printer I ran into a few problems trying to run the head clean and the self test modes. This was the result of not reading the manual closely enough

0123456789:;<=>?@ABCDEFGHIJ
üéâäåâçêëèìíîÏÄÅÆæÏðóôùÿÖÜ
BCDEFGHIJKLMNOPQRSTUVWXYZ

2
0123456789:;<=>?@ABCDEFGHIJK
æÏðóôùÿÖÜçfVñfáíóúñÑªº¿¬½¼
cdefghijklmnopqrstuvwxyz{|}~

3
0123456789:;<=>?@ABCDEFGHIJ
üéâäåâçêëèìíîÏÄÅÆæÏðóôùÿ
BCDEFGHIJKLMNOPQRSTUVWXYZ

4
0123456789:;<=
XYZ[\]^`abcde
üéâäåâçêëèìíîÏÄÅ

5
0123456789:;<=>?@ABCDEFGHIJK
æÏðóôùÿÖÜçfVñfáíóúñÑªº¿¬½¼
cdefghijklmnopqrstuvwxyz{|}~

6
0123456789:;<=>?@ABCDEFGHIJ
üéâäåâçêëèìíîÏÄÅÆæÏðóôùÿ
BCDEFGHIJKLMNOPQRSTUVWXYZ

7
0123456789:;
XYZ[\]^`abcd
üéâäåâçêëèìíî

8
0123456789:;<=>?@ABCDEFGHIJKLMN
+,-./0123456789:;<=>?@ABCDEFGHIJKLMN
&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLM

9
0123456789:;<=>?@ABCDEFGHIJKLMN
+,-./0123456789:;<=>?@ABCDEFGHIJKLMN
&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLM

10
0123456789:;<=>?@ABCDEFGHIJK
æÏðóôùÿÖÜçfVñfáíóúñÑªº¿¬½¼
cdefghijklmnopqrstuvwxyz{|}~

11
0123456789:;<=>?@ABCDEFGHIJ
üéâäåâçêëèìíîÏÄÅÆæÏðóôùÿ
BCDEFGHIJKLMNOPQRSTUVWXYZ

Sample output from BJ-10e

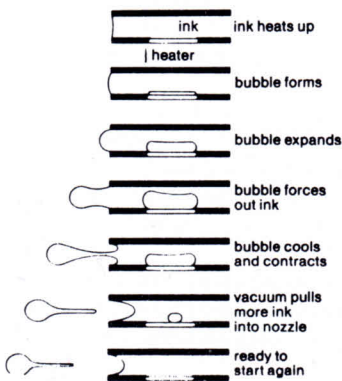
REVIEW

as there were a few buttons to press all at once and others to press within a second of pressing others. A little patience is all that is required. Fitting the print cartridge requires some care. I followed the instructions carefully and still ended up with some ink on my hands and believe me, the ink doesn't come off too easily, so don't wear your best clothes when doing this operation.

The ink cartridge itself is quite large. It has a self sealing print head to prevent the ink drying out and a self cleaning capability should any of the jets become clogged. The life of the cartridge is listed at 700,000 characters which translates to between 250 and 400 pages of text. That's not too bad but the cartridge is a little expensive, \$50.00 at present. With any luck they may introduce one that has a refill capability to reduce this cost.

Once I had the unit up and running I decided to do a trial with Wordstar. The first thing that I noticed is that of the 5 emulations listed, Wordstar contained only two drivers, IBM Proprinter and IBM Graphics printer. I tried the Pro first, as it was listed as the higher priority by the printer manual. Text was fine except, no matter how hard I tried, I could not get the printer to produce the text in HQ except after printing had commenced. Instead of fiddling

HOW BUBBLE JET WORKS



around I decided to use the Graphics Printer driver and got the results that I wanted.

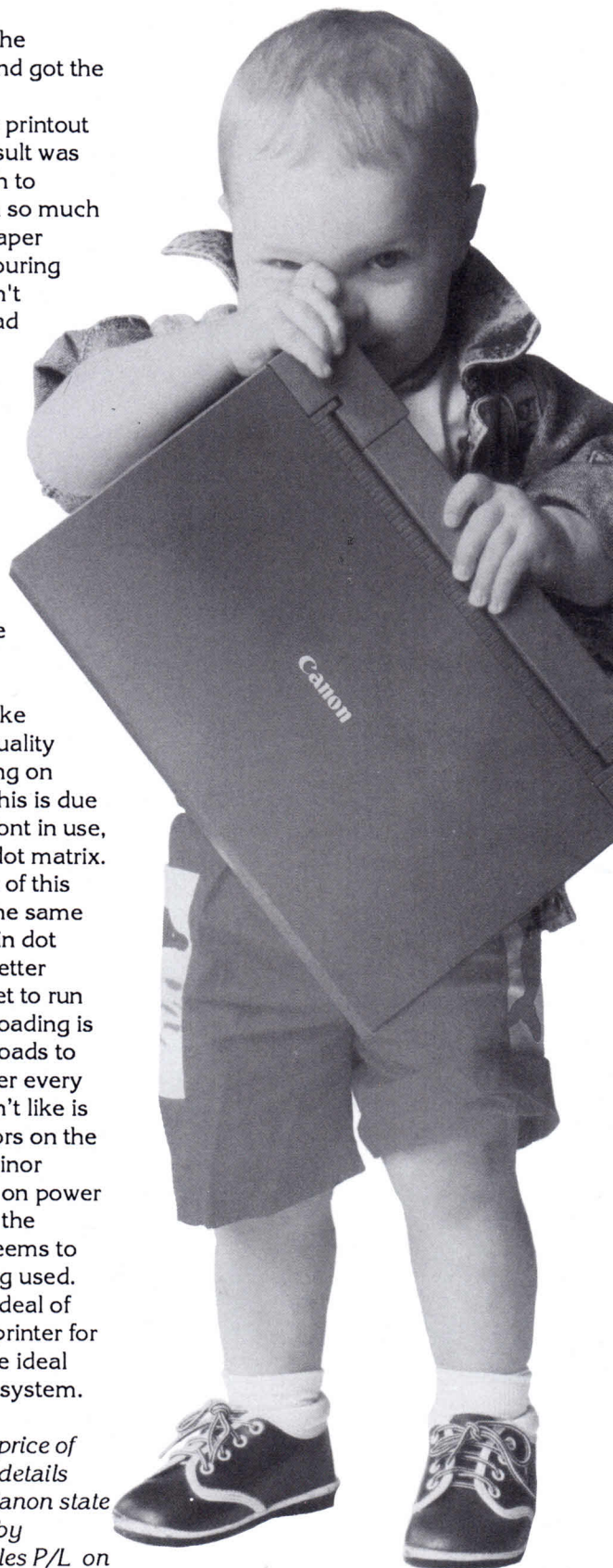
Next I tried a graphics printout from GEM Paint. The result was fine but I could not switch to economy mode and with so much ink being squirted, the paper started to pucker (like pouring water onto paper). It didn't harm the graphic but I had to leave the paper to dry for 5 minutes or so. Unfortunately the manual does not describe whether economy mode is available for graphics prints so I can't tell you if it can be adjusted.

Letter quality of the printer is available for the printer's standard text. If you use software that produces its own fonts, like Letrix for example, the quality of print will fall (depending on the design of the font). This is due to the matrix size of the font in use, usually set for a 24 pin dot matrix.

So what is my opinion of this printer? Well, for about the same cost as the average 24 pin dot matrix printer you get a letter quality printer that is quiet to run and small in size. Paper loading is a breeze and the printer loads to the same line on the paper every time. The only thing I don't like is the lack of mode indicators on the panel but this is only a minor hassle. The default mode on power up appears to be HQ but the manual doesn't say, it seems to depend on the driver being used.

Unless you do a great deal of printing or just use your printer for data processing this is the ideal printer for any computer system.

The recommended retail price of the BJ-10e is \$799. More details can be obtained from a Canon state office, a Canon dealer or by contacting TAU Micro Sales P/L on (03) 803 9211.



TRY-BEFORE-YOU-BUY SHAREWARE

We are pleased to offer a selection of pre-packed software from American based PC-SIG, the world's largest distributors of Shareware Software.

Available in either 3.5" or 5.25" formats (Please specify when ordering)

4 DOS - what DOS was meant to be. A complete command line control. Resident 3k.

AMY'S FIRST PRIMER - educational computer fun for pre-readers. Needs 128k and supports CGA.

AUTO MENU - replace your DOS prompts with this. Hard drive recommended.

CROSSWORD CREATOR - your own clues and words in a puzzle the computer designs. Needs 256k.

DAN CAD - wire frame drawing, design, animation/ Needs 640k and CGA min.

EXPRESS CHECK - automate your cheque book and never be caught off balance. Needs 256k.

CHALLENGER GAME SERIES - graphic and text adventures. Needs 128k and CGA.

CRAZY SHUFFLE - it takes concentration to find matching pairs. Needs 190k and supports Hercules, CGA, EGA, VGA or MCGA.

FAMILY HISTORY - genealogy software for the entire family. Needs 128k.

FAST BUCKS - the do-it-yourself home accountant. Needs 128k.

FAST INVOICE - invoice, purchase orders, requisitions, fast, easy, professional.

FRAC - the race against falling shapes in 3D. Supports EGA.

FRACTAL GRAPHICS - get creative with nature's drawing secrets. Needs 384k and supports Hercules, CGA, EGA, and VGA.

GOOGLE MATH - turns math practice into favourite video games. Needs 384k and CGA.

HUGO'S HOUSE OF HORRORS - walk and talk your way through this animated adventure. Needs 360k and a hard disk. Supports EGA or VGA.

KID GAMES - educational fun for 2 to 10 years old. Needs 128k.

LINE WARS - play alone or over the phone. Supports CGA or EGA. Modem recommended.

MAHJONG - after thousands of years Mahjong meets the PC. Supports Hercules, CGA or EGA.

MEGA-CAD - automated way to construct and model. Requires 512k. Hard disk recommended if using EGA or VGA.

MORTPLAN LOAN EVALUATOR - helping you to find a better mortgage. Needs 256k

NEWKEY - empower your keyboard, redefine, reconfigure, rearrange. Requires 35k.

PC CHESS - match wits with the computer. Requires 128k.

PC FASTYPE - your computer typing tutor. CGA min.

PC JIGSAW - puzzles from pictures. Supports CGA, MCGA, EGA, VGA or Hercules.

PC KEY DRAW - complete graphics for artist, architect and engineer. Needs 256k and two floppy drives.

PC WRITE - power and performance in a word processor. Needs 256k.

PRINTER UTILITIES - teach your printer a few new tricks.

RACE - drivers... start your engines! Supports CGA and EGA.

SIMPLY LABELS - mailing labels instantly, other labels magically. Needs 256k and printer.

SR-INFO - related database development with speed and strength. Requires 400k and double floppy drive (or hard disk or double density drive).

SUPER PINBALL - real arcade action, includes AT-SLOW. Supports CGA.

TYPESETTER PC - desktop publishing with your Epson compatible dot matrix printer. Supports Hercules, CGA, EGA, VGA and needs 512k.

VEGAS JOHNNY'S DRAW POKER - tips, tricks and good fun from a computer hustler. Needs 256k.

VIRUS SCAN - search, destroy, repair, ready to eradicate. Needs 19k.

WEAK LINK - solving the problem of incompatible disk drives. Needs RS232 port and connecting cable.

All for just \$19.95 each + post

TO ORDER

Either have your credit card and expiry date ready and phone (03) 803 9661

OR

Mail a cheque, money order or credit card authorisation to:

**STRATEGY PUBLICATIONS,
1/641 High Street Road,
Mount Waverley, Victoria 3149**

Shareware is not Public Domain software. You buy an evaluation disk containing the program you want to try (usually a full working version). If you decide it is suitable you are expected to pay the author a registration fee. This will enable him/her to continue to eat and produce more low cost software. If the software is not suitable for your needs you are under no obligation to register and the disk is yours to keep, and there the matter rests. Shareware can be freely copied and distributed to friends to try.

Playing and Learning

A review of four new colourful educational programs from Scotland and France.

Educational software for children has improved immeasurably over the past few years. The packages provide a much more interesting way of learning than the old rote method and now, more often than not, contain stories, colourful pictures, sound, or speech, and most important, a challenge to keep the interest of the child.

The other important aspect of modern educational games is that the good ones are very often produced by, or in collaboration with, educationalists and in consequence are carefully aligned to curriculum requirements or modern teaching methods. Four products recently released by importers Pactronics are a good example of the current trend.

MIX AND MATCH (Preschool)

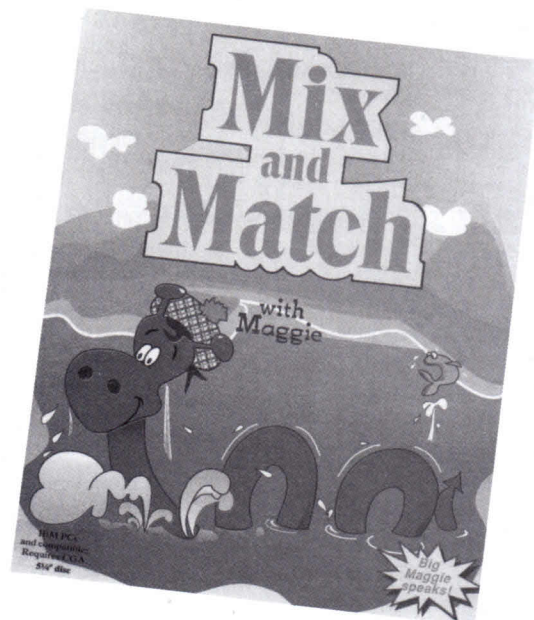
This program helps to develop essential prereading skills and teaches the young student recognition (matching shapes, letters and numbers), discrimination (differentiate

amongst similar shapes, letters and numbers), and memory (to remember accurately what has just been seen).

Whilst this particular product has no immediate relevance to a curriculum because it is primarily intended for under fives, the higher levels will no doubt help older children who are experiencing learning difficulties.

Being produced by Scetlander, a Scottish company, it is inevitable that a Loch Ness monster gets into the act. In this case it's Maggie who is responsible for adding speech to the game with words of encouragement such as "Well done". No sound cards are necessary as the digitised speech played through the internal PC speaker.

There are three games: Two of a Kind; Odd one Out; and Forget-Me-Not and all three are very simply played through by pressing either the space bar or enter. There is also a Clock and Calendar screen (linked to the internal clock and calendar of the





PC) which displays both a digital (12 or 24 hours) and analogue clock (with sweeping second hand) and the current month calendar with today's date highlighted. All the pictures are very colourful and neatly drawn.

Supplied with the product is a parent/teacher guide offering suggestions to enhance the learning process. It also gives details on how to record the student's progress or indeed up to ten different users after each game has been completed. A control screen is simply accessed by the parent/teacher and allows adjustments to suit the user.

There is no time limit to complete each game and when incorrect answers are given, on-screen assistance is offered subject to the settings in the control screen.

Supplied in 5.25" format only, is suitable for CGA, EGA or VGA screens and requires 512k. Price : \$59.95

HOORAY FOR HENRIETTA (5 - 12 years)

This product (from Scetlander) provides varied and stimulation practice in addition, subtraction, multiplication and division over a wide range of ability levels. Exercises are linked to an absorbing storyline featuring Henrietta, Hopeless Henry and John the Parrot. Henrietta and Henry are due to marry in the morning, but John the Parrot is determined to make sure they don't. He steals the groom's clothes and kidnaps the groom himself. If Henry is not rescued, John will cover him in cold custard. Getting Henry to the church on time and suitably dressed is the challenge for Henrietta. Her success depends upon how well she does over four screens of math questions. Each screen has Henry reading a newspaper, oblivious to impending disaster as a large tub of cold

custard hovers above him. Whether giving the correct answers moves Henrietta closer to a lever or a winning line determines the fate of Henry.

Once again the parent/teacher control screen is used to adjust the problems to suit each user. Whilst the student can select one of eight levels of difficulty, the control screen can be used to adjust any level to 'low', 'medium', or 'high'. In addition, the parent/teacher can set the program to concentrate on all or any one of the math functions.

To add to the fun and introduce a little excitement, a timer can be set from very slow to very fast, the latter encouraging quick thinking. There's also a 'High Score' table for achievers to record their names.

Once again, a comprehensive results monitoring facility can be invoked to record the child's progress. These can be printed out for future reference.

Supplied in 5.25" format only, is suitable for CGA, EGA or VGA screens and requires 512k. Price : 59.95

HENRIETTA'S BOOK OF SPELLS (7 - 14 years)

This is another program from Scetlander and is designed to help with reading, spelling and familiarity with a wide range of words.

By now Henrietta and Henry have got married, but while out for a stroll, Henry stumbles upon Castle Spellalot, home of Morgana the Morbid, an evil and nasty witch. She hates happy people and so turns Henry into a miserable, fat frog. Only Henrietta can save him from a life of leaping, swimming and croaking by finding 'magic letters' to make 'magic words' to describe something in Morgana's garden.

The program consists of five exercises, each with three skill levels and a choice of words from



five to nine letters. The words are supplied from a pool of 2500, and the pool can be edited to suit individual requirements if necessary.

While there is no time limit to complete each exercise, a clock on each screen shows the actual time taken plus penalty time for clues requested.

Supplied in 5.25" format only, is suitable for CGA, EGA or VGA screens and requires 512k. The product as supplied will only load from the A: drive.

Price : \$59.95

RODY AND MASTICO

(5 - 10 years)

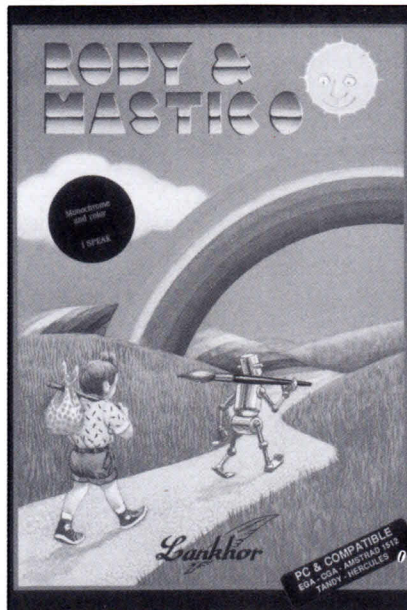
"L'étoile multicolore" a disparu, vos enfants sauront-ils aider Rody à la retrouver? Put into English, this means "the multicoloured star" has disappeared, will your children be able to help Rody find it? - and by now you would have guessed that this product is from France. It's a little different from what you would expect in an educational game and has a number of extra features to give it longevity.

The story line starts in Professor Goblino's laboratory. His chewing gum machine is not working because a vital piece of equipment (the multi-coloured star) has been stolen. His assistant (?), a young boy called Rody is charged with the responsibility of recovering the star, and Mastico the Robot will provide a deal of help throughout the adventure.

The screen is split into three sections, the lower two-thirds reserved for the main picture, and the rest of the screen for the dialogue and four icons. The icons show a picture of Mastico's head, a 'turning page' notebook, a paintbrush and a hand around an ear. All will become clear if we start the game.

Following a burst of music from the internal speaker on loading the game, the robot 'speaks' and

recites the contents of the dialogue box. His 'voice' is not dissimilar to a dalek (if you have ever seen Dr. Who on TV), and can be described as mono-inflective. Having described the situation, he will then ask a question such as "Which part of the machine does the chewing gum come from?". Using the mouse (or keyboard), a small version of Mastico's head is moved by the player to the point in question and clicked. If right, Mastico will nod and smile, otherwise a frown with a shake of the head and message to try again will occur. If all is well, clicking on



the notepad will bring up the next screen (at the greengrocer to buy provisions) with another question to be answered. If at any time the player needs to hear the question again, then clicking on the 'hand around the ear' icon will make Mastico recite again.

Selecting the paintbrush removes all the colour from the screen and replaces the top section with a palette of paint pots, pattern fills and a printer option. As far as the child is concerned, this feature is one of the most attractive as it allows him/her to spend as much time as needed

painting the picture to his/her own specifications. It is also an excellent opportunity to learn the application of colours in their correct environment. The fills are reasonably fast and accurate and mistakes can be corrected by using a 'sponge' icon. Pressing the right mouse button gives a suggested colour if doubt exists. The customised pictures can be saved to disk for later display or printed out on a printer. When the child has finished, selecting the notepad icon will resume the adventure.

There are over a dozen screens to go through to complete the game, and if necessary, the difficulty level of questions can be increased at any stage by merely selecting a 'child with back-pack' icon.

Supplied in 5.25" format only, is suitable for CGA, EGA, VGA, Hercules or Tandy screens and requires 512k. Also suitable for Amstrad PC1512.

Price : \$39.95

SUMMARY

My 10 year old children had a great time with the games, except Mix and Match which was clearly too young for them. The adrenaline was running (accompanied by much noise and excitement) when playing the Henrietta pair. Rody and Mastico, on the other hand, presented moments of thoughtful silence broken only by the music and 'talking' robot.

To parents (or teachers), these games will provide their young students with absorbing fun and at the same time exercise the grey matter which is more than can be said for non-educational arcade games.

All the above products are distributed by Pactronics (02) 748 4700 and are available from all good dealers and The PC Mag by mail order on (03) 803 9661.

PC PUBLIC DOMAIN

A selection of disks for IBM PCs or compatibles containing compilations of some of the better games and more useful utilities in the Public Domain.

PC-SOFT #1 - 19 Basic2 utilities or games on one 5.25" disk, with:

3DGRID.BAS, 3D-VIEW.BAS, ANAGRAM.BAS, ANGLES.BAS, BAS-INIT.BAT, BRAHMA.BAS, BRAHMA2.BAS, BUSES.BAS, ENIGMA.BAS, EUROQUIZ.BAS, MANDEL.BAS, MATHS.BAS, OXO.BAS, ROBOPOST.BAS, STYLISER.BAS, SUNDIAL.BAS, TENPIN.BAS, TURTLE.BAS.

Probably specific to Amstrad PC1512 or 1640 owners only as all these programs require BASIC2. A good mix of games and utilities including an educational BUSES game for young children and a Mandelbrot generator.

PC-SOFT #2 - Eight games on one 5.25" or 3.5" disk with:

3DOXO.EXE, BOUNCY.COM, DRAGONFLY.EXE, JOIN4.COM, MM.EXE, MOLECULE.EXE, RACE.COM, REVERSI.COM.

Some popular games including a clever 3-D version of Noughts and Crosses, some shoot-em-ups and versions of Othello and Connect4.

PC-SOFT #3 - Twenty-four utilities on one 5.25" or 3.5" disk with:

BEEP.COM, CAL.COM, CALENDAR.COM, CGA2.COM, CHOICE.COM, CLEANUP.COM, CLICK.COM, CLR.COM, CURSOR.COM, DELB.BAT, DOSEDIT.COM, DOSMAP.EXE, DRIVE.COM, ETIMER.EXE, FILEDATA.COM, FSORT.BAT, FULLDIR.EXE, GDEL.EXE, HDFLASH.COM, KD.COM, LOSTFILE.EXE, LYNE.EXE, MEDIT.COM, NVRSAVE.COM.

Lots of useful utilities including a typewriter simulator, a directory killer and a file finder. Also contains a utility to allow mono screen owners to run CGA graphics in shades of grey (about 60% successful).

PC-SOFT #4 - Six games on one 5.25" or 3.5" disk with:

CRIB6.EXE, GALACTIX.COM, JASON.EXE, RIMTRIX.COM, SNAKE.COM, WEASEL.COM.

More popular games including a very good version of Cribbage and a humdumging brain teaser. Some games require at least CGA.

PC-SOFT #5 - Twenty-three utilities on one 5.25" or 3.5" disk with:

PEEK.COM, POINTER.ACC, POPTIME.EXE, PRCODES.COM, PRMODE.COM, PRINTC.COM, PSTASH.COM, RENDIR.COM, SCRDMPEX.E, SEE.EXE, SET UTILITIES, SGR.COM, SIZE.EXE, TSTDATE.COM, TIMEFIX.COM, TIMEPARK.COM, TV.COM, WORDS.COM, WYH.EXE.

Lots of printer utilities in this one, including a special effects printer mode selector, plus a word counter and an automatic hard disk parker. It also contains a memory resident text screen dump to a named file.

PC-SOFT #6 - FORD DRIVING SIMULATOR: version 2 on one 3.5" or 5.25" disk

The latest edition of an excellent driving simulator from Ford of America. Offers a choice of several different events: Test Track, Slalom, Drag Strip and Grand Prix. Good 3D representation. All ages. Not suitable for mono screens.

Reviewed November 1990 - TAU.

PC-SOFT #7 - FUNNELS & BUCKETS and WP for KIDS on one 3.5" or 5.25" disk

Contains a simple word processing program for young children (with large on-screen text) plus Funnels and Buckets: a program to improve arithmetic. Suitable for Ages 8 and up.

Reviewed November 1990 - TAU.

PC-SOFT #8 - JUNIOR WORD GAMES on one 3.5" or 5.25" disk

A series of programs involving exercises with Synonyms, Sentences, Opposites, Plurals, Verbs, Jobs, Comparisons etc. It also includes a popular Wordfind game. Suitable for Ages 8 and up.

Reviewed November 1990 - TAU.

PC-SOFT #9 - EDUCATIONAL GAMES FOR KIDS - 1 on one 3.5" or 5.25" disk

Contains a series of colourful and attractive games to teach the alphabet on the keyboard, simple maths and shapes. Plus Hangman with facilities to change word file and picture of the 'victim'. Age 4 to 8

Reviewed November 1990 - TAU.

5.25" FORMAT \$10.00 each • 3.5" format \$12.50 each

Refer to Page 53 of the November 1990 issue for full details on contents of disks, and to Page 30 of this issue for details of postage charges to be added to order.

**ORDERS TO:
Strategy Publications
1/641 High Street Road
Mt. Waverley, Vic 3149
or ring (03) 803 9661
with credit card details**

GAME PLAY

SPACE QUEST 4

HELTER SKELTER

4D SPORTS BOXING

LEXI-CROSS

VERDICTS

- ■ ■ ■ ■ Outstanding
- ■ ■ ■ ■ Above average
- ■ ■ ■ Average
- ■ ■ Fair
- ■ Waste of money

SPACE QUEST 4

- Published by Sierra • Distributed by Ozisoft • Supplied on 3.5" (720k for EGA) or 3.5" (1.44mb for VGA) or 5.25" (1.2mb for either EGA or VGA) • Price \$84.95 • Requires 640k, EGA, VGA or MCGA screens
- Supports Ad-Lib, Game Blaster and Roland modes.

Sierra fans, especially followers of Roger Wilco's exploits in the Space Quest series, will be happy to know that Space Quest 4 lives up to all that they would expect to find in a 3D Space adventure from Sierra.

Once again, Sierra have found it necessary to produce a game in a number of different formats (as shown above). The size and complexity of the game inhibits production on standard 360k 5.25" disks (there would be far too many to fit into the box),

either a 720k 3.5" disk drive or a 1.2mb 5.25" drive from which to install the game on your hard disk. If you have a VGA screen you'll also need a 1.44mb 3.5" drive or a 1.2mb 5.25" drive from which to install. Having got the mechanics out of the way, let's take a look at the game itself.

The action starts in an intergalactic bar where ex-janitor Roger Wilco is recalling to bug-eyed aliens some of his past adventures. His story is interrupted by two ominous



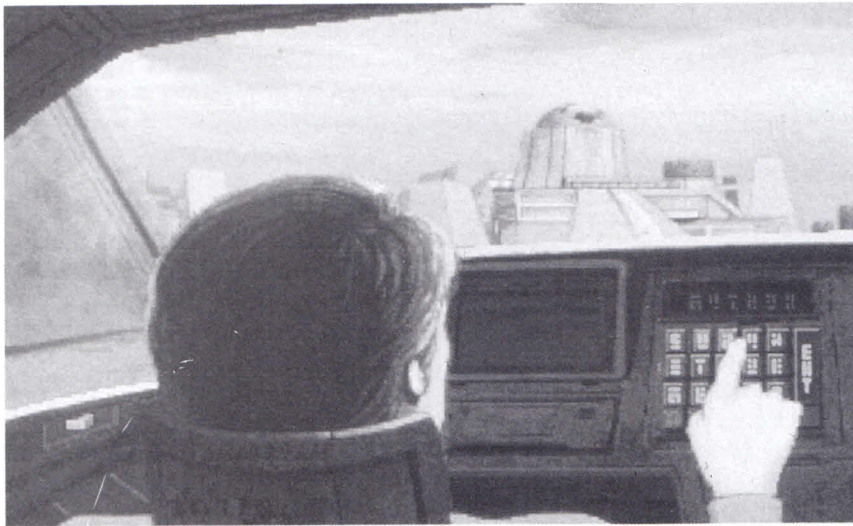
An escape from the sewers blocked?

shuts out anyone with a CGA screen, and in all honesty, makes things intolerably slow sometimes on a PC running at 8MHz or less. However, if you have an EGA or VGA screen on a 286 or 386, then you'll be happy.

A word of warning though, before you buy the package make sure that your computer configuration will cope with the size of disk supplied. If you have an EGA screen, you must have

looking Sequel Policewho arrest him and take our hero of three previous successes outside to meet the evil Vohaul (at least a hologram version of him).

However, just as the henchmen are about to despatch Roger to the eternal Milky Way, two strangers suddenly appear, create a time door and thrust Wilco through it. The time tunnel takes him to his old haunt Xenon. However, Xenon is not the



Get the code right and you're away!

bustling city he once knew. It looks war ravaged and desolate with a large and threatening complex dominating the horizon. In fact, Roger has been transported in time to Space Quest 12. (Hence the sub-title of the game 'Roger Wilco and the Time Rippers.)

A walk-through (if you need to use it) will get you going through the sewers of the city and providing some of the answers at to why Xenon is in the state you currently find it. Get everything right and you should find yourself in a position to transport elsewhere. I eventually found the answer (or code) to enable me to do this, but I must register a complaint with Sierra that there was no real logic behind it. To my mind it's not playing fair!

Estros and the amazonian 'Latex Babes' are the next hurdle to overcome, apart from the chasing armed Sequel Police, and success in this section (Space Quest 10) will see you on a shopping trip at the Galaxy Galleria. There are plenty of puzzles to solve here, not the least to keep one step ahead of the Sequel Police who, if they spot you, tend to fire first then ask the questions.

If you enjoy playing arcade games in the middle of an adventure you get two opportunities, although they are not absolutely necessary unless you are going for maximum points.

Next you'll warp to Space Quest 1 and, apart from meeting some humorous yet aggressive bikies, you will get an indication of how Sierra graphics have improved as the scenes have been faithfully reproduced in the blocky graphics of that era.

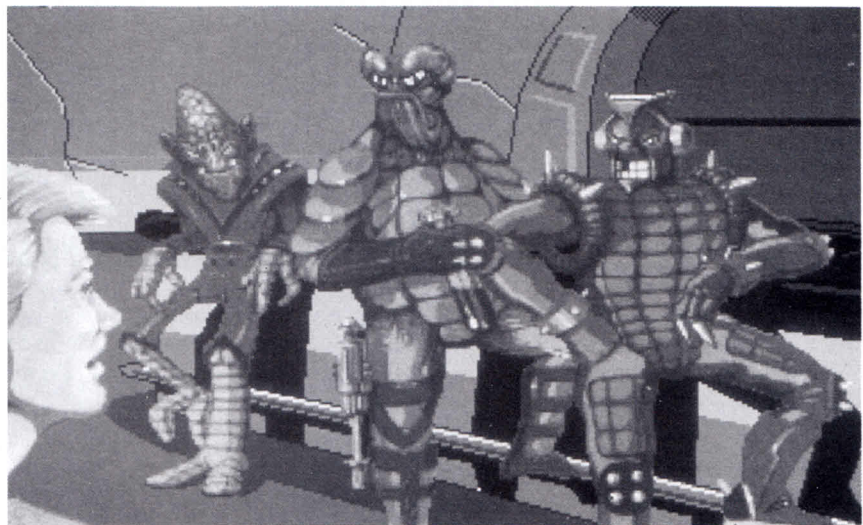
The in-game graphics are of

course superb, VGA naturally being the best, but even in EGA little is lost. The interaction between the game and player is achieved with the 'point and click' system making manual text entry obsolete. The sound is excellent, the music very atmospheric - in fact I am beginning to run out of superlatives to describe Sierra games. Once again, the sound effects and orchestrations are not heard at their best unless through a sound card system. In any case you are paying for them when you buy the game, so why not use them?

One of the hallmarks of Sierra games is the humour, and PC Games magazine puts it in a nutshell by describing SQ4 as "Warp speed and warped humour." Sierra have also introduced "scrolling screens" rather than the old fade-out style. This helps to keep continuity and concentration with the game.

The puzzles have so far been tricky but not impossibly hard, and I am now stuck about two-thirds through the game! Perhaps you can do better?

VERDICT ■ ■ ■ ■



Re-visiting Space Quest 1

HELTER SKELTER

- Published by Audiogenic • Distributed by Pacronics
- Supplied on 5.25" disk only • Price \$49.95
- Requires 512k, Hercules, CGA or EGA screens.
- Supports Joystick or Keyboard.

There is a certain formula that programmers try to find in the hope that it will produce playable and therefore successful games. It seems that if you choose a simple concept, and add a little fun you produce a game that all ages will like. If you add a little bit of a challenge to the game concept you have the possibility of having a great game. Well, Audiogenic have tried to put all these things together to make a hit, and have produced Helter Skelter, but the question is have they produced a hit, or a flop? Well, after hours of playing, it's still good fun and that's one of the elements that make a game a hit isn't it.

Look at all the monsters. Everywhere you look there are monsters. Well, being a good, trustworthy red ball, it's up to you to smash them. The trouble is, that all those platforms keep getting in the way, and the clock is running. You have to clear this level before the timer runs out, or you'll lose one of your lives. Go for it dude, smash those monsters. The concept of Helter Skelter is simple; you control a red ball named "Billy" (if you play with

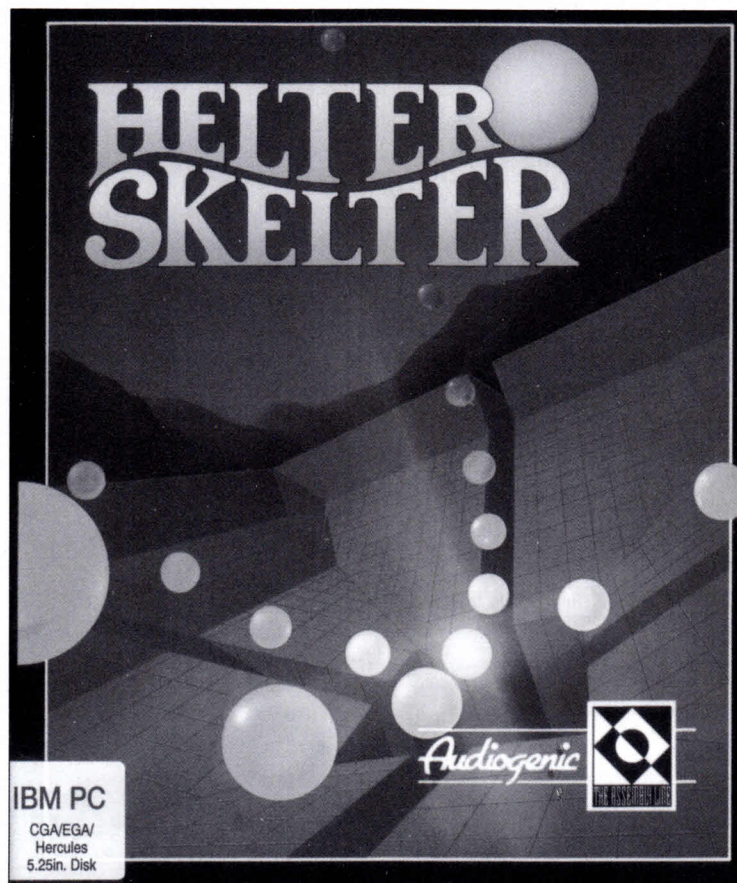
another player, your cousin "Bobby", a blue ball will help you). Your mission is to squash all the monsters on each level, but this must be done in the correct order, or else they multiply (double). Complete the

your ball left or right, and fire controls the height of his jump, and this is done by either keyboard or joystick. Each monster you squash is worth points to your score, and a bonus is added for finishing before the timer runs out. An extra life is awarded for 200,000 points, but you cannot exceed 10 balls at any one time. Tokens also appear at irregular intervals. Hit them and such bonuses as extra time and freezing the monsters. There are two levels that are impossible to complete for only

one player, and the program skips over these unless the two player option has been selected. There are 80 levels to complete, so to reduce the frustration of always having to start at the beginning, a four letter password is given every 10 levels. Type this password after you've selected your method of control and it's off to that higher level.

Graphically, Helter Skelter is good. It supports EGA, CGA and Hercules, but unfortunately there is not a VGA version. The sprites are clear, and the background graphics don't clutter the screen or obscure

the sprites. Movement of the sprites is smooth and well done. Sound is only the standard PC sounds, and there is no mention in the documentation of whether or not other sound systems are supported. Gameplay is where Helter Skelter really stands out. It's one of those games that you



level, and it's on to another with different platforms to get in your way and different monsters. You start the game with five lives, and lose one every time you fail to beat the timer.

With such a simple game, the controls have to be as simple. You control the movement of

can get into immediately, you become thoroughly involved in solving the problem of how to complete the level and you have to just keep trying to reach the next level. All in all, one of those infuriatingly addictive games that are great fun to play. The game loads all in one hit, so the amount of disc access is limited to the initial loading.

If eighty levels were not enough to keep you involved, Helter Skelter also contains a screen designer to create your own screens, with platforms where you want them. You also get to decide which monsters populate each level, and which

direction they initially move in. Control of the screen designer is by either keyboard or mouse and is very easy to use. The screens you create can be saved to disk, but should not be saved on the original game disk. By using the screen designer, Helter Skelter's longevity becomes infinite. With potentially an unlimited number of screens to complete, you could be playing this game for a long, long time.

Helter Skelter was originally released in 1988 for the Amiga and Atari St and was a hit. Now, two years later the PC version is out and it really is just as good as the others. There is only one

gripe with the game, and that's with the documentation. It's only a single printed sheet, but the pages are not printed in a logical order. This is a black mark in what is otherwise a good game. But, from a game players point of view, Helter Skelter is good and has a lot of playability. Because of the eighty levels and the screen designer, it will keep you going for a very long time. All things considered the wait for the release of this game was worth it, as Audiogenic have again proved that simple games are easiest to make into hits.

VERDICT ■ ■ ■

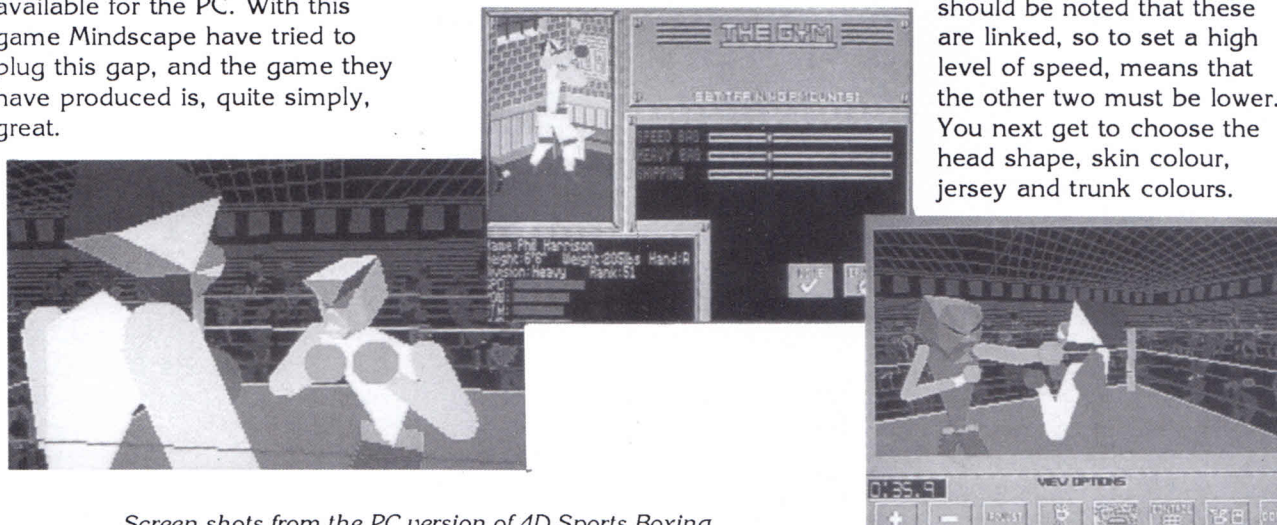
4D SPORTS BOXING

- Published by Distinctive Software • Distributed by Mindscape Int.
- Supplied in dual format • Price \$59.95 • Supports Ad-Lib card
- Requires 512k (CGA or Hercules) or 640k (EGA or VGA)

Mindscape launched their 4D Sports range with a driving simulator. The second in that series is now available, and as a complete change of pace, the subject this time is boxing. There haven't been that many boxing simulators for the home computer, and very few (if any) available for the PC. With this game Mindscape have tried to plug this gap, and the game they have produced is, quite simply, great.

The first thing you'll notice about 4D Sports Boxing is the graphics. Upon loading the game, you're presented with the options screen, where you can change your input device (you can use either joystick, mouse or two different keyboard combinations), the number of rounds (from three

to 15), choose between the red and blue boxer and decide if you want the boxers weight and height expressed in either imperial or metric measurements. Next, a quick visit to the gym allows you to view the boxers provided with the program, or to create your own. If you decide to make your own, you choose the name, height (anywhere between 152 and 195 cm), weight division (choose any division from light at 61 kg to heavy at 113 kg). You also get to set the initial speed, power and stamina levels. It should be noted that these are linked, so to set a high level of speed, means that the other two must be lower. You next get to choose the head shape, skin colour, jersey and trunk colours.



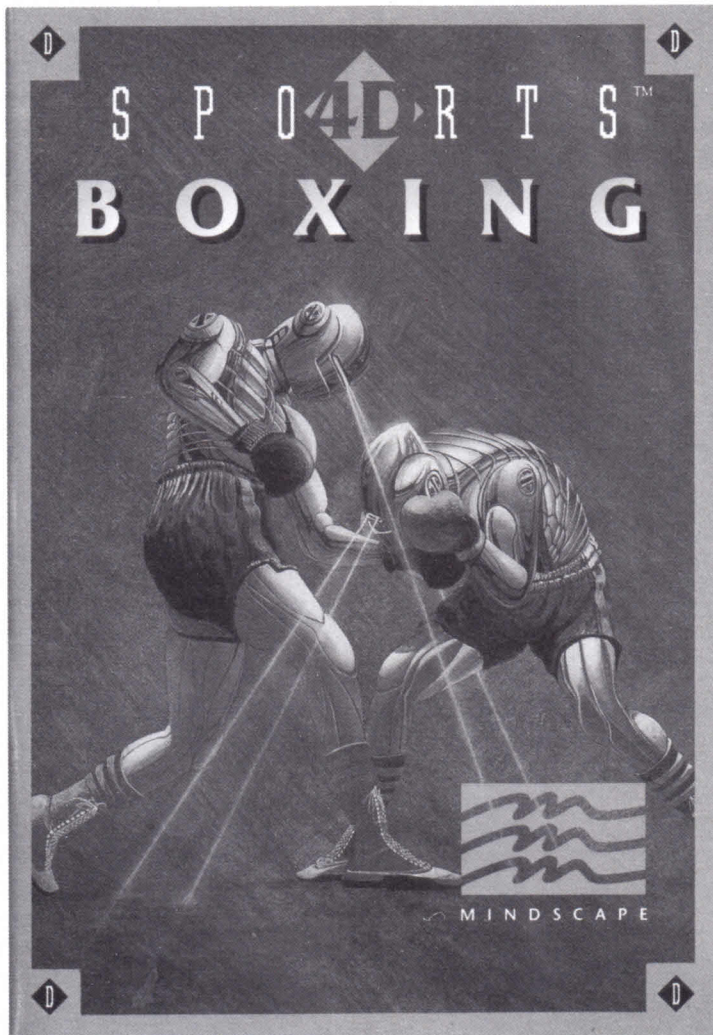
Screen shots from the PC version of 4D Sports Boxing

Once you've built your man, it's into the program proper and the Boxing ring.

There are two different types of boxing that you can try. You can either fight an exhibition bout, or go straight into the main event. Once your bout is announced, you can set the in-game options, which include the viewing options; the fight can be seen from one of the nine cameras around the ring, or through the eyes of your fighter. If you try the main event, you start as the 51st ranked boxer and your aim is to fight your way to the top. Your first fight is against Larry Lunchbox with \$1000 prize money. On your way up the ladder, you get to fight such fighters as Lance "Squisher" Boil (prize money \$10,990), Mohamed Ali Baba (\$40,960), Wilma Headhurt (\$385,015), Ugotabe Kidding (\$548,052) and Ivan Horrible Attitude (\$810,190) before you get a crack at The Champ, with a final purse of \$1,000,000. Each of the boxers along the way are different in appearance, and can be either right or left handed. As you can only challenge boxers either one position above you or below you, to reach The Champ you'll have a lot of boxing. The money your boxer earns is saved on a high score table, which also shows your win/loss ratio. In addition, as you progress through a series of fights, your speed, power and stamina are increased by your training, and you'll need

all of these to be at maximum levels to fight the better boxers.

4D Sports Boxing will work on all PC's although to get the best out of the program you will need an XT with at least 8 MHz, VGA graphics and 640K of RAM memory. An added sound board will greatly improve the sonics within the game, but even with an internal PC speaker the sound is quite good. You can run the



game with 512K, but you'll only be able to run CGA or Hercules graphics. Control is best with a joystick with different punches being decided upon by which fire button and direction are pressed. As stated before, graphically this game is great (VGA), and naturally, the lesser graphics lose

a little. Each boxer is depicted as a solid figure, but if the game runs too slowly on your PC you can reduce each boxer until they are merely stick figures.

The other good features in this package are the digitised ring shots prior to each bout, and the way the announcer introduces each fighter as they wait to commence each fight. You also get an action replay facility,

which operates like a VCR and lets you review each round to see where you go wrong. Although the game suggests the use of a hard disk, if you are playing from 3.5 in disks this doesn't matter, as the entire program comes on one disk, therefore there is no disk swapping required. For users of 5.25 in drives, there are two disks and therefore some swapping is inevitable.

Mindscape have been very impressive with their 4D Sports range. Of the two released so far, Boxing is by far the best. It's very playable, and lots of fun. Having a goal to strive for (i.e. to be The Champ), it's a game in which you must have just one more go.

I am looking forward in

anticipation to the release of more games in this series. If Mindscape can maintain this standard, 4D Sports Tennis, their next offering in this series, should be great.

VERDICT ■ ■ ■ ■

LEXI-CROSS

- Published by Interplay • Distributed in Australia by Electronic Arts
- Supplied in dual format • Price \$49.95 • Supports Sound Cards
- Requires 512k (for CGA or EGA) or 640k (MCGA or VGA)

Now here's a game that is a somewhat different from the norm although you could argue that it contains little bits of lots of games. Let me explain that convoluted start.



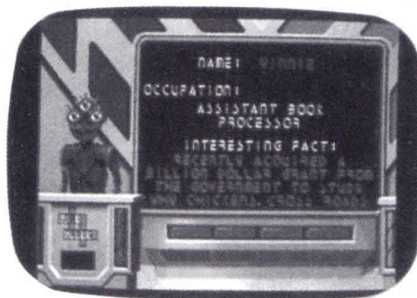
Lexi-Cross is tagged "the Galaxy's hottest TV Game Show" and as such moves the player into the year 2091. (Sounds a long way away, but it's only 100 years!). The game is essentially a word game between contestants, but will no doubt remind you of a cross between Lexicon and Wheel of Fortune, and it all happens in a TV studio environment.

Contestants can be human vs. human, human vs. robot (the computer), robot vs. robot (for demonstration purposes) or human vs. modem (actually against another human but down a telephone line). While the robots look like, well... robots, the human participants can be selected from nine graphic representations. Choosing a robot contestant will allow the player to set the 'intelligence' of the opponent.

Two types of gameshows are on offer. The first is a 'no frills' practice version which skips all the razzmatazz normally accompanying TV Shows and goes straight in to the game.

The full feature 'on the air' version really goes to town with a title sequence, establishing shots, commentary on play, contestant introductions, between round commentary, final words and credits. The game timer is always on and any result goes into the player's history record.

So what's the object of the game? Simple - to reveal words which are hidden under a matrix of tiles and then solve a puzzle that the words suggest by typing in the answer before your opponent. However, whilst both contestants will have the same words hidden on their grids (and



both grids are always in view) the words may well appear in different places on each.

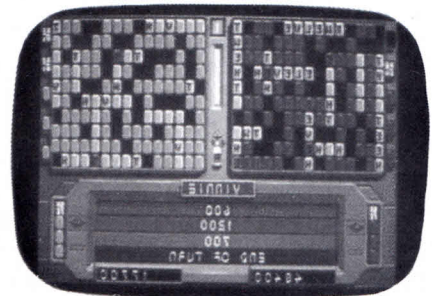
Following the opening sequence then, the contestants are each faced with a matrix of 160 grey tiles. Taking alternate turns the players can choose to do one of four things; turn over a tile in the hope that a letter or bonus will be revealed, pick a letter, choose a vowel or solve the final puzzle. It will become clear later why the last three options would not be chosen at the start of a game.

Using a mouse or keys, the player moves a mini-robot to a desired position on the matrix and flips over a tile. This make

reveal a letter in which case the player can flip another tile. However, there are many tiles which can alter the player's score quite dramatically. For example, flipping over a tile with a [+] or [-] will add a number of points to either his/her own score or the opponents. There are tiles which allow a player to reveal for a few seconds all the tiles' values in a particular row, tiles which can be saved and used to get out of trouble later, and so on.

As the lettered tiles become exposed and scores increased, a player can choose to pick a letter that has not yet been revealed. This is a big gamble but worth it if successful as all tiles with the matching letter will be flipped over. A wheel containing points, 'lose a turn' or bankruptcy is spun with all the attending excitement. There's also the option to choose a vowel, similar to picking a letter, but as more words become obvious, players can have a stab at solving the final puzzle - identifying the word suggested by those revealed in the matrix.

Lexi-Cross is best played against another person as it becomes an exciting battle to accumulate the most points. The graphics are clear (VGA), the



sound a little limited during the game, but the concept and gameplay refreshingly different. I enjoyed the game, and found it a pleasant break from adventures and shoot-em-ups.

VERDICT ■ ■ ■ ■

Moonlighting with DTP

The secrets behind producing a newsletter or hobbyist magazine without sending you broke are explained by John de Rivaz.

The numbers of English speaking literate people in the world make desk top publishing for small special interest groups an ideal business idea for a second income. When one considers how user groups for obscure computers, or fan clubs of television series have developed from a hobby into a full time business for the proprietors, there is always the chance that the subjects you have chosen will launch you into a full time career more enjoyable and fulfilling than your present job.

Build up gradually

With care and discipline, it should be possible to start using the most primitive of equipment, and build up gradually if the circulation and income warrants it. All that is needed to start is a simple word processor. If you have not used one before, there are several to choose from. They range from simple to complex and within the range offer a wide variety of options.

You could also consider purchasing a stand-alone word processor (like an Amstrad PCW) which provides the computer, printer and software in one package.

Printing can be done on a personal photocopier, or at a copy shop, and once your print run is past 200 copies, by a local offset litho firm. Prices do vary, and you are advised to get several quotations, and also a quotation of when the job will be done.

Don't be ripped off for advertising

It is unlikely that any newsletter will flourish if there is a lot of 'editor talking'. Therefore you need articles. One can start by paying for advertising, but this is really money wasted - it doesn't create anything. Also advertising prices are set by what big companies will pay - there are no raw materials or consumables involved. The pricing is entirely based on what the market will

take, and that is set by rich companies.

You cannot get something for nothing, and the way I recommend starting is to make the first one (or even two) issues free of cost, and to circulate them as widely as possible. What you would have paid in advertising now has gone to your readers, and created something - your newsletter. You will have to write the first issue yourself, but in it you can offer free subscription to the following volume to those who send in articles. If your subject is popular enough, your newsletter will soon get them pouring in! People love to see their name in print, and you may well start some writing careers.

Editors of mainstream magazines are usually very helpful in printing readers letters about computer newsletters at no cost to the promoters. If your newsletter is on another subject, there are usually other magazines with similar policies. There will be some that will help, and others that won't, so you need to write to as many as possible. With monthlies you may have to wait two or three months for your letter to appear.

The real boost to such newsletters in the computing field are columns of free 'club spots' that are appearing in leading computer magazines. These are editorially produced, so you can't write your own copy, and you need to ensure that the columnist gets a free copy of your newsletter.

Another fruitful source of readers are other newsletters that are specifically published as listings of small publications. A well known world wide example is published by Mike Gunderloy, Fact Sheet Five, 6, Arizona Avenue, Rensselaer, NY12144-4502, USA. Send them your newsletter, and they will send you theirs, with details of yours

published therein. Many such listings are one offs and you may need several insertions before readers take you seriously. But all it costs you is to send them free copies of your newsletter, and you get theirs free in return. Fact Sheet Five is not itself a small publication. Its worldwide circulation is over 7,000 readers, and it reviews videos, audios and also computer programs.

Expanding your equipment

Once you have established a circulation and need for your newsletter, then you can justify the purchase of more elaborate equipment to produce it, such as a PC capable of running WordPerfect, and a laser printer. WordPerfect is very easy to learn and set up, and although it hasn't all the features of a desktop publishing system, it has the great advantage that you can edit the text and the whole newsletter all in one go without switching between programs. You can get a laser printer working with WordPerfect without knowing anything about laser printer programming at all. You can probably get WordPerfect for about \$600 if you shop around. Your PC will need a hard disk - WordPerfect will run from floppies, but it is too slow to be practicable as there are lots of disk accesses.

In conclusion

It is important to remember that the money you receive in advance for subscriptions is money that you are holding in trust for the duration of the volume. You should apply it to printing the newsletter, and any surplus to its improvement. Do not consider taking an income from it until it is well established. Do not throw your income away rashly on flamboyant gestures such as big advertisements or other non productive expenses.

MISSING SOMETHING?



JANUARY 1991

PCs & compatibles • Advice for new computer owners • First of a series on MS-DOS • Robotics • Hard drives and their functions • Trackman mouse • GW Basic Graphics • Reviews of A-10 Tank killer, Cardinal of the Kremlin, All dogs go to Heaven, Sherman M-4.

CPC • WP type-in - part 2 • Machine code tutorial part 2 • Calendar Type-in

PCW • Numbering Pages with LocoScript

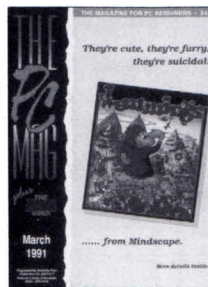


FEBRUARY 1991

PCs & compatibles • Video Frame grabber • DOS part 2 • LC24-10 Star printer • Sim Earth • Hard drives • Reviews on Octadial, Monty Python's Flying Circus, Railroad Tycoon, Silent Service 2, Oils Well, Quest for Glory 2 • Programs for the home.

CPC • Five games reviewed • Basic short cuts • Discussing disks • Final part of WP Type-in.

PCW • Two new games reviewed • Page numbers



MARCH 1991

PCs & compatibles • Tasword PC2 • DOS part 3 • Answers on High Density disks • Reviews of ATF2, Hidden Agenda, PGA Golf, Bill & Ted's Excellent Adventure, Atomix, Mind Games, Stellar 7, Kings Quest 5, Life & Death 2 • Maximiser contact organiser.

CPC • Machine Code Guide part 3 • Reviews of UN Squadron, Srtider 2, Time Machine, Flimbo's Quest • More on disks • CPM • Two type-ins

PCW • Description and explanation of USER command.



APRIL 1991

PCs & compatibles • Easy Start integrated software package • Report on new CAD package from Generic • Reviews on Das Boot, Pinball Magic, Super Off-Road, Wing Commander, Mortville Manor, Mayday Squad Heros • MS-DOS' Tree structure • Two packages to solve a reference problem.

CPC • Discussing disks part 4 • Three new type-ins • Machine Code guide part 4 • Printer problems

PCW • Maintaining user dictionaries • Hot tips



MAY 1991

PCs & compatibles • utilities to enhance Windows 3 • More on DOS part 5 • Choosing DTP software • Printer Problems • Reviews on Covert Action, Wonderland, The Power Pack, Red Baron, Jones in the Fast Lane, Secret of Monkey Island

CPC • More on disks part 5 • Puzzle Type-in • Reviews of Ninja Remix, Line of fire, Loopz, Soccer Mania

PCW • Three new educational packages with graphics reviewed • Tips in exchanging text.

BACK COPIES AVAILABLE FOR \$4.50 each • Ring (03) 803 9661

Books for Productivity

Abacus are prolific publishers of books to help PC users get more from their computers. Here's another five to add to their impressive list.

Abacus is an American publishing company (Grand Rapids, Michigan) who already have an impressive list of titles to their name covering almost all aspects of computing. Their range includes the well known Abacus Quick Reference Guides and Books for Beginners series covering dBase, Lotus, MS-DOS, Word etc., and the popular Productivity Series. We've looked at some of them in past issues.

Pactronics is responsible for importing them into Australia and have supplied us with the latest five titles. Here's a run down.

QUICKBASIC TOOLBOX

Most readers will know that QuickBasic is a much more sophisticated version of the once simple BASIC language (Basic All-purpose Symbolic Instruction Code) that not only allows you to perform structured programming but is also versatile and pretty easy to use. However, this does not necessarily mean that programs created using QuickBasic are going to be user friendly. To overcome this, programmers may spend a great deal of time coding menus and interactive dialogue boxes. Enter QuickBasic Toolbox.

This book provides the QuickBasic programmer with the necessary tools for adding a user-friendly interface to any program, even existing ones. There are various kinds of toolboxes; some with "do everything" functions with countless parameters

while others contain basic routines that enable you to customise your program - this book concentrates on the latter without losing too much flexibility of the former.

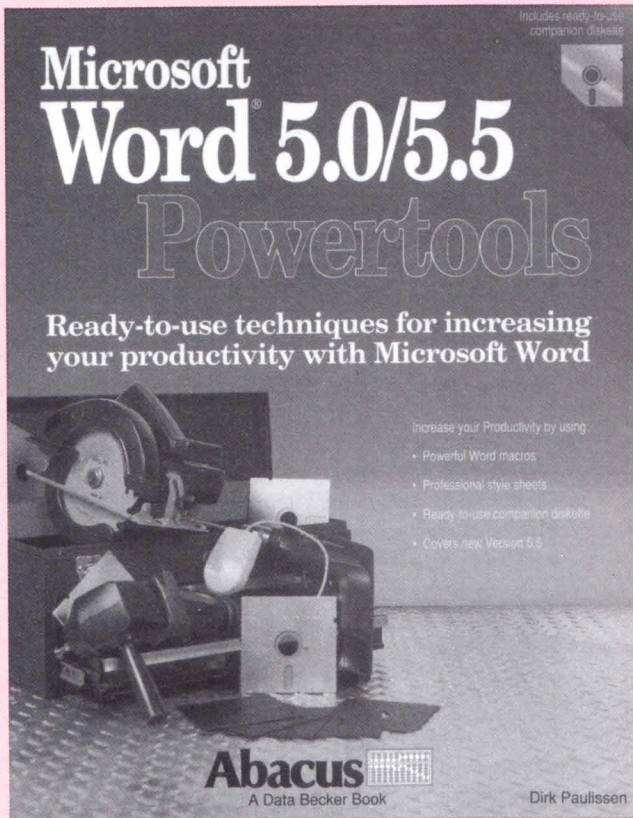
The principle used in the routines is simple - you define the menus, keyboard functions, window arrangements and program functions, and QuickBasic Toolbox will manage what you define. Some of the topics covered are: complete routines for SAA interfacing, mouse support, pull-down and pop-up menus, presentation graphics (pie and 3D bar charts), label editor and printer, macros and background processes etc.

Supplied with the book is a companion 5.25" disk containing the source code and documentation of all the routines and functions so that in the event a function will not fit a particular programming situation, the code can be altered accordingly.

MS-WORD 5.0/5.5 POWERTOOLS

MS-Word is ranked among the best word processing programs on the market. Even so, there are occasions when Word cannot provide solutions to particular publishing problems. MS-Word Powertools can offer solutions, increase productivity and show new ways to use MS-Word.

The book contains programs, macros and style sheets which can be applied to daily sessions with MS-Word 5.0 or 5.5 and, the book claims, you do not have to be an expert. Where differences do



occur between 5.0 and 5.5, suitable references are made. Being more specific, Powertools provides macros for adding borders to pages or paragraphs, utilities which perform different functions outside of Word (e.g. a program which furnishes statistics about your document), macros to let you use Word as a friendly editor for creating sourcecode in different programming languages and more. Supplied with Powertools is a companion 5.25" disk containing complete ready-to-run macros, style sheets and sample form letters.

BATCH FILE POWERTOOLS

There are a number of ways to simplify working with MS-DOS. One such method is using a special interface program such as DOS-Shell, Norton Commander or Windows 3.

However, these are often inconvenient or take more time to process than entering directly on the DOS command line! Batch Files too have their limitations, for example, DOS does not have a command that allows you to query the keyboard for input during a batch file run.

Batch File Powertools provides an alternative making it easier and faster to execute the same commands from the DOS command line. For example, instead of entering `cd c:\docs\bus\export\1990\cust` to change to the `cust`

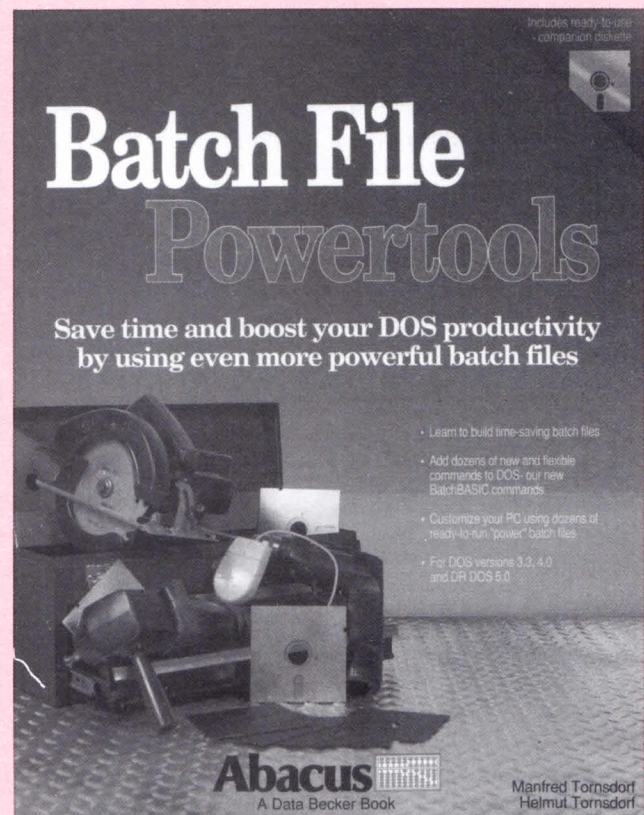
directory, Powertools provides a method using a TCD BatchBasic command as simple as `tcd cust`. Batch File Powertools also comes to the aid of batch file users - and that means most of us - by providing 'super-commands' such as ASK and INPUT for querying the keyboard. Batch commands are provided to enter numbers or text while a batch file is executing, include basic arithmetic operations, create loops in batch files, browse directories, compare strings, convert to upper case. All the tools become extensions of existing DOS and batch file programming; no new user interface or special compiler is required.

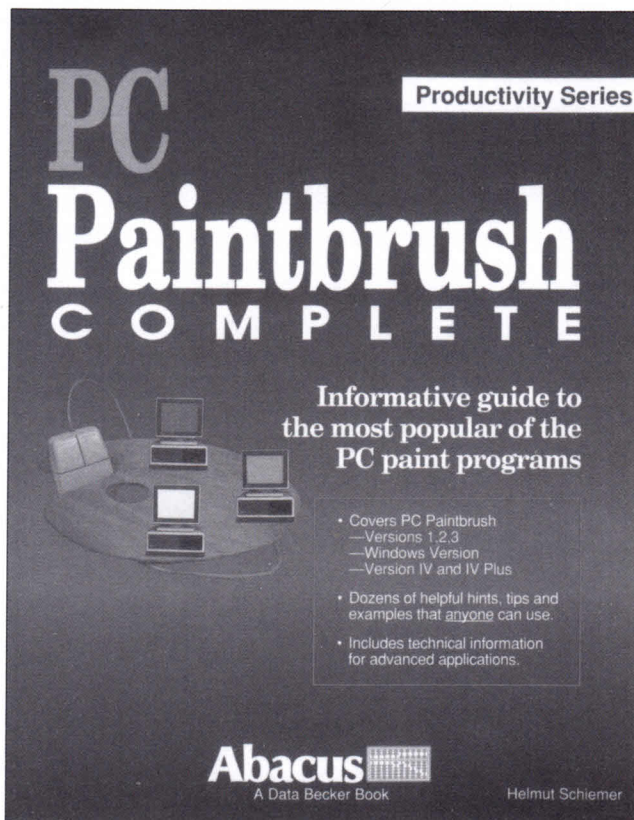
Batch File Powertools should boost your computing productivity with techniques for making powerful batch files. Included with the publication is a 5.25" disk containing BatchBasic adding many new commands to DOS plus dozens of practical examples. It covers DOS 3.3, 4.0 and DR DOS 5.0.

PC PAINTBRUSH COMPLETE

PC Paintbrush 1.0 was first launched in 1984. Since that time well over 500,000 copies have been sold and the Paintbrush File format for pixel pictures is now used as standard. There are also a number of identical 'OEM' versions often included in a mouse package.

PC Paintbrush Complete covers most versions





(Paintbrush 1.X to 3.X; Paintbrush for Windows; Painbrush IV; Paintbrush IV Plus) although it does recommend that you purchase PC Paintbrush 4 or 4 Plus by Zsoft to take full advantage of the latest features. It explains to the reader many hints, tips and hands-on examples of getting the most from the built-in menus and tools as well as teaching about page sizes, orientation, captions and more. It also helps with printer problems and input devices such as mouse, scanner or joystick.

The book comprehensively covers PC Paintbrush menus, use with Windows, scanning, tools and technical information. Utilities provided in the book include FRIEZE (graphics interface), GRAYTOBW (from colour to black and white), SETCOLOR (adjusting the printer colour palette) and TIFFDUMP (viewing TIFF files).

STEPPING UP TO DR DOS 5.0

This book is sub-titled "Learning DR-DOS in a hurry". That may not be good advice, but the publication certainly presents a fast-paced guide on how to use the most important features of DR-DOS 5.0. In typical Abacus style, it presents hands on examples to get you going quickly.

For a start it describes DR-DOS 5 and then compares it to MS-DOS. The book continues to describe what it calls the 'highlights' of DR-DOS 5

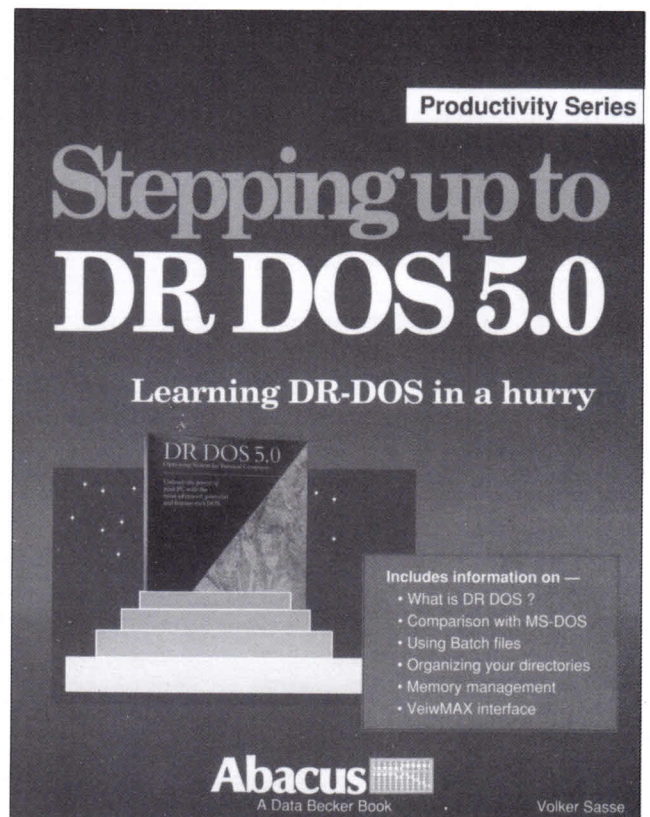
and explains why DR-DOS is easier to use than MS-DOS. It doesn't dwell on the limitations of MS-DOS, rather, it tends to focus on the new features of DR-DOS which overcome the problems. It suggests that if you are a network user, DR-DOS could well be the answer. A special utility called FILELINK is provided to transfer files and data between two computers; a useful program for laptop users.

Stepping up to DR DOS 5 covers the installation of DR-DOS, storing data, shortcuts, backing up, filter commands, fine tuning, batch files, processing text, memory management and error messages. Within the Appendices are a list of both internal and external DR-DOS commands and a comprehensive glossary.

All five books are imported and distributed by Pactronics (02) 748 4700, and are available at all good computer dealers or by mail order (plus postage) from Strategy Publications (03) 803 9661.

The prices are as follows:

Stepping up to DR DOS 5	34.95
PC Paintbrush Complete	39.95
QuickBasic Toolbox + disk	69.95
MS WORD 5/5.5 Powertools + disk	69.95
Batch File Powertools + disk	69.95



Patterns in Chaos

The Chaos Theory is certainly complex but a by-product when using a computer can bring amazing graphics to your screen.

One of the most remarkable scientific theories to emerge in the last decade was the theory of chaos. It was all the more remarkable because it captured the imagination of the public, which, though it may not have understood the theories, certainly appreciated the beauty of fractals and Mandelbrot sets.

Put simply, Chaos Theory deals with the patterns underlying apparently random events, such as weather cycles, fluid flows and plant shapes. These patterns can be reduced to formula that can be manipulated and used to create new patterns. That's where the computer comes in.

Without the power of the computer, chaos theory would probably have remained a passion of scientists. But the computers ability to generate stunning images based on the mathematics of the new theories made chaos one of the more accessible areas of scientific endeavour.

A major reason for the popular

uptake of Chaos Theory was the 1987 publication of a book called *Chaos: Making a New Science*, written by a New York Times journalist, James Gleick, it stormed up the non-fiction charts and became a best seller.

In 1989, Gleick approached Autodesk, the world's fifth largest software house, with the idea of a program to illustrate some of the theories in his book. The result is *Chaos: The Software*, a \$99 suite of six programs that belong on every PC.

Don't be fooled by the price. *Chaos: The Software* is as professional a piece of entertainment software as you are likely to find. It needs just over 1.6 mbs of hard disk when installed and runs on any current PC (although more sensibly on at least a 286).

On booting, a colourful screen appears with a button for each of the six programs. There is also an image of half a dozen spheres, each sphere corresponding to a different program.

While not a Windows program, the interface is very Windows like. For instance, F1 calls up a context sensitive help window, complete with scroll bars and the means to search for particular text. The programs use slider bars, plus and minus buttons and text entry fields. And while there are plenty of keyboard shortcuts, a mouse is the easiest way to interact with the software.

To get the most out of *Chaos: The Software*, some studying of the 238 page manual is necessary. Gleick's book would also make for a better appreciation of the programs. Each program is documented in a similar manner. Gleick explains the theory he is trying to illustrate, you are told how to use the program and, for the scientifically inclined, the mathematics of the program is detailed.

The most widely known area of chaos theory is that of fractal images. The most famous is the Mandelbrot set, a colourful image that reveals new layers of detail as you zoom into it.

The Mandelbrot Sets program allows the user to explore five different types of fractals - Mandelbrot sets, Julia sets, cubic Mandelbrot sets, cubic Julia sets and Rudy sets. New images are created by zooming in or out on a portion of an on-screen image.

Each fractal is painted in four passes, increasing in detail with each pass. Processing power is a definite plus here, as even with a 386SX, images take a few minutes to be completed. *Chaos: The Software* is a great reason to add a maths co-processor to your PC.

All the programs can be run without reference to the manual. There are common features to most of the programs too, such as the means to store up to four images in memory. This 'stamping' shows miniatures of the four images down the left of the screen. Clicking on a miniature

brings it back to the main screen.

Another common feature lets sound be generated as the images are drawn. They may not be the most melodic tunes, but they add an aural dimension to the software.

All programs have an enormous range of variables, varying from program to program. The Mandelbrot Sets has a range of fill patterns and colour palettes. It also has 21 pre-set images to give an idea of the possibilities.

Having exhausted the pre-set images, the user can tweak the parameters associated with each image type. Both images and parameter sets can be saved for future use. The images, stored as GIF files, could then be loaded into packages that support that file format.

Strange Attractors is another program with a graphics bent. It visually demonstrates how a chaotic system, such as a population, changes with the passage of time. The images are not as symmetrical as Mandelbrot and Julia sets, but they can be zoomed, panned and tweaked to produce some beautiful pictures.

There are four types of attractors to experiment with - Lorenz, Yorke, Henon and logistic. The program has stamping, sound, colour cycling and a range of tweaks for each attractor.

Fractal Forgeries is the most impressive of the six programs, for it generates synthetic images of mountains, clouds, planets and contour maps. The images are produced from mathematical equations and can be rendered in up to 256 colours. That takes time, but to see a full screen image of a fictitious, mathematical planet, complete with cloud, icecaps and continents, is worth the wait. Even better, animations can be produced and stored to files that can be played back in Autodesk Animator.

With this program, playing with

the parameters produces an infinite array of different images. Variables include the height and hilliness of the terrain, the angle of the sun and the time of day.

Magnets and Pendulum is a different sort of program. It illustrates the manner in which a swinging pendulum is affected by different arrangements of magnets. While not as visually stunning as Mandelbrot sets, it does produce some intriguing effects. There are seven preset magnet layouts. Press the mouse button and the pendulum starts swinging, leaving a trail behind it. The bob can be given a hard or soft push from any location. Magnets can be moved, made stronger or weaker and the simulation played in steps or continuously. In addition, each layout has slightly different variables to play with, such as reversing the polarity of magnets or reversing the swing. Up to 32 layouts can be stored in memory, though not to disk.

The most stunning display is a layout that demonstrates basins of attraction. It takes some hours to complete, but the result is a fractal-like image that can be saved as a .GIF file.

Despite its name, **The Chaos Game** is not a shoot 'em up arcade romp. It is a mathematical puzzle which mixes simple rules for moving and replicating a triangle with a little randomness. The result is recognisable patterns such as ferns, shells and geometrical shapes.

There are 21 pre-set patterns, nine colour palettes and plenty of tweaks available. While stamping, zooming and file saving are standard features, the real pleasure is in changing the rules and making your own patterns. Most will be forgettable, but occasionally an image emerges that is quite stunning.

The sixth program, **Toy Universes**, is an advanced version of that old public domain program,

the Game of Life, in which pixels on the screen turn on and off according to the status of their neighbouring pixels.

Toy Universes is an example of a cellular automata program, with the computer simulating the growth of colonies of cells. It has four sets of rules - Hodge, Eat, Nluky and Tube. Each results in different patterns that change constantly, as if they were alive. There are plenty of options to each rule set, enough to keep anybody amused for hours.

And that is the appeal of this suite of software. You can generate truly stunning images without having to be artist. You can make that blank computer screen a thing of the past- this is just the sort of program to have running at times when you are not working on your PC. And you can tell your boss that you are learning all about chaos theory in the process.

Of all the programs, Fractal Forgeries is the most amazing. Mandelbrot Sets is the most accessible, while if Toy Universes appeals, check out CA Lab, another Autodesk produce that really gets into cellular automata.

The strength of Chaos: The Software is that each of the half dozen programs is a winner in its own right. Combining them into one package results in an affordable collection of programs that is well worth examining.

But Chaos: The Software is not only fun, it is also educational. The manual explains the theories quite well and the tweaking options available within each program show just how few limits there are to chaos theory.

Kester Cranswick

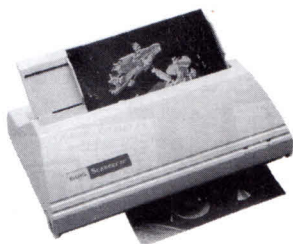
Chaos: The Software is produced by AutoDesk (03) 429 9888, distributed by Reckon Software (02) 550 2666, and available at all good dealers or by mail order from Strategy Publications for \$99 (plus postage) on (03) 803 9661.



ADARA



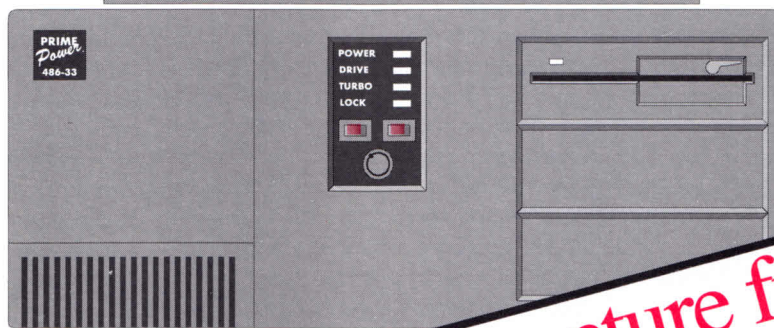
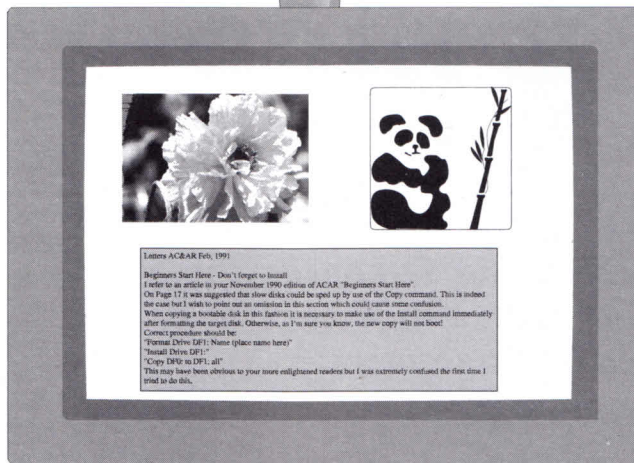
Lightscan 300f



GUIS 321



Lightscan 400p



“...let your scanner do the working!”

Get your ideas off paper and onto your PC - fast - with Pactronics Scanners. Text, graphics and colour images.

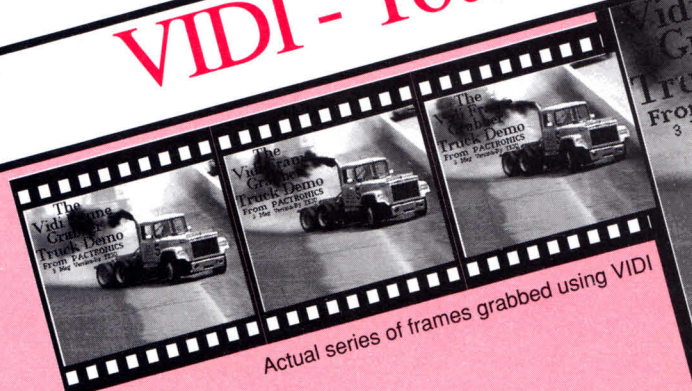
The way to the paper-free office is now clear with one of Pactronics Scanners or Framegrabbers. Text or colour graphics can be easily scanned in to your PC (or Amiga or Atari).

Hand held Scanners from \$199
A4 Scanners from \$895
Colour Scanners from \$1395
Flatbed Scanners from \$2495

Available From:

Maxwells Office Equipment (Vic.)
Computer Spot (All Branches) Grace Bros., The Gamesman, Myer, Harvey Norman, Game Wizard, Harris Scarfe, Midi Mouse Computers and all good computer retailers.

VIDI - You can even capture from video.



Actual series of frames grabbed using VIDI



Now you can make your own Clip-Art, Video Effects and digitised images (even animations in black and white). Quickly and inexpensively. Includes Vidi Chrome colour software and filters.
• RGB splitter also available separately.



For your nearest retailer contact:

N.S.W.: Pactronics Pty Ltd, 98 Carnarvon St, Silverwater. (02) 748 4700
Victoria: Pactronics Pty Ltd, 55-55 Johnston Street, Fitzroy. (03) 419 4644
Queensland: Pactronics Pty Ltd, 12 Stratton St, Newstead, 4006. (07) 854 1982
South Australia: Refer Head Office or Victoria.
Western Australia: Pactronics, unit 13, 133 High Rd Willeton 6155. (09) 354 1122

Organising VCs & pics

Chris Collins studies two databases and a drawing program with a difference now released on Shareware.

Welcome to June 1991, and this month's Compatible's Corner. Some people may not have noticed that postage charges jumped something shocking in April. Before, I could send out your diskettes for a maximum of \$1.10 even to Western Australia or Queensland, now it costs \$1.80 just to send them across Melbourne. What a jump! However, because money is tight (and we are in the middle of the recession that we needed to have - Paul Keating) I won't be increasing the prices at all.

Editorial decisions cut my column last month, so I start this month with the bits that you were denied. db-VCR to be precise.

db-VCR

db-VCR is simply a database for you to keep track of all your video cassettes. Having said that, let me say this. The execution of db-VCR as a program is one of the best that I have seen. db-VCR occupies only one 360k 5.25" diskette and has a

registration fee of US\$17.95 so it is very cheap for what it is.

db-VCR is a totally menu driven database specifically set up to be used for tracking video tapes. The information that is input when entering a tape includes title, director, actors, actresses, type of film, speed, starting point, ending point, time and a couple of other fields as well. There are also three free-form fields for you to add comments.

Once all of your data is input, db-VCR allows you to sort the info by either title or tape ID. At this point you can either VIEW, ADD, EDIT, DELETE or do any of the other things that are necessary in a database. When adding information to a record, if the information is not self explanatory, a small menu pops up showing you what your options are. For example, when you get to the SPEED field, a small menu pops up showing SP (Standard Play), EP (Extended Play) or LP (Long Play). This makes things much easier.

The printing facilities are fairly

limited in what they can do. Basically they will only print a listing of all of the video tapes in your collection, sorted by either title or tape ID.

This is an excellent database program, and I would recommend it to anyone who has a lot of tapes to keep track of.

ImageAccess

ImageAccess is another simple database but this time is used to access picture files with a record. It is the only one of its kind that I have been able to find in the shareware market. In the commercial market, Superbase2 and Superbase4 (which both run under Windows) do this job. But nothing until ImageAccess did it for the shareware market.

The uses that spring to mind are many, and some of them are listed below. These are some that came straight out of the manual, so forgive me for quoting.

- Museums can catalogue items, including a description, price paid, and a grey scale photograph of the item in question.
 - Genealogists can do a family tree, and associate a photograph of the person with their record.
 - Personnel files can include a photograph of the person involved.
 - Clip art for desktop publishing can be arranged and sorted with descriptions for each item. You can then look to see if the picture will show what you want.
- These are just some of the uses that it could be put to. Collectors are the people who could gain the most from a program like ImageAccess. After entering your data, your graphic of the item is never more than one keystroke away!

What hardware do I need to run ImageAccess, I hear you ask. Well, the hardware is not really that great, an XT compatible or better with at least 512k RAM,

and an EGA or VGA screen. A hard disk is strongly recommended. I reckon it is a necessity! ImageAccess does support a limited range of printers including the Epson LQ 24 pin dot matrix, IBM proprinter X24 range, and the HP Laserjet series. Also you will need a way to be able to convert your photographs into either PCX, TIF or MSP format.

ImageAccess is menu driven, and that does make it rather simple to use. However, the implementation is rather difficult to use. To get out of a menu, you must always press ESC, or it won't let you out. This is one of the few problems that I found with the use of the program, as opposed to its capabilities.

Go to the FILE menu first to either LOAD a file, or to CREATE a new file. A sample database, with graphics, is included. Load this and you will get the best example of how the program works. After LOADING a file, you can then search through the text, or step one record at a time, to find the record that you want. To see a graphic that is involved with a record, simply press F10. Presto, there is your associated graphic! Press ESC to go back to the record.

You can print out reports, although the formats that are available are very limited. Basically the only option that you have is the number of records that will appear on the page. This will change depending on your database, but it doesn't leave a lot of leeway if you only want to print certain information from each record. If a graphic is attached to a record, this will print as well.

Query is the search menu, and will allow you to search for a string anywhere in a record. ENTER will get you the next match, and F10 will display the graphic. The search is not case

sensitive, neither is it a complete search. By this I mean that if you search for THE, you will also get THEY and THERE and any other word with THE in it.

Overall, that program falls down on the database query and report areas, but as a first version of a new style of program it isn't too bad. If the author can improve both of the above parts of the program, it will be an excellent program. Registration is US\$49.00 and ImageAccess comes on only one 360k diskette.

Fractal Grafics

Fractal Grafics is a drawing program with a difference! Like most drawing programs, Fractal Grafics allows you to use either the keyboard or the mouse to control the cursor, and create pictures on the screen from dots and lines. Fractal Grafics is different! It uses a powerful new tool for drawing. This tool is called a fractal template. You create a fractal template, and then use this template to do your drawing. Shortly you will find that you are able to create amazingly realistic scenes on your computer screen. Because Fractal Grafics is designed for the person who can't draw, if you have the least amount of ability in this field, you can excel with Fractal Grafics.

What does your system require to be able to run Fractal Grafics? Well, your system had best be an XT or better IBM compatible with at least 384k of memory. CGA or better graphics are required as is DOS v.2.1 or better. Optional components are a Microsoft compatible mouse, and a maths co-processor. A hard disk isn't required, as the program will run off floppies, but it does make Fractal Grafics operate a lot quicker.

What can Fractal Grafics do? Well, this is where it gets exciting. Being a drawing package, of course you can draw with it. But

when you draw, instead of using a point as your drawing cursor you use a fractal. There are approximately forty fractal templates on the diskette for you to choose from. You can draw or paint the current fractal template in the present position, move it and then draw or paint again. The effects are outstanding. If you could draw and use the fractal templates to their best, or even create your own, I am sure that the effect would be absolutely incredible.

I played with the drawing and painting parts of the program for over four hours and had a great time. The effects that I got, whilst not very realistic, were certainly out of this world.

Fractal Grafics comes on only one 360k diskette, and has a registration fee of US\$59.00. The author promises a 120 page manual and guidebook as well as another 150 fractal templates. The on-line help that the program has is certainly enough to get you started, but if you wanted to get into Chaos theory and much more, the manual and guidebook will be required.

Well people, that's about all we have time for this month. If you require any of the programs listed above or any of the others that have been reviewed over the last 3 years, please send a cheque or money order with your order to:

MacroDisk
Unit 2, 47 Vernon Street
South Kingsville Vic 3015

Each 360k 5.25" diskette costs \$7.50 and each 720k 3.5 diskette costs \$15.00. Please do not forget that it is up to you to specify 2 programs to go on each 3.5 diskette. Allow 14 days for delivery.

IBM PC and Compatibles Mail Order Software Catalogue

Whatever your needs; entertainment, educational, business, even consumables - you're sure to find it in the next few pages.

To help you make an informed choice, we have put (where known or advised) the operating environments in which the products will work. Here's the list:

C = CGA : E = EGA : V = VGA : H = Hercules : M = MCGA : T = Tandy
Letter(s) followed by /512 = needs 512k memory D = Hard Disk required
(S) = Supports a sound card, eg. Ad-Lib (SS) = Supports Sound Source accessory

We accept Bankcard, Mastercard or Visa with an expiry date quoted. We also accept Money Orders or Cheques made out to Strategy Publications (cheques will be validated). Please do not send cash. Overseas orders must be remitted in Australian dollars.

The following postage charges must be added to your remittance: Order value under \$20 : \$1.00 (\$2.50 overseas); Order value from \$20 to \$60 - \$3.50 (\$7.00 overseas); Order value over \$60 : \$5.50 (\$12.00 overseas).

Please note that this list is prepared many weeks before you get to see it and changes (deletions, additions, prices) could have occurred in the meantime. It is wise, therefore, to provide an alternative choice or ring beforehand to confirm availability.

All orders should be sent to:

STRATEGY PUBLICATIONS
1/641 HIGH STREET ROAD, Mt. WAVERLEY, Vic 3149
Phone : (03) 803 9661 or Fax : (03) 887 9640

ARCADE ACTION

Afterburner /3.5 or 5.25	59.95
Altered Beast /dual	59.95
American Dreams /3.5 or 5.25	59.95
Arcade Fever /dual	69.95
Back to the Future 2 /dual	69.95
Barbarian II /5.25	CE/- 59.95
Bat /dual	69.95
Battlemaster /dual	69.95
Blade Warrior /dual	69.95
Buck Rogers - Countdown to Doom (S) /3.5 or 5.25	CETM/640 54.95
Circuit Edge /5.25	69.95
Crime Wave /3.5 or 5.25	DEV/640 69.95
Cyberball /dual	69.95
Double Dragon II /dual	CEV/- 59.95
Dragon Lord /dual	69.95
Dragon Spirit /3.5	59.95
Duck Tales /dual	59.95
Escape from the Planet of Robot Monsters /dual	69.95
Final Battle /dual	69.95
Flight of the Intruder /3.5 or 5.25	69.95
Ghostbusters II IBM /5.25	CEVH/- 69.95
Gold of the Aztecs /3.5 or 5.25	59.95
Helter Skelter /5.25	49.95
If It Moves Shoot It /3.5 or 5.25	CEVT/512 59.95
Indiana Jones Last Crusade /dual (S)	CEVH/384 49.95
Klax /dual	69.95
Last Ninja 2, The /5.25	69.95
Mean Streets /3.5 or 5.25	CEV/512 69.95
Mean Ugly Dirty Sport (MUDS) /3.5 or 5.25	EV/512 59.95
Miami Vice /5.25	49.95
Moonbase /dual	89.95
Moonblaster /5.25	59.95
Murders in Space /dual	89.95
Narco Police /3.5 or 5.25	59.95
Night Hunter /dual	59.95
Pinball Magic /5.25	CEV/512 59.95
Ranx /dual	59.95
Rick Dangerous 2 /dual	49.95
Rotox /3.5 or 5.25	59.95
Space 1889 /dual	89.95
Space Ace /3.5 or 5.25	89.95
Spiderman /dual	79.95
Starry /dual	C/384 59.95
Stellar 7/dual	69.95
Stratego /3.5 or 5.25	69.95
Stun Runner /dual	69.95
Teenage Mutant Ninja Turtles /3.5 or 5.25	69.95
The Spy who loved me /dual	59.95
Total Recall /3.5 or 5.25	69.95
Transylvania 3 /dual	49.95
Wing Commander /5.25 Hi-Dens (S)	VMETD/640 84.95
Wings of Fury /dual	69.95
Z-Out /3.5 or 5.25	59.95

BUDGET TITLES (UNDER \$20)

Ajax /3.5 or 5.25	19.95
-------------------	-------

Arcade Bonanza /3.5	15.95
Arcade Games/Sports Spectacular /5.25	19.95
Arcade I /5.25 or 3.5	15.95
Arcade II /3.5 or 5.25	15.95
Board Games /5.25	15.95
Boot Camp /5.25	19.95
California Golf /5.25	CE/- 19.95
Contra /5.25	19.95
Enterprise /5.25	CE/- 19.95
Frank Bruno's Boxing /3.5	19.95
Fun Flyer /5.25	19.95
Ikarl Warriors /3.5	19.95
Impact /5.25	19.95
Karateka (martial arts) /3.5 or 5.25	19.95
Knight Games /5.25	CE/- 19.95
Lode Runner /3.5 or 5.25	19.95
Master Blaster /5.25 or 3.5	15.95
Maze Adventures /5.25	19.95
Mind Games /5.25	C/256 18.95
Motorbike Madness /5.25	C/256 19.95
Pub Pool /5.25	C/256 19.95
Rush 'n' Attack /5.25	19.95
Schultz Treasure /5.25	C/128 18.95
Sink the Bismark /5.25	15.95
Solomon's Key /5.25	19.95
Space Battles /5.25	14.99
Space Games /3.5	15.95
Spaces Games /5.25	15.95
Strategy Games /3.5 or 5.25	15.95
Strike Force /5.25	19.95
World Darts /5.25	C/256 19.95

BUSINESS

Ability /5.25	149.00
Ability Plus /3.5 or 5.25	299.00
Address Book Plus Jnr. /5.25	CEH/256 115.95
Address Book Plus Snr. /5.25	CEH/256 125.95
Bank Street Writer Plus /dual	/256 129.95
Bankmate /dual	59.95
Becker Tools for Windows (incl 3)	139.00
Beyond Word Writer /5.25	229.95
Brainstorm /5.25	99.00
Calendar Creator Plus /5.25	CEH/320 95.95
Chart Analyst: Interactive graphs/ time series /3.5 or 5.25	234.00
Contactmate /dual	/512 69.95
Credit Card Accounting /5.25	29.95
Data Manager /5.25	59.95
Day By Day /5.25	59.95
DG Calc /5.25	89.95
Dream House Professional - floorplan drawing /3.5 or 5.25	129.95
E-Type (use PC as typewriter) /5.25	89.95
Electronic Checkbook /5.25	29.95
Excel-Windows Spreadsheet (v2.10) /3.5 or 5.25	849.00
Express Pub: Business 1 Art pac/dual	EV/640 89.95
Express Pub: Business 2 Art pac/dual	EV/640 89.95
Express Pub: Classic Font pac/dual	EV/640 89.95
Express Pub: Education Art pac/dual	EV/640 89.95

Express Pub: Flair Font pac/dual	EV/640 89.95
Express Pub: Special Occ. Art pac/dual	EV/640 89.95
Express Pub: Style Font pack /dual	EV/640 89.95
Express Publisher /dual	EV/640 299.00
Floor Plan /5.25	CEH/256 79.95
Forms File /5.25	CEH/128 95.95
Forms Finisher /5.25	CEH/320 95.95
Freelance /dual: freeform database	79.95
Go File /5.25	29.95
Go Plan /5.25	29.95
Go Start /5.25	29.95
Go Write /5.25	29.95
In House Accountant /3.5 or 5.25	299.00
Labels Unlimited /5.25	CE/128 95.95
Letters on-line /5.25	CE/192 95.95
LocoScript PC: WP/D/base/Merge /dual	429.00
Mailshot Plus /5.25	99.00
Masterfile PC Demo Disc /5.25	5.00
Masterfile PC Vers 3/Full DB-WP /dual	269.00
Masterfile PC Vers 3/Std DB /dual	199.00
Memory Mate /dual	124.95
Message Centre - Network Companion /5.25	99.95
Mighty Mail	59.95
Mini Office Personal /3.5 or 5.25	99.95
Money Manager /3.5 or 5.25	79.00
Money Power /5.25	C/256 29.95
MS-Word for Windows /3.5 or 5.25	735.00
MS-Word (v5.0) /3.5 or 5.25	675.00
MS-Works /3.5 or 5.25	CEVH/384 299.00
Multiplan Spreadsheet (v4.20) /3.5 or 5.25	345.00
My Accountant /3.5 or 5.25	CH/256 39.95
Name Tag Kit /5.25	CEH/384 125.95
Oxstat: Sp/sheet with stats formulae Vers 2 /5.25	234.00
Oxstat: Sp/sheet with stats formulae Vers 5 /5.25	350.00
Paperbase: Bibliography & manuscript prep. /3.5 or 5.25	215.00
PC Spreadsheet for beginners /5.25	29.95
PC Word Processor for beginners /5.25	29.95
Perfect Forms /5.25	C/256 29.95
Perfect Labels /5.25	29.95
Personal Banking Reconc /5.25	29.95
Personal Finance /5.25	C/256 29.95
Personal Possessions Inv /5.25	29.95
Personal Skills /5.25	C/256 29.95
Personal Wedding Planner /3.5 or 5.25	69.95
PFS: Easy Start - WP, Spreadsheet & File manager /3.5 or 5.25	99.00
PFS: First Choice /dual	265.00
Present it /5.25	CEH/256 125.95
Prodata Database /5.25	189.00
Professional File /dual	460.00
Professional Write 2.2 3.5 or 5.25	395.00
Protex /dual	169.00
Protex Filer /5.25	59.95
Protex Office /5.25	79.95
Quick Schedule Plus /5.25	CE/384 125.95
Stockmarket /5.25	79.95
Swiftcalc /3.5 or 5.25	/256 89.95
Taspeil Spell checker /3.5 or 5.25	95.00
Tasword WP /3.5 or 5.25	99.00
Tasword PC2: with DB, spelling etc. /3.5 or 5.25	299.00
Toolworks Lengthwise /dual	CEH/512 89.95
Toolworks Office Manager /dual	CE/512 79.95
Word for Word /dual	CE/256 129.95
Word Writer PC v3 with 100,000 word spell check & thesaurus /5.25	CEH/512 89.95

COMPILATION PACKS

3 Fabulous Worlds /5.25: with Sinbad and the Throne of the Falcon, Three Stooges, Rocket Ranger	59.95
All Time Classic Classics /3.5 or 5.25:	79.95
All time favourites from Accolade /3.5 or 5.25: with Hardball, Test Drive, Apollo 18 and Mini Putt (obstacle putting)	79.95
Arcade Bonanza 2: 19 games /dual	39.95
Big Deal /dual: with Cribbage, Gin King, Trump Castle, Ultimate Casino Gambling, Ante Up	79.95
Cosmi Top 10 /3.5 or 5.25: with Super Huey, Delcon 5, NavCom 6, Corporate Raider, Insider Trader, Munch, R-R-Ribbit, Sanction, Invaders	49.95
Epyx on PC 2 Compilation /5.25: with World Games, Street Sports Basketball, Impossible Mission 2	49.95
Finale /3.5 or 5.25: with Frank Bruno's Boxing, Paperboy, Ghost n' Goblins, Space Harrier	69.95
Future Classics /dual: with Tank Battle, Discman, Diet Riot, Blockalanche, Lost n' Maze	59.95
Jet Set Pack /3.5 or 5.25: with F14 Tomcat, Afterburner, Fighter Bomber	69.95
Microprose Compilation /5.25: with Gunship, Silent Service 1, Airborne Ranger	59.95
Mind Games /5.25: with Waterloo, Conflict in Europe, Austerlitz	69.95

PC COMPATIBLES MAIL ORDER

Multi-Sports /3.5 or 5.25: with Basketmaster, Aspar, Kung Fu Warrior, Michel Superskills, Professional Tennis	59.95
Thrill of Winning 1 /5.25 (S): with John Madden Football, Zany Golf, Budokan, Ferrari Formula 1 ... CEV/512	64.95
Thrill of Winning 2 /dual: with 688 Attack Sub, Populous, Powerdrome, World Tour Golf	CEVH/512 64.95
Triple Action Pack /5.25: with Cardinal of the Kremlin, Hunt for Red October, Falcon AT	CEV/512 89.95

EDUCATIONAL

Alge-Blaster Plus (Algebra Gr7 to Adult) /dual	69.95
Alphabet Zoo /3.5 or 5.25	49.95
Arcademic: Alien Addition (Gr1 to 5) /5.25	49.95
Arcademic: Alligator Mix (Gr1 to 5) /5.25	49.95
Arcademic: Demolition Divis. (Gr1 to 5) /5.25	49.95
Arcademic: Dragon Mix (Gr1 to 5) /5.25	49.95
Arcademic: Meteor Multiplicat. (Gr1 to 5) /5.25	49.95
Arcademic: Minus Mission (Gr1 to 5) /5.25	49.95
Bagasaurus(6 to 9) /3.5 or 5.25	19.95
Birds 'n Bees (Sex Education) /5.25	49.95
Business Dynamics /5.25	39.95
Car Builder: mechanical (Gr4 to Adult) /3.5 or 5.25	79.95
Charlie Brown's ABC (Kin to 2) /dual	49.95
Clock: tutorial (Gr1 to 4) /5.25	49.95
Computerease /5.25	19.95
Decimal Dungeon (Gr4 to 12) /5.25	69.95
Dinosaur Days (Kin. to 6) /3.5 or 5.25	59.95
Dinosaur Discovery /dual	CEVH/512 49.95
Dinosaurs /5.25	39.95
Discover Alphabet (6 and up) /5.25	29.95
Discover Chemistry (12 and up) /5.25	29.95
Discover Maths (10 and up) /5.25	29.95
Discover Numbers (6 and up) /5.25	29.95
Donald's Alphabet Chase /5.25	39.95
Early Games for Young Children /3.5 or 5.25	54.95
Easy as ABC /3.5 or 5.25	59.95
First Writer (4 and up) /5.25	24.95
Fraction Action (Gr3 to 8) /5.25	69.95
Fun School 2 (2-6 yrs) /3.5 or 5.25	53.95
Fun School 2 (6-8 yrs) /3.5 or 5.25	53.95
Fun School 2 (8 and Over) /3.5 or 5.25	53.95
Goody's Railway Express /5.25	39.95
Grade A First Letters and Words (Ages 3-7) /5.25	29.95
Grade A First Shapes (Ages 3-7) /5.25	29.95
Grade A Math: Add/Subtract (Gr2 to 7) /5.25	29.95
Grade A Math: Fract/Decs/Perc (Gr2 to 7) /5.25	29.95
Grade A Math: Multi/Divide (Gr2 to 7) /5.25	29.95
Grade A Spelling (Gr2 to 4) /5.25	29.95
Grade A Spelling (Gr4 to 6) /5.25	29.95
Grade A Spelling (Gr6 to 8) /5.25	29.95
Grade A Vocabulary (Gr2 to 4) /5.25	29.95
Grade A Vocabulary (Gr4 to 6) /5.25	29.95
Grade A Vocabulary (Gr6 to 8) /5.25	29.95
Gumboots Australia /3.5 or 5.25	49.95
Joshua's Reading Machine/ 3.5 or 5.25	79.95
Katie's Farm/dual (2-6yrs)	59.95
Kids Collection (Compil) /5.25	59.95
Kidstime 1: ind Dot to Dot (Presch to 3) /5.25	69.95
Land of the Unicorn (Gr4 to 6) /3.5 or 5.25	64.95
Letter go round (4 to 6) /5.25	29.95
Lex Wizard of Words (5 to 15 yrs) /3.5 or 5.25	39.95
Math Blaster Mystery (Gr4 to Adult) /dual	69.95
Math Blaster Plus (Gr1 to 6) /dual	69.95
Math & Me (Presch to 1) /dual (needs CGA)	49.95
McGee at the Fun Fair /dual (2-6yrs)	59.95
McGee's/dual (2-6yrs)	59.95
Mickey's 123: Surprise Party /dual (SS) 2-5yrs	69.95
Mickey's ABC: Day at the Fair /dual (SS) 2-5yrs	69.95
Mickey's Crossword Puzzle Maker /dual (SS)	69.95
Mickey's Runaway Zoo /5.25	39.95
Micro Maths (14 to 16) /3.5 or 5.25	59.95
Mixed Up Mother Goose /dual (S)	CEVH/256 49.95
Mixed Up Mother Goose enhanced /dual	512/EV 69.95
Monsters & Make-believe (Kin. to 6) /5.25	59.95
My Paint /dual	EV/512 69.95
Newsroom /3.5 or 5.25	39.95
Number Fun 1 (5 to 15 yrs) /dual	39.95
Once Upon a Time 1 (needs CGA) /5.25	79.95
Once Upon a Time 2 /3.5 or 5.25	79.95
Once Upon a Time 3 /3.5 or 5.25	79.95
Once Upon a Time /3.5 or 5.25 - Puppet Playhouse	
- 270 characters & objects	CEVM384 79.95
PC Globe: Nations module /5.25	19.95
PC Globe V4.0 /3.5 or 5.25	125.00
Peanuts' Maze Marathon (Gr 3 to 6) /dual	49.95
Picture Place (6 to 9) /5.25	24.95
Playroom, The /dual	79.95
Puzzle Story Book /dual	CEV/512 49.95
Question Mark: Foreign Lang. add-on /3.5 or 5.25	75.00
Question Mark: Graphics add-on /3.5 or 5.25	200.00

Question Mark: Surveys, Exams & Tests /3.5 or 5.25	370.00
Race Car Arithmetic (Kin to 6) /5.25	69.95
Read Easy /5.25	C/256 19.95
Reading Comprehension (Gr4 to 7) /3.5 or 5.25	79.95
Reading & Me (Presch to 1) /dual (needs CGA)	59.95
Reading Skills Builder (Gr 4 to Adult) /5.25	19.95
Rhyming Notebook /5.25	CEV/512 49.95
Roll a Word (5 to 9) /5.25	24.95
RSVP: 700 problems /5.25	CEH/ 59.95
S'bear Alphabet (Presch) /3.5 or 5.25 (needs 2 drives)	79.95
S'bear Math 1 (Gr1 to 3) /3.5 or 5.25	69.95
S'bear Math 2 (Gr1 to 3) /3.5 or 5.25	69.95
S'bear Math Word Problems (Gr3 to 6) /3.5 or 5.25	79.95
S'bear Numbers (Presch to Kin) /3.5 or 5.25	69.95
S'bear Parts of Speech (Gr2 to 6) /3.5 or 5.25	79.95
S'bear Reading Compreh. (Gr2 to 4) /3.5 or 5.25	79.95
S'bear Spellgrabber (Gr1 to 4) /3.5 or 5.25	79.95
S'bear Typing: tutor (Kin. to 12) /3.5 or 5.25	79.95
S'bear Word Problems (Gr3 to 6) /3.5 or 5.25	79.95
Science Toolkit Master (Gr4 to 9) /3.5 or 5.25	139.95
Shakespeare: a study (Gr10 to 12) /5.25	49.95
Space Maths (8 and up) /5.25	39.95
Spell Castle /5.25	C/128 19.95
Spell it Plus: with Editor (Gr4 to Adult) /dual	69.95
Spell-o-saurus /3.5 or 5.25	59.95
Spelling Fun 1 (5 to 15 yrs) /3.5 or 5.25	39.95
Stepping Stones 1 /3.5 or 5.25	69.95
Stepping Stones 2 /3.5 or 5.25	69.95
Stickers /3.5 or 5.25	54.95
Student Word Processor /5.25	29.95
Study Mate: Grade Booster /3.5 or 5.25	CEV/384 84.95
Tools for Tots (4 to 6) /5.25	21.95
Verbs (6 to 8) /5.25	21.95
Where in Europe is C Sandiego (Gr4 to Adult) /dual	84.95
Where in Time is C Sandiego (Gr5 to Adult) /dual	CEVH/512 84.95
Where in USA is C Sandiego (Gr4 to Adult) /dual	CEH/128 84.95
Where in World is C Sandiego (Gr4 to Adult) /dual	CEVH/512 84.95
Where in World is C Sandiego Hi-res for 286 /dual	VD/640 129.95
Word Attack Plus: vocab. (Gr 4 to 12) /dual	74.95
Word Fun 1 (5 to 15 yrs) /3.5 or 5.25	39.95
World Atlas /3.5 or 5.25	EV/640 89.95

GRAPHICS

Animator (Autodesk) /5.25	495.00
Autosketch (Autodesk) /3.5 or 5.25	299.00
Autosketch Symbols: Architecture /3.5 or 5.25	95.00
Autosketch Symbols: Electric/Electronic /3.5 or 5.25	95.00
Autosketch Symbols: Hydraulic/Pneumatic /3.5 or 5.25	95.00
Autosketch Symbols: Presentation C/Art /3.5 or 5.25	95.00
Awardware (awards, certs etc) /3.5 or 5.25	29.95
Bannermania /dual	69.95
Beetlejuice Print Kit /3.5 or 5.25	29.95
Bumper Sticker Maker /5.25	59.95
Business Card Maker /5.25	29.95
Business Graphics /5.25	19.95
By Design (works with WordPerfect)	144.45
Cartooners /5.25	69.95
Create with Garfield (Gr 2 to 6) /3.5 or 5.25 (no Herc)	69.95
Deluxe Paint 2 Enhanced /dual (best on 286/386)	CEVH/640 209.95
Easysign: Teaching & camera ready text prep. /3.5 or 5.25	50.00
First Pub. Symbols: Art Gallery /3.5 or 5.25	199.00
First Pub. Symbols: Bus Symbols /3.5 or 5.25	69.00
First Pub. Symbols: Bus Template Kit /3.5 or 5.25	145.00
First Pub. Symbols: Christian Symbols /3.5 or 5.25	69.00
First Pub. Symbols: Executive Fonts /3.5 or 5.25	69.00
First Pub. Symbols: Holidays /3.5 or 5.25	69.00
First Pub. Symbols: Just for Grins /3.5 or 5.25	69.00
First Pub. Symbols: Leisure & Lifestyles /3.5 or 5.25	69.00
First Pub. Symbols: Personal Graphics /3.5 or 5.25	69.00
First Pub. Symbols: Publications /3.5 or 5.25	69.00
Gremlins 2 Print Kit /3.5 or 5.25	29.95
Harvard Gr. Symbols: Business/3.5 or 5.25	159.00
Harvard Gr. Symbols: Design Galleries /3.5 or 5.25	159.00
Harvard Gr. Symbols: Draw Partner /3.5 or 5.25	159.00
Harvard Gr. Symbols: Military /3.5 or 5.25	229.00
Harvard Gr. Symbols: Quick Charts /3.5 or 5.25	159.00
Harvard Gr. Symbols: Screen Show /3.5 or 5.25	229.00
Harvard Graphics /3.5 or 5.25	789.00
Jetsons/Flinstones Print Kit /3.5 or 5.25	29.95
Let's make Calendars & Stationery /5.25	29.95
Looney Tunes Cartoon Workshop /5.25	59.95
Looney Tunes Print Kit /3.5 or 5.25	29.95
Muppets Print Kit /3.5 or 5.25	29.95
New Printshop Companion /dual with Page Publisher,	

text editor & envelope maker	79.95
NewsMaster 2 /3.5 or 5.25	140.95
Newsroom, The /5.25	49.95
Paint Shop /3.5 or 5.25	CEH/256 39.95
PC Paintbrush 4 Plus /3.5 or 5.25	299.00
Personal Publisher /5.25	C/256 29.95
PFS: First Graphics /dual	265.00
PFS: First Publisher /dual	265.00
Pic Trivia /3.5 or 5.25	C/256 34.95
Print Shop Party /3.5 or 5.25	C/128 59.95
Print Shop Sampler /3.5 or 5.25	C/128 59.95
Print Shop, The New /3.5 or 5.25	CE/512 99.95
Print Shop Upgrade /5.25	34.95
Printing Press, The /5.25	CH/256 79.95
Printing Press, The: Business Grs. /5.25	CH/256 45.95
Printing Press, The: Graphics Lib. 1 /5.25	CH/256 45.95
Printing Press, The: Graphics Lib. 2 /5.25	CH/256 45.95
Printing Press, The: Travel/Vacation /5.25	CH/256 45.95
Publ. It: 4 in 1 Art Portfolio /dual	189.95
Publ. It: Design Ideas /dual	59.95
Publ. It: Education Graphics /dual	59.95
Publ. It: People Places and Things /dual	59.95
Publ. It: Symbols and Slogans /dual	59.95
Publish It /dual	349.95
Publish It Lite /5.25	129.95
Sesame Street Print Kit /3.5 or 5.25	29.95
Sign Designer /5.25	CE/128 95.95
Signwriter: adv. Easysign with graphics /3.5 or 5.25	215.00
Splash PC /dual	V/640 199.00
Springboard Publisher /3.5 or 5.25	249.95
Tas-sign Sign maker /3.5 or 5.25	95.00
Tascopy Graphics editor /3.5 or 5.25	95.00
Teenage Mutant Ninja Turtles Colouring Book	49.95
Ventura Publisher /3.5 or 5.25	1549.00

HINT/CLUE BOOKS

Beyond Zork Hint Book	19.95
Buck Rogers - Countdown Hint Book	19.95
Champions of Kryn Clue Book	29.95
Codename Iceman Hint Book	14.95
Colonels Bequest Hint Book	14.95
Conquest of Camelot Hint Book	14.95
Gold Rush Hint Book	14.95
Kings Quest 1 Hint Book	14.95
Kings Quest 2 Hint Book	14.95
Kings Quest 3 Hint Book	14.95
Kings Quest 4 Hint Book	14.95
Leisure Suit Larry 1 Hint book	14.95
Leisure Suit Larry 2 Hint Book	14.95
Leisure Suit Larry 3 Hint Book	14.95
Manhunter 1 New York Hint Book	14.95
Neuromancer Hint Book	19.95
Police Quest 1 Hint Book	14.95
Police Quest 2 Hint Book	14.95
Quest for Glory 1 Hint Book	14.95
Quest for Glory 2 Hint Book	14.95
Secret Silver Blades Hint Book	29.95
Space Quest 1 Hint Book	14.95
Space Quest 2 Hint Book	14.95
Space Quest 3 Hint Book	14.95
Zak McKracken Hint Book	14.95
Zork Trilogy Hint Book	24.95

HOME UTILITIES

KHK: Calorie Control /dual	49.95
KHK: Creating and Printing Labels /dual	49.95
KHK: Electronic Filing /dual	49.95
KHK: Literature Management /dual	49.95
KHK: Personal Inventory List /dual	49.95
KHK: Private Payment Plan /dual	49.95
KHK: Recipes Management /dual	49.95
KHK: Record, Cassette & CD Management /dual	49.95
KHK: Slides and Films Management /dual	49.95
KHK: Telephone & Address register /dual	49.95
KHK: Video Management /dual	49.95
KHK: Word Processing /dual	49.95

SPORTING ACTION

4-D Sports Boxing /5.25	59.95
4D Sports Driving /dual	59.95
Basketball: College League module /5.25	39.95
Basketball (Omni-Play)/5.25	69.95
Basketball: Side view module /5.25	39.95
Cycles, The /3.5 or 5.25 (S)	CEVH/512 64.95
Days of Thunder /dual	CEV/640 69.95
Disc /5.25	59.95
Grand Prix Circuit /5.25	CEH/384 49.95
Hardball 2 /3.5 or 5.25 (S)	CEVH/512 59.95

PC COMPATIBLES MAIL ORDER

Harley Davidson /5.25	CET/640	59.95	Colonel's Bequest /dual (S)	CEVH/512	79.95	Monty Python's Flying Circus /dual	59.95
Heat Wave (Superboat racing) /3.5 or 5.25		59.95	Colorado /3.5 or 5.25	CEH/512	69.95	Mortville Manor (dig. sounds) /3.5 or 5.25	CE/512
Horse Racing /5.25	CET/210	69.95	Conquest of Camelot /dual (S)	CEVH/512	69.95	MTV's Remote Control: TV trivia game /3.5 or 5.25	29.95
Horse Racing: Stable Owner's module		39.95	Covert Action /dual		99.95	Muppet Advent: Chaos at Carnival /3.5 or 5.25	29.95
Indianapolis 500 /dual (S)	EV/384	59.95	Crossword Magic /5.25	C/128	69.95	Murder Club /3.5 or 5.25	ECVH/384
International Soccer /dual		49.95	Crossword Mania /3.5 or 5.25	C/256	34.95	Nightbreed Movie /3.5 or 5.25	69.99
Italia '90: World Cup Soccer /dual		59.95	Curse of Azure Bonds /dual		49.95	Nightmare on Elm Street /5.25	54.95
Italy 1990		59.95	Curse of Ra /3.5 or 5.25	EV/512	59.95	Nightshift /3.5 or 5.25	59.95
Jack Nicklaus 90 Vol 3 /3.5 or 5.25		59.95	Dark Heart of Ukkrul /dual		39.95	Nobunaga's Ambition 1 /3.5 or 5.25	89.95
Jack Nicklaus Courses Vol 1 /3.5 or 5.25	CEH/384	39.95	Darkside /5.25		54.95	Nobunaga's Ambition 2 /3.5 or 5.25	99.95
Jack Nicklaus Courses Vol 2 /3.5 or 5.25	CEH/384	49.95	David Wolf Secret Agent /3.5 or 5.25 (S)	CEVH/640	69.95	Off Shore Warrior /5.25	59.95
Jack Nicklaus Unlimited Golf + course design /3.5 or 5.25		79.95	Day of the Viper /3.5 or 5.25 (E/V need 512k)CH/384		59.95	Ogre (from Board Game) /5.25	49.95
Kick Off 2 /3.5 or 5.25		79.95	Death Trak /dual (S)	CEV/512	69.95	Oil's Well /dual (5.25" are 1.44mbs) (S)	CEV/512
Lakers vs Celtics (Basketball) /dual		49.95	Defender of Crown /dual		69.95	Omicron Conspiracy /dual (S)	CE/512
Links : Challenge of Golf /3.5 or 5.25 (S)			Die Hard /dual (S)	CEV/512	59.95	Ooze /5.25	49.95
[286/386 or faster]	VMD/640	69.95	Don't go alone /3.5 or 5.25 (S)	CE/384	59.95	Operation Stealth /3.5 or 5.25 (S)	CEVTH/640
Lombard Rally /5.25		59.95	Dragon Wars /dual		59.95	Pawn, The /5.25	69.95
Low Blow /3.5 or 5.25	CET/512	29.95	Dragons Lair 2 /3.5 or 5.25	CEVT/640	99.95	Penthouse Jigsaw /dual	69.95
Mario Andretti's Racing Chall /3.5 or 5.25 (S)			Dragons of Flame /dual		59.95	Personal Nightmare /5.25	CE/-
[640k recommended]	CEVMT/512	49.95	Dragonstrike /3.5 or 5.25		59.95	Pipe Mania /3.5 or 5.25	CEVH/-
Masterblazer /3.5 or 5.25		59.95	Drakkhen /dual		79.95	Police Quest 1 /dual	CEVH/256
Microprose Soccer /3.5 or 5.25	CE/-	59.95	Dream Warrior /5.25		29.95	Police Quest 2 /dual (S)	CEVH/512
Motocross /dual	CET/512	59.95	Driller /5.25		69.95	Pool of Radiance /dual	CET/384
PGA Tour Golf /dual		59.95	Dungeon Master /5.25		69.95	Ports of Call: maritime simulation /5.25	59.95
Powerdrift /5.25		59.95	E-Motion /3.5 or 5.25		59.95	Prince of Persia /dual	69.95
Pro 4 Soccer Simulator /dual	CE/256	49.95	Escape From Hell /3.5 or 5.25	CEH/512	49.95	Psychic War /3.5 or 5.25	CEVH/384
Pro Tennis Tour /3.5 or 5.25	CEH/-	49.95	Eye of Horus /dual	CE/512	69.95	Punisher /dual	89.95
Sharkey's 3D Pool /dual		69.95	Eye of the Beholder /dual (S)	CEVMT/512		Quest for Glory 1 /dual (S)	CEVH/512
Skidoo (Snow-mobile racing) /5.25		39.95	[VMT need 640k]		59.95	Quest for Glory 2 /dual (S) [1.2mb 5.25"]	CEVTH/640
Street Rod 1 /dual		49.95	Faces Tris 3 /dual		59.95	Quest of the Time Bird /5.25	C/-
Street Rod 2 /dual	ECTH/512	49.95	Faery Tale Adv. Bk 1 /dual (E needs 640k)	C/512	49.95	Questron 2 /dual	49.95
Streets Sports Baseball /5.25	C/256	39.95	Family Feud /5.25		49.95	Railroad Tycoon /dual	89.95
Stunt Car Racer /dual		69.95	Fiendish Freddy /3.5 or 5.25	EVT/512	59.95	Red Storm Rising /3.5 or 5.25	CE/-
Stunt Driver /3.5 or 5.25	CE/640	59.95	Friday Night Poker /3.5 or 5.25	CE/256	59.95	Rise of the Dragon /3.5 or 5.25 Hi-Density (S)	
Super Off Road /dual (S)	ECT/512	59.95	Fun House: TV game /3.5 or 5.25		29.95	[286 or faster]	VD/640
Superstar Soccer /5.25	CE/256	59.95	Future Wars /3.5 or 5.25		59.95	Romance of Three Kingdoms /3.5 or 5.25	109.95
Test Drive 2: Calif. Challenge /3.5 or 5.25			Galleons of Glory /dual (S)	CEVMT/512	79.95	Santa Paravia /5.25	29.95
(EGA needs 512k)	CH/384	39.95	Garfield Trivia Game /3.5 or 5.25	C/256	39.95	Satan /3.5 or 5.25	59.95
Test Drive 2: European Challenge /3.5 or 5.25		39.95	Genghis Khan /3.5 or 5.25		89.98	Savage Empire /5.25 Hi-density (S)	
Test Drive 2: Musclecars /3.5 or 5.25			Ghosts & Goblins /3.5 or 5.25		59.95	- needs expanded RAM for music/286	VEVMTD/640
(EGA needs 512k)	CH/384	59.95	Gold Rush /dual (S)	CEVH/256	49.95	Scapghost /dual	CE/512
Test Drive 2: Supercars /3.5 or 5.25			Grand Slam Bridge /5.25		69.96	Scruples /5.25	CE/256
(EGA needs 512k)	CH/384	39.95	Hard Nova /dual	EVMT/512	59.95	Secret of Monkey Island /3.5 or 5.25	69.95
Test Drive 2: The Duel /3.5 or 5.25			Harpoon /dual	CEVT/640	69.95	Secret of Silver Blades /3.5 or 5.25 (S)	CE/512
(EGA needs 512k)	CH/384	49.95	Hidden Agenda /5.25		99.95	Shogun /5.25	CEV/384
Test Drive 3: The Passion /dual		79.95	Hillsar /dual	CE/384	59.95	Sierra Starter Pack /3.5 or 5.25	79.95
Turbo Cup /5.25 (with Car)		59.95	Hoyle's Book of Card Games - 1 /dual (S)	CEVH/512	69.95	Silpheed /dual (S)	CEVH/512
TV Sports Basketball /5.25	CEV/512	69.95	Hoyle's Book of Card Games - 2 /dual (S)	CEVH/512	69.95	Sim City /dual (EGA needs 640k)	CHT/512
TV Sports Football /5.25	E/512	69.95	Indiana Jones Last Crusade/dual (S)	CEVH/384	69.95	Sim City Graphic Set 1 /3.5 or 5.25 (needs SimCity)	
W/Class L/Board RealSound /dual	CEVH/384	69.95	Infestation /dual		69.95	Ancient Asia/Medieval Times/wild West	CEVTH/-
Wayne Gretzky Ice Hockey /5.25		69.95	Ingrid's Back /5.25		49.95	Sim City Graphic Set 2 /3.5 or 5.25 (need SimCity)	
World Cup Soccer /dual		59.95	Iron Lord /5.25		59.95	Future USA/Future Europe/MoonColony	CEVTH/-
			It came from the Desert /5.25	CEV/512	69.95	Sim City Terrain Editor /3.5 or 5.25	34.95
			Jones in the Fast Lane /dual (S)	CEV/512	69.95	Sim Earth /dual	EMVTH/640
			Kings Quest 1 /dual	CEVH/256	49.95	Ski or Die /3.5 or 5.25	ET/384
			Kings Quest 1 enhanced /dual	EV/512	69.95	Slots and Cards /5.25	CEV/-
			Kings Quest 2 /dual	CEVH/256	69.95	Sorcerian /dual (S)	EV/512
			Kings Quest 3 /dual (S)	CEVH/256	69.95	Space Max /5.25	C/192
			Kings Quest 4 /dual (S)	CEVH/512	69.95	Space Quest 1 /dual	CEVH/256
			Kings Quest 5 /3.5 (S) VGA version			Space Quest 2 /dual (S)	CEVH/256
			[1.4mb 3.5"]	EMVT/512	89.95	Space Quest 3 /dual (S)	CEVH/512
			Kings Quest 5 /5.25 (S) VGA version			Space Rogue /3.5 or 5.25 (VGA needs 512k)CET/384	69.95
			[1.2mb 5.25"]	EMVT/512	89.95	Spellcasting 101 /3.5 or 5.25 (S)	CEVD/512
			Kings Quest 5 /dual (S) EGA version			Scrabble De Luxe /dual	59.95
			[1.2mb 5.25"]	EMVT/512	99.95	Star Command /5.25	79.95
			Knights of Legend /5.25	CET/384	69.95	Star Fleet 2 /5.25	CE/512
			Lap Top Chess /3.5	C/256	52.95	Star Trek (Next Gen) /5.25	49.95
			Legend of Djel /5.25		49.95	Star Trek V /3.5 or 5.25 (needs 286 or 386)	EVT/640
			Legend of Faerghall /3.5 or 5.25	CEH/640	69.95	Steel Thunder /5.25	CEVH/384
			Leisure Suit Larry 1 /dual	CEVH/256	69.95	Stryx /5.25	EV/640
			Leisure Suit Larry 2 /dual (S)	CEVH/512	69.95	Tangled Tales /3.5 or 5.25	44.95
			Leisure Suit Larry 3 /dual (S)	CEVH/512	69.95	Teenage Queen /5.25 (Strip Poker)	CE/-
			Leisure Suit Larry 1,2,3 Pack /3.5 or 5.25		99.95	Tempus /5.25	79.95
			Lemmings /5.25		69.95	Terran Envoy /5.25	CE/512
			Lexi-Cross /dual		49.95	Tetris /dual (S)	CEH/256
			Life and Death 1 /dual	CE/512	59.95	Thexder 1r /dual (S)	CEVH/256
			Life and Death 2 /5.25 (S)	EVTD/640	59.95	Thexder 2 - Firehawks /dual	
			LightSpeed /dual		99.95	Third Courier, The /3.5 or 5.25 (S)	
			Living Jigsaws (animated) /3.5 or 5.25		69.95	(VGA needs 512k)	CEH/512
			Loom /3.5 or 5.25	ECV/512	69.95	Titan /5.25	59.95
			Loopz /5.25		59.95	Tournament Bridge /5.25	CE/128
			Lord of the Rings /3.5 or 5.25		59.95	Treasure Trap (Deep Sea Diving) /3.5 or 5.25	59.95
			Lords of the Rising Sun /dual	EV/512	69.95	Trivial Pursuit Genus /dual	49.95
			Lost Patrol /3.5 or 5.25		69.95	Tunnels & Trolls - Crusaders of Khazan /dual CET/-	59.95
			Magic Candle 1 /3.5 or 5.25	CE/256	69.95	Ultima 4: Quest of the Avatar /3.5 or 5.25	79.95
			Manhunter 1 New York /dual	CEVH/256	59.95	Ultima 5: Warriors of Destiny /3.5 or 5.25 (S)CEVH/640	79.95
			Manhunter 2 San Francisco /dual (S)	CEV/256	69.95	Ultima 6: False Prophet /5.25 (needs 640k)	84.95
			Mega Traveller /5.25		105.95	Ultima Trilogy: 1, 2 and 3 /5.25	79.95
			Midwinter /dual	TECMV/640	89.95	Ultimate Casino Gambling /5.25	CE/256
			Might & Magic 1 /5.25	CEH/256	49.95	Usurper, The /dual	59.95
			Might & Magic 2 /5.25	CEH/256	49.95	Vegas Gambler /dual	49.95

PC COMPATIBLES MAIL ORDER

War of the Lance /dual	49.95
Welltris /dual	CEH/256 59.95
Wheel of Fortune /5.25	44.95
Where Time Stood Still /5.25	61.95
Win, Lose or Draw 2E: from TV game /3.5 or 5.25	29.95
Windwalker /3.5 or 5.25	CEVH/384 59.95
Wolf Pack /dual	CEVH/512 89.95
Wonderland /5.25 (S)	
[no graphics with CGA]	CEVMHD/640 79.95
X-Men 1 /dual	69.95
X-Men 2 /dual	89.95
Xenon 2 /dual	69.95
Zak McKracken /dual	CEVH/256 59.95
Zellard /dual	CEVMHT 79.95
Zork Trilogy /dual	CEH/128 69.95
Zork Zero /dual	CEV/384 69.95

TUTORIALS

Book-keeping (to Trial Bal) /dual	199.00
Financial Accounting Tutor (FANA) /5.25	199.00
lankey 2 Finger Typist /5.25	59.95
lankey Crash course for beginners /5.25	59.95
Introduction Amstrad PC1512 & 1640 Cse /5.25	59.95
Introduction Amstrad PC20 Course /3.5	59.95
Introduction IBM PC/XT/AT & Compatibles /5.25	59.95
Introduction to Amstrad PC2086 /3.5	59.95
Introduction to Amstrad PPC Course /3.5	59.95
Mastering Your PC: tutorial /5.25	39.95
Mavis Beacon Teaches Typing /dual	CETH/256 69.95
Perfect Typing /5.25	C/256 29.95
Speed Read /5.25	99.95
Typing Tutor IV /5.25	C/128 69.95
Typing Tutor with Word Invaders /5.25	49.95

UTILITIES

Back Up Pro /dual	CET/640 89.95
Disco (personalised menu system) /5.25	99.95
Disk Tools /5.25	29.95
Dos-RX /5.25	64.95
Gift List /5.25	24.95
Lottery Trend Analysis /3.5 or 5.25	CH/256 34.95
Lottery Wheel Analysis /3.5 or 5.25	C/256 34.95
MS-Quickbasic Compiler /3.5 or 5.25 (also for OS/2)	185.00
MS-QuickC /3.5 or 5.25	185.00
MS-Windows V.3.0 /3.5 or 5.25	249.00
Music Construction Set /5.25	29.95
PC Protection /5.25	C/256 39.95
Program Director /5.25	CEH/128 95.95
Recall (quick storing & retrieving) /5.25	29.95
Tasprint Style writer /3.5 or 5.25	95.00
Xtree Pro /3.5 or 5.25	179.00
Xtree Pro Gold /3.5 or 5.25	199.00
Xtree (v2.0) /3.5 or 5.25	79.00

WAR/MILITARY/SIMS

A-10 Tank Killer /5.25 or 3.5 (\$)	CEVH/640 69.95
Air Combat /dual	69.95
Ancient Art of War at Sea /dual	79.95
Ancient Art of War /dual	79.95
ATF 2 /3.5 or 5.25 (EGA/VGA version)	EV/256 69.95
ATF 2 /5.25 (CGA version)	C/256 69.95
Battlehawks 1942 /dual	CEVH/384 69.95
Blue Max /dual (S) [VGA needs 640k]	CEVMT/512 69.95
Carrier Command /3.5 or 5.25	59.95
Command HQ /dual	89.95
Conflict In Europe /dual	69.95
Das Boot (including book) /dual	69.95
Destroyer /3.5	49.95
F-15: 2 Strike Eagle /3.5 or 5.25	CEVH/384 69.95
F-16: Combat Pilot /3.5 or 5.25 (EGA version)	E/384 59.95
F-16: Combat Pilot /5.25 (CGA version)	C/384 59.95
F-16: Falcon /dual	CE/256 59.95
F-19: Stealth Fighter /3.5 or 5.25	CEVH/384 109.95
Fighter Bomber /5.25	CEVH/ 69.95
Fire and Forget 1 /5.25	49.95
Fire and Forget 2 /dual	59.95
Gunboat /3.5 or 5.25	CEVH/512 59.95
LHX Attack Chopper /3.5 or 5.25 (640k best)	CEV/512 69.95
MS Flight Simulator Vers 4 /3.5 or 5.25	CEVH/384 95.00
MS Aircraft & Scenery Designer /dual	
(requires M/S Flight Simulator v.4)	CEVD/640 69.00
Nights of the Sky /dual	99.95
Operation Harrier /3.5 or 5.25	CEV/ 59.95
PHM Pegasus /5.25	59.95
Red Baron /dual	79.95

Renegade Legion: Interceptor /5.25	59.95
Second Front /5.25	59.95
Secret Weapon Luftwaffe /3.5 or 5.25	69.95
Sherman M4 /3.5 or 5.25	54.95
Silent Service 2 /dual	89.95
Storm across Europe /5.25	29.95
Team Yankee /dual	89.95
Their Finest Hour /3.5 or 5.25 (S)	CEVH/512 69.95
UMS 2 /dual	89.95

PUBLIC DOMAIN/SHAREWARE

PC-Soft #01: 19 BASIC2 (Amstrad) utilities and games /5.25 (needs Basic2)	10.00
PC-Soft #02: Eight games /3.5 or 5.25	12.50
PC-Soft #03: Twenty-four utilities /3.5 or 5.25	12.50
PC-Soft #04: Six games /3.5 or 5.25	12.50
PC-Soft #05: Twenty-three utilities /3.5 or 5.25	12.50
PC-Soft #06: Ford Driving Simulator v2 (not mono screens) /3.5 or 5.25	12.50
PC-Soft #07: Funnels etc. (Maths)/Word Processing for Kids (Age 8 and up) /3.5 or 5.25	12.50
PC-Soft #08: Junior Word Games (Age 8 and up) /3.5 or 5.25	12.50
PC-Soft #09: Educational Games for Kids - 1 (Age 4 to 8) /3.5 or 5.25	12.50

PC-SIG SHAREWARE

4-DOS /3.5 or 5.25 - command line control	19.95
Amy's First Primer /3.5 or 5.25 - pre-reader	C/128 19.95
Auto Menu /3.5 or 5.25 [Hard drive recommended]	19.95
Crossword Creator /3.5 or 5.25	-/256 19.95
Dan CAD /3.5 or 5.25 - wire frame, design	C/640 19.95
Express Check /3.5 or 5.25 - reconciler	-/256 19.95
Challenger Games /3.5 or 5.25 - graphic advs.C/128	19.95
Crazy Shuffle /3.5 or 5.25 - concentration	CEVM/190 19.95
Family History /3.5 or 5.25 - genealogy	-/128 19.95
Fast Bucks /3.5 or 5.25 - home accounts	-/128 19.95
Fast Invoice /3.5 or 5.25 - invs/purchase ords etc.	19.95
Frac /3.5 or 5.25 - 3D Tetris style game	E/256 19.95
Fractal Graphics /3.5 or 5.25	HCEV/384 19.95
Google Math /3.5 or 5.25 - math game	C/384 19.95
Hugo's House of Horrors /3.5 or 5.25 - adv EVD/360	19.95
Kid Games /3.5 or 5.25 - 2 to 10 yrs educ	-/128 19.95
Line Wars /3.5 or 5.25 - alone or over phone	CE/ 19.95
Mahjong /3.5 or 5.25	HCE/ 19.95
Mega-CAD /3.5 or 5.25	EVD/512 19.95
Mortplan Loan evaluator /3.5 or 5.25	-/256 19.95
Newkey /3.5 or 5.25 - keyboard redefiner	-/35 19.95
PC Chess /3.5 or 5.25	-/128 19.95
PC Fastype /3.5 or 5.25 - typing tutor	C/ 19.95
PC Jigsaw /3.5 or 5.25	CEVMH/ 19.95
PC Key Draw /3.5 or 5.25 - graphics (needs 2 floppies)	19.95
PC Write /3.5 or 5.25 - word processing	19.95
Printer Utilities /3.5 or 5.25	-/256 19.95
Race /3.5 or 5.25 - driving game	CE/ 19.95
Simply Labels /3.5 or 5.25	256/ 19.95
SR-Info /3.5 or 5.25 - related database ... 2 floppies/400	19.95
Super Pinball /3.5 or 5.25 - arcade	C/ 19.95
Typesetter PC /3.5 or 5.25 - desktop publ.	CEVH/512 19.95
Vegas Johnny's Draw Poker /3.5 or 5.25	-/256 19.95
Virus Scan /3.5 or 5.25	-/19 19.95
Weak Link /3.5 or 5.25 - needs RS232 port + cable	19.95

ACCESSORIES

Disk Drive Head Cleaner /3.5	17.95
Disk Drive Head Cleaner /5.25	17.95
Disks: 10 Verbatim Valulife Double Density /3.5	35.00
Disks: 10 Verbatim Valulife Double Density /5.25	18.00
Disks: 10 Verbatim Valulife High Density /3.5	60.00
Disks: 10 Verbatim Valulife High Density /5.25	30.00
Dust Cover: Amstrad PC1512/1640 - keyb'd & mon	36.00
Dust Cover: Amstrad PC20 - unit only	18.00
Dust Cover: Amstrad PC2086 - keyb'd & mon	39.00
Dust Cover: Amstrad PC2286/2386 - keyb'd & mon	39.00
Dust Cover: Epson LQ500, LX800	17.00
Dust Cover: Other clones (please identify) - keyb'd	18.00
Dust Cover: Other clones (please identify) - mon/system	25.00
Dust Cover: PS/2 - keyb'd	18.00
Dust Cover: PS/2 - mon/system	25.00
Dust Cover: Star NX1000, NX 24-10, NB 24-10	17.00
Dust Cover: Star NX15, NB 24-15	30.00
Ribbons: Epson FX800, LX800, 850	10.95
Ribbons: Epson LQ500, 800, 850	15.95
Ribbons: Epson LX80, 86, 90	8.95
Ribbons: Epson MX/FX/RX 100, 100+, 105, 105+	10.95

Ribbons: Star LC24-10, NX24-10	15.95
Ribbons: Star NX1000, LC10	10.95

PERIPHERALS

Ad-Lib Sound Card	199.00
Adara AHS-405C Colour Hand Scanner	1395.00
GLUIS 321 A4 Page Scanner (200 dpi)	895.00
Joystick: Anko Precision	49.95
Joystick: Anko Standard	39.95
Joystick: Games Card - 2 ports	49.95
Joystick: JS-606 Pistol Grip	49.95
Joystick: Jumbo	29.95
Joystick: Konix Speed King (hand held)	49.95
Lightscan 200H Mini Hand Scanner	199.00
Lightscan 320F Flatbed Scanner (300 dpi)	P.O.A.
Lightscan 400J Hand Scanner	399.00
Lightspeed 400P A4 Hand Scanner	1595.00
Mouse Bus Card for X-30MD: frees serial port	46.95
Mouse: Champ AD-M36 + Image and Graphics software	99.00
Mouse: Genius GM-6X serial + Dr Halo /5.25	79.95
Mouse: Tronic X-30MD serial + Dr Halo, pad, etc. /5.25	119.95
Printer Cable: parallel	29.95
Qtronix Hand Scan MS-7400 (400dpi) 64 grey shades	395.00
Sound Source (sound add-on for Disney games)	99.95
Soundblaster Card	349.00

PUBLICATIONS

Abacus Quick Ref. Guide: dBase 3	24.95
Abacus Quick Ref. Guide: GW-Basic	24.95
Abacus Quick Ref. Guide: Lotus 1-2-3	24.95
Abacus Quick Ref. Guide: MS-DOS	24.95
Abacus Quick Ref. Guide: MS-Word	24.95
Abacus Quick Ref. Guide: Word Perfect	24.95
Batch File Powertools + 5.25 disk	69.95
Books for Beginners: Cobol	36.95
Books for Beginners: dBase 4	36.95
Books for Beginners: Excel	36.95
Books for Beginners: GW-Basic	36.95
Books for Beginners: Lotus 1-2-3	36.95
Books for Beginners: Microsoft Word	36.95
Books for Beginners: Microsoft Works	36.95
Books for Beginners: MS-DOS	36.95
Books for Beginners: Unix and Xenix	36.95
Books for Beginners: Ventura	36.95
Computer Viruses	49.95
Finding Free Software	34.95
Laptop Users Guide	36.95
Lotus Agenda	39.95
Microcomputer Troubleshooting & Repair	49.95
Microref Keyb'd Template: dBase 3 Plus	19.95
Microref Keyb'd Template: dBase 4	19.95
Microref Keyb'd Template: Excel	19.95
Microref Keyb'd Template: Lotus 1-2-3 v2.01	19.95
Microref Keyb'd Template: Lotus 1-2-3 v2.2	19.95
Microref Keyb'd Template: MS-Word v5	19.95
Microref Keyb'd Template: Multimate Adv II	19.95
Microref Keyb'd Template: PC/MS-DOS	19.95
Microref Keyb'd Template: WordPerfect v5	19.95
Microref Quick Ref. Guide: dBase 3 Plus	44.95
Microref Quick Ref. Guide: dBase 4	44.95
Microref Quick Ref. Guide: Lotus 1-2-3 v2.01	34.95
Microref Quick Ref. Guide: Lotus 1-2-3 v2.2	34.95
Microref Quick Ref. Guide: MS-Word v5	34.95
Microref Quick Ref. Guide: Multimate Adv II	34.95
Microref Quick Ref. Guide: PC/MS-DOS	34.95
Microref Quick Ref. Guide: WordPerfect v5	34.95
Microref Quick Ref. Guide: WordPerfect v5.1	34.95
MS-DOS Tips and Tricks	36.95
MS-Word 5.0/5.5 Powertools + 5.25 disk	69.95
PC Basic Programming: Inside & Out + 5.25 disk	69.95
PC File Formats and Conversions + 5.25 disk	49.95
PC Painbrush Complete	39.95
PC System Programming for developers + 5.25 disks	89.95
PC Tools Companion	36.95
PC Tools Deluxe Complete (incl v6)	49.95
Programming VGA Graphics	69.95
QuickBasic Toolbox + 5.25 disk	69.95
Stepping up to DR-DOS 5	34.95
Take-off with MS Flight Simulator (incl v4)	29.95
Tips & Tricks for your PC Printer + 5.25 disk	69.95
Turbo Pascal Internals (with 800k of programs)	89.95
Upgrading and Maintaining your PC	49.95
Word 5 Know How + 5.25 disk	49.95

PLEASE ALLOW 14-21 DAYS FOR DELIVERY

GAME PLAY

TEENAGE MUTANT
HERO TURTLES

SIM CITY

RICK DANGEROUS 2

VERDICTS

- ■ ■ ■ ■ Outstanding
- ■ ■ ■ Above average
- ■ ■ Average
- ■ Fair
- Waste of money

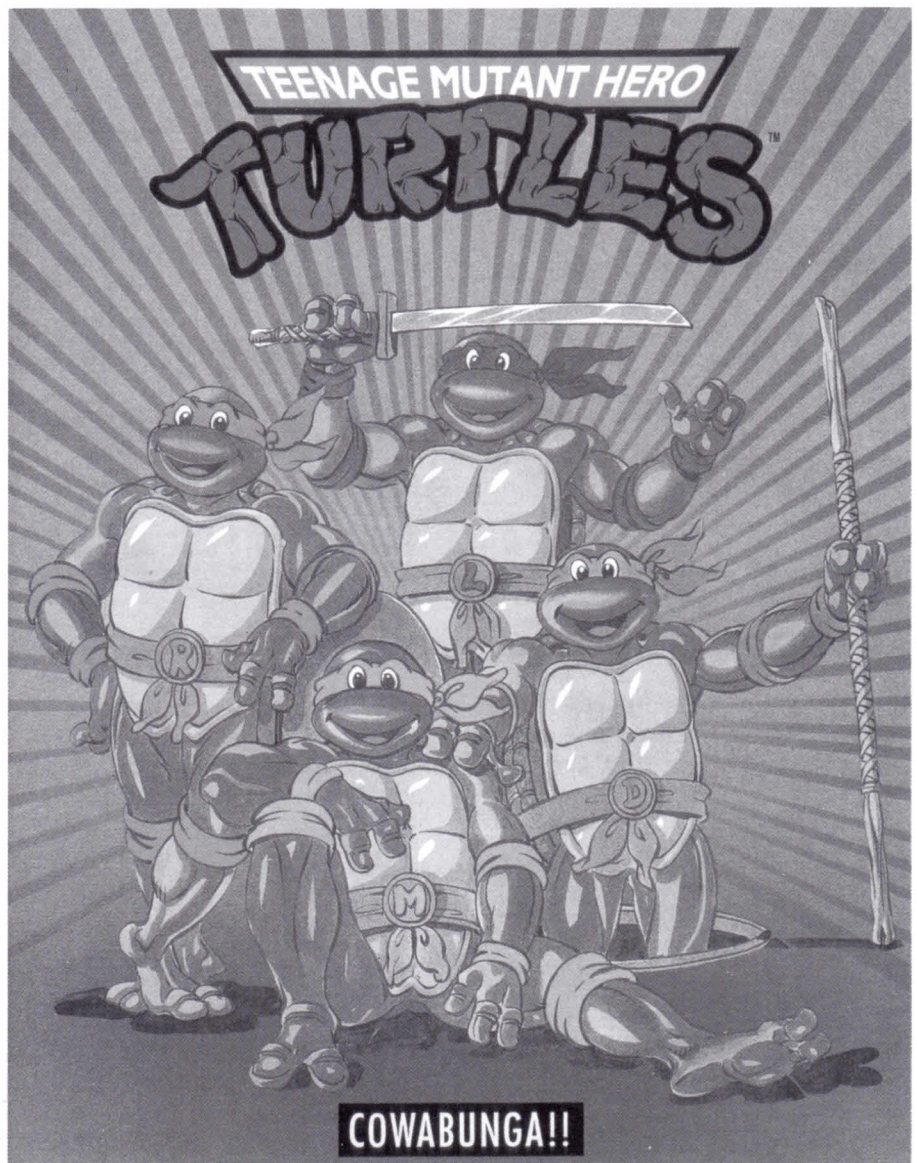
TEENAGE MUTANT HERO TURTLES

- Published by Imageworks • Available through The PC Mag
- Suitable for Amstrad 464, 664 and 6128
- Prices: Disk \$42.95, Tape \$32.95

At first I wondered why this game had 'hero' instead of 'ninja' in the title. I can only assume that it is not a licence from the film as the plot is different - hence the different name. But all your favourite characters are here in stunning colour and heaps of action.

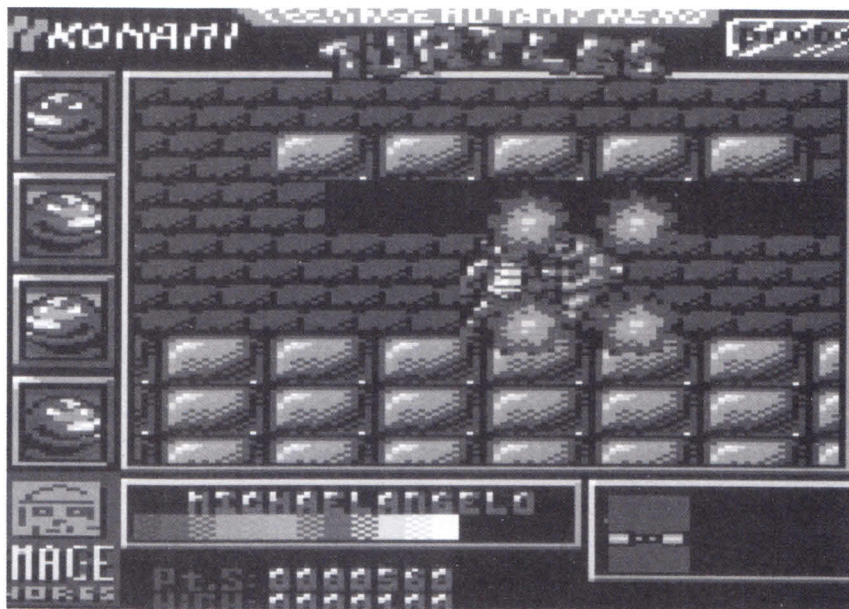
As you would expect, April

O'Neil has been kidnapped by Shredder and the reptilian four are sworn to rescue her. The action starts above ground, dodging bulldozers and the odd ninja before entering the sewers. Underground are giant bees, frogs and the like doing their utmost to hinder progress towards the damsel in distress.



As there are four turtles on the job, you effectively have four lives. Once a turtle fails and is captured, you can choose who will take his place. Each turtle has a different weapon but it is used in the same way to kill the nasties. If you don't succeed in destroying the nasties in the first hit, your energy level reduces, and when the level is at zero, you're a goner! However, scattered around the sewers are pizzas (fallen off the back of a home delivery truck?) to replenish strength and extra weapons.

Before rescuing April, you must defeat an 'end of sewer' baddy or two but you will find that they put up more of a battle than the others. The next stage is to defuse a number of bombs which have been planted inside a dam. You need to be quick here as there is a timer on the bombs and if you fail it's the dreaded "Game Over" message. The third level finds you back above



Michaelangelo dispatching an end-of-level baddy

ground in a turtle wagon in search for a special machine which will turn Shredder back to a man.

Teenage Mutant Hero Turtles had excellent graphics and plenty of colour. It's perhaps not aimed

at more mature gamers wanting a bit more sophistication, but the young 'uns will get a heap of fun out of it.

VERDICT ■ ■ ■

SIM CITY

- Published by Infogrames • Available through The PC Mag
- Suitable for Amstrad 464, 664 and 6128
- Prices: Disk \$44.95, Tape \$34.95

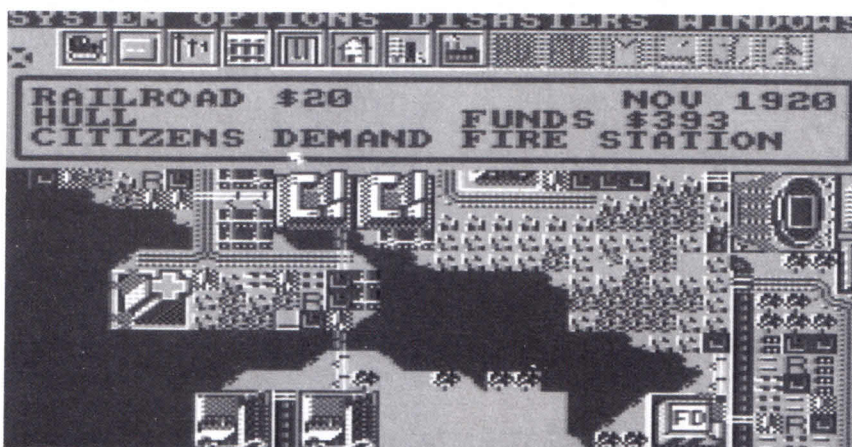
Sim City has been, and still is, an extremely popular game on the IBM and Macs, and has been used quite widely in schools. It is a city simulator and you are placed in the hot seat as a yet-to-be-constructed town's mayor. With a \$20000 budget, you have to decide where to put the roads, railways, buildings, and set the taxes to name just a few responsibilities.

It all needs careful planning. You'll need decide upon how many houses to build and the number of people the town is going to support. In turn, the population must be given work so

the number of factories constructed is important. The residential population will also

support commercial centres, so space has to be allocated to these. Then there's the problem of providing essential services (power etc.) and transport facilities to move everyone around.

The program doesn't expect you to build everything yourself, merely provide the land for some



enterprising person to do it for you. If you make the mistake of putting a factory right in the middle of a residential area or a nuclear power station in the middle of a commercial zone, the residents or owners will be most upset. This will cause the property values to decrease and the income from taxes likewise.

It is important to keep everyone happy, and the game allows you to start with substantial funds and easy going people at the lowest level. It's a good place to start and get to understand how the game should be played but you'll soon want to move to a higher and more competitive level.

Every game will generate a different style of landscape, but will always provide choice living areas on the coast with forests and lakes further inland. As the town expands maps showing the pollution levels, crime statistics and traffic problems are accessed by using pull-down menus. If you are really adventurous you can switch on disasters such as a tornado, earthquake, flood or even an air crash.

The interesting aspect and whole point of the game becomes clearer as the town increases in size. The problems increase with demands from the population on services and amenities while your popularity probably decreases.

It is easy to see why Sim City has been used as a teaching aid in schools. It requires much forward planning, reasoning and logical thought to achieve a balanced and thriving community. It is sufficiently different from any other game to keep players absorbed for hours and hours. Don't expect amazing graphics or sound - you won't get them - but in this type of game they really are not necessary.

VERDICT ■ ■ ■

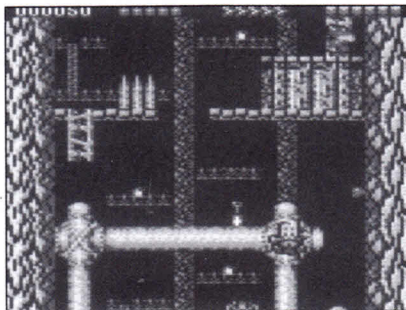
RICK DANGEROUS 2

- Published by MicroStyle • Available through The PC Mag
- Suitable for Amstrad 464, 664 and 6128
- Prices: Disk \$42.95, Tape \$32.95

Rick dangerous has been brought out of retirement to deal with a rather large problem which has appeared in the centre of Hyde Park (in London, England). It's an alien spacecraft! In fact he has much more on his plate than first meets his eyes.

The machine from outer space is the first of five levels of fast paced action he will encounter. Four of the levels can be completed in any order, but all four must be completed before launching into the fifth level.

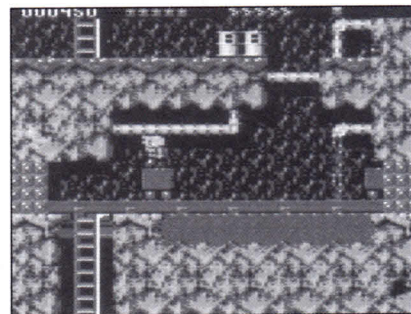
Once inside the spacecraft (after dodging the external fire) he must avoid roaming robots and more laser fire. Success



moves him into the next level where he can take control of the craft and fly away to the planet Freezia with slippery platforms and lethally pointed icicles. There are two other planets to visit, Vegetabilia and the Atomic Mud Mines before the final and sweat inducing last level (assuming you have any energy left in your joystick hand that it!).

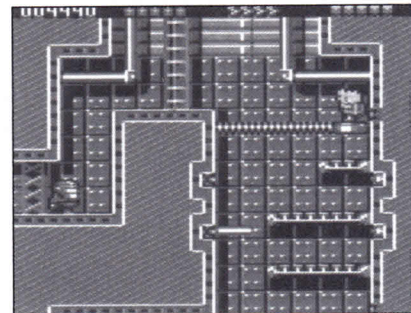
If you have played the original Rick Dangerous and liked it, you will be even more happy with this sequel. It can be played using the keyboard or, as I prefer, with a joystick. The screens scroll horizontally or vertically and if

you can keep a map going you'll find it very useful. Each level has a different set of graphics, its own tune and with it a different set of traps and baddies to avoid or kill. You will become quite proficient at ducking and kicking buttons to turn off laser fire in the first level



and your reactions will be nicely tuned for the next, more difficult level.

Whilst Rick Dangerous 2 may fall into the older blocky type platforms game, it is clearly the work of a dedicated team of programmers, whose intention was to produce a well designed, colourful and action packed



game with plenty of puzzles. I am pleased to report that they succeeded one hundred percent.

VERDICT ■ ■ ■ ■

Twin Type-ins

Two short type-ins - the first is a game requiring quick reactions and the second a sound demonstration.

Catch-it may not be in the rave games category (it's only 39 lines long), but it does give a good example of how to develop a small game and have a bit of fun at the same time.

The idea is to use the "z" and "\ " keys to move a basket to the left or right and catch the falling bank notes. At the same time you must avoid the brick walls. If you find you've got some arrows beside the bricks don't worry - so did we - and we can't work out why they are there.

```

1 'Catchit game
2 'The PC Mag - June 91
3 'Catch the money but avoid the bricks
4 'Use z and \ to move left or right
140 DEFINT a-z:MODE 0:BORDER 0:INK 0,0
150 INK 1,26:INK 2,19:INK 3,6:INK 4,24:INK 5,15
160 SYMBOL 240,0,239,239,239,0,247,247
170 SYMBOL 241,255,221,169,189,157,189,141,255
180 SYMBOL 242,16,84,85,213,255,254,124,60
190 ENV 1,15,-1,2:ENV 2,15,-1,15:ENT-1,8,-4,1
200 high=0:DEF FNchr=INT(RND*618)
210 WHILE NOT asleep
220 x=320:score=0:dead=0:hue=&BBDE
230 WHILE NOT dead
240 TAG
250 CALL hue,1,2,3:MOVE FNchr,398:PRINT CHR$(240)
260 IF RND<0.6 THEN 290
270 MOVE FNchr,398:PRINT CHR$(240);
280 CALL hue,1,2:MOVE FNchr,398:PRINT CHR$(241);
290 CALL hue,1:MOVE x,14:PRINT CHR$(242);

```

```

300 TAGOFF
310 PRINT CHR$(30)CHR$(11)
320 pixel=TEST(x+12,16)
330 IF pixel=2 THEN score=score+10:SOUND 135,100,0,0,1,1
340 IF pixel=3 THEN dead=-1
350 dx=4*(INKEY(71)=0 AND x>2)-4*(INKEY(22)=0 AND x<618)
360 x=x+dx:score=score+1
370 WEND
380 SOUND 135,0,0,0,2,,1
390 WHILE SQ(1)<>4
400 col=INT(RND*27).
410 CALL &BD19:BORDER col:INK 0,col
420 WEND
430 CLS:INK 0,0:BORDER 0
440 IF high<score THEN high=score
450 PEN 4:PRINT"SCORE" score "HIGH" high
460 PEN 5:PRINT:PRINT"Press space to play"
470 WHILE INKEY$<>" ":WEND:CLS
480 WEND

```

Soundfx provides a noise demonstration in the form of RSXs. So once loaded, and at the 'Ready' prompt just type IZAP (for example) and listen. You will be advised of any typing errors in the data statements. Note that the "I" is found by hitting both the shift key and the @ at the same time.

```

100 'Sound fx
110 'The PC Mag - June 91
120 'Commands are iExplode
130 ' iBang
140 ' iPing
150 ' iZap
160 ;
170 ;
180 MEMORY &9CFF
190 a=&9D00
200 s=0
210 FOR d=1 TO 20
220 READ b$
230 FOR c=1 TO LEN(b$) STEP 2
240 f=VAL("&"+MID$(b$,c,2))
250 POKE a,f
260 s=s+f
270 a=a+1
280 NEXT c,d
290 READ e
300 IF e<>s THEN PRINT "Error in data":END
310 CALL &9D00
320 PRINT "RSXs have been installed"
330 NEW
340 DATA 010e9d210a9dcdd1
350 DATA bcc9cba30e9dic9d
360 DATA c32f9dc3459dc371
370 DATA 9dc35b9d4558504c
380 DATA 4f44c542414ec75a
390 DATA 41d050494ec70021
400 DATA 359dc3879d000000
410 DATA 000000f07101010
420 DATA 001e00000214b9d
430 DATA c3879d0000000000
440 DATA 001f071010100004
450 DATA 00000021779dc387
460 DATA 9d6400c800c90000
470 DATA 38101010001e0000
480 DATA 0021619dc3879dc8
490 DATA 00c800c800003810
500 DATA 1010001400000006
510 DATA 00c57e4f78cd34bd
520 DATA 23c10478fe0e20f1
530 DATA c9,12152

```

Guide to M/code - 5

If you are suffering withdrawal symptoms because we didn't give you your dose of machine code last month - here's some pretty scrolling to break the drought.

Following on from last time (April 1991), Program 1 below does something a little more useful than putting pretty coloured stripes on the screen.

PROGRAM 1

```

org    &8000
      ld a,1      ;pen 1
      call &bc2c ;scr ink encode
      ld c,25    ;no of lines to scroll
      ld b,0     ;roll screen down
call   loop
      ld a,0     ;pen 0
      call &bc2c
      ld c,25
      ld b,1     ;scroll screen up
call   loop
ret
loop
      push af
      push bc
      call &bc4d ;scr h/w roll
      pop bc
      pop af
      dec c
      push af
      ld a,0
      cp c
      pop af
      jr nz,loop
      ret

```

This program scrolls the screen down clearing each line with pen 1 then it scrolls back up again clearing each line to pen 0. This has the effect of clearing the screen by pulling down a curtain then lifting it again, a bit more interesting than just CLS.

The pen number to be used for SCR HR SCROLL needs to be encoded into a form that the computer can understand. The firmware routine to use is at &BC2C and is called SCR INK ENCODE.

The A register is loaded with the pen number, in this case 1, and then the routine at &BC2C is called. This puts the encoded ink number back into the A register ready to be used by the scroll routine &BC4D. The C register is being used as a counter and the program loops until C=0. The check being made with instruction CP C which means compare the contents of C with the contents of A and if not zero then go around the loop again.

The push and pop instructions are there to save the contents of the registers because the firmware routine SCR HW SCROLL changes them.

PUSH AND POP

Push and pop involve using the stack. The stack can be thought of as a metal spike sticking down from the ceiling. When the computer comes across PUSH AF it scribbles down the values held in the register pair AF and pushes a scrap of paper onto the spike. It does the same for the following instruction PUSH BC. You have now pushed two pieces of paper onto the spike hanging from the ceiling.

There are more than two bits of paper hanging on the spike because the computer also uses the stack. When the computer comes across the CALL LOOP instruction it sticks the address of the following instruction on the stack so it can remember where to go when it comes across the return. As there are two returns in the program then there must be two addresses on the stack which the computer is going to use. The other address is where the last return goes to, usually back to Basic.

This use of the stack by both the programmer and the computer is the one reason why machine code programs crash. For example, the first time around PUSH BC will put the value &0019 on the stack and if it isn't popped off again then the computer will treat it as the address to where it should return. At &0019 is the instruction RST 0 which is the machine code equivalent of CTRL + SHIFT + ESC, definitely a crash.

When you write a program using push and pop you must make quite sure that you keep track of what is on the stack and the order in which everything was pushed. Note how the registers are popped in the reverse order to how they were pushed. If you think of pieces of paper on a spike on the ceiling

then it's obvious why. There is an advantage though in that you can use push and pop to swap the contents of two register pairs.

BACK TO SCROLLING

You don't have to scroll the whole screen all at once. You can scroll just a window. This time the firmware routine is SCR SW SCROLL. This scrolls a piece of the screen using software rather than hardware and is consequently slower. You have probably seen the difference before when scrolling windows from Basic.

The effect of SCR SW SCROLL is much the same as SCR HW SCROLL but you also have to specify the area of the screen you want to scroll. This is much the same as defining a window from Basic. There is a slight difference though. In Basic you think of the top left corner of the screen as location 1,1. In machine code you must think of it as location 0,0. Similarly the bottom right corner of a mode one screen is, in machine code, location 39,24.

Program 2 is very similar to the earlier one. The main difference is that it is a window that is being scrolled. The registers H,L,D and E are used for the window co-ordinates.

PROGRAM 2

```

org    &8000
    ld a,1      ;pen 1
    call &bc2c ;scr ink encode
    ld c,10     ;no of lines to scroll
    ld b,0     ;roll screen down
call   loop
    ld a,0     ;pen 0
    call&bc2c
    ld c,10
    ld b,1     ;scroll screen up
call   loop
ret
loop
    push af
    push bc
    ld h,0     ;left column
    ld d,10    ;right column
    ld l,0     ;top row
    ld e,15    ;bottom row
    call &bc50 ;scr s/w roll
    pop bc
    pop af
    dec c
    push af
    ld a,0
    cp c
    pop af
    jr nz,loop
ret

```

An optional extra

Here's a little bonus which doesn't have much to do with the Machine Code tutorial that's currently running. At worst it may confuse you, in which case ignore it, but to those who do understand what is going on, they may find it of use. It may even save someone 're-inventing the wheel'! Try it anyway, and see what you make of it.

It concerns a point that stumped me when I first started using machine code and that was how to print numbers in decimal (this could be useful for scores etc.).

One answer is to use BCD (Binary Coded Decimal) arithmetic, but the most flexible way is to use a routine such as the one listed below. It repeatedly subtracts powers of ten from the original number, printing the number out digit by digit. Although neither fast nor elegant it does the job, and you might find it useful.

Does anyone know of a better way?

```

printhl ;subroutine to print out the
        ;contents of HL as a five digit
        ;decimal number. Corrupts HL,DE
        ;and A registers.

        ld de,10000
        call digit
        ld de,1000
        call digit
        ld de,100
        call digit
        ld de,10
        call digit
        ld de,1
digit   ld a,255 ;set the counter
loop   inc a
      scf:ccf ;clear carry flag
      sbc hl,de ;subtract DE until
            ;negative
      jp nc,loop
      add hl,de

```

If you would like to respond to the challenge above of producing a neater way of achieving the same result then send your listing with covering letter to:

*The Editor
The PC Mag
1/641 High Street Road,
Mount Waverley, Vic 3149.*

SIX-PACK

TAPES



A BRIEF DESCRIPTION OF THE GAMES

- 3D POOL:** pool game with amazing graphics from almost any angle.
- BOBO:** save Bobo from becoming 'stir crazy' in prison then escape on a trampoline. Bouncy fun!
- CASTLE MASTER:** 3D action adventure with plenty of puzzles, secret rooms, hidden traps etc.
- CYBERBALL:** bionic football game in the 21st century (converted from the coin-op).
- DRAGON SPIRIT:** coin-op conversion through eight levels of fearsome pre-historic attacking hordes.
- GAZZA'S SUPER SOCCER:** one or two player fast action and realistic soccer game.
- KICK OFF 2:** blistering pace soccer, pixel perfect passing, superb tactical play. Full scrolling for one or two players and action replay features.
- KNIGHT FORCE:** fast action and brain storming strategy through five time zones.
- LIVE and LET DIE:** James Bond action through deserts and icebergs then Florida!
- PIPE MANIA:** a classic puzzle arcade game, simple, addictive and fiendishly challenging.
- TINTIN ON THE MOON:** foil the Sea Gherkin Jorgen and be the first man on the moon.
- TOOBIN:** world's first inner-tube race with fun and hazards of white water challenges.
- TRIVIAL PURSUIT (GENUS):** the original board game on computer.
- TRIVIAL PURSUIT (NEW BEGINNING):** fly through the galaxy answering questions.
- VINDICATORS:** a faithful coin-op conversion calling on all your space battle-honed skills.
- XYBOTS:** a challenging robotic arcade game with two player option.

BARGAINS

DISKS



Six-Packs are not Compilations on one disk or tape. They are all original and individually packaged games. Normal warranties apply.

**Don't be unlucky and miss out on the amazing bargains as many did in our Suicide Sale last October.
BE QUICK -
ACT NOW!**

HOW TO ORDER

BY PHONE: Make your selection, have your credit card number and expiry date ready (Mastercard, Bankcard or Visa), then ring:

(03) 803 9661

BY MAIL: Send your order with a cheque, money order or credit card authorisation and expiry date (plus postage) to:

**Strategy Publications
1/641 High Street Road
Mount Waverley, Vic 3149**

BY FAX: Send your order quoting your credit card number and expiry date by ringing:

(03) 887 9640

POSTAGE: Please add \$3.50 for orders under \$60 or \$5.50 for over \$60. Overseas orders add \$7.00 or \$12.00 respectively.

Six-Pack Bargains as advertised above are limited to the quantities shown and supplied on 'first-come first served' basis.

Combining datafiles

To make better use of disk space or for easier look-up facilities here's the inside information on how to combine two LocoFile datafiles.

To combine datafiles, you need to be able to insert the records from one datafile into the other. It's not possible to do this directly in LocoFile because it would mean opening two datafiles at the same time, whereas LocoFile can only open one datafile at once. However, this doesn't mean you can't combine your datafiles. This is yet another area in which using LocoMail with LocoFile supplies the answer.

THE BASIC PRINCIPLE

The trick is to convert one of the LocoFile datafiles into a LocoMail datafile because in this form it can be inserted into a LocoFile datafile. (A LocoMail datafile is essentially a LocoScript document which holds information in a consistent order - for example, a series of records with items of information laid out in the same way in each record).

The way to convert the datafile is to use LocoMail's ability to extract information from a

LocoFile datafile and insert it into a LocoScript document. In other words, what you do is create a LocoMail master document containing the instructions needed to extract information from a LocoFile datafile. Merge the master document with the LocoFile datafile and save the result as a document on disk.

Once the records have been saved in this way, all that's left to do is use the Insert data option to pull them into the other LocoFile datafile. Below we show you how to combine two datafiles with a worked example.

THE STEPS

We can break down the job of combining two datafiles into 3 steps:

1. Setting up the LocoMail master document
2. Merging the LocoMail master with the first LocoFile datafile and saving the resulting LocoMail datafile to disk

3. Inserting the saved LocoMail datafile into the second LocoFile datafile.

For the purposes of this article, we're referring to the two datafiles we're combining as the Extract datafile and the Target datafile. The Extract datafile is the datafile we are extracting the information from. This information will be saved as a LocoMail datafile. The Target datafile is the datafile we're inserting the LocoMail datafile into.

It doesn't matter if the two datafiles you want to combine have different items. For example, the Extract datafile may have more or less items than the Target datafile and they may use different item-names. You can choose which items to extract, but what you need to ensure is that the items you decide to extract from the Extract datafile have an item that you can slot the information into in the Target datafile.

In the example we're looking at here, we want to combine two name and address datafiles which have a different structure, as you can see in the box on the next page.

We want to extract the name, address and work phone no from the Extract datafile and insert them into the Target datafile as contact, address and phone number. We'll look first at the instructions to extract these items from the Extract datafile.

1. The Master document

The first thing to do is to create a document and type the LocoMail instructions. Extracting all the records is essentially a repetitive action which is best handled by using a program unit. If you want more information how they work, you can refer to Chapter 9 of the LocoMail User Guide. The program unit that we need looks like this:

```
(+Mail)sep="§":eor="(Unit)
"␣
extract="␣
name:sep:address:sep:      | One
  work_phone_no:eor␣      | Line
$+␣
"␣
%extract@name␣
(-Mail)
```

You'll notice that there are underscores between the words in the LocoMail item for the work phone number. LocoFile lets you have spaces between the words, but LocoMail has to work with single words. LocoFile automatically recognises the underscore character in a LocoMail item-name as being equivalent to space in a LocoFile name. So `work_phone_no` matches up with the LocoFile item `work phone no`.

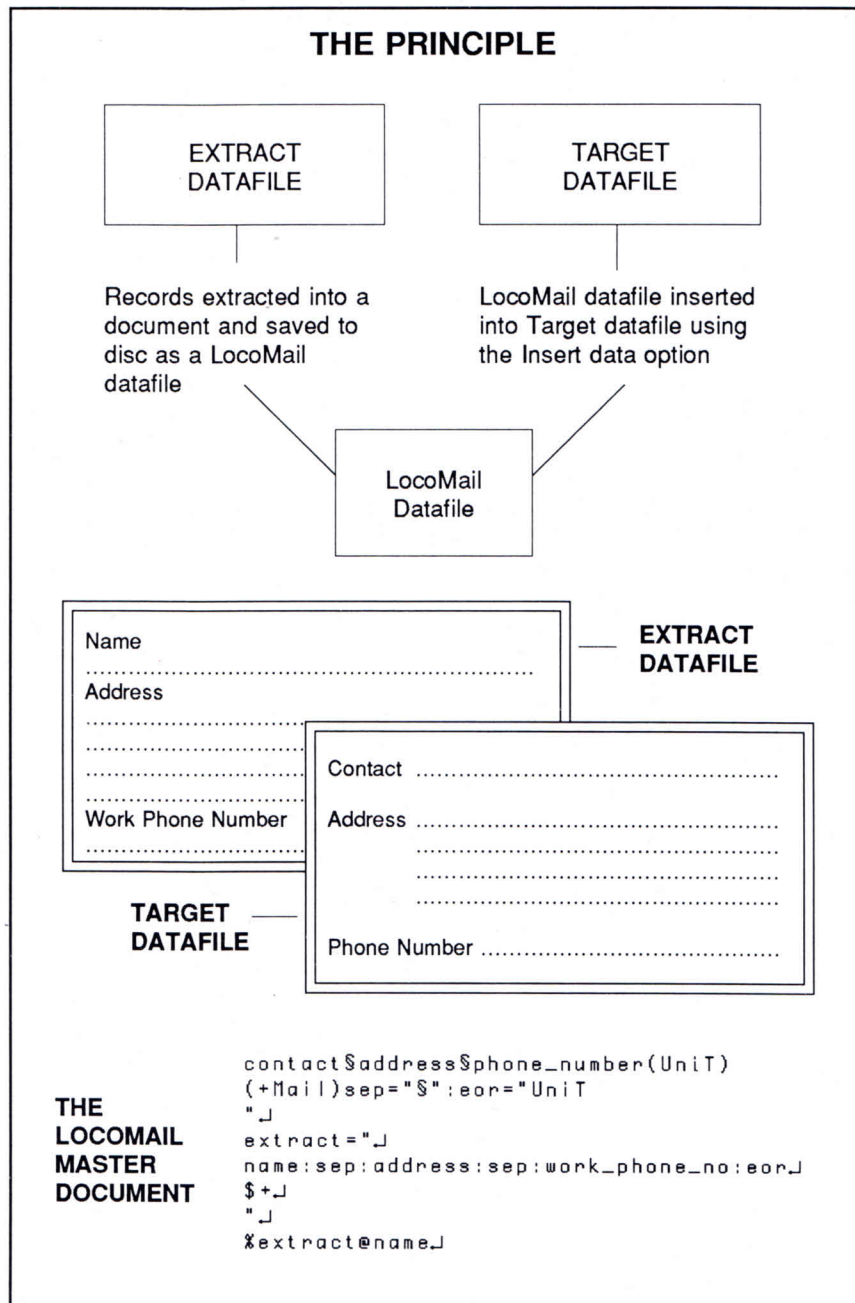
`sep` is simply a LocoMail item holding the character § which is used to separate one item of information from another. § is generally a good separator to use because this character is unlikely to occur in the information you're extracting from the datafile. If your data does include this character you'll need to use an alternative character as a separator. Chapter 2 of the LocoMail User Guide discusses the range of characters you can use. (On a PCW8256/8512 § appears on the keyboard. PCW9512 owners have to press EXTRA and I to produce this character). The item `eor` contains the `(Unit)` code used to divide the records.

All that's needed to complete the instructions is a command to repeat the program unit until the end of the LocoFile datafile. In this case, the command is `%extract@name`. (You should note that this only works if the item name either isn't empty or isn't zero in any of the records. You will need to substitute an item in your own datafile which you know will never be empty or

zero).

If you Merge this master document with the Extract datafile you'll end up with all the records in a LocoMail datafile. But before you can insert the data into the Target datafile, LocoFile needs to know how all the items of information are organised. For example, it needs to know where one item ends and another begins and similarly

when one record ends and the next one starts. LocoFile understands datafiles in the same way as LocoMail - by looking at a record pattern. A record pattern is a special record which tells LocoFile the structure of the records. Given the structure, LocoFile can insert each item of information correctly. So what we need to do is put a record pattern at the top of the document.



The record pattern

The record pattern gives a name to each item of information in a record and identifies the character used to separate each item. Whereas you have a choice about the items you extract from the Extract file, you don't have a choice about the item-names in the record pattern. The names used to describe each item of information must match the names of the items in the Target datafile. It's this match which allows LocoFile to insert the items into their correct slot in the Target datafile.

As the record pattern is the first thing LocoFile looks for, you simply have to add it at the top of the LocoMail master document, remembering to separate each item-name with the same character used to separate the items in the records themselves.

contact\$address\$phone_number(UniT)

You'll notice that the record pattern ends with a (UniT) code to match up with the (UniT) code we've used to divide the records. We could have used either (UniT) or ↓ to mark both the end of the record and the end of the record pattern, but the trouble with using ↓ is that you end up with a multi-page document with each name, address and phone number on its own page. Unless you want to use the document for some other purpose where dividing each record with a ↓ would be helpful, we recommend that you use the (UniT) code to divide the records. This is because you'll end up with a smaller document to save to disk at the end of the Merge. The complete master document shown on the previous page.

Next month we will continue the steps, looking at merging and saving and inserting into LocoFile.

Give your child an unfair advantage!

The Fun School 3 series for PCW owners consists of three packages each containing six stunning educational programs that will help to develop many skills including number and word skills at your child's own pace.

Beautifully-created pictures and stunning animation will keep your child coming back time and again. The series has been developed by the winning team which put together Fun School 2, the biggest-selling educational package ever with more than 150,000 in the UK alone.

FUN SCHOOL 3 - For Under Fives

- Counting:** Help Teddy reach the jar of honey by counting up to nine.
- Letters:** Join in all the fun at the alphabet fair by pairing large letters.
- Matching:** Pair up the shapes to fill teddy's piggy bank with money.
- Actions:** Make Teddy jump, hop, skip, sleep, juggle, eat and more.
- Painting:** Colouring fun down on the farm with all the animals (mono).
- Gallery:** Learning to read is really easy in the Fun School gallery.

FUN SCHOOL 3 - For Fives to Sevens

- Toystore:** Spend your pocket money wisely in the well-stocked shop.
- Time:** Tell the time and watch the cuckoo clock come alive.
- Funtext:** Explore the Viewdata-style database then take the challenge.
- Collect:** Guide the frog from log to log to create and solve the sums.
- Electricity:** Fix the incorrect circuits to set the bell ringing.
- Journey:** Travel around the village and learn about directions.

FUN SCHOOL 3 - Over Sevens

- Treasure Search:** Follow the compass directions to find the jewels.
- Word Search:** Pick out the words cleverly hidden in the large grid.
- Robot Draw:** Create beautiful patterns and learn how to program.
- Planetary Maths:** Solve the sums before they hit the forcefield.
- Sentences:** Correct spelling, punctuation and grammar mistakes.
- Database:** Store information, sort it, search it, then test yourself.

SEE REVIEW ON PAGE 42 OF THE MAY ISSUE OF THIS MAGAZINE.

Each pack of six games is \$54.95 (plus postage) and all are available by mail order from:

**Strategy Publications
1/641 High Street Road, Mount Waverley, Vic 3149**

Tel: (03) 803 9661 • Fax (03) 887 9640

CPC & PCW PUBLIC DOMAIN DISKS

The following discs contain compilations of public domain programs which have been tested under CP/M Plus. Unless otherwise stated, programs will run on the PCW, 6128 and 464/664 with extra memory and CP/M Plus. Programs for the 464/664 are on the CP/M 2.2 Collection. The discs are supplied in Data format and contain documentation files to help the user get started and provide instructions on running the programs.

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

CP/M 2.2 COLLECTION

For 464/664 disc drive users with CP/M 2.2. Contains File Manager, Compare, Find, Disc sector editor, Key definer, Bad sector eliminator, Grep, Full Screen text editor, Easylist, 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 • *DisckiA* - multi-choice disc formatter, offers 178k data format for PCW discs and 5.25" second drive formatting • *Unerase* erased files • *Read/write* PCW discs on a CPC • *CP/M v2.2 emulator* • *Make* - allows you to copy files across user areas • *Cleanup* - useful for speedy file deletion • *Lookat* - speedily lists any file in Hex and ASCII • *Screen*

Dump (CPC only) • *Password* • *Easy Lister* • *Password Protection* • *File* • *Scrambler* • *File Splitter* • *Directory check*
CPC Ref: #606 PCW Ref: #806

TEXT PROCESSING UTILITIES

• *Sideways* - prints text file sideways on an Epson-compatible printer. Ideal for those wide spreadsheets • *Sort any ASCII list* into alphabetical order • *Word count* - can be used on any ASCII file • *WSClean* - removes higher order bits from a text file and converts it to straight ASCII • *Calendar Generator* - prints out calendar for any year • *Simple Spell Checker* - with starter dictionary and dictionary editor • *Scoring card generator* • *Banner printers* • *Typewriter emulator*
CPC Ref: #607 PCW Ref: #807

DISC ORGANISATION

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

CPC Ref: #608 PCW Ref: #808

Z80 PROGRAMMER

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

CPC Ref: #609 PCW Ref: #809

'C' PROGRAMMER

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

CPC Ref: #610 PCW Ref: #810

'C' TOOLBOX

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

CPC Ref: #611 PCW Ref: #811

FORTH, STOIC AND 'C' INTERPRETER

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

CPC Ref: #612 PCW Ref: #812

GAMES COMPENDIUM

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

CPC Ref: #613 PCW Ref: #813

ADVENTURES

• *Colossal Cave Adventure* which originated on main frame computers. With game save and re-load • *Bestiary* (written in Mallard Basic for either PCW or 6128 Mallard users. Standard CPC users see *Adventurer's Attic March 1989*) - you play the part of a young prince, your greatest love being to read the ancient bestiaries about strange and often legendary animals. Your task is to find a solution to the terrible blight which, one

year, destroys both crops and animals in the kingdom. Includes game save and re-load • *Return from Arg* - a short but interesting new adventure written in 'C'.

CPC Ref: #614 PCW Ref: #814

PCW GRAPHICS (PCW only)

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

PCW Ref: #815

HOW TO ORDER YOUR DISCS

Before placing your order, please make sure you have selected the correct item for your computer.

Software for CPCs have a reference starting with #4 (for CPC464s with a disk drive and CP/M 2.2) or #6 (for CPC6128 running CP/M Plus).

Software for PCWs have a reference starting with #8. These discs can be converted to run on a PCW9512.

You may either order over the phone quoting your credit card, or by post enclosing a cheque, money order or quoting your credit card number and expiry date.

The cost of each disk is as follows:

CPC 3" disks 15.00

PCW 3" disks 15.00

(Please add relevant postage as shown on Page 46)

STRATEGY PUBLICATIONS

641 High Street Road

Mount Waverley

Victoria, 3149

(03) 803 9661

THE CPC & PCW CATALOGUE

ORDERS TO:
Strategy Publications
1/641 High Street Road
Mt. Waverley, Vic 3149
Tel: (03) 803 9661
Fax: (03) 887 9640

Regular readers will know that the following pages contain the most comprehensive list of software for the Amstrad CPC and PCW computers.

Please remember though, it's prepared many weeks before you get to see it and changes (deletions, additions, prices) could have occurred in the meantime. It is wise, therefore, to provide an alternative choice or ring beforehand to confirm availability.

We accept Bankcard, Mastercard or Visa with an expiry date quoted. We also accept Money Orders or Cheques made out to Strategy Publications (cheques will be validated). Please do not send cash. Overseas orders must be remitted in Australian dollars.

The following postage charges must be added to your remittance: Order value under \$20 - \$1.00 (\$2.50 for overseas); Order value from \$20 to \$60 - \$3.50 (\$7.00 for overseas); Order value over \$60 - \$5.50 (\$12.00 for overseas).

CPC ARCADE ACTION	TAPE	DISK				
Alien Syndrome		24.95	Word Processing Pack	60.00	Mathbooster	50.00
Back to the Future 2	29.95	39.95	CPC COMPILATIONS		Maths Mania (8-12)	22.95 29.95
Bumpy		39.95	100% Dynamite: with Afterburner, Last Ninja 2, WEC Le Mans and Double Dragon	39.95	Maxi Maths (12-16)	29.95
Cabal	29.95	39.95	Coeco Collection: Cybernoid 1, Cybernoid 2, Exolon, Storm Lord	39.95	Mega Maths (Grades 9-11)	49.95
Chase HQ		44.95	Coin Op Hits 2: with Dynasty Wars, Ninja Spirit, Hammerfest, Ghouls & Ghosts, Vigilante ...	39.95 49.95	Micro English (Grades 9-11)	49.95
Crackdown	29.95	39.95	Dizzy Collection: Five game compilation details to follow	32.95	Micro Maths (Grades 9-11)	49.95
Dan Dare III	29.95	39.95	Edition One: Silkworm, Xenon, Gemini Wing, Double Dragon	49.95	Mosaic	40.00
Double Dragon 2 (6128)		42.95	Hollywood Collection: RoboCop, Ghostbusters 2, Batman the Movie, Indiana Jones & the Last Crusade	42.95 52.95	News Writer	50.00
Dragon Spirit		39.95	Platinum Capcom: Ghouls & Ghosts, Strider, Forgotten Worlds, and Black Tiger	49.95 59.95	Omnicon	50.00
Eliminator	29.95	39.95	Soccermania: Gazza's Super Soccer, Microprose Soccer, Football Manager (World Cup Edition) and Football Manager 2	42.95	Pathweaver	50.00
Empire Strikes Back		29.95	Special Action: with Captain Blood, Vindicator, SDI, Driller, Daley Thompson's Olym. Chall.	39.95	Physics (12-16)	22.95 29.95
Escape from the Planet of Robot Masters		39.95	Starwars Trilogy: with Star Wars, Return of the Jedi, The Empire Strikes Back	39.95	Picture Book	50.00
Fury, The	34.95		TAU Games Plus: Dominoes, Snakes and Ladders, Mahjong, 3D noughts and Crosses	32.95	Picture Book Companion	40.00
Galaxy Force	29.95	44.95	TNT: with Hard Drivin', Dragon Spirit, All Points Bulletin, Xybots, Toobin	49.95	Playschool (3-7)	22.95 29.95
Impact		49.95	Tolkien, Xybots, Toobin	49.95	Point Puer Lads	50.00
Impossible	39.95	49.95	Tolkien Trilogy: The Hobbit, Lord of the Rings, Shadows of Mordor	39.95	Primary Maths	44.95 69.95
Jaws		39.95	Winners: with Blasteroids, Thunderblade, Indiana Jones & Temple of Doom, LED Storm, and Impossible Mission 2	39.95 49.95	Sailing South	50.00
Klax	29.95	39.95	CPC EDUCATIONAL		Settlement	50.00
Line of Fire	29.95	39.95	Absconded Convicts	50.00	Softword	50.00
Living Daylights		49.95	African Farming Game	50.00	Step Inside	40.00
Loopz	29.95	39.95	Anna	60.00	Story Paths	40.00
Magician, The		49.95	Artworks	50.00	Thorn Sea/Ferry Captain (9-13)	49.95
Midnight Resistance		39.95	Better Maths (12-16)	22.95 29.95	Three Bears (4-7)	34.95
Monty Python's Flying Circus	32.95	42.95	Better Spelling (9-99)	29.95	Treasure/Perfume Hunter (7-10)	39.95 49.95
Narco	32.95	42.95	Biology (12-16)	22.95 29.95	Tree of Knowledge	50.00
Nebulus	29.95	39.95	Catastrophies	50.00	Where's Baby Bear?	50.00
Ninja Remix	29.95	39.95	Chart Buster	50.00	Which Way Words	40.00
Operation Thunderbolt	29.95	44.95	Chemistry (12-16)	29.95	Word Hunt	40.00
Panic Stations	29.95	39.95	Convict Ships	50.00	Word Hunt Companion 1	40.00
Rainbow Islands	29.95	39.95	Cordial Stall	40.00	Word Hunt Companion 2	40.00
Rick Dangerous 2	32.95	42.95	Cross Whiz	50.00	Word Hunt Companion 3	40.00
Run the Gauntlet		29.95	Disasters	50.00	World Wide	50.00
Saint Dragon	29.95	39.95	Dr Spellingstein	50.00	CPC GRAPHICS	
Space Racer (Space Jet Bikes)		32.95	Dragon World	60.00	Advanced Art Studio	69.95
Spherical		39.95	Find-a-book	50.00	Extra Extra Clip Art (needs Stop Press)	69.95
Starwars		49.95	First Fleet	50.00	P/Master Art Gallery 1 - holiday, animals etc... ..	50.95
Strider 2	29.95	39.95	Fletcher's Castle/Raider (9-12)	39.95 49.95	P/Master Art Gallery 2 - letters, flags, people ..	50.95
Super Puffy's Saga	29.95	39.95	Fun School 2 (6-8)	24.95 34.95	Print Machine	50.00
Teenage Mutant Hero Turtles	32.95	42.95	Fun School 2 (over 8s)	24.95 34.95	Print Master Plus (6128 with CP/M Plus)	59.95
Time Machine	29.95	39.95	Fun School 2 (under 6)	24.95 34.95	Stop Press	129.00
Tintin on the Moon	29.95		Fun School Vol 1 (Ages 2-5)	29.95	Stop Press + AMX Mouse	259.00
Total Recall	29.95	39.95	Fun School Vol 2 (Ages 5-8)	29.95	Tas-sign 6128	69.95
Untouchables, The	29.95	39.95	Granny's Garden	50.00	CPC SPORTING ACTION	
Vendetta	29.95	39.95	Guess the Word	50.00	3D Pool	39.95
Wild Streets		39.95	Hammurabi	40.00	500 c.c. Grand Prix	24.95
X-Out	29.95	39.95	Jara Tava	60.00	Beach Volley	29.95 39.95
			Kadimakara - Creatures of the Dreaming	60.00	Graham Gooch Cricket	29.95
			Lost World	60.00	Grand Prix Circuit	29.95 39.95
			Magic Maths (4-8)	22.95 29.95	International 3-D Tennis	29.95 39.95
			Magic Sword	39.95	Kick-Off 2	39.95
			Math Games 1	50.00	Last Duel	29.95
			Math Games 2	50.00	Passing Shot	39.95
			Math Hopper	50.00	Powerdrift	29.95 39.95
					Pro-Golf Simulator	14.99
					Skate Crazy	29.95
					Super Cars	42.95
					Super Monaco Grand Prix	32.95 42.95
					Super Scramble	29.95 39.95
					Supersports	29.95
					Turbo Outrun	29.95 39.95
					World Cup Soccer	29.95 39.95
					CPC STRATEGY/ADVENTURE	
					E-Motion	29.95 39.95
					Fairlight	49.95
					Flimbo's Quest	29.95 39.95
					Flippit	24.95 29.95
					Lancelot	39.95 49.95

AMSTRAD MAIL ORDER

Moonwalker	29.95	39.95
Pictionary	29.95	
Scapeghost (6128)	49.95	
Sim City	34.95	44.95
Snoopy	39.95	
Star Control	32.95	42.95
Storm Lord	26.95	
Tusker	29.95	44.95
War in Middle Earth	39.95	

CPC UTILITIES

Logo Screen Dump	30.00	
Tascopy	39.00	39.00
Touch 'n' Go Typing Tutor (6128 only)	59.00	

CPC WAR/MILITARY/SIMULATIONS

Scramble Spirits	29.95	39.95
Sonic Boom	39.95	
Space Harrier 2	29.95	39.95
UN Squadron	29.95	39.95

CPC PUBLIC DOMAIN DISKS

PD#430 - CP/M 2.2 collection	15.00	
PD#601 - Full screen text editor	15.00	
PD#602 - Relational Database	15.00	
PD#603 - Communications	15.00	
PD#604 - Video Clerk	15.00	
PD#605 - Fixed Assets log	15.00	
PD#606 - Complete Utilities	15.00	
PD#607 - Text Processing Utilities	15.00	
PD#608 - Disc organisation	15.00	
PD#609 - Z80 Programmer	15.00	
PD#610 - 'C' Programmer	15.00	
PD#611 - 'C' Toolbox	15.00	
PD#612 - Forth, Stoic & 'C' Interpreter	15.00	
PD#613 - Games Compendium	15.00	
PD#614 - Adventures	15.00	

CPC ACCESSORIES

Disk Drive Cleaning Kit: 3"	19.95	
Disks: 3" Maxell	7.25	
Disks: 3" Amsoft LIMITED SUPPLY ON SPECIAL	6.95	
Dust Cover: 464 monitor & keyboard	35.00	
Dust Cover: 6128 monitor & keyboard	35.00	
Dust Cover: DMP200/2160/3160 printer	17.00	
Mouse mats	12.95	
Ribbons: Black Nylon for 2000/2160/3160	19.95	
Ribbons: Black Nylon for DMP4000	19.95	
Screen Filter	29.95	

CPC TYPE-INS FROM THE AMSTRAD USER

Individual Monthly Type-ins on tape	5.00	
Year Disc 01 - Type-ins from Iss. 1 to 12	50.00	
Year Disc 02 - Type-ins from Iss. 13 to 16	22.50	
Year Disc 03 - Type-ins from Iss. 17 to 20	25.00	
Year Disc 04 - Type-ins from Iss. 21 to 24	25.00	
Year Disc 05 - Type-ins from Iss. 25 to 28	25.00	
Year Disc 06 - Type-ins from Iss. 29 to 32	25.00	
Year Disc 07 - Type-ins from Iss. 33 to 36	25.00	
Year Disc 08 - Type-ins from Iss. 37 to 40	25.00	
Year Disc 09 - Type-ins from Iss. 41 to 44	25.00	
Year Disc 10 - Type-ins from Iss. 45 to 48	25.00	
Year Disc 11 - Type-ins from Iss. 49 to 52	25.00	
Year Disc 12 - Type-ins from Iss. 53 to 56	25.00	
Year Disc 13 - Type-ins from Iss. 57 to 60	25.00	
Year Disc 14 - Type-ins from Iss. 61 to 64	25.00	
Year Disc 15 - Type-ins from Iss. 65 to 70	25.00	

CPC PERIPHERALS

AMX Mouse Mk III with CPC interface	169.00	
Centronic Printer Cable	22.95	
J/Stick - StarBlazer: robust with 3 fire buttons	44.95	

SPECIAL

256k Memory Expansions for 464/664
 Were \$309 - Now \$225 (+ \$5.50 postage)
256k Silicon Disk for 464/664
 Were \$329 - Now \$225 (+ \$5.50 postage)
5.25" Second Disk Drives for 464/664/6128 + cable
 Were \$379 - Now \$295 (+ \$10.00 postage)
6 Position ROM Boards for 664/6128
 Were \$210 - Now \$160 (+ \$5.50 postage)
 (Please specify your computer when ordering)

J/Stick - StarCursor: 4- or 8-way actionbuttons	54.95	
J/Stick - StarFire: fully microswitched	39.95	
J/Stick - Winner 220	34.95	
Joystick Splitter (allows use of 2 joysticks)	17.50	

PCW GAMES

Bridge Player 2150	69.95	
Classic Collection 1: with Hop-it, Munch-it & Shoot-it	49.95	
Classic Collection 2: with Caverns, Skiing & Climb-it	49.95	
Double T Patience	64.95	
Fairlight	39.95	
Heathrow/Southern Belle	39.95	
Lancelot	39.95	
Scapeghost	49.95	

PCW BUSINESS

Brainstorm: ideas processor	79.00	
Cardbox Plus: card file system database	99.00	
Datastore II: report/mailing generator & labels	89.95	
Masterfile 8000: very fast relational database	139.00	
Mini Office Professional: WP, DB, S'sheet	149.00	
Money Manager Plus: cashbook/personal acc.	99.00	
NewWord 2 (PCW Wordstar)	150.00	
Prospell: spell checker	79.95	
Protex: word processor	149.00	
Protex Filer: pop-up database for Protex	59.95	
Protex Office: as Filer + merge & invoices	79.95	
Scratchpad Plus: powerful spreadsheet	99.00	
Supertype II: 8 different fonts	39.95	
System 3 (not for 8256): stock control, invoices	129.00	
Tait Accounting: small debtors, creditors & inv.	99.00	
Tait Database & Labeller	29.95	
Tas-spell 8000: spell checker for Tasword	56.00	
Tasprint 8000: different typesyles	39.00	
Tasword 8000: word processor	69.95	

PCW EDUCATIONAL

Better Maths (12-16)	29.95	
Better Spelling (12-16)	29.95	
Biology (12-16 yrs)	29.95	
Chemistry (12-16yrs)	29.95	
Fun School 3 (under 5 yrs)	54.95	
Fun School 3 (5 to 7 yrs)	54.95	
Fun School 3 (over 7 yrs)	54.95	
Magic Maths (4-8)	29.95	
Maths Mania (8-12)	29.95	

PCW GRAPHICS

Art Gallery 1 (needs Printmaster Plus)	50.95	
Art Gallery 2 (needs Printmaster Plus)	50.95	
Desk Top Publisher (not for 9512)	59.95	
Graphics, The Universe	85.00	
Micro Design 2	175.00	
Print Master Plus	59.95	
Tas-sign 8000	69.95	

PCW LOCOMOTIVE PRODUCTS

24 Pin Printer Driver PCW 8000	74.95	
24 Pin Printer Driver PCW 9000	74.95	
Extra Printer Driver 8256/8512	69.95	
Keyboards disc 8256/8512	69.95	
Keyboards disc 9512	69.95	
Locofile 8256/8512	125.00	
Locofile 9512	125.00	
Locofile/Locomail PCW8000	205.00	
Locofont 24 - different fonts for 24-pin printers	74.95	
Locokey	69.95	
LocoLink : true LocoScript file transfer from PCW to PC	79.95	
Locomail	175.00	
Locomail 2 Examples disc	17.50	
Locomail Sorting Program	39.95	
Locoscript 2	97.00	
Locoscript 2 Upgrade disc	59.95	
Locospell 2	155.00	
Locoscript 2	85.00	
Printer Support Pack: for both 8000s & 9000s contains Printer Drivers (8000), Printer Drivers & Character sets (9000), 24-pin Printer Drivers (8000 & 9000), and Printwheel disk (9000) ..	120.00	
Printwheel Disc 9512	69.95	

PCW TRAINING

Introduction 8256/8512 & Loco1	59.95	
--------------------------------------	-------	--

Introduction 9512 & Loco 2	59.95	
Introduction CP/M on PCW	59.95	
Touch 'N' Go Typing Tutor	59.00	

PCW UTILITIES

Startrack	54.95	
Wordloco	49.95	

PCW PUBLIC DOMAIN

PD#801 - Full screen text editor	15.00	
PD#802 - Relational Database	15.00	
PD#803 - Communications	15.00	
PD#804 - Video Clerk	15.00	
PD#805 - Fixed Assets log	15.00	
PD#806 - Complete Utilities	15.00	
PD#807 - Text Processing Utilities	15.00	
PD#808 - Disc organisation	15.00	
PD#809 - Z80 Programmer	15.00	
PD#810 - 'C' Programmer	15.00	
PD#811 - 'C' Toolbox	15.00	
PD#812 - Forth, Stoic & 'C' Interpreter	15.00	
PD#813 - Games Compendium	15.00	
PD#814 - Adventures	15.00	
PD#815 - PCW Graphics	15.00	

PCW ACCESSORIES

Daisy Wheels: Courier 10	19.95	
Daisy Wheels: Cubic Pica 10	19.95	
Daisy Wheels: Letter Gothic 10/12	19.95	
Daisy Wheels: Mini Gothic 15/Micro	19.95	
Daisy Wheels: Orator 90%/10	19.95	
Daisy Wheels: Prestige Elite 12	19.95	
Daisy Wheels: Prestige Pica 10	19.95	
Daisy Wheels: Script 12	19.95	
Disk Drive Cleaning Kit: 3"	19.95	
Disks: 3" Maxell	7.25	
Disks: 3" Maxell High Density	7.75	
Dust Cover: 8256/8512 complete	55.00	
Dust Cover: 9512 complete	60.00	
Keyboard Protector: 8256/8512	34.95	
Keyboard Protector: 9512	34.95	
Ribbons: Black Carbon/Multistrike 8000s	19.95	
Ribbons: Black Carbon/Multistrike 9000s	15.95	
Ribbons: Black Nylon 8000s	19.95	
Ribbons: Black Nylon 9000s	19.95	
Ribbons: Blue, Red or Green Nylon 8000s	24.95	
Screen Filter	29.95	

PCW PERIPHERALS

Joystick interface (Kempston)	49.95	
Mouse (AMX) plus interface	199.00	
Mouse (Kempston) plus interface	199.00	
Proscan hand-held scanner with software	499.00	
RAM Expansion unit: 512k (SCA)	329.00	
Scanner: attaches to 8000 printers	279.00	
Serial Interface	165.00	

CPC BOOKS

Advanced User Guide	9.95	
Child's Guide to the Amstrad Micro	13.95	
Computer Games Guide (400 hints, tips etc)	29.95	
High energy programs for the CPC (type-ins) ..	9.95	
Watson's 1 - First steps in Basic	17.95	
Watson's 2 - Exploring Basic	17.95	
Watson's 3 - Computer Games	17.95	
Whole Memory Guide	39.95	

PCW BOOKS

LocoMail User Guide	54.95	
LocoScript2/Mail/Spell - assignments & solutions	32.95	
Mallard Basic - Intro and Reference	45.50	
Pocket Wordstar	30.95	
Program your PCW	32.95	
Using Databases on the PCW	35.95	
Word Processing with the PCW	27.95	

MAGAZINES

We have back copies of most issues of The Amstrad User and The PC Mag to complete your collection.

PLEASE ALLOW 14-21 DAYS FOR DELIVERY

USER GROUPS

CLASSIFIEDS

VICTORIA

Southern Amstrad User Group

President: Bill McEwan (03) 786 9408
Secretary: B. Patterson (03) 786 6976

Central Amstrad User Society

President: Fred Gillen (03) 580 9839
Secretary: Craig Tooke (03) 359 3736

Eastern Amstrad User Group

President: Stella Muir (03) 723 1139
Sec: T. Blakemore (03) 890 3119

Geelong Amstrad User Club

President: A. Pounsett (052) 78 2160
Secretary: T. Sowinski (052) 78 9418

Goulburn Valley Ams. Users Club

Pres: Roger Tacey (058) 23 1449
Secretary: Rod Raven (058) 21 9034

Mountain District Ams. User Group

President: D. Jamieson (03) 870 1016
Secretary: Ian Pearson (059) 965 019

Sunbury Melton Ams. User Group

Contacts: W. Urmston (03) 744 2719
N. McEntee (03) 743 7104

Wendouree Amstrad User Group

Contact: Brad Maisey (053) 44 8356

Western Amstrad Computer Club

Contact: N. Sutherland (03) 369 5480

NEW SOUTH WALES

Blue Mountains Amstrad Users

Pres: Bob Chapman (047) 39 1093
Sec: Malcolm Stone (047) 51 2791

Brisbane Waters Ams. User Club

Pres: M. Gattenhof (043) 284 060
Secretary: D. Green (043) 422 568

Central Coast Amstrad User Club

President: John Hearn (043) 842 744
Secretary: Don Miller (043) 966 561

Coffs Harbour Amstrad Comp. Club

President: Bruce Jones (066) 52 8334
Secretary: Colin Jones (066) 49 2127

Hawkesbury Amstrad User Group

President: Terry Webb (045) 76 5291
Secretary: David Keen (045) 77 5536

Illawarra Computer Users Club

President: Mark Jones (042) 21 2109
Secretary: N. Dillon (042) 56 2642

Lismore District Ams. Comp. Club

President: Tom Wright (066) 291302
Secretary: Russell Bell (066) 216 888

Parkes Computer User Group

Contact: Eileen Magill (068) 64 3285

S&W Miller Amstrad User's Club

President: Wal Sellers (049) 335 459
Secretary: Nikki Lee (049) 335 459

Murwillumbah Amst. Users Group

President: Nick Bruin (066) 79 3280

Newcastle Amstclub

President: Bill Simkus (049) 524 638
Secretary: Rex Morris (049) 621 221

PCW Australia Group

Pres: Clyde Gittins (02) 588 3176
Secretary: David York (02) 604 7171

Sydney Amstrad Computer Club

Pres: Tom Caldwell (02) 661 7573
Secretary: R. Walters (02) 560 9487

Sydney PC1512 User Group

Contact: Geoff Craine (02) 76 6467

QUEENSLAND

Ams. & PC User Group of Logan

President: A. Anderson (07) 209 8469
Sec: Rhys Watkins (07) 208 7132

Brisbane Amstrad Computer Club

Pres: J. Papadimitriou (07) 344 2067
Sec: F. Hendrickx (07) 356 0633

Bundaberg Amstrad User's Group

Pres: Ray Babbidge (071) 521 223
Sec: Herb Woodward (071) 514 341

Computer User Groups Of Aus.

Contact: Ron Langton (076) 931 690

Gold Coast Amstrad User Group

Pres: G. Rosenblatt (075) 33 9232
Secretary: Pam Scott (075) 32 3334

Mackay Amstrad User Group

Contact: Des Mulrealley 551 409

Peninsula Amstrad Club

Pres: Ivan Dowling (07) 269 8795
Treas: K. Johnston (07) 203 2339

Toowoomba Amstrad Users Group

President: Tony Carlaw (076) 91 6161
Secretary: D. Culliford (076) 32 7277

Townsville Amstrad Users Group

President: Ian Wallace (077) 73 1798
Sec: A. Buckingham (077) 73 3955

The Warwick Amstrad User Group

Secretary: John Wode (076) 61 5176
President: Mrs. D. Christenson

Weipa Amstrad Users Club

Sec: G. Chippendale (070) 697448
President: Andrew Seaborn

WESTERN AUSTRALIA

Bunbury Amstrad User Group

Contact: Brian Ballard (097) 217 199

Amswest (Perth)

President: G. Worth (09) 341 5211
Secretary: G. Atkinson (09) 381 5434

Vic Chips User Group

Sec: V. Hoeksema (09) 527 7426

Southside Amstrad User Club

President: Brian Purser (09) 398 1168
Sec: Lynda Blissett (09) 459 6448

Amstrad Computer Club Tom Price

President: Colin Smith (091) 89 2074
Secretary: John Eliot (091) 98 1735

SOUTH AUSTRALIA

Amsouth Amstrad User's Group

Pres: Drew Ames (085) 371 0151
Secretary: W. Vaughan (08) 382 8312

Amsnorth Amstrad User's Club

Contact: R. Britton (08) 258 7861

Amstrad Computer Club Inc.

President: Ross Barker (08) 374 0565
Secretary: D. Dienelt (08) 339 1314

Northern Computing Society

Pres: Chris Clemas (08) 255 3470
Sec: Fred Cummins (08) 281 209 1

ACT

Canberra Amstrad User's Group

Contact: Paul Kirby (062) 79 3280
Treas: Rod MacKenzie (062) 54 7551

TASMANIA

Nth. Tasmanian Ams. Comp. Club

Pres: David Double (003) 444 243
Secretary: Enid Baker (003) 431 313

N.W. Coast Amstrad User's Club

Pres: Peter Gibson (004) 24 7586
Sec: J. Westerhoff (004) 24 3977

Tasmanian Amstrad & PC Club

President: J. Nicholson (002) 72 9610
Sec: Lance Brown (002) 28 2018

NEW ZEALAND

Amstrad Comp. Club Of Canterbury

Contact: Ian Orchard (03) 524 064

Amstrad User's Group

Contact: John Court (09) 666 143

Southland Amstrad Computer Club

Contact: Glenda Conner (03) 2157249

Wellington Amstrad User Group

President: Patrick Faury (04) 766 185
Secretary: Lesley Walker (04) 679169

CONTACT LIST

Victoria

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

South Australia

Dave Green, Port Pirie
(086) 326 834

FOR SALE

Ribbons re-inked \$5.00 plus return postage. J. Thamm, Box 269, Two Wells SA 5501 (Ph: 085 20 2377)

Sunshine Eprom Programmer (EW-701, 1 socket) - for knowledgeable PC ROM burners. One only, never been used. \$325, incl. postage. Ph: (03) 803 9661.

Amstrad PC2086 (8MHz XT) with 30mb hard disk, 14" VGA colour monitor, 3.5" (720k) internal floppy drive and mouse. Very good condition. Has only been used for testing, reviewing and demonstrating software. Comes with manual and original DOS disk. \$1500 Collect or freight at your cost. Ring (03) 803 9211.

Amstrad PC1286 (12MHz AT) with 1 meg. RAM, 3.5" (1.44 mbs) floppy drive and mouse. Base unit with keyboard only. (no screen). BRAND NEW - Has never been used. Comes with mounting kit for hard disk, manuals, DOS and GW-Basic. \$1300. Collect or freight at your cost. Ring (03) 803 9211

USER GROUPS

Sydney Amstrad User Club for CPC only, meets monthly in inner suburbs. For details phone (02) 560 9487 or (02) 661 7573. 6-9pm.

Attention PCW Users. PCW Australia Group meet monthly at the Burwood RSL. 12 month membership \$25.00 includes monthly newsletter. Contact David York (02) 604 7171. (Previous listing these pages outdated - please try again).

NOTE

Classifieds are reserved for readers' use only. Commercial companies or traders are excluded, as is the sale of any purchased software (due to pirates).

An ad of up to 30 words will cost \$7.50 and will be placed in the next available issue when received. Orders can be made by phone - Bankcard Mastercard or Visa accepted - or by sending your advertisement, with cheque to:

STRATEGY PUBLICATIONS

1/641 High Street Road
Mt. Waverley, Vic. 3149
Ph: (03) 803 9661

THE



MAG

plus

**THE
AMSTRAD
USER**

Your choices are clear

Stay confused and frustrated and let your expensive computer gather dust in the corner

OR

Buy the only Australian computer magazine for beginners or strugglers and learn how to use your PC


HOW?

Order a regular monthly copy now from your newsagent at \$4.50 per copy

OR

Subscribe direct and get 12 post-free copies for the price of 10 (that's \$45.00) or 6 copies post-free for just \$25.00 by using the form below or ringing (03) 803 9661.

QED!

 (You may photocopy this form or send a letter if you do not want to destroy this page)

To: Strategy Publications, 1/641 High Street Road, Mt. Waverley, Vic 3149, Australia

Please record a 12 or 6 monthly subscription to The PC Mag (+ TAU) and send issues to:

Name Tel:

Address Post Code:

I wish to start my subscription with (month/year) issue.

I enclose a cheque for AUS\$45.00 (12 months) or AUS\$25.00 (6 months) or

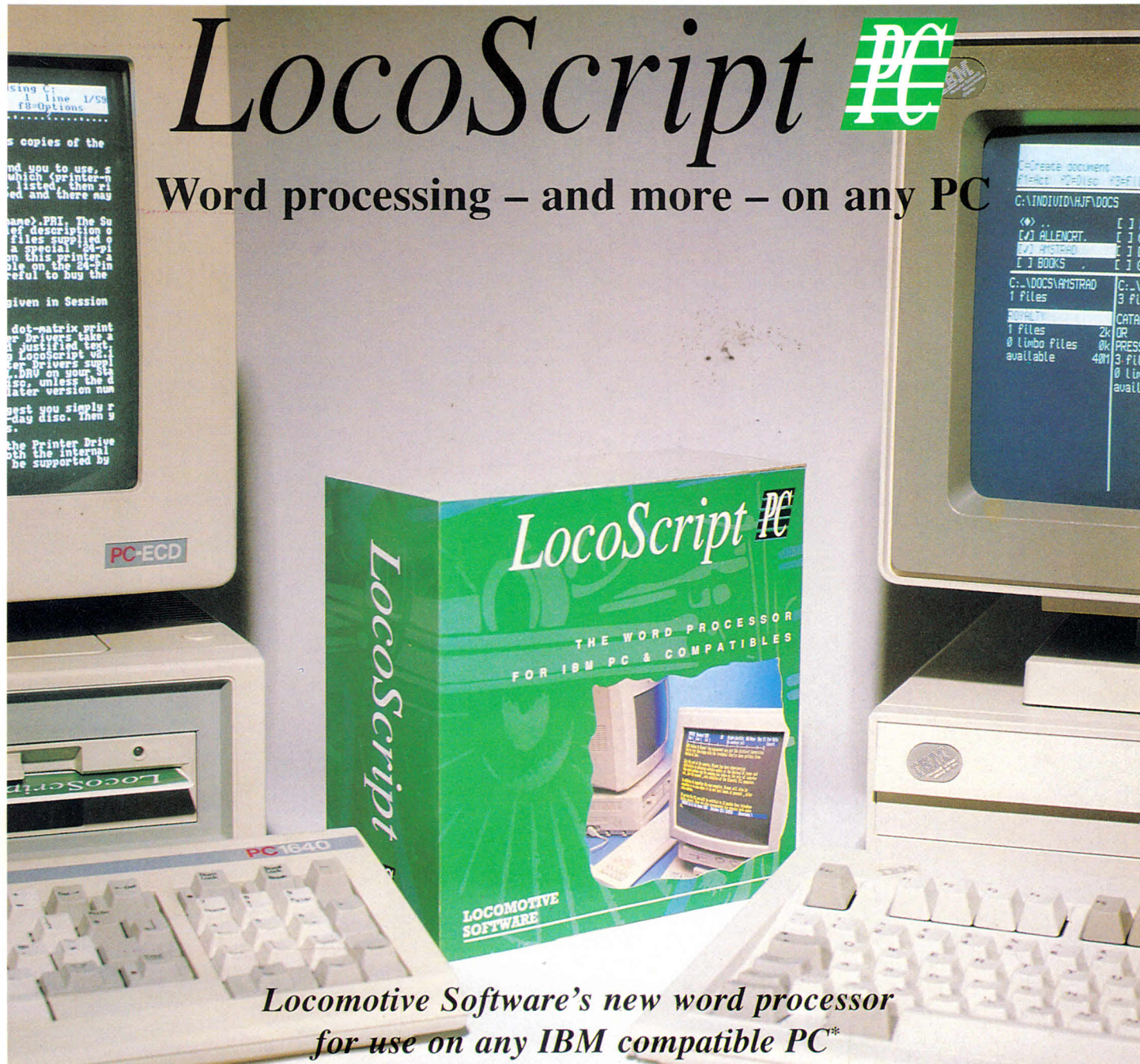
Please charge my Bankcard Mastercard Visa number
which expires on Signed My computer is a

OVERSEAS AIRMAIL SUBSCRIPTIONS: For New Zealand, Papua New Guinea, Solomon Islands, Vanuatu or New Caledonia please add AUS\$30.
For Brunel, French Polynesia, Indonesia, Kiribati, Malaysia, Nauru, Niue, Samoa, Singapore, Tokelau Islands or Tonga please add AUS\$36.

Subscribe NOW and
**SAVE
20%**
on one year's
subscription

LocoScript

Word processing – and more – on any PC



*Locomotive Software's new word processor
for use on any IBM compatible PC**

Easy To Use

Easy for existing PCW users: LocoScript PC has the same distinctive style as the LocoScript you are familiar with, but operates much faster than the PCW. It will accept your existing LocoScript files.

Easy For Everyone: LocoScript PC's combination of on-screen menus with keyboard shortcuts means that word processing is easy if you're a beginner and quick once you're experienced.

Flexible

Over 3000 different printers are supported, from the least expensive dot-matrix to sophisticated laser printers. And with a suitable printer you can print in any European language in a choice of typestyle. You can even add other languages, further typestyles or even design your own characters.

More than Word Processing

LocoScript PC is a fully featured word processor, with on-screen display of text layout and styling. The Disc Manager shows you clearly how the files on your disc are organised, making it easy to save and retrieve your work. There are full mailmerge facilities which make it easy to create standard letters, labels etc, and a spelling checker with 80,000-word dictionary to which you can add your own words.

Also included is a card index style database which is fully integrated with both the word processing and mailmerge functions. Use LocoScript PC's powerful programming commands to create detailed reports or selective mailings - straight from the database.

Normally \$429 - Introductory Price \$399

Send orders to: **Strategy Publications**
1/641 High Street Road
Mt. Waverley, Vic 3149
PH: (03) 803 9661

*LocoScript PC runs on any PC with at least 512K RAM, DOS 3.0 and one floppy disc drive. All standard monitors are supported.